



# **Estimated Per Capita Fish Consumption in the United States**

August 2002

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## **ACKNOWLEDGMENTS AND DISCLAIMER**

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## PREFACE

This report presents per capita estimates of daily average fish consumption. The primary population of interest is the United States population in the 50 states and the District of Columbia. However, estimates of capita fish consumption for various population subsets are also provided. These population subsets include (1) children 14 years of age and younger, (2) women in their childbearing years, and (3) low-income individuals. Quantities of consumed food reported by participants in the combined USDA 1994-1996 and 1998 Continuing Survey of Food Intakes by Individuals (CSFII) serve as the basis for the estimates. Estimates are empirical daily averages across two survey days as opposed to usual intake estimates.

Empirical daily averages in this report are estimated by two methods: “as prepared” fish and “uncooked” fish. Estimates in this report that reflect only the amount of fish consumed from fish-containing prepared foods are labeled “as prepared.” In the process of generating “as prepared” estimates, each reported consumption of a fish-containing food in the CSFII was adjusted to yield only the amount of prepared fish. “Uncooked” fish estimates project the portion of prepared fish to the amount of uncooked fish tissue which entered the fish-containing consumed food. This projection to an “uncooked” tissue basis is made using preprocessing and yield information.

These current estimates of daily average per capita consumption of freshwater and estuarine finfish and shellfish assist EPA in evaluating risk to human health from the consumption of contaminated species. The report, whose organization and content are summarized below, contains an executive summary, five sections, and three appendices. The fourth and fifth sections contain tabulated estimates and selected graphical presentations of daily average per capita consumption for “as prepared” and “uncooked” fish, respectively.

- **Executive Summary** summarizes the most pertinent information contained in this report, including the main features of the CSFII data collection and results from the analysis.
- **Section 1, Survey Description and Methodology**, describes the surveys; summarizes the sample designs, data collection, and survey weights for the general CSFII survey structure; and discusses the advantages and disadvantages of the CSFII for estimating per capita fish consumption in the United States.
- **Section 2, Data Conventions**, presents the CSFII fish-related food codes and their corresponding descriptions for each of the fish-by-habitat type combinations, describes the conventions used to generate daily average fish consumption estimates per individual, defines “consumers only,” and identifies how the data were subset to estimate fish consumption for “consumers only.”

- **Section 3, Summary of Statistical Methods**, summarizes the statistical methods used to generate the mean estimate, the estimate of the confidence interval about the mean, the percentile estimates, and the 90–percent bootstrap intervals about the percentile estimates. Appendix B records statistical estimation formulae.
- **Section 4, “As Prepared” Daily Average Per Capita Fish Consumption Estimates**, presents estimates for the U.S. population and “consumers only” in six subsections.
  - < **Finfish and Shellfish (grams/person/day and milligrams/kilogram of body weight/day)**, includes tabulated presentations of daily average per capita consumption by age category for each gender, across gender, across age groups, and across age and gender. Age by gender estimates separately report consumption of freshwater and estuarine, marine, and all fish. In addition, age by gender consumption estimates across the fish habitat types and consumption estimates for individuals 18 years of age and older and for children ages 3 to 17 in fine age categories by fish habitat type are included. Cumulative distributions and histograms of selected subpopulation consumption distributions are also provided.
  - < **Finfish (grams/person/day)**, includes tabulated and graphical presentations of daily average per capita consumption by the fish habitat types of freshwater and estuarine, marine, and across fish habitat types. This subsection also presents estimates of daily average per capita consumption of finfish by individuals of age 18 and older.
  - < **Shellfish (grams/person/day)**, includes tabulated and graphical presentations of daily average per capita consumption by the fish habitat types of freshwater and estuarine, marine, and across fish habitat types.
  - < **Low–income Population (grams/person/day)**, includes tabulated and graphical presentations of daily average per capita consumption by the fish habitat types of freshwater and estuarine, marine, and across fish habitat types. Low–income is defined by the CSFII as individuals from households with gross incomes at or below 130 percent of the federal poverty threshold.
  - < **Alternate Habitat (grams/person/day)**, presents daily average per capita consumption estimates of finfish and shellfish, finfish only, and shellfish only, by habitats of freshwater, estuarine and marine, and all fish.
  - < **Mean Consumption by Species within Habitat (grams/person/day)**, presents mean daily average per capita estimates by species for the following subpopulations:

(1) age by gender and (2) 18 years of age and older. Tables list species estimates by fish habitat type.

- **Section 5, “Uncooked” Daily Average Per Capita Fish Consumption Estimates,** presents estimates for the U.S. population and “consumers only” in six subsections.
  - < **Finfish and Shellfish (grams/person/day and milligrams/kilogram of body weight/day),** includes tabulated presentations of daily average per capita consumption by age category for each gender, across gender, across age groups, and across age and gender. Age by gender estimates separately report consumption of freshwater and estuarine, marine, and all fish. In addition, age by gender consumption estimates across the fish habitat types and consumption estimates for individuals 18 years of age and older and for children ages 3 to 17 in fine age categories by fish habitat type are included. Cumulative distributions and histograms of selected subpopulation consumption distributions are also provided.
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  - < **Mean Consumption by Species within Habitat (grams/person/day),** presents mean daily average per capita estimates by species for the following subpopulations: (1) age by gender and (2) 18 years of age and older. Tables list species estimates by fish habitat type.

- **Appendix A, CSFII Food Codes**, contains a tabulated presentation of the CSFII fish-containing food codes. These codes are listed according to fish species. Along with the food and fish component name, the table lists information extracted from the USDA's CSFII companion recipe database. Appendix A presents the total weight of the recipe components for the food code, the weight of the fish component in the recipe, the percentage of fish in the recipe, and the habitat assignment of fish. The percentage of fish in the recipe was used to adjust reported consumptions of the food code to reflect the amount of "as prepared" and "uncooked" fish.
- **Appendix B, Statistical Methods**, provides the statistical formulae for generating point and interval estimates about the mean and upper percentiles of the distribution of two-day average per capita fish consumption. This appendix also demonstrates that the variance of the mean, calculated from ultimate-cluster estimates using a synthetic variable, is equivalent to the estimator of the variance of the combined ratio estimator for a stratified, multistage ultimate-cluster sample with replacement.
- **Appendix C, Data Conventions**, provides the methodologies for calculating the amount of each ingredient required to prepare 100 grams of 1994-96 and 1998 CSFII recipes and the amount of each ingredient as a proportion of the prepared food within each individual recipe. It also contains a listing of the percentage of fish for 22 ingredient codes provided by the U.S. EPA Office of Pesticides.



## EXECUTIVE SUMMARY

This report displays daily average per capita fish consumption estimates. The objective of the report is to provide estimates of fish consumption that may be used in estimating risk to human health from the consumption of contaminated freshwater and estuarine finfish and shellfish species. The reported estimates were calculated using data from the combined 1994-1996 and 1998 Continuing Survey of Food Intakes by Individuals (CSFII), conducted annually by the United States Department of Agriculture (USDA). Estimates in this report are of “as prepared” and “uncooked” fish. The “as prepared” designation indicates that consumptions of prepared foods containing fish which were reported by the CSFII participants were adjusted to reflect the amount of consumed prepared fish. “Uncooked” fish estimates project the portion of prepared fish to the amount of uncooked fish tissue which entered the fish-containing consumed food. Thus, the estimates in this report are not biased high due to other ingredients in fish-containing prepared foods.

Estimated consumptions are calculated by first matching the recipes participants reported as consumed with the percentage of fish in those recipes. To reflect the composition of the recipes at the time participants were surveyed, the USDA’s 1994-96 CSFII Recipe Database was used for individuals sampled in 1994, 1995, and 1996, and the 1994-96, 1998 CSFII Recipe Database was used for individuals sampled in 1998.

The estimated mean daily average per capita consumption of “as prepared” freshwater and estuarine finfish and shellfish is  $4.58 \pm 0.42$  grams/person/day. When consumption is estimated per kilogram of the consumer’s body weight, the mean daily average of “as prepared” freshwater and estuarine finfish and shellfish consumption is  $70.79 \pm 6.23$  milligrams/kilogram of body weight/day. These estimates project “as prepared” fish consumption data from a combined sample of 20,607 individuals to the population of 261,897,236 individuals in the 50 states and District of Columbia. A 90-percent confidence interval about the estimated national mean consumption of “as prepared” freshwater and estuarine finfish and shellfish is 4.16 to 5.00 grams/person/day, which indicates that there is a 90-percent statistical confidence that the true mean consumption is contained in this interval. Section 4 lists additional “as prepared” fish consumption estimates from the combined 1994-1996 and 1998 CSFII surveys. Included in these sections are point and interval estimates for upper percentiles from the empirical distribution of daily average per capita consumption of freshwater and estuarine species; mean and upper percentile estimates of marine species and all species; and estimates of finfish and shellfish consumption, both separately and together.

Section 4 also presents per capita fish consumption estimates for selected subpopulations in the United States. Some estimates extracted from this section include consumption estimates for women and low-income individuals. Women aged 15 to 44 years, the childbearing years, consume a mean daily average of 4.28 grams of “as prepared” freshwater

and estuarine finfish and shellfish. This same group consumed, on average,  $7.03 \pm 0.91$  grams/person/day of “as prepared” marine finfish and shellfish. Individuals in the low-income group, defined in the CSFII as individuals from households with gross incomes at or below 130 percent of the federal poverty threshold, consume a mean daily average of  $11.32 \pm 1.67$  grams/person/day of “as prepared” finfish and shellfish. The estimated mean daily average consumption of “as prepared” freshwater and estuarine finfish and shellfish by low-income individuals is  $4.35 \pm 0.92$  grams/person/day.

The estimated mean daily average per capita consumption of “uncooked” freshwater and estuarine finfish and shellfish is  $6.30 \pm 0.58$  grams/person/day. When consumption is estimated per kilogram of the consumer’s body weight, the mean daily average of “uncooked” freshwater and estuarine finfish and shellfish consumption is  $98.38 \pm 8.62$  milligrams/kilogram of body weight/day. A 90-percent confidence interval about the estimated national mean consumption of “uncooked” freshwater and estuarine finfish and shellfish is 5.72 to 6.88 grams/person/day, which indicates that there is a 90-percent statistical confidence that the true population mean is contained in this interval. Similar to Section 4, Section 5 lists additional fish consumption estimates from the combined 1994-1996 and 1998 CSFII surveys.

Section 5 also presents per capita fish consumption estimates for selected subpopulations, such as women and low-income individuals, in the United States. Women aged 15 to 44 years, the childbearing years, consume a mean daily average of 5.78 grams of “uncooked” freshwater and estuarine finfish and shellfish. This same group consumed, on average,  $8.95 \pm 1.12$  grams/person/day of “uncooked” marine finfish and shellfish. Individuals in the low-income group, defined in the CSFII as individuals from households with gross incomes at or below 130 percent of the federal poverty threshold, consume a mean daily average of  $15.47 \pm 2.30$  grams/person/day of “uncooked” total (freshwater/estuarine and marine) finfish and shellfish. The estimated mean daily average consumption of “uncooked” freshwater and estuarine finfish and shellfish by low-income individuals is  $6.05 \pm 1.27$  grams/person/day.

The USDA’s CSFII, from which the estimates were generated, collected two non-consecutive days of dietary recall data from participants. Data include meals consumed at and away from home. Dietary recall information was supplied by the survey participants to an in-home interviewer. The Day 2 interview occurred three to ten days after the Day 1 interview but not on the same day of the week. Approximately 25 percent of the interviews were conducted in a calendar quarter.

Each year of the survey consisted of one sample with oversampling for low-income households. Eligibility for the low-income sample was limited to households with gross income at or below 130 percent of the federal poverty guidelines (DHHS 1998).

The primary sampling stage of the 1994-96 CSFII divided the 50 states and Washington, D.C. into 1,404 primary sampling units (PSUs). Sixty-two PSUs were selected for the CSFII sample. The 24 largest of the 1,404 PSUs were included in the CSFII with certainty. The remaining 1,380 PSUs were assigned to one of 38 strata based on their 1990 population, percentage of black and Hispanic populations, and per capita income. One PSU was then selected from each of the 38 strata with selection probability proportional to the 1990 population. The 1998 CSFII used the same primary stage sampling units as the 1994-96 CSFII. The same 24 area segments used in 1995 and 1996 were selected from each of the 62 PSUs, for a total of 1,488 selected area segments in 1998.

The CSFII surveys have advantages and limitations for estimating per capita fish consumption. The primary advantage of the CSFII surveys is that they were designed and conducted by the USDA to support unbiased estimation of food consumption across the population in the United States and the District of Columbia. One limitation of the CSFII surveys is that individual food consumption data were collected for only two days—a brief period which does not necessarily depict “usual intake.” Usual dietary intake is defined as “the long-run average of daily intakes by an individual.” Upper percentile estimates may differ for short-term and long-term data because short term food consumption data tend to be inherently more variable. It is important to note, however, that variability due to duration of the survey does not result in bias of estimates of overall mean consumption levels. Also, the multistage survey design does not support interval estimates for many of the subpopulations because of sparse representation in the sample. Subpopulations with sparse representation include Native Americans on reservations and certain ethnic groups. While these individuals are participants in the survey, they are not present in sufficient numbers to support fish consumption estimates. The survey does support interval estimates for the U.S. population and some large subpopulations. Sections 4 and 5 present interval estimates about the mean, 90th, 95th, and 99th percentile estimates.

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## **1. USDA's CSFII SURVEY DESCRIPTION AND METHODOLOGY**

A summary of the USDA's 1994-1996 and 1998 Continuing Survey of Food Intakes by Individuals (CSFII) is presented in this section. Section 1.1 provides a description of the surveys. Section 1.2 summarizes the sample designs, data collection, and survey weights for the general CSFII survey structure. Section 1.3 lists the strengths and limitations of the CSFII surveys with respect to estimating per capita consumption in the United States.

### **1.1 SURVEY DESCRIPTION**

The CSFII, conducted by the United States Department of Agriculture (USDA), collects dietary intake information from nationally representative samples of non-institutionalized persons residing in United States households. Households in these national surveys are sampled from the 50 states and Washington, D.C. Each survey collects daily consumption records for over 11,000 food codes across nine food groups. These food groups are (1) milk and milk products; (2) meat, poultry, and fish; (3) eggs; (4) dry beans, peas, legumes, nuts, and seeds; (5) grain products; (6) fruit; (7) vegetables; (8) fats, oils, and salad dressings; and (9) sweets, sugars, and beverages. Data provide "up-to-date information on food intakes by Americans for use in policy formation, regulation, program planning and evaluation, education, and research." The survey is "the cornerstone of the National Nutritional Monitoring and Related Research Program, a set of related federal activities intended to provide regular information on the nutritional status of the United States population" (1994-96 CSFII survey documentation, p. 2-3).

### **1.2 SURVEY METHODOLOGY**

The samples for the 1994, 1995, and 1996 CSFII surveys were collected according to a specified statistical sampling plan. The 1998 CSFII survey was designed to supplement the 1994-96 CSFII using a similar plan. The plan is described in Section 1.2.1. Data collection procedures, summarized in Section 1.2.2, define the method and length of data collection activities. Section 1.2.2 also contains survey-specific response rates and the number of individuals in each survey reporting food consumption data. Survey weights—used to project estimates from the sample to the population—were adjusted for nonresponse. These adjustments are discussed in Section 1.2.3.

#### **1.2.1 Sample Design**

The 1994-1996 CSFII was conducted according to a stratified, multi-area probability sample organized using estimates of the 1990 United States population. Stratification accounted for geographic location, degree of urbanization, and socioeconomics. Each year of the survey consisted of one sample with oversampling for low-income households. Eligibility for the low-income sample was limited to households with gross incomes at or below 130 percent of the federal poverty guidelines (DHHS 1998). The sample design aimed at specified precision levels for estimates of mean one-day consumption of saturated fat and iron.

The primary sampling stage of this CSFII divided the 50 United States and the District of Columbia into 1,404 primary sampling units (PSUs). A Metropolitan Statistical Area (MSA), a fraction of an MSA, counties, or groups of counties comprised a PSU. The federal Office of Management and Budget defines an MSA as “a geographic area consisting of a large population nucleus together with adjacent communities that have a high degree of economic and social integration with the nucleus” (1994-96 CSFII survey documentation, p. 14–4).

In general, an MSA constituted a single PSU for the 1994–1996 CSFII. There were three exceptions: New York, Los Angeles, and Chicago. The New York MSA was divided into three PSUs while the other two exceptions each comprised two PSUs. From the 1,404 PSUs constituting the United States, the primary stage CSFII sample selected 62 PSUs. The 24 largest of the 1,404 PSUs were included in the CSFII with certainty. The remaining 1,380 PSUs were assigned to one of 38 strata based on their 1990 population, percentage of black and Hispanic populations, and per capita income. One PSU was then selected from each of the 38 strata with selection probability proportional to the 1990 population. Of the 62 PSUs resulting from the first stage, 50 were MSAs and 12 were non-MSAs.

Then, each of the 62 sample PSUs was divided into 36 area segments consisting of blocks or groups of blocks. Twelve area segments were sampled each year of the survey with three segments sampled during each quarter of the given year. From a sampled area segment, households were drawn from dwelling unit listings, and individuals were then selected from the sampled household. Individual selection occurred to ensure specified estimation criteria for given sex-age categories based on screening questionnaire results.

The 1998 CSFII stemmed from the Food Quality Protection Act of 1996, which required the Secretary of Agriculture to provide the Environmental Protection Agency (EPA) with information on food consumption patterns of a statistically valid sample of infants and children. The 1998 CSFII was intended to supplement the 1994-1996 CSFII, after a report entitled “Pesticides in the Diets of Infants and Children” (NAS/NRC 1993) concluded that current food consumption data for children were inadequate for estimation of dietary exposure to pesticide residues. The 1998 CSFII, combined with the 1994-96 CSFII, meets the requirements of the Food Quality Protection Act of 1996 when used with appropriate weights. The sample weights are discussed in section 1.2.3.

The same primary and secondary stage sampling units were used for the 1998 CSFII as for the 1994-96 CSFII. The same 24 area segments used in the last 2 years of the 1994-96 CSFII were selected from each of the 62 PSUs because they contained the most current listing information. Of the 1,488 selected area segments, a sample of 65,519 dwelling units was drawn. Quality control procedures referred to as the “missed structure” and “missed DU” procedures contributed an additional 2,905 dwelling units, for a total of 68,424 dwelling units selected for the 1998 CSFII.

A sample of eligible children was then selected from the subset of dwelling units found to contain eligible children using a probability sampling process designed to yield the target sample sizes. An additional sample of 3-year-old girls was added in the fourth quarter of the study to increase the number in the sample. The result of the above procedures used in the 1998 CSFII was a sample of 6,413 children under the age of 10, including 2,100 children from low-income households (1994-96, 1998 CSFII documentation, p. 3-3).

### 1.2.2 Data Collection

Survey participants provided two non-consecutive, 24-hour days of dietary data. Both days' dietary recall information was collected by an in-home interviewer. Interviewers provided participants with an instructional booklet and standard measuring cups and spoons to assist them in adequately describing the type and amount of food ingested. If the respondent referred to a cup or bowl in their own home, a 2-cup measuring cup was provided to aid in the calculation of the amount consumed. The sample person could fill their own bowl or cup with water to represent the amount eaten or drunk, and the interviewer could then measure the amount consumed by pouring it into the 2-cup measure. The Day 2 interview occurred three to 10 days after the Day 1 interview, but not on the same day of the week. The interviews allowed participants "three passes" through the daily intake record to maximize recall (CSFII survey documentation, p. 3-6). Proxy interviews were conducted for children aged six and younger and sampled individuals unable to report due to mental or physical limitations. The average questionnaire administration time for Day 1 intake was 30 minutes, while Day 2 averaged 27 minutes.

Two days of dietary recall data were provided by 20,607 individuals across the four survey years. This constitutes an overall two-day response rate of 77.5 percent. Response rates for each survey year are provided in Table 1-1. Survey weights were corrected by the USDA for nonresponse.

**TABLE 1-1. CSFII RESPONSE RATES**

<b>YEAR</b>	<b>TOTAL ELIGIBLE INDIVIDUALS SAMPLED</b>	<b>NUMBER WITH TWO-DAY RESPONSE</b>	<b>(TWO-DAY) RESPONSE RATE</b>
1994	6,973	5,311	76.2%
1995	6,664	5,072	76.1%
1996	6,484	4,920	75.9%
1998	6,491	5,304	81.7%

### **1.2.3 Sample Weights**

All four CSFII surveys are multistage, stratified–cluster samples. Sample weights, which project the data from a sampled individual to the population, are based on the probability of an individual being sampled at each stage of the sampling design. The sample weights associated with each individual reporting two days of consumption data were adjusted to correct for nonresponse bias. These adjusted sample weights, recorded in the 1994-1996, 1998 CSFII data in the variable WT4\_2DAY for use with all 4 years of combined data, record the number of individuals the sampled person represents in the population. For example, a sample weight valued as 22 projects the data from the individual with that sample weight to 22 individuals in the population of the 50 United States and the District of Columbia.

## **1.3 STRENGTHS AND LIMITATIONS OF THE CSFII FOR ESTIMATING PER CAPITA FOOD CONSUMPTION**

The strengths of the USDA’s combined 1994–1996, 1998 CSFII survey for supporting estimates of per capita food consumption are twofold. First, the survey design is structured to obtain a statistically representative sample of the United States population. Second, the survey is designed to record daily intakes of foods and nutrients and support estimation of food consumption. These features are in direct alignment with the objective of producing current, per capita fish consumption estimates for the United States population and for population subsets sensitive to potential contaminants.

The 1994–96, 1998 CSFII survey design allows the combination of four years of data through a weighting scheme. This combination of four years provides a sample of over 20,000 respondents. With increased sample sizes, the precision and accuracy of estimates are improved and the support for subpopulation estimates is enhanced. This design structure, in conjunction with the implementation of a sampling protocol, increases the sample’s representation of the United States population and minimizes seasonal and/or regional bias from respondents. Low–income individuals are oversampled to ensure their representation in the survey. Finally, the survey weight associated with each respondent’s information to project the response to the population has been adjusted for nonresponse bias. These adjustments were based on sociodemographic factors. Nonresponse adjustments were also significantly reduced for the current CSFII. The response rate for participants with multiple days of food intake information is 77.5 percent for the combined 1994–96, 1998 CSFII, as opposed to approximately 75.9 percent for the 1994-96 CSFII and 45 percent for the 1989–91 CSFII.

The method employed to collect dietary intake data also strengthened the CSFII design for supporting per capita consumption estimates. For example, the USDA’s 1994–96 and 1998 CSFII surveys were administered by an interviewer on both days of data collection. This administration provided multiple passes through the day’s intake to facilitate more complete responses. Previous surveys have relied on interviewer administration for the first day and self–administration on subsequent days. This change in administration method insures consistency with respect to the way responses are recorded across interview days.



Previous CSFII surveys have collected dietary intake information on consecutive days. This collection method raises issues about the contribution of within-individual variance to overall estimates. Because the 1994–96 and 1998 CSFII surveys collect data on two non-consecutive days, the within-individual variance component is diminished.

The third change in data collection methods that facilitates completion of the objective of this report is that previous surveys included all members of a household in the survey. The 1994–96 and 1998 surveys include a subsample of household members with sampling rates varying to achieve more responses from children and the elderly.

The limitations of the CSFII survey for supporting per capita consumption estimates involve the length of time data were collected, the influence of extreme values on estimates, and the availability of information to support variance estimation. The CSFII survey collects only two non-consecutive days of data. Because daily averages are estimated from each respondent from only two days, the precision of an individual's daily average consumption is diminished. Therefore, the limited time period of dietary intake collection does not produce usual intake estimates. Usual intakes are defined as “the long run average of daily intakes of a dietary component by an individual.” Rather, the estimates presented in this report characterize the empirical distribution of daily average per capita consumption.

Also, a majority of sampled individuals may not consume a given food or food group. Nonconsumption of a given food or food group by a majority of individuals, combined with consumption data from high-end consumers, can result in a wide range of observations. This can lead to a highly skewed distribution of consumption values.

Another limitation of the 1994–96, 1998 CSFII is a function of the way that survey data are reported. Data from two variance estimation units are required to generate an estimate of the variance within a variance estimation stratum. These variances are then summed across strata to generate a variance estimate for the subpopulation. For many of the subpopulations evaluated in this report, numerous strata did not have information for two variance estimation units. By looking at frequencies of strata and variance estimation units within region, data were combined with other data from the same geographical region in order to perform variance estimation.

Despite these limitations, the CSFII is considered one of the best sources of current information on consumption of fish-containing foods. The objective of estimating per capita fish consumption by the United States population is compatible with the statistical design and scope of the CSFII survey.

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## **2. DATA CONVENTIONS**

The 1994-1996 and 1998 CSFII surveys each record data in several files. These data are publicly available on CD-ROM (See References). Individual consumption records for the 2-day reporting period were extracted from record type 30 (RT30). These data were matched with information in the USDA's companion recipe database to adjust reported consumptions to reflect the amount of uncooked fish tissue in the recipe or to reflect only the quantity of fish consumed. To reflect the composition of the recipes at the time participants were surveyed, the 1994-96 CSFII Recipe Database was used for individuals sampled in 1994, 1995, and 1996, and the 1994-1996, 1998 CSFII Recipe Database was used for individuals sampled in 1998. Section 2 defines the conventions applied to the 1994-1996 and 1998 CSFII surveys. These conventions were applied to prepare the data for estimating per capita fish consumption for the United States population.

This report presents per capita consumption estimates for three fish types. These types are finfish and shellfish, finfish only, and shellfish only. The finfish and shellfish type is tantamount to total fish consumption. Each of these fish types is further divided by habitat type. Habitat types are freshwater/estuarine, marine, and all fish. The "all fish" habitat type estimates consumption across the freshwater/estuarine and marine habitats. Section 2.1 presents the CSFII fish-related food codes and their corresponding habitat assignments. Adjustments of reported amounts of consumed fish-related food codes to reflect the amount of "as prepared" and "uncooked" fish are also explained in Section 2.1.

Section 2.2 describes the conventions used to generate daily average fish consumption estimates per individual. Adjusted individual daily average fish consumption is the actual data point that entered the estimation algorithms. The adjustment reports the component of fish consumed from fish-containing foods. Section 2.2 also defines "consumers only" and identifies how the data were subset to estimate fish consumption for "consumers only."

### **2.1 FOOD CODES AND CONVENTIONS**

The 1994-1996 and 1998 CSFII surveys categorized food consumption into 11,345 food codes. A companion recipe database provided amounts of individual ingredients for each of the CSFII food codes. A total of 831 of these food codes relate to fish or shellfish. Survey respondents with two days of dietary intake data reported consumption across 665 of these fish-related food codes.

Food codes preceded by the number 26 designate fish or shellfish, except for 5 food codes that contain frog or turtle ingredients. Fifty-four percent of the 665 fish-related food codes that were reported as consumed are preceded by the number 26. Any food codes not preceded by a 26 are combination foods containing fish or shellfish. Extensive review of the food code index and the recipe database identified these combination foods. The recipe database was further extracted to determine the percentage of fish in each of the 665 fish-related food codes. For recipes containing ingredients that are also recipes, the

percentage of fish only includes the fish ingredients of the nested recipe. Application of this percentage of fish, unique to each fish-related food code, facilitated the adjustment of reported consumptions to yield the amount of “as prepared” or “uncooked” fish.

Section 2.1.1 defines fish-by-habitat types. The 665 fish-related food codes in the CSFII surveys were assigned to these fish-by-habitat types. Sections 2.1.2 and 2.1.3 describe the conventions used to adjust reported amounts of consumed fish-related food codes to reflect “as prepared” and “uncooked” fish, respectively.

### **2.1.1 Fish-by-Habitat Type Assignments for Food Codes**

Sections 4 and 5 present per capita consumption estimates for each of the following nine fish-by-habitat types:

- Finfish and Shellfish — Freshwater/Estuarine
- Finfish and Shellfish — Marine
- Finfish and Shellfish — All Fish
- Finfish — Freshwater/Estuarine
- Finfish — Marine
- Finfish — All Fish
- Shellfish — Freshwater/Estuarine
- Shellfish — Marine
- Shellfish — All Fish.

The “All Fish” habitat designation indicates that per capita consumption for a given fish type was estimated across the freshwater/estuarine and marine habitat types. Estimates designated “finfish and shellfish” report per capita consumption statistics across fish types for a given habitat. The fish-by-habitat type “Finfish and Shellfish—All Fish” incorporated fish consumption data from all of the 665 fish-related food codes—that is, estimates for this category represent fish consumption across fish and habitat type.

To determine which individual consumption amounts entered estimation algorithms for each fish-by-habitat type, the 665 fish-related food codes in the CSFII surveys were first assigned to one of two fish types—finfish or shellfish. Assignments were based on the food code description. The food code “Seafood” was assumed to be all shellfish. Otherwise, if a food code description did not clearly indicate shellfish, the food code was assigned to the finfish category. For example, the food code described as “Fish, NS of type” was categorized as finfish, with NS indicating “not specific.”

Each fish component in the 665 food codes was then assigned a fish habitat classification. These classifications are freshwater, estuarine, or marine. Habitat assignments resulted from a two-step process. First, the species of fish contained in the food code was assigned based on the food component from the recipe. If the food component was also a recipe, the sub-ingredients of the nested recipe were also examined to determine species. Then, the species

was assigned a habitat type. Mr. Jeffery Bigler, an EPA Fisheries Biologist, created the habitat assignments. In most cases, the habitat assignments were straightforward. However, there are a few instances where the fish component either represented a broad classification of fish, or the species listed as the fish component inhabit several habitats. For these special cases, the consumed fish component was apportioned across multiple habitats using commercial landings reported to the United States Department of Commerce. The 1994, 1995, and 1996 landings data were retrieved February 1998 from [www.remora.ssp.nmfs.gov](http://www.remora.ssp.nmfs.gov), and the 1998 landings were retrieved May 2001 from [www.st.nmfs.gov](http://www.st.nmfs.gov). The following paragraphs define apportionment across multiple habitats for these special cases.

In the case of flatfish, if the food code specified flatfish, but the recipe component indicated that the flatfish was flounder or smelt, the fish habitat was defined as estuarine. If, however, the recipe food component indicated halibut, plaice, or sole, then the habitat designation of marine was assigned. If the food component only indicated flatfish, then the percent of the amount of consumed fish from the recipe was divided between the estuarine and marine habitats based on the percentage of 1994-1996 commercial flatfish landings reported by the National Marine Fisheries Service for individuals surveyed in 1994-96, and based on the percentage of 1998 commercial flatfish landings for individuals surveyed in 1998. See Table 2-1 for the percentages of estuarine and marine flatfish in 1994-96 and 1998.

Additional species groups which contain both freshwater/estuarine and marine species are as follows: (1) clams, (2) crabs, (3) salmon, and (4) scallops. Most recipe food components containing clams did not list the specific type of clam, such as softshell, quahog, or surf. Table 2-1 contains the percentages of estuarine and marine clams for 1994-96 and 1998 that were used to apportion the unspecified clams between habitats. Softshell clams are estuarine. Marine clam species include ocean quahog, quahog, Atlantic surf, and remaining hardshell species.

Estuarine crab species were blue, hard, soft, or dungeness. All other crab species were considered to be marine. Similarly, bay scallops were considered to be estuarine, and all other scallop species, including calico and sea scallops, were classified as marine. These percentages were again determined from United States Department of Commerce commercial landings and are given in Table 2-1.

A unique situation occurred for salmon. In several instances, the food code name indicates "salmon, canned," but several food component numbers were assigned to the reported food code. Because it was not possible to determine which specific type of canned salmon was reported by the participant, and because salmon inhabit both marine and freshwaters during their life cycle, salmon was apportioned across the marine and freshwater habitats. This apportionment was again based upon the 1994-1996, and 1998 commercial landings. All landings of Pacific salmon, including chum, coho, king, pink, or sockeye, were assigned to the marine habitat. All landlocked Great Lakes salmon received the classification of freshwater, and aquaculture salmon were assigned to the estuarine habitat. The resulting apportionments for salmon are shown in Table 2-1.

There were ten more instances of multiple fish habitat–type assignments. These occurred for food codes containing fish of an unknown food type. The recipe database described the fish component for ten fish–related food codes as fish cake, fish sticks, or fish sauce. In these cases, the amount of fish was apportioned across habitat types according to the observed percentages of consumption from known habitat types for the population. Appendix A lists these percentages.

**TABLE 2-1. HABITAT APPORTIONMENTS**

<b>Species</b>	<b>Habitat</b>	<b>1994-96 %</b>	<b>1998 %</b>
Flatfish	Estuarine (Flounder)	89.62	84.23
	Marine (Halibut)	10.38	15.77
Clams	Estuarine (Softshell)	1.93	2.61
	Marine (Ocean Quahog, Quahog, Atlantic Surf, and remaining hardshell species)	98.07	97.39
Crab	Estuarine (Blue, Soft, Hard, Peeler and Dungeness)	65.57	46.83
	Marine (King, Snow, Jonah, and Other)	34.43	53.17
Scallop	Estuarine (Bay)	0.58	0.67
	Marine (Calico and Sea)	99.42	99.33
Salmon	Freshwater (Great Lakes)	0.06	0.05
	Estuarine (Aquaculture)	3.02	4.73
	Marine (Pacific)	96.92	95.22

### **2.1.2 Conventions for Determining “As Prepared” Fish**

Once habitat classifications were made, the “as prepared” amount of fish was determined using the recipe databases, which list the amount of each ingredient in the food code. The 1994-96 CSFII Recipe Database was used for participants surveyed in 1994, 1995, and 1996, and the 1994-96, 1998 CSFII Recipe Database was used for individuals sampled in 1998. Not all ingredient codes that contain fish could be considered to be made entirely of fish. For 22 ingredient codes, the proportion of “as prepared” fish in the ingredient was supplied by the U.S. EPA Office of Pesticides. Some examples of these ingredients include clam chowder and cream of shrimp soup. The proportion of fish in those ingredients are shown in Appendix C-1. For these ingredients, the fraction of the total recipe weight represented by the ingredient was found by dividing the weight of the ingredient by the sum of the weights of all of the individual components in the recipe. Then the result was multiplied by the proportion of fish in the ingredient from the list in Appendix C-1. For ingredients other than the 22 listed in Appendix C-

1, the amount of each ingredient as a proportion of the prepared food within each recipe (C\_PRATIO) was calculated using methodologies provided by Annetta Cook of USDA. See Appendix C-2 for the calculations and examples.

If a recipe contained several fish components, a ratio was determined for each component using one of the above methods, and the sum of these ratios gives the total percentage of “as prepared” fish in the recipe. For example, “as prepared” fish makes up 92.81% of food code 26301110, “Abalone, cooked.” Then, every time a respondent recorded consumption of food code 26301110, the recorded consumption was multiplied by 0.9281 to adjust the reported amount of consumed food code to reflect the “as prepared” amount of abalone.

Tables A-2 and A-3 in Appendix A contain a tabulated presentation of the 665 participant-reported CSFII fish-containing food codes, which are listed according to fish species. Along with the food and fish component name, the tables list information extracted from the USDA’s CSFII companion recipe database. The appendices present the habitat assignment of the fish, the total weight of the recipe components for the food code, the weight of the fish component in the recipe, the percentage of fish in the ingredient for the 22 ingredients listed in Appendix C-1, the amount of the ingredient in 100 grams of the prepared recipe, and the percentage of “as prepared” fish in the recipe.

### **2.1.3 Conventions for Determining “Uncooked” Fish**

Once habitat classifications were made, the “uncooked” amount of fish was determined using the recipe databases, which list the amount of each ingredient in the food code. The 1994-96 CSFII Recipe Database was used for participants surveyed in 1994, 1995, and 1996, and the 1994-96, 1998 CSFII Recipe Database was used for individuals sampled in 1998. First, the amount of each ingredient required to prepare 100 grams of the recipe (C\_GUI) was calculated for each recipe using methodologies provided by Annetta Cook of USDA. This methodology takes into account the recipe yield. See Appendix C-2 for the calculations and examples.

Some adjustments are made to this amount of uncooked fish. If a food component was listed as a fish-containing soup, but the amount of fish in the soup was not specified, then 7.5 percent of the soup was assumed to be fish. These ingredients are identified in Tables A-4 and A-5 of Appendix A by the suffix “P” after the ingredient code.

In some instances, preprocessed fish components entered the recipe. Examples of preprocessing are canning and pickling. In these instances, C\_GUI was corrected for preprocessing to calculate the final percentage of uncooked fish in the recipe. If a canned fish entered into the recipe, it was assumed that the canning process induced a 25 percent moisture loss or resulted in a yield of 75 percent. Therefore, 100 grams of canned fish in a recipe was adjusted to 133.33 grams ( $100 \div 0.75$ ). For example, Tuna casserole, food code 27350080, contains canned tuna, ingredient code 15119. Using the procedures described in Appendix C-2, we find that it takes 17.97 grams of canned tuna to make 100 grams of tuna casserole, but

this doesn't account for moisture loss due to canning. To correct the canned tuna for the 25 percent moisture loss, the 17.97 grams is divided by 0.75 ( $0.75 = 1 - \text{fraction of moisture loss}$ ) to yield 23.95 grams of tuna as the value to be entered into the estimation algorithm.

Preprocessing adjustments were made for smoking, pickling, drying, and kippering. These percentages were supplied by Dr. Jacob Exler of the USDA. Moisture loss is assumed to be 25% if the ingredient code description indicates that the ingredient is baked, cooked, broiled, or canned; 21% if the ingredient is poached or steamed; and 12% if the ingredient is fried.

Tables A-4 and A-5 in Appendix A contain a tabulated presentation of the 665 participant-reported CSFII fish-containing food codes, which are listed according to fish species. Along with the food and fish component name, the tables list the habitat assignment of the fish, the total weight of the recipe components for the food code, the weight of the fish component in the recipe, the recipe yield, the amount of the fish ingredient required to prepare 100 grams of the food code, the assumed percentage of moisture loss due to preprocessing, and the percentage of "uncooked" fish in the recipe.

## **2.2 INDIVIDUAL CONSUMPTION DATA FOR THE POPULATION AND CONSUMERS ONLY**

Estimates of daily per capita consumption by the United States population for each of the fish-by-habitat types and by species are presented in this document. Individual daily average "as prepared" (or "uncooked") amounts of fish for the given fish-by-habitat types are the data points that entered the algorithms for estimating fish consumption. Section 2.2.1 describes the conventions for estimating these individual daily average consumption values by species and across species within fish-by-habitat type. Section 2.2.2 defines "consumers only" and the data conventions associated with producing estimates for these consumers.



### **2.2.1 Average Daily Consumption Data**

All four CSFII surveys recorded food consumption for two non-consecutive days. Therefore, for each respondent with two days of records in the CSFII databases, a daily average consumption value was determined for each of the fish-by-habitat types. For estimating consumption by species, the “as prepared” (or “uncooked”) amount reported by an individual for the food code associated with a given species was summed across the two days. This sum was then divided by two to produce a daily average consumption of the particular species for each individual. If an individual did not report consumption of the given species then the individual's consumption of the species was recorded as zero. It is this average across two days which makes these empirical estimates as opposed to usual intake estimates.

For estimating fish-by-habitat consumption, a daily consumption was calculated for each individual for each of the fish-by-habitat types. This is accomplished by summing, within day, the “as prepared” (or “uncooked”) amount. The amount was summed across the fish-related food codes comprising the given fish-by-habitat type. The amounts entering the summation for combination foods, or for foods with unknown habitat, were adjusted according to the previously discussed conventions. Daily total consumption data for a given fish-by-habitat type were then summed for the two days and divided by two to produce individual daily average consumption. If an individual did not report consumption of a given fish-by-habitat type across any of the food codes, the value zero entered the estimation algorithm for that individual. Again, it is this average across two days that renders these estimates empirical rather than usual intake, which implies long-run averages.

The convention described in the preceding paragraph produces individual daily averages in grams/day. If estimates are required on the milligrams/kilogram of body weight/day basis, then “as prepared” (or “uncooked”) grams for the individual are converted to milligrams with the multiplication factor of 1,000. This daily average for the individual is then divided by the individual's body weight in kilograms. The milligrams/kilogram daily average for each individual then enters the estimating algorithm described in Section 3, in the same manner as the grams daily averages.

### **2.2.2 Average Daily Consumption Data—Consumers Only**

For the purpose of this report, “consumers only” were defined as individuals who ate fish at least once during the 2-day period. “Consumers only” were identified according to fish-by-habitat type. That is, for a given fish-by-habitat type, daily consumption totals (explained in Section 2.2.1) were screened. If one of the daily totals for the given fish-by-habitat type was greater than zero, that individual was included in the set of “consumers only;” otherwise, the individual was excluded.

If an individual was included in the set of “consumers only,” the average daily consumption for that individual was determined using only data from those days when total consumption was greater than zero. For example, if fish was consumed on only one of the two days, the total

consumption for the given fish-by-habitat type on that one day was considered the average daily consumption for that individual.

### **3. SUMMARY OF STATISTICAL METHODS**

This section summarizes the statistical methods used to generate point and interval estimates of daily average per capita fish consumption. Point estimates include the mean, 90th, 95th, and 99th percentiles. Mean estimates were generated using ratio estimation techniques. The variance of the mean was estimated using a Taylor series approximation of the deviation of estimates from their expected values. The Taylor series approximations were applied to ultimate clusters, which resulted in an overall estimate of the variance instead of estimating variance components due to sample–design stages. Appendix B reports the statistical formulae for generating both the mean estimate and the estimate of the confidence interval about the mean. Methods for generating percentile estimates and 90–percent bootstrap intervals about the percentile estimates are also shown in Appendix B.

#### **3.1 STATISTICAL METHODS FOR ESTIMATING THE MEAN AND CONFIDENCE INTERVALS ABOUT THE MEAN**

Mean estimates presented in this report resulted from ratio estimation methods. The mean, daily average per capita fish consumption for a given habitat type was estimated as the ratio of total fish for given habitat type consumed by the population or subpopulation, divided by the estimate of the total number of individuals in the population or subpopulation. Variances of the mean were estimated using Taylor series approximations of the deviations of estimates from their expected values. Taylor series approximations were applied to ultimate–cluster estimates. With this ultimate–cluster method, cited by Hansen, Hurwitz, and Madow, an overall estimate of the variance was generated (Hansen 1953). Use of the ultimate–cluster method is necessary for the CSFII data for two reasons: (1) the nature of the survey design, and (2) the form of the survey weights available as part of the CSFII data. Appendix B provides formulae for these estimates. Finally, ratio estimates of the mean are unbiased if the higher–order terms in the Taylor series expansion are considered negligible. Methods and results of tests to assess potential bias in the estimation of the mean are discussed in Appendix B.

All four CSFII surveys are multistage, stratified–cluster samples with primary sampling units (PSUs) sampled with replacement. Sample weights, which project the data from a sampled individual to the population, are based on the probability of an individual being sampled at each stage of the sampling design. As mentioned in Section 1 of this report, the sample weights associated with each individual reporting two days of consumption data were adjusted to correct for non response bias. These adjusted sample weights, which are recorded in the CSFII data in the variable WT4\_2DAY, record the number of individuals the sampled person represents in the population. For example, a sample weight valued as 22 projects the data from the individual with that sample weight to 22 individuals in the U.S. population.

The ultimate cluster is considered the aggregate of the sampled individuals within a PSU. The ultimate cluster method is supported by the survey design. It is also necessary for estimating the variance–of–the–mean estimate. Because the sample design contains multiple levels, such as stratum and PSU, specific information is necessary to partition the

variance-of-the-mean estimate into components. That is, specification of the sample size and population size within each level of sampling is required. However, this information is not inherent in the CSFII data. Rather, CSFII surveys report an adjusted sample weight for each individual who reported two days of consumption data during the survey. As discussed in Section 1 of this report, these survey weights were adjusted to correct for nonresponse bias. Given that only the adjusted weight is available, and not the specific sample and population size in each phase, it was necessary to estimate the mean using ratio estimation techniques and the variance of the mean using the ultimate cluster methodology, which does not partition the variance into sample design components.

### **3.2 STATISTICAL METHODS FOR PERCENTILE ESTIMATES AND CONFIDENCE INTERVALS ABOUT THE ESTIMATES**

This report presents point estimates of the median, 90th, 95th, and 99th percentiles of the average daily per capita consumption of fish. Ninety-percent interval estimates for the percentiles were generated using bootstrapping techniques described by Efron (Efron 1982). Interval estimates for percentiles are bootstrap intervals. The reported bootstrap intervals do not result from direct estimates of the standard deviation of the point estimate. Rather, the bootstrap estimates result from the percentile method, which estimates the lower and upper bounds for the interval estimate by the 100<sup>th</sup> percentile and 100(1- ) percentile estimates from the nonparametric distribution of the given point estimate. This distribution of the observed values of the given point estimate is determined from repeated resampling of the empirical data. Appendix B defines the point estimators and describes how these estimates were generated from the CSFII data. Appendix B also presents the statistical methods used for generating the nonparametric interval estimates.

#### 4. "AS PREPARED" FISH CONSUMPTION ESTIMATES

This section presents tabulated daily average "as prepared" fish consumption estimates and augments these estimates with selected graphical presentations of the data. Estimates and graphics are organized in subsections. This preface to the subsections delineates the organization of the section.

Tables and figures are first organized by estimates for the U.S. population (Section 4.1) or "consumers only" (Section 4.2). For the U.S. population, daily average "as prepared" fish consumption was estimated for:

- C finfish and shellfish (grams/person/day),
- C finfish and shellfish (milligrams/kilogram of body weight/day),
- C finfish (grams/person/day),
- C shellfish (grams/person/day),
- C low-income individuals (grams/person/day),
- C alternate habitat (grams/person/day), and
- C mean consumption by species within habitat (grams/person/day).

For "consumers only," estimates were calculated for:

- C finfish and shellfish (grams/person/day),
- C finfish and shellfish (milligrams/kilogram of body weight/day), and
- C alternate habitat (grams/person/day).

The tables list estimates of the mean, median, 90th percentile, 95th percentile, and 99th percentile empirical daily average per capita consumption and 90-percent intervals about each estimate. These estimates used survey weights to project data from the USDA's combined 1994-1996 and 1998 CSFII to daily average per capita consumption by the U.S. population. Estimates project consumption from a combined sample of 20,607 individuals to a population of 261,897,236. Subpopulation sample sizes and the projected subpopulation sizes are included on tables, where appropriate.

When estimates are presented according to age and gender, the age categories are (1) 14 years of age and younger, (2) 15 to 44, and (3) 45 years of age and older. For women, 15 to 44 years approximates the childbearing years. Estimates for the subpopulation of individuals 18 and older describe fish consumption by adults. These estimates project consumption from a combined sample of 9,596 individuals 18 years of age and older to a population of 190,930,779. Estimates are also provided by fine age categories for children ages 3 to 17. The age categories for these tables are (1) ages 3 to 5, (2) ages 6 to 10, (3) ages 11 to 15, and (4) ages 16 to 17. The combined 1994-96, 1998 CSFII contains 7,429 children ages 3 to 17, with a total projected sample weight of 58,923,560.

Estimates for "consumers only" are based on CSFII respondents who reported consumption of fish on at least one of the two days. Daily average estimates for "consumers

only,” as described in Section 3, are determined across the number of days for which fish consumption was reported.

Low-income is defined in the CSFII as those individuals with gross household incomes at or below 130 percent of the federal poverty threshold. A combined sample of 5,866 individuals in the 1994-1996, 1998 CSFII projects to a low-income population of 50,296,483.

Subsections 4.1.5 and 4.2.2 provide estimates according to the alternate habitat assignments of freshwater, estuarine/marine, and all fish. The habitat aggregation in this subsection differs from the habitat categories of freshwater/estuarine and marine. The freshwater/estuarine combination applies to all subsections except Subsections 4.1.5 and 4.2.2. Notice that the “All Fish” estimates in Subsection 4.1.5 match the corresponding “All Fish” estimates in other subsections. For example, the “All Fish” Finfish consumption estimates listed in Table 4.1.5.1 are the same as those listed as “All Fish” in the Finfish subsection. In other words, “All Fish” estimates are calculated across fish habitat type.

Finally, Subsection 4.1.6 lists mean consumption by species for various subpopulations. Interval estimates are not provided. Estimates are listed by habitat in descending order. The five decimal places recorded do not imply significant digits, but rather are included to illustrate those species consumed by various subpopulations.

**SECTION 4.1.1.1 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

<b>Females</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	5,182	1.56 (1.19-1.92)	0.00 (0.00-0.48)	5.83 (4.42-10.21)	40.03 (33.72-51.96)
15-44	2,332	4.28 (3.44-5.12)	5.05 (2.82-7.94)	23.93 (21.81-28.60)	82.86 (75.20-111.17)
45 and Older	2,654	4.76 (3.96-5.57)	11.84 (5.74-16.82)	32.74 (26.65-40.10)	79.35 (74.17-87.01)
All Ages	10,168	3.85 (3.33-4.37)	4.91 (2.56-6.29)	23.83 (22.14-27.47)	77.09 (74.28-85.21)
<b>Males</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	5,277	2.09 (1.62-2.55)	0.00 (0.00-0.56)	6.55 (4.42-10.36)	60.75 (42.67-74.18)
15-44	2,382	5.67 (4.79-6.55)	10.38 (9.19-12.38)	38.56 (33.74-49.01)	112.70 (91.49-125.08)
45 and Older	2,780	7.38 (6.26-8.50)	23.60 (19.67-28.12)	56.58 (52.33-57.24)	112.26 (107.51-130.08)
All Ages	10,439	5.34 (4.73-5.95)	9.28 (7.05-10.85)	37.09 (32.17-40.32)	107.14 (97.09-125.08)
<b>Both Sexes</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	10,459	1.83 (1.51-2.14)	0.00 (0.00-0.00)	6.04 (5.53-9.46)	51.67 (39.41-61.17)
15-44	4,714	4.97 (4.39-5.56)	8.58 (5.27-10.39)	31.67 (28.62-36.76)	98.87 (85.51-125.08)
45 and Older	5,434	5.96 (5.19-6.72)	17.44 (13.85-22.10)	42.67 (37.09-52.80)	104.15 (91.00-112.00)
All Ages	20,607	4.58 (4.16-5.00)	6.63 (5.34-8.54)	29.65 (28.12-31.61)	91.01 (82.61-100.08)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.1 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Marine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,182	3.60 (3.02-4.17)	10.75 (8.12-13.53)	28.12 (24.26-31.03)	61.31 (51.19-70.52)
15-44	2,332	7.03 (6.12-7.94)	27.90 (24.32-28.16)	48.06 (42.57-53.68)	96.97 (86.64-137.57)
45 and Older	2,654	10.87 (9.59-12.14)	41.98 (38.39-42.53)	63.28 (57.76-66.32)	128.48 (120.51-138.27)
All Ages	10,168	7.59 (6.91-8.26)	28.12 (27.90-29.24)	49.57 (46.64-52.39)	106.59 (95.23-119.20)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,277	4.34 (3.61-5.08)	11.81 (8.36-13.95)	29.08 (26.67-31.40)	84.35 (77.02-113.29)
15-44	2,382	9.41 (8.22-10.60)	36.62 (27.97-43.12)	72.81 (58.82-82.82)	127.44 (116.33-153.55)
45 and Older	2,780	11.85 (10.54-13.15)	47.05 (42.18-54.47)	71.44 (64.42-81.34)	140.14 (114.89-149.59)
All Ages	10,439	8.94 (8.11-9.77)	34.23 (28.16-38.51)	63.34 (59.04-73.18)	122.80 (109.35-139.56)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	10,459	3.98 (3.46-4.49)	10.78 (10.07-13.53)	28.16 (27.90-29.80)	78.95 (63.00-98.82)
15-44	4,714	8.22 (7.35-9.10)	28.15 (27.90-34.28)	56.58 (54.47-68.87)	115.67 (98.46-143.75)
45 and Older	5,434	11.31 (10.29-12.34)	42.73 (41.98-45.65)	65.14 (63.89-68.01)	136.94 (125.58-140.29)
All Ages	20,607	8.25 (7.61-8.89)	29.20 (28.16-32.12)	55.80 (54.74-56.85)	114.56 (108.94-120.75)

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.



**SECTION 4.1.1.1 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 All Fish: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,182	5.15 (4.38-5.93)	18.90 (15.25-21.11)	37.46 (30.03-41.67)	80.21 (72.56-82.99)
15-44	2,332	11.31 (9.96-12.66)	41.23 (36.62-46.18)	66.33 (60.95-73.04)	143.38 (128.01-148.39)
45 and Older	2,654	15.63 (14.00-17.26)	56.15 (52.68-60.57)	82.90 (75.63-87.99)	158.92 (141.56-170.55)
All Ages	10,168	11.44 (10.46-12.42)	42.17 (38.98-45.65)	66.83 (63.19-71.44)	140.80 (128.45-148.39)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,277	6.43 (5.54-7.32)	21.05 (15.71-24.88)	42.19 (34.02-52.53)	114.26 (98.93-130.64)
15-44	2,382	15.08 (13.60-16.55)	58.44 (51.04-70.29)	89.07 (85.62-97.47)	177.18 (163.00-185.31)
45 and Older	2,780	19.23 (17.59-20.86)	67.73 (65.02-72.21)	98.58 (92.65-105.09)	167.49 (157.03-193.29)
All Ages	10,439	14.28 (13.35-15.21)	55.89 (51.04-59.38)	86.12 (84.30-89.73)	162.57 (155.77-178.70)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	10,459	5.80 (5.15-6.46)	19.41 (17.23-21.18)	38.21 (36.60-42.13)	96.52 (82.99-114.34)
15-44	4,714	13.20 (12.16-14.24)	49.98 (45.30-56.20)	82.87 (76.24-86.13)	162.57 (147.17-176.21)
45 and Older	5,434	17.27 (15.98-18.56)	61.14 (56.60-64.24)	90.47 (86.54-93.15)	162.69 (158.37-170.55)
All Ages	20,607	12.83 (12.05-13.61)	48.19 (46.18-49.89)	78.98 (74.62-83.25)	153.17 (145.88-160.92)

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
 (2) Estimates are based on 2-day averages.  
 (3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.  
 (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
 (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.  
 \*\*: Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.1 TABLE 4. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish and Shellfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	5.48	4.93	6.03
	50th %	0.00	0.00	0.00
	90th %	11.74	9.87	14.70
	95th %	38.01	34.66	43.01
	99th %	105.12	91.49	113.45
<b>Marine</b>	Mean	9.79	9.01	10.57
	50th %	0.00	0.00	0.00
	90th %	38.57	36.63	41.48
	95th %	63.76	58.79	68.80
	99th %	126.32	117.32	140.06
<b>All Fish</b>	Mean	15.27	14.30	16.24
	50th %	0.00	0.00	0.00
	90th %	56.23	55.39	58.28
	95th %	86.11	84.28	87.49
	99th %	162.57	155.77	170.95

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
- (2) Estimates are based on 2-day averages.
- (3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.
- (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
- (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.1 TABLE 5. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Children Ages 3-17 by Fine Age Categories

Freshwater/Estuarine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	1.47 (1.19-1.76)	0.14 (0.00-0.96)	5.13 (4.12-6.21)	38.72 (32.91-43.61)
Ages 6 to 10	1,670	2.11 (1.36-2.87)	0.00 (0.00-0.55)	5.91 (3.19-12.69)	60.85*(51.03-86.03)
Ages 11 to 15	1,005	3.01 (2.24-3.78)	1.41 (0.51-5.49)	18.20 (14.84-21.07)	69.51*(55.98-75.05)
Ages 16 to 17	363	3.44 (1.62-5.27)	0.00 (0.00-1.52)	13.14*(5.18-29.24)	81.18*(42.02-117.03)
Marine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	3.74 (3.23-4.25)	11.10 (10.37-12.55)	27.92 (24.37-29.07)	59.81 (52.40-71.30)
Ages 6 to 10	1,670	4.18 (3.48-4.89)	13.12 (9.71-17.02)	28.72 (27.55-33.77)	78.60*(49.17-84.38)
Ages 11 to 15	1,005	5.45 (4.19-6.72)	13.94 (9.76-20.64)	38.50 (30.76-50.26)	102.30*(84.35-113.60)
Ages 16 to 17	363	4.67 (2.93-6.41)	0.00 (0.00-6.89)	24.23*(7.77-71.45)	107.78*(68.43-118.89)
All Fish					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	5.22 (4.63-5.81)	18.94 (15.25-21.34)	35.31 (31.07-39.50)	72.22 (66.68-81.41)
Ages 6 to 10	1,670	6.30 (5.26-7.34)	23.91 (21.06-27.02)	39.55 (34.34-51.47)	107.75*(91.61-130.64)
Ages 11 to 15	1,005	8.46 (6.92-10.00)	28.14 (24.88-31.39)	60.33 (53.40-74.18)	122.23*(106.78-131.92)
Ages 16 to 17	363	8.11 (5.41-10.82)	18.62 (6.98-40.88)	73.81*(29.24-89.78)	142.34*(107.86-200.43)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 7,429 individuals to the U.S. population of 58,923,560 using 4-year combined survey weights.

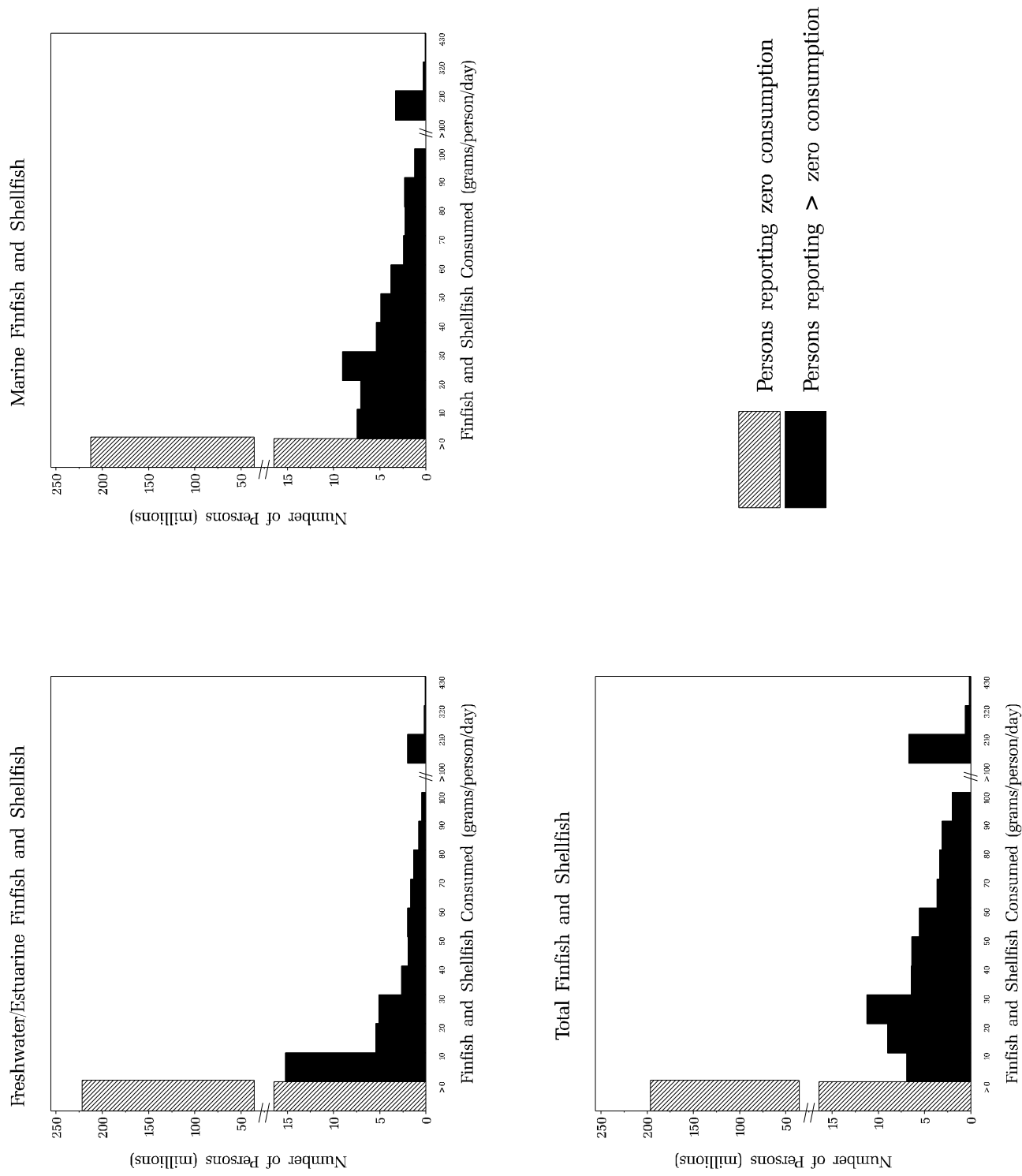
(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

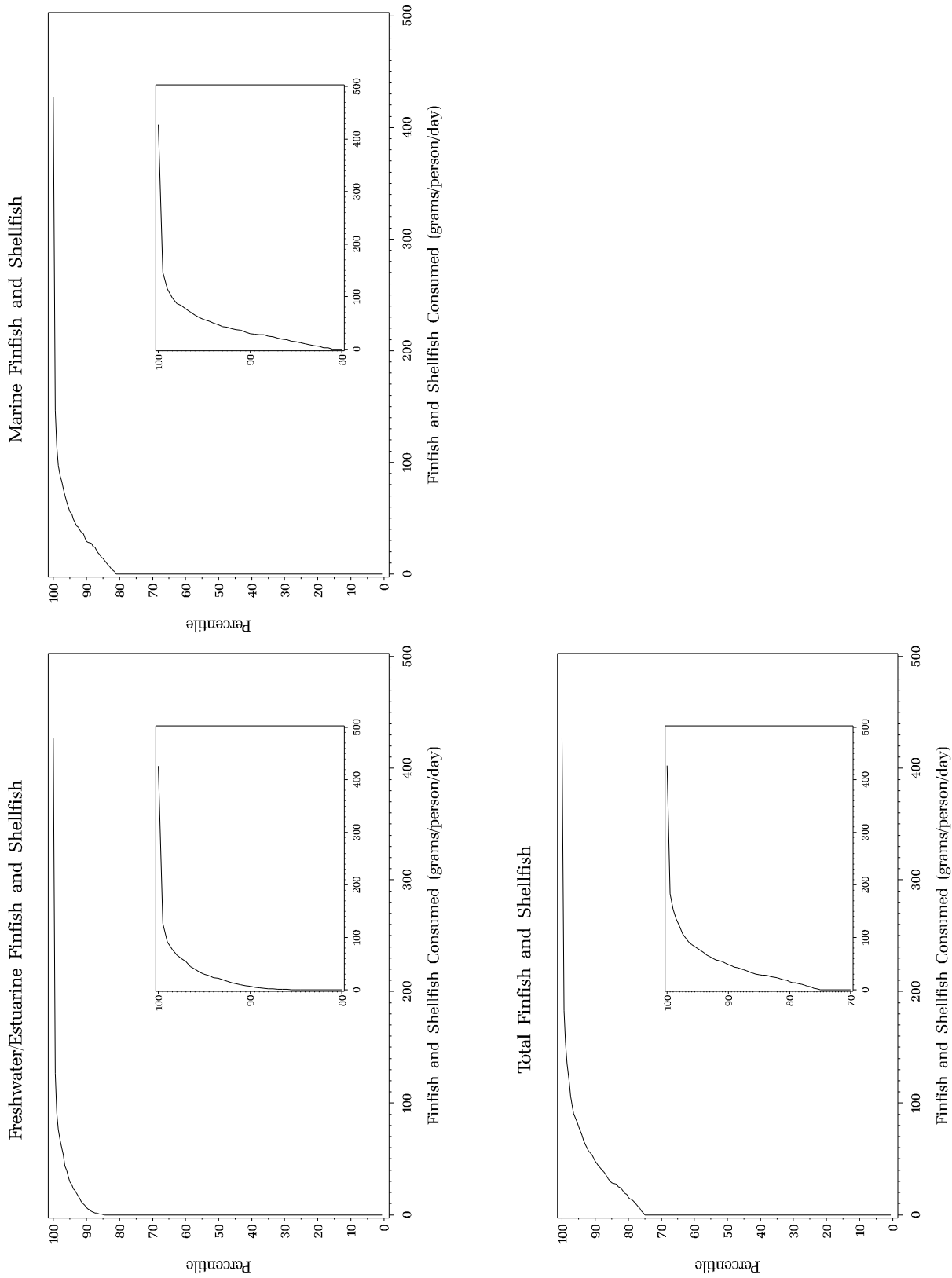
\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

# Section 4.1.1.1 Figure 1. Histograms of As Prepared Fish Consumption for U.S. Population: Freshwater/Estuarine, Marine, and Total Fish



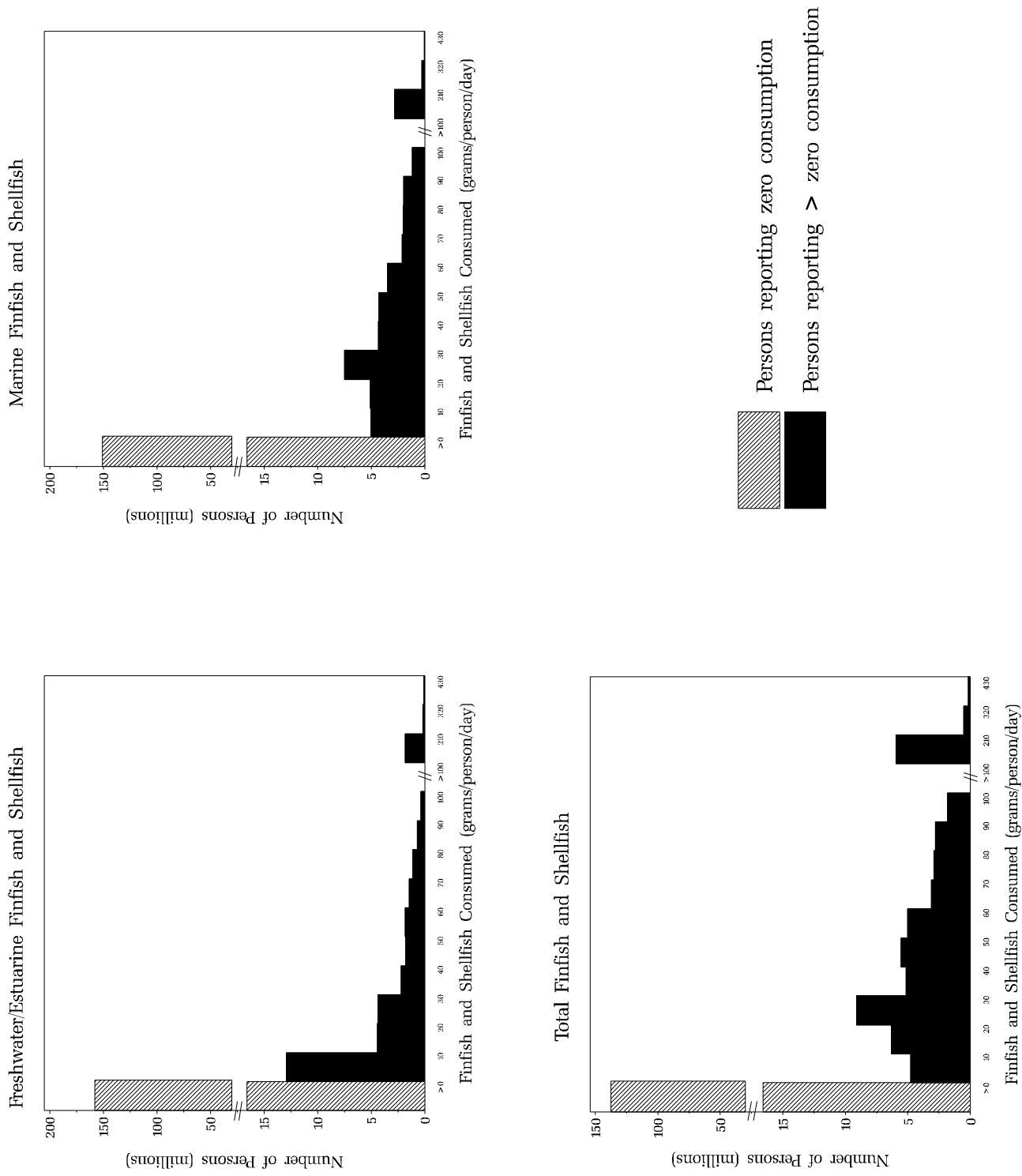
Source of data: 1994–1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

## Section 4.1.1.1 Figure 2. Cumulative Distributions of As Prepared Fish Consumption for U.S. Population: Freshwater/Estuarine, Marine, and Total Fish



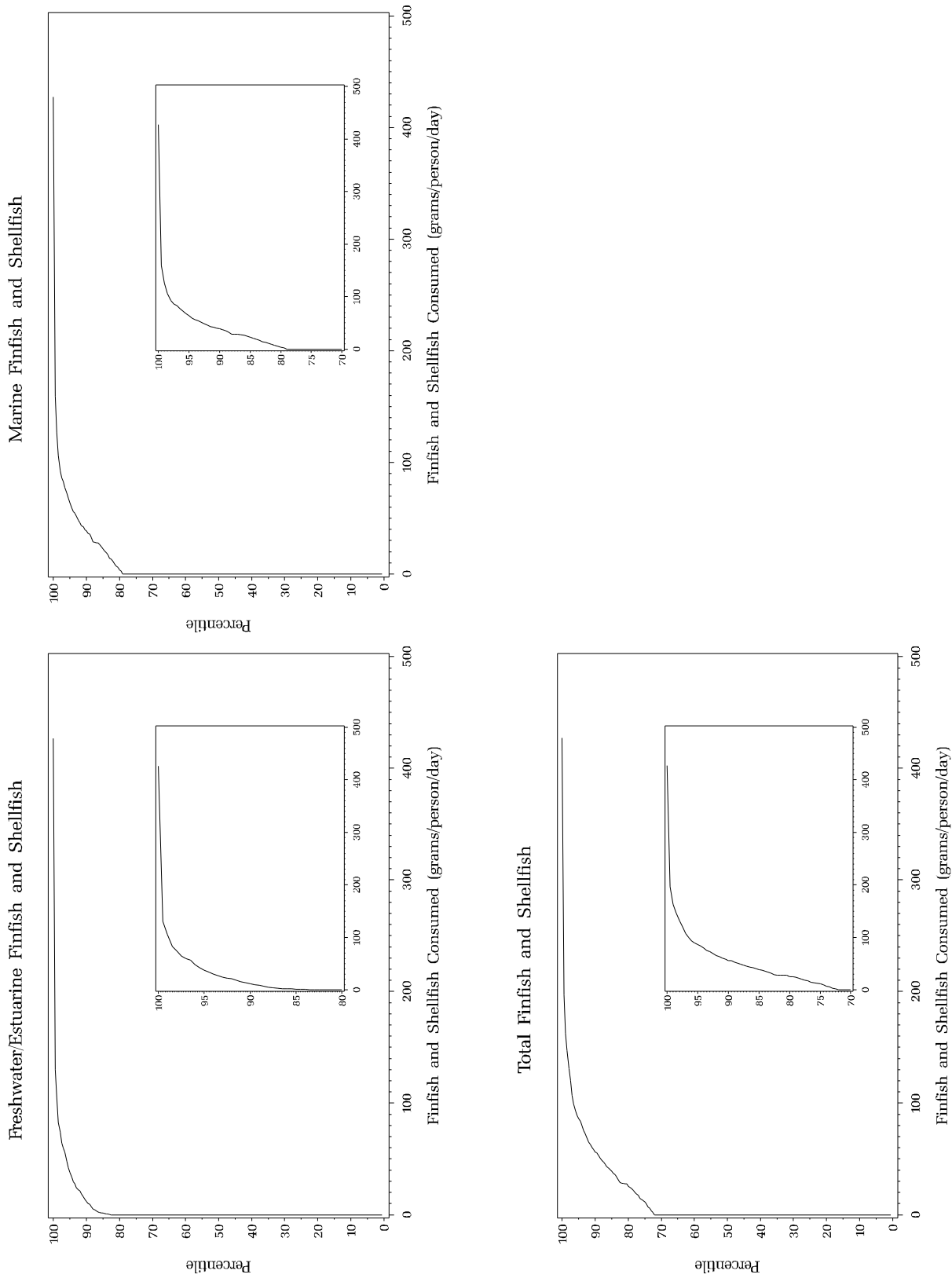
Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

### Section 4.1.1.1 Figure 3. Histograms of As Prepared Fish Consumption for Individuals of Age 18 and Older: Freshwater/Estuarine, Marine, and Total Fish



Source of data: 1994–1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

Section 4.1.1.1 Figure 4. Cumulative Distributions of As Prepared Fish Consumption for Individuals of Age 18 and Older: Freshwater/Estuarine, Marine, and Total Fish



**SECTION 4.1.1.2 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,879	55.95 (46.22-65.69)	0.00 (0.00-3.43)	207.69 (162.31-267.73)	1,515.50 (1,305.44-1,800.66)
15-44	2,275	66.86 (52.64-81.07)	74.47 (40.18-106.65)	380.13 (306.35-434.91)	1,329.44 (1,237.79-2,020.99)
45 and Older	2,569	71.68 (58.28-85.08)	183.50 (75.26-246.60)	491.35 (369.29-606.21)	1,339.24 (1,133.26-1,461.87)
All Ages	9,723	66.28 (57.59-74.98)	80.28 (43.97-104.43)	397.53 (363.73-434.51)	1,351.62 (1,221.54-1,527.73)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,994	65.04 (52.33-77.76)	0.00 (0.00-16.87)	279.17 (178.99-384.25)	1,767.05 (1,470.28-1,887.98)
15-44	2,369	71.82 (60.35-83.30)	130.79 (101.25-169.80)	480.81 (424.67-574.22)	1,350.22 (1,227.91-1,728.58)
45 and Older	2,764	88.04 (74.54-101.54)	271.89 (212.02-320.60)	666.28 (539.81-711.59)	1,377.75 (1,259.61-1,508.03)
All Ages	10,127	75.43 (67.06-83.79)	130.64 (106.47-180.61)	503.88 (455.12-560.15)	1,470.46 (1,377.53-1,568.19)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	9,873	60.59 (51.67-69.51)	0.00 (0.00-0.00)	230.11 (187.28-283.09)	1,689.38 (1,470.28-1,805.49)
15-44	4,644	69.35 (60.78-77.92)	104.26 (72.41-139.38)	431.37 (390.39-475.83)	1,335.45 (1,237.79-1,683.92)
45 and Older	5,333	79.29 (68.87-89.72)	235.81 (187.77-284.01)	557.02 (493.69-666.38)	1,351.13 (1,259.61-1,461.87)
All Ages	19,850	70.79 (64.56-77.02)	105.93 (87.30-127.95)	450.45 (423.86-484.36)	1,432.31 (1,325.45-1,520.97)

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
- (2) Estimates are based on 2-day averages.
- (3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.
- (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
- (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- (6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.



**SECTION 4.1.1.2 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Marine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,879	146.57 (125.26-167.88)	380.98 (323.92-505.61)	1,027.57 (907.69-1,149.29)	2,818.50 (2,481.21-2,908.22)
15-44	2,275	113.78 (98.32-129.23)	423.46 (365.30-484.54)	768.09 (649.87-881.18)	1,648.49 (1,428.08-2,176.92)
45 and Older	2,569	166.16 (146.91-185.42)	619.83 (566.91-657.52)	950.42 (899.63-1,041.87)	2,021.52 (1,898.81-2,682.59)
All Ages	9,723	138.54 (126.80-150.27)	501.04 (465.44-534.43)	891.56 (846.51-923.25)	2,150.73 (1,857.89-2,483.56)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,994	154.18 (132.44-175.91)	425.66 (357.32-493.75)	1,081.22 (975.05-1,293.05)	2,678.35 (2,383.15-3,072.97)
15-44	2,369	118.18 (103.89-132.47)	443.64 (368.30-546.56)	879.88 (759.85-954.12)	1,642.99 (1,454.33-1,818.57)
45 and Older	2,764	149.26 (132.84-165.68)	568.10 (504.12-673.19)	888.72 (830.89-989.87)	1,859.28 (1,724.55-2,011.40)
All Ages	10,127	135.63 (124.58-146.68)	494.03 (445.36-543.18)	907.08 (868.38-954.12)	1,965.47 (1,816.57-2,246.91)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	9,873	150.45 (133.91-166.98)	413.20 (366.49-475.90)	1,037.35 (1,002.30-1,162.76)	2,691.79 (2,481.21-2,823.18)
15-44	4,644	116.02 (103.69-128.35)	440.37 (388.93-487.66)	829.65 (750.11-919.72)	1,651.83 (1,486.91-1,792.57)
45 and Older	5,333	158.30 (144.04-172.56)	600.92 (562.17-642.27)	920.70 (882.46-977.46)	1,975.67 (1,784.53-2,117.92)
All Ages	19,850	137.11 (127.60-146.61)	497.43 (479.82-517.48)	902.75 (869.42-938.30)	2,014.52 (1,947.15-2,158.09)

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
  - (6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.2 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**

All Fish: Age by Gender and All Individuals

<b>Females</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	4,879	202.52 (177.83-227.21)	692.68 (619.31-794.52)	1,344.33 (1,224.10-1,489.40)	3,297.06 (2,823.18-3,680.33)
15-44	2,275	180.63 (157.77-203.50)	640.94 (593.05-750.11)	1,040.45 (909.84-1,225.70)	2,291.55 (2,095.66-2,493.52)
45 and Older	2,569	237.84 (212.27-263.42)	812.24 (732.05-918.35)	1,264.94 (1,165.11-1,352.82)	2,695.97 (2,247.02-2,974.01)
All Ages	9,723	204.82 (188.14-221.49)	730.67 (670.50-768.19)	1,211.28 (1,128.36-1,256.15)	2,650.83 (2,358.33-2,823.18)
<b>Males</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	4,994	219.22 (194.76-243.68)	744.58 (582.70-881.06)	1,469.91 (1,281.74-1,775.17)	3,391.54 (2,893.31-3,953.68)
15-44	2,369	190.00 (171.40-208.60)	756.08 (688.99-851.35)	1,164.80 (1,060.16-1,239.45)	2,237.99 (2,045.28-2,491.65)
45 and Older	2,764	237.30 (217.05-257.54)	848.97 (811.74-919.86)	1,253.04 (1,182.85-1,282.37)	2,309.81 (2,078.60-2,438.28)
All Ages	10,127	211.05 (198.61-223.50)	791.69 (727.02-884.24)	1,239.38 (1,201.26-1,282.37)	2,536.85 (2,323.68-2,679.31)
<b>Both Sexes</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	9,873	211.04 (191.31-230.77)	713.36 (651.97-779.69)	1,428.56 (1,344.46-1,499.23)	3,354.29 (3,223.83-3,457.94)
15-44	4,644	185.37 (170.26-200.48)	714.19 (644.69-802.83)	1,138.91 (1,014.11-1,228.10)	2,289.93 (2,082.31-2,476.11)
45 and Older	5,333	237.59 (219.24-255.94)	835.63 (766.60-882.72)	1,260.96 (1,184.81-1,313.50)	2,385.97 (2,158.09-2,672.09)
All Ages	19,850	207.90 (195.73-220.06)	762.33 (736.99-790.30)	1,227.24 (1,197.67-1,250.56)	2,539.05 (2,475.59-2,679.31)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.2 TABLE 4. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish and Shellfish  
Individuals of Age 18 and Older**

Milligrams/kilogram of body weight/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	74.58	67.23	81.94
	50th %	0.00	0.00	0.00
	90th %	158.16	124.67	198.19
	95th %	502.20	452.15	566.68
	99th %	1,352.52	1,237.79	1,511.48
<b>Marine</b>	Mean	136.87	125.95	147.79
	50th %	0.00	0.00	0.00
	90th %	527.16	501.24	574.84
	95th %	881.16	839.50	945.14
	99th %	1,798.46	1,707.53	1,971.21
<b>All Fish</b>	Mean	211.45	197.59	225.32
	50th %	0.00	0.00	0.00
	90th %	778.79	743.19	816.43
	95th %	1,198.02	1,164.67	1,237.79
	99th %	2,327.24	2,198.06	2,438.28

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 9,432 individuals of age 18 and older to the population of 187,533,204 individuals of age 18 and older using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
  - (6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.1.2 TABLE 5. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Children Ages 3-17 by Fine Age Categories

Freshwater/Estuarine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	82.93 (67.17-98.69)	0.00 (0.00-55.46)	283.55 (240.41-352.60)	2,317.17 (1,736.16-2,463.09)
Ages 6 to 10	1,553	59.25 (39.31-79.19)	0.00 (0.00-5.34)	177.77 (87.76-401.82)	1,662.09*(1,433.33-2,335.41)
Ages 11 to 15	975	53.29 (42.15-64.43)	27.44 (0.00-78.01)	311.51 (253.05-389.71)	1,237.08*(950.34-1,520.97)
Ages 16 to 17	360	49.45 (22.66-76.24)	0.00 (0.00-33.44)	213.15*(105.71-390.39)	1,186.15*(600.22-2,095.66)
Marine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	209.27 (181.47-237.06)	613.74 (525.30-695.61)	1,537.30 (1,339.89-1,669.77)	3,447.36 (3,274.15-3,715.97)
Ages 6 to 10	1,553	149.82 (122.54-177.10)	416.19 (326.38-545.59)	1,055.21 (968.84-1,275.18)	2,799.51*(2,021.40-3,298.10)
Ages 11 to 15	975	108.69 (84.14-133.25)	337.95 (179.10-413.20)	821.05 (628.62-1,033.67)	1,901.71*(1,537.42-2,366.14)
Ages 16 to 17	360	74.57 (46.40-102.75)	0.00 (0.00-124.08)	380.78*(131.93-950.92)	1,785.18*(1,225.50-2,342.31)
All Fish					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	292.19 (258.61-325.78)	1,056.71 (931.20-1,232.43)	1,988.44 (1,812.70-2,147.10)	4,088.71 (3,732.61-4,507.92)
Ages 6 to 10	1,553	209.07 (175.70-242.44)	779.53 (643.78-841.91)	1,356.56 (1,173.11-1,451.46)	3,350.34*(2,724.77-4,408.10)
Ages 11 to 15	975	161.99 (133.12-190.85)	569.80 (475.90-664.30)	1,050.97 (991.15-1,313.37)	2,304.52*(1,907.98-2,767.40)
Ages 16 to 17	360	124.02 (83.03-165.01)	260.84 (110.31-600.22)	1,029.23*(390.39-1,238.66)	2,359.38*(2,095.66-2,675.66)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 7,429 individuals to the U.S. population of 58,923,560 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.2 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish  
All Individuals**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.55	2.26	2.84
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	6.67	5.34	9.34
	99th %	67.22	63.45	75.54
<b>Marine</b>	Mean	6.57	6.13	7.01
	50th %	0.00	0.00	0.00
	90th %	26.30	24.27	27.37
	95th %	46.07	43.12	47.50
	99th %	94.71	89.78	100.44
<b>All Fish</b>	Mean	9.12	8.58	9.67
	50th %	0.00	0.00	0.00
	90th %	34.83	31.41	36.62
	95th %	59.84	57.54	61.63
	99th %	126.30	120.58	130.08

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.2 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	3.06	2.67	3.44
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.57
	95th %	11.90	9.46	17.63
	99th %	75.38	67.28	84.80
<b>Marine</b>	Mean	7.66	7.16	8.17
	50th %	0.00	0.00	0.00
	90th %	28.15	28.12	29.80
	95th %	53.40	50.34	54.47
	99th %	103.22	92.38	108.94
<b>All Fish</b>	Mean	10.72	10.07	11.37
	50th %	0.00	0.00	0.00
	90th %	41.64	39.80	42.53
	95th %	65.04	64.00	68.55
	99th %	135.60	130.08	146.49

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.3 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Shellfish  
All Individuals**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.03	1.75	2.30
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	9.56	7.88	10.63
	99th %	59.34	51.47	64.01
<b>Marine</b>	Mean	1.68	1.33	2.03
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	67.86	51.57	84.47
<b>All Fish</b>	Mean	3.70	3.23	4.18
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	22.63	17.19	26.33
	99th %	90.55	82.88	95.70

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.3 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Shellfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.42	2.08	2.77
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.33
	95th %	12.90	10.88	16.08
	99th %	61.82	54.58	71.67
<b>Marine</b>	Mean	2.13	1.66	2.60
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	2.12
	99th %	83.70	51.71	84.52
<b>All Fish</b>	Mean	4.55	3.93	5.17
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	5.20
	95th %	32.11	25.64	40.13
	99th %	94.91	86.18	112.47

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.



**SECTION 4.1.4 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.84	2.04	3.65
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	5.70	3.36	10.41
	99th %	81.80	68.04	114.48
<b>Marine</b>	Mean	5.39	4.64	6.14
	50th %	0.00	0.00	0.00
	90th %	13.95	9.43	18.84
	95th %	38.52	33.77	43.05
	99th %	88.24	84.35	111.61
<b>All Fish</b>	Mean	8.24	7.04	9.43
	50th %	0.00	0.00	0.00
	90th %	27.90	24.88	29.82
	95th %	55.20	50.33	60.95
	99th %	129.37	108.06	159.54

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.4 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Shellfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	1.50	1.11	1.90
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	1.55	0.00	1.66
	99th %	49.78	39.01	74.18
<b>Marine</b>	Mean	1.58	0.34	2.82
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	78.49	17.91	84.47
<b>All Fish</b>	Mean	3.09	1.79	4.39
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	11.12	3.08	32.11
	99th %	86.00	75.85	91.60

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.4 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish and Shellfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	4.35	3.43	5.27
	50th %	0.00	0.00	0.00
	90th %	1.66	1.64	2.97
	95th %	22.25	20.36	29.45
	99th %	107.60	84.08	130.08
<b>Marine</b>	Mean	6.97	5.57	8.38
	50th %	0.00	0.00	0.00
	90th %	24.06	16.38	28.12
	95th %	51.00	39.11	76.45
	99th %	106.96	89.16	114.92
<b>All Fish</b>	Mean	11.32	9.66	12.99
	50th %	0.00	0.00	0.00
	90th %	39.89	33.16	48.83
	95th %	79.38	69.27	86.13
	99th %	149.76	130.08	170.95

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.5 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	0.87	0.72	1.02
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.02	0.00	0.02
	99th %	32.07	27.47	37.52
<b>Estuarine/Marine</b>	Mean	8.26	7.74	8.77
	50th %	0.00	0.00	0.00
	90th %	29.68	28.27	32.12
	95th %	56.15	55.81	56.32
	99th %	110.84	106.35	115.73
<b>All Fish</b>	Mean	9.12	8.58	9.67
	50th %	0.00	0.00	0.00
	90th %	34.83	31.41	36.62
	95th %	59.84	57.54	61.63
	99th %	126.30	120.58	130.08

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.5 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	0.01	0.00	0.02
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	0.00	0.00	0.00
<b>Estuarine/Marine</b>	Mean	3.70	3.22	4.17
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	22.63	17.19	26.33
	99th %	87.36	79.39	94.24
<b>All Fish</b>	Mean	3.70	3.23	4.18
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	22.63	17.19	26.33
	99th %	90.55	82.88	95.70

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.5 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Finfish and Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	0.88	0.73	1.02
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.02	0.00	0.03
	99th %	32.09	27.47	37.52
<b>Estuarine/Marine</b>	Mean	11.95	11.19	12.72
	50th %	0.00	0.00	0.00
	90th %	44.99	42.75	46.19
	95th %	74.19	71.44	76.45
	99th %	146.14	139.00	152.03
<b>All Fish</b>	Mean	12.83	12.05	13.61
	50th %	0.00	0.00	0.00
	90th %	48.19	46.18	49.89
	95th %	78.98	74.62	83.25
	99th %	153.17	145.88	160.92

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.1.6 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
Females of Age 14 and Younger**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.43624	<b>Marine (con't.)</b>	Ocean Perch	0.07833*	<b>All Species (con't.)</b>	Trout, mixed sp. (Estuarine)	0.05232*
	Crab (Estuarine)	0.12652*		Sea Bass	0.04055*		Trout, mixed sp. (Freshwater)	0.05232*
	Catfish (Estuarine)	0.12642*		Scallop (Marine)	0.03934*		Perch (Estuarine)	0.05097*
	Flounder	0.12074*		Mackerel	0.03136*		Perch (Freshwater)	0.05097*
	Flatfish (Estuarine)	0.07679*		Pompano	0.02383*		Trout	0.04770*
	Trout, mixed sp. (Estuarine)	0.05232*		Flatfish (Marine)	0.01438*		Sea Bass	0.04055*
	Perch (Estuarine)	0.05097*		Porgy	0.01382*		Scallop (Marine)	0.03934*
	Croaker	0.03920*		Lobster	0.01115*		Croaker	0.03920*
	Mullet	0.02218*		Halibut	0.00521*		Mackerel	0.03136*
	Oyster	0.02027*		Sardine	0.00519*		Pompano	0.02383*
	Salmon (Estuarine)	0.01581*		Swordfish	0.00386*		Mullet	0.02218*
	Herring	0.01378*		Squid	0.00361*		Oyster	0.02027*
	Rockfish	0.00691*		Whitefish (Marine)	0.00339*		Salmon (Estuarine)	0.01581*
	Anchovy	0.00522*		Mussels	0.00154*		Flatfish (Marine)	0.01438*
	Clam (Estuarine)	0.00389*	Snapper	0.00009*	Porgy		0.01382*	
Scallop (Estuarine)	0.00027*			Herring	0.01378*			
<b>Freshwater</b>	Catfish (Freshwater)	0.12642*	<b>Unknown</b>	Fish	0.38095	Lobster	0.01115*	
	Trout, mixed sp. (Freshwater)	0.05232*		Seafood	0.00047*	Rockfish	0.00691*	
	Perch (Freshwater)	0.05097*	<b>All Species</b>	Tuna	1.40988	Carp	0.00608*	
	Trout	0.04770*		Cod	0.57052	Anchovy	0.00522*	
	Carp	0.00608*		Shrimp	0.43624	Halibut	0.00521*	
	Cisco	0.00366*		Fish	0.38095	Sardine	0.00519*	
	Whitefish (Freshwater)	0.00339*		Salmon (Marine)	0.31835*	Clam (Estuarine)	0.00389*	
	Pike	0.00255*		Pollock	0.31789*	Swordfish	0.00386*	
	Salmon (Freshwater)	0.00017*		Clam (Marine)	0.14529*	Cisco	0.00366*	
		Crab (Marine)		0.14365*	Squid	0.00361*		
		Crab (Estuarine)		0.12652*	Whitefish (Freshwater)	0.00339*		
		Catfish (Estuarine)	0.12642*	Whitefish (Marine)	0.00339*			
<b>Marine</b>	Tuna	1.40988	Catfish (Freshwater)	0.12642*	Pike	0.00255*		
	Cod	0.57052	Flounder	0.12074*	Mussels	0.00154*		
	Salmon (Marine)	0.31835*	Haddock	0.10034*	Seafood	0.00047*		
	Pollock	0.31789*	Whiting	0.08056*	Scallop (Estuarine)	0.00027*		
	Clam (Marine)	0.14529*	Ocean Perch	0.07833*	Salmon (Freshwater)	0.00017*		
	Crab (Marine)	0.14365*	Flatfish (Estuarine)	0.07679*	Snapper	0.00009*		
	Haddock	0.10034*						
	Whiting	0.08056*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,182 individuals to the U.S. population of 29,264,187 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
Females of Age 15 to 44**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.79975	<b>Marine (con't.)</b>	Crab (Marine)	0.18799*	<b>All Species (con't.)</b>	Pompano	0.14685*
	Catfish (Estuarine)	0.36552*		Scallop (Marine)	0.15755*		Ocean Perch	0.12941*
	Flatfish (Estuarine)	0.32317*		Squid	0.15166*		Porgy	0.12244*
	Flounder	0.17232*		Pompano	0.14685*		Perch (Estuarine)	0.09530*
	Crab (Estuarine)	0.16558*		Ocean Perch	0.12941*		Perch (Freshwater)	0.09530*
	Perch (Estuarine)	0.09530*		Porgy	0.12244*		Fish	0.09390*
	Trout, mixed sp. (Estuarine)	0.07916*		Whiting	0.08350*		Whiting	0.08350*
	Oyster	0.06087*		Sardine	0.08130*		Sardine	0.08130*
	Croaker	0.04853*		Flatfish (Marine)	0.06051*		Trout, mixed sp. (Estuarine)	0.07916*
	Mullet	0.04625*		Sea Bass	0.05865*		Trout, mixed sp. (Freshwater)	0.07916*
	Salmon (Estuarine)	0.04172*		Mackerel	0.03120*		Oyster	0.06087*
	Anchovy	0.03812*		Mussels	0.01907*		Flatfish (Marine)	0.06051*
	Rockfish	0.03504*		Halibut	0.01366*		Carp	0.06010*
	Herring	0.02833*		Conch	0.00689*		Sea Bass	0.05865*
	Clam (Estuarine)	0.01726*		Snapper	0.00679*		Croaker	0.04853*
	Eel	0.00202*	Whitefish (Marine)	0.00061*	Mullet		0.04625*	
	Scallop (Estuarine)	0.00106*			Salmon (Estuarine)		0.04172*	
	Sturgeon (Estuarine)	0.00056*	<b>Unknown</b>	Fish	0.09390*		Anchovy	0.03812*
			Seafood	0.00322*	Rockfish	0.03504*		
<b>Freshwater</b>	Catfish (Freshwater)	0.36552*	<b>All Species</b>	Tuna	2.62369	Mackerel	0.03120*	
	Trout	0.24246*		Shrimp	1.79975	Herring	0.02833*	
	Perch (Freshwater)	0.09530*		Cod	0.90879*	Mussels	0.01907*	
	Trout, mixed sp. (Freshwater)	0.07916*		Salmon (Marine)	0.83997*	Clam (Estuarine)	0.01726*	
	Carp	0.06010*		Clam (Marine)	0.64409*	Halibut	0.01366*	
	Pike	0.00787*		Catfish (Estuarine)	0.36552*	Pike	0.00787*	
	Cisco	0.00106*		Catfish (Freshwater)	0.36552*	Conch	0.00689*	
	Whitefish (Freshwater)	0.00061*		Flatfish (Estuarine)	0.32317*	Snapper	0.00679*	
	Sturgeon (Freshwater)	0.00056*		Lobster	0.27145*	Seafood	0.00322*	
	Salmon (Freshwater)	0.00044*		Pollock	0.25225*	Eel	0.00202*	
<b>Marine</b>	Tuna	2.62369	Trout	0.24246*	Scallop (Estuarine)	0.00106*		
	Cod	0.90879*	Haddock	0.24170*	Cisco	0.00106*		
	Salmon (Marine)	0.83997*	Crab (Marine)	0.18799*	Whitefish (Freshwater)	0.00061*		
	Clam (Marine)	0.64409*	Flounder	0.17232*	Whitefish (Marine)	0.00061*		
	Lobster	0.27145*	Crab (Estuarine)	0.16558*	Sturgeon (Estuarine)	0.00056*		
	Pollock	0.25225*	Scallop (Marine)	0.15755*	Sturgeon (Freshwater)	0.00056*		
	Haddock	0.24170*	Squid	0.15166*	Salmon (Freshwater)	0.00044*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
(2) Estimates are based on 2-day averages.  
(3) Estimates are projected from a sample of 2,332 individuals to the U.S. population of 58,970,270 using 4-year combined survey weights.  
(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".



**SECTION 4.1.6 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
Females of Age 45 and Older**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.36390	<b>Marine (con't.)</b>	Pollock	0.27192*	<b>All Species (con't.)</b>	Carp	0.18062*
	Flounder	0.87864*		Swordfish	0.20097*		Fish	0.17803*
	Catfish (Estuarine)	0.32047*		Mackerel	0.19221*		Crab (Estuarine)	0.16509*
	Herring	0.23283*		Crab (Marine)	0.18744*		Trout	0.16278*
	Flatfish (Estuarine)	0.23150*		Ocean Perch	0.15961*		Ocean Perch	0.15961*
	Crab (Estuarine)	0.16509*		Scallop (Marine)	0.15056*		Scallop (Marine)	0.15056*
	Perch (Estuarine)	0.10831*		Lobster	0.14065*		Lobster	0.14065*
	Croaker	0.09846*		Squid	0.11659*		Squid	0.11659*
	Salmon (Estuarine)	0.07612		Snapper	0.11452*		Snapper	0.11452*
	Oyster	0.07289*		Sea Bass	0.08798*		Perch (Estuarine)	0.10831*
	Rockfish	0.05097*		Halibut	0.08743*		Perch (Freshwater)	0.10831*
	Trout, mixed sp. (Estuarine)	0.04023*		Mussels	0.06865*		Croaker	0.09846*
	Clam (Estuarine)	0.03115*		Sardine	0.05269*		Sea Bass	0.08798*
	Anchovy	0.01891*		Flatfish (Marine)	0.04334*		Halibut	0.08743*
	Mullet	0.01404*		Whitefish (Marine)	0.04176*		Pike	0.07948*
	Smelts (Estuarine)	0.01394*		Pompano	0.03550*		Salmon (Estuarine)	0.07612
	Smelts, Rainbow (Estuarine)	0.00212*	Smelts (Marine)	0.01394*	Oyster		0.07289*	
	Scallop (Estuarine)	0.00102*			Mussels		0.06865*	
<b>Freshwater</b>	Catfish (Freshwater)	0.32047*	<b>Unknown</b>	Fish	0.17803*	Mussels	0.06865*	
	Carp	0.18062*	<b>All Species</b>	Tuna	3.35218	Sardine	0.05269*	
	Trout	0.16278*		Salmon (Marine)	1.53248	Rockfish	0.05097*	
	Perch (Freshwater)	0.10831*		Shrimp	1.36390	Flatfish (Marine)	0.04334*	
	Pike	0.07948*		Cod	1.35627*	Whitefish (Freshwater)	0.04176*	
	Whitefish (Freshwater)	0.04176*		Clam (Marine)	1.16221*	Whitefish (Marine)	0.04176*	
	Trout, mixed sp. (Freshwater)	0.04023*		Flounder	0.87864*	Trout, mixed sp. (Estuarine)	0.04023*	
	Cisco	0.00350*		Porgy	0.61332*	Trout, mixed sp. (Freshwater)	0.04023*	
	Smelts, Rainbow (Freshwater)	0.00212*		Haddock	0.52178*	Pompano	0.03550*	
	Salmon (Freshwater)	0.00080		Catfish (Estuarine)	0.32047*	Clam (Estuarine)	0.03115*	
				Catfish (Freshwater)	0.32047*	Anchovy	0.01891*	
				Whiting	0.28532*	Mullet	0.01404*	
		Pollock		0.27192*	Smelts (Estuarine)	0.01394*		
<b>Marine</b>	Tuna	3.35218	Herring	0.23283*	Smelts (Marine)	0.01394*		
	Salmon (Marine)	1.53248	Flatfish (Estuarine)	0.23150*	Cisco	0.00350*		
	Cod	1.35627*	Swordfish	0.20097*	Smelts, Rainbow (Estuarine)	0.00212*		
	Clam (Marine)	1.16221*	Mackerel	0.19221*	Smelts, Rainbow	0.00212*		
	Porgy	0.61332*	Crab (Marine)	0.18744*	Scallop (Estuarine)	0.00102*		
	Haddock	0.52178*			Salmon (Freshwater)	0.00080		
	Whiting	0.28532*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,654 individuals to the U.S. population of 45,695,152 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 4. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
All Females**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.35311	<b>Marine (con't.)</b>	Crab (Marine)	0.17811	<b>All Species (con't.)</b>	Scallop (Marine)	0.12934*
	Flounder	0.40204*		Lobster	0.16995*		Ocean Perch	0.12855*
	Catfish (Estuarine)	0.29790		Whiting	0.15172		Squid	0.10735*
	Flatfish (Estuarine)	0.23806		Scallop (Marine)	0.12934*		Herring	0.09492*
	Crab (Estuarine)	0.15688		Ocean Perch	0.12855*		Perch (Estuarine)	0.09005*
	Herring	0.09492*		Squid	0.10735*		Perch (Freshwater)	0.09005*
	Perch (Estuarine)	0.09005*		Mackerel	0.08617*		Carp	0.08941*
	Croaker	0.06353*		Pompano	0.08198*		Mackerel	0.08617*
	Trout, mixed sp. (Estuarine)	0.06001*		Swordfish	0.06941*		Pompano	0.08198*
	Oyster	0.05610*		Sea Bass	0.06470*		Swordfish	0.06941*
	Salmon (Estuarine)	0.04780		Sardine	0.05491*		Sea Bass	0.06470*
	Rockfish	0.03433*		Flatfish (Marine)	0.04457		Croaker	0.06353*
	Mullet	0.03000*		Snapper	0.04208*		Trout, mixed sp. (Estuarine)	0.06001*
	Anchovy	0.02438*		Halibut	0.03698*		Trout, mixed sp. (Freshwater)	0.06001*
	Clam (Estuarine)	0.01908		Mussels	0.03215*		Oyster	0.05610*
	Smelts (Estuarine)	0.00476*		Whitefish (Marine)	0.01526*		Sardine	0.05491*
	Eel	0.00089*		Smelts (Marine)	0.00476*		Salmon (Estuarine)	0.04780
	Scallop (Estuarine)	0.00087*	Conch	0.00303*	Flatfish (Marine)		0.04457	
	Smelts, Rainbow (Estuarine)	0.00072*	<b>Unknown</b>	Fish	0.18532		Snapper	0.04208*
	Sturgeon (Estuarine)	0.00025*		Seafood	0.00152*		Halibut	0.03698*
<b>Freshwater</b>	Catfish (Freshwater)	0.29790	<b>All Species</b>	Tuna	2.60702	Rockfish	0.03433*	
	Trout	0.17272*		Shrimp	1.35311	Mussels	0.03215*	
	Perch (Freshwater)	0.09005*		Cod	0.98755	Pike	0.03114*	
	Carp	0.08941*		Salmon (Marine)	0.96227	Mullet	0.03000*	
	Trout, mixed sp. (Freshwater)	0.06001*		Clam (Marine)	0.71187	Anchovy	0.02438*	
	Pike	0.03114*		Flounder	0.40204*	Clam (Estuarine)	0.01908	
	Whitefish (Freshwater)	0.01526*		Haddock	0.30637*	Whitefish (Freshwater)	0.01526*	
	Cisco	0.00246*		Catfish (Estuarine)	0.29790	Whitefish (Marine)	0.01526*	
	Smelts, Rainbow (Freshwater)	0.00072*		Catfish (Freshwater)	0.29790	Smelts (Estuarine)	0.00476*	
	Salmon (Freshwater)	0.00051		Pollock	0.27330	Smelts (Marine)	0.00476*	
	Sturgeon (Freshwater)	0.00025*		Porgy	0.26619*	Conch	0.00303*	
	<b>Marine</b>	Tuna		2.60702	Flatfish (Estuarine)	0.23806	Cisco	0.00246*
		Cod		0.98755	Fish	0.18532	Seafood	0.00152*
Salmon (Marine)		0.96227	Crab (Marine)	0.17811	Eel	0.00089*		
Clam (Marine)		0.71187	Trout	0.17272*	Scallop (Estuarine)	0.00087*		
Haddock		0.30637*	Lobster	0.16995*	Smelts, Rainbow (Estuarine)	0.00072*		
Pollock		0.27330	Crab (Estuarine)	0.15688	Smelts, Rainbow	0.00072*		
Porgy		0.26619*	Whiting	0.15172	Salmon (Freshwater)	0.00051		
					Sturgeon (Estuarine)	0.00025*		
					Sturgeon (Freshwater)	0.00025*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
(2) Estimates are based on 2-day averages.  
(3) Estimates are projected from a sample of 10,168 individuals to the U.S. population of 133,929,609 using 4-year combined survey weights.  
(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 5. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
**Males of Age 14 and Younger**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.75514	<b>Marine (con't.)</b>	Porgy	0.11758*	<b>All Species (con't.)</b>	Perch (Estuarine)	0.07402*
	Flounder	0.22088*		Sea Bass	0.11696*		Perch (Freshwater)	0.07402*
	Catfish (Estuarine)	0.19129*		Pompano	0.07986*		Ocean Perch	0.06935*
	Flatfish (Estuarine)	0.11359*		Crab (Marine)	0.07435*		Scallop (Marine)	0.06929*
	Perch (Estuarine)	0.07402*		Ocean Perch	0.06935*		Crab (Estuarine)	0.06548*
	Crab (Estuarine)	0.06548*		Scallop (Marine)	0.06929*		Swordfish	0.06303*
	Croaker	0.03882*		Swordfish	0.06303*		Trout	0.05568*
	Oyster	0.02511*		Mackerel	0.02538*		Croaker	0.03882*
	Rockfish	0.02440*		Lobster	0.02444*		Pike	0.03128*
	Trout, mixed sp. (Estuarine)	0.01531*		Flatfish (Marine)	0.02127*		Mackerel	0.02538*
	Salmon (Estuarine)	0.01245*		Squid	0.00794*		Oyster	0.02511*
	Clam (Estuarine)	0.00861*		Mussels	0.00750*		Lobster	0.02444*
	Mullet	0.00836*		Snails (Marine)	0.00675*		Rockfish	0.02440*
	Anchovy	0.00375*		Whitefish (Marine)	0.00393*		Flatfish (Marine)	0.02127*
	Herring	0.00173*		Snapper	0.00370*		Trout, mixed sp. (Estuarine)	0.01531*
	Scallop (Estuarine)	0.00047*	Halibut	0.00232*	Trout, mixed sp. (Freshwater)		0.01531*	
	Sturgeon (Estuarine)	0.00001*			Salmon (Estuarine)		0.01245*	
<b>Freshwater</b>	Catfish (Freshwater)	0.19129*	<b>Unknown</b>	Fish	0.38849	Clam (Estuarine)	0.00861*	
	Perch (Freshwater)	0.07402*		Seafood	0.00165*	Mullet	0.00836*	
	Trout	0.05568*	<b>All Species</b>	Tuna	1.62876	Squid	0.00794*	
	Pike	0.03128*		Cod	0.75619	Mussels	0.00750*	
	Trout, mixed sp. (Freshwater)	0.01531*		Shrimp	0.75514	Snails (Freshwater)	0.00675*	
	Snails (Freshwater)	0.00675*		Fish	0.38849	Snails (Marine)	0.00675*	
	Carp	0.00518*		Clam (Marine)	0.32120*	Carp	0.00518*	
	Whitefish (Freshwater)	0.00393*		Salmon (Marine)	0.25062*	Whitefish (Freshwater)	0.00393*	
	Cisco	0.00298*		Flounder	0.22088*	Whitefish (Marine)	0.00393*	
	Salmon (Freshwater)	0.00013*		Catfish (Estuarine)	0.19129*	Anchovy	0.00375*	
	Sturgeon (Freshwater)	0.00001*		Catfish (Freshwater)	0.19129*	Snapper	0.00370*	
				Pollock	0.17829*	Cisco	0.00298*	
				Whiting	0.13893*	Halibut	0.00232*	
		Haddock		0.12580*	Herring	0.00173*		
		Porgy		0.11758*	Seafood	0.00165*		
		Sea Bass	0.11696*	Scallop (Estuarine)	0.00047*			
		Flatfish (Estuarine)	0.11359*	Salmon (Freshwater)	0.00013*			
		Pompano	0.07986*	Sturgeon (Estuarine)	0.00001*			
		Crab (Marine)	0.07435*	Sturgeon (Freshwater)	0.00001*			
<b>Marine</b>	Tuna	1.62876						
	Cod	0.75619						
	Clam (Marine)	0.32120*						
	Salmon (Marine)	0.25062*						
	Pollock	0.17829*						
	Whiting	0.13893*						
	Haddock	0.12580*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
(2) Estimates are based on 2-day averages.  
(3) Estimates are projected from a sample of 5,277 individuals to the U.S. population of 30,232,628 using 4-year combined survey weights.  
(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 6. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
Males of Age 15 to 44**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.38408	<b>Marine (con't.)</b>	Squid	0.18073*	<b>All Species (con't.)</b>	Fish	0.19355*
	Flounder	0.51422*		Lobster	0.15675*		Perch (Estuarine)	0.19238*
	Flatfish (Estuarine)	0.41069*		Scallop (Marine)	0.15444*		Perch (Freshwater)	0.19238*
	Crab (Estuarine)	0.27575*		Sea Bass	0.14390*		Squid	0.18073*
	Catfish (Estuarine)	0.26515*		Pompano	0.07971*		Lobster	0.15675*
	Oyster	0.25306*		Flatfish (Marine)	0.07689*		Scallop (Marine)	0.15444*
	Perch (Estuarine)	0.19238*		Swordfish	0.04820*		Sea Bass	0.14390*
	Trout, mixed sp. (Estuarine)	0.10411*		Haddock	0.03383*		Trout, mixed sp. (Estuarine)	0.10411*
	Croaker	0.06601*		Mussels	0.02949*		Trout, mixed sp. (Freshwater)	0.10411*
	Herring	0.06400*		Ocean Perch	0.01858*		Trout	0.08968*
	Anchovy	0.05052*		Mackerel	0.01638*		Pompano	0.07971*
	Salmon (Estuarine)	0.04776*		Sardine	0.01070*		Flatfish (Marine)	0.07689*
	Clam (Estuarine)	0.04396*		Halibut	0.00693*		Carp	0.07156*
	Rockfish	0.02944*	Snapper	0.00253*	Croaker		0.06601*	
	Mullet	0.02179*	Snails (Marine)	0.00200*	Herring		0.06400*	
	Eel	0.00928*			Anchovy		0.05052*	
	Scallop (Estuarine)	0.00104*	<b>Unknown</b>	Fish	0.19355*		Swordfish	0.04820*
			Seafood	0.00471*	Salmon (Estuarine)	0.04776*		
<b>Freshwater</b>	Catfish (Freshwater)	0.26515*	<b>All Species</b>	Tuna	2.88503	Clam (Estuarine)	0.04396*	
	Perch (Freshwater)	0.19238*		Shrimp	2.38408	Haddock	0.03383*	
	Trout, mixed sp. (Freshwater)	0.10411*		Clam (Marine)	1.64047*	Mussels	0.02949*	
	Trout	0.08968*		Cod	1.33319*	Rockfish	0.02944*	
	Carp	0.07156*		Salmon (Marine)	0.96155*	Crayfish	0.02543*	
	Crayfish	0.02543*		Flounder	0.51422*	Mullet	0.02179*	
	Snails (Freshwater)	0.00200*		Porgy	0.41085*	Ocean Perch	0.01858*	
	Salmon (Freshwater)	0.00050*		Flatfish (Estuarine)	0.41069*	Mackerel	0.01638*	
<b>Marine</b>	Tuna	2.88503	Pollock	0.36916*	Sardine	0.01070*		
	Clam (Marine)	1.64047*	Whiting	0.32395*	Eel	0.00928*		
	Cod	1.33319*	Crab (Marine)	0.31308*	Halibut	0.00693*		
	Salmon (Marine)	0.96155*	Crab (Estuarine)	0.27575*	Seafood	0.00471*		
	Porgy	0.41085*	Catfish (Estuarine)	0.26515*	Snapper	0.00253*		
	Pollock	0.36916*	Catfish (Freshwater)	0.26515*	Snails (Freshwater)	0.00200*		
	Whiting	0.32395*	Oyster	0.25306*	Snails (Marine)	0.00200*		
	Crab (Marine)	0.31308*	Octopus	0.19645*	Scallop (Estuarine)	0.00104*		
	Octopus	0.19645*			Salmon (Freshwater)	0.00050*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,382 individuals to the U.S. population of 59,219,812 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 7. AS PREPARED FISH CONSUMPTION ESTIMATES  
U.S. Population - Mean Consumption by Species within Habitat  
Males of Age 45 and Older**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.12091	<b>Marine (con't.)</b>	Ocean Perch	0.22713*	<b>All Species (con't.)</b>	Crab (Marine)	0.22835*
	Flounder	0.75017*		Pollock	0.22464*		Ocean Perch	0.22713*
	Catfish (Estuarine)	0.72265*		Lobster	0.21815*		Carp	0.22671*
	Flatfish (Estuarine)	0.34603*		Porgy	0.20986*		Pollock	0.22464*
	Croaker	0.24536*		Mussels	0.18901*		Lobster	0.21815*
	Herring	0.20993*		Squid	0.16684*		Herring	0.20993*
	Perch (Estuarine)	0.20890*		Swordfish	0.16471*		Porgy	0.20986*
	Trout, mixed sp. (Estuarine)	0.20278*		Sea Bass	0.12599*		Perch (Estuarine)	0.20890*
	Crab (Estuarine)	0.20112*		Flatfish (Marine)	0.06479*		Perch (Freshwater)	0.20890*
	Oyster	0.18590*		Halibut	0.03909*		Trout, mixed sp. (Estuarine)	0.20278*
	Salmon (Estuarine)	0.09457		Octopus	0.03641*		Trout, mixed sp. (Freshwater)	0.20278*
	Rockfish	0.04992*		Shark	0.02277*		Crab (Estuarine)	0.20112*
	Clam (Estuarine)	0.04237*		Pompano	0.01477*		Mussels	0.18901*
	Anchovy	0.03701*		Smelts (Marine)	0.01170*		Oyster	0.18590*
	Mullet	0.02447*		Whitefish (Marine)	0.01103*		Squid	0.16684*
	Smelts (Estuarine)	0.01170*		Snapper	0.01039*		Swordfish	0.16471*
	Scallop (Estuarine)	0.00179*		Roe	0.00552*		Sea Bass	0.12599*
<b>Freshwater</b>	Catfish (Freshwater)	0.72265*	<b>Unknown</b>	Snails (Marine)	0.00507*	Salmon (Estuarine)	0.09457	
	Trout	0.29439*		<b>All Species</b>	Fish	0.32016*	Pike	0.06831*
	Carp	0.22671*			Tuna	3.10292	Flatfish (Marine)	0.06479*
	Perch (Freshwater)	0.20890*			Shrimp	2.12091	Rockfish	0.04992*
	Trout, mixed sp. (Freshwater)	0.20278*			Salmon (Marine)	1.90378	Clam (Estuarine)	0.04237*
	Pike	0.06831*			Clam (Marine)	1.58113*	Halibut	0.03909*
	Whitefish (Freshwater)	0.01103*			Cod	1.57265	Anchovy	0.03701*
	Snails (Freshwater)	0.00507*			Flounder	0.75017*	Octopus	0.03641*
	Salmon (Freshwater)	0.00100			Catfish (Estuarine)	0.72265*	Mullet	0.02447*
	<b>Marine</b>	Tuna			3.10292	Catfish (Freshwater)	0.72265*	Shark
Salmon (Marine)		1.90378	Haddock		0.50818*	Pompano	0.01477*	
Clam (Marine)		1.58113*	Flatfish (Estuarine)	0.34603*	Smelts (Estuarine)	0.01170*		
Cod		1.57265	Fish	0.32016*	Smelts (Marine)	0.01170*		
Haddock		0.50818*	Sardine	0.31225*	Whitefish (Freshwater)	0.01103*		
Sardine		0.31225*	Trout	0.29439*	Whitefish (Marine)	0.01103*		
Scallop (Marine)		0.26563*	Scallop (Marine)	0.26563*	Snapper	0.01039*		
Mackerel		0.25230*	Mackerel	0.25230*	Roe	0.00552*		
Whiting		0.23343*	Croaker	0.24536*	Snails (Freshwater)	0.00507*		
Crab (Marine)		0.22835*	Whiting	0.23343*	Snails (Marine)	0.00507*		
					Scallop (Estuarine)	0.00179*		
					Salmon (Freshwater)	0.00100		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,780 individuals to the U.S. population of 38,515,187 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 8. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 All Males

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.92003	<b>Marine (con't.)</b>	Scallop (Marine)	0.16779*	<b>All Species (con't.)</b>	Scallop (Marine)	0.16779*
	Flounder	0.51594*		Lobster	0.14397*		Lobster	0.14397*
	Catfish (Estuarine)	0.38540		Squid	0.13573*		Trout	0.14326*
	Flatfish (Estuarine)	0.32104		Sea Bass	0.13215*		Squid	0.13573*
	Crab (Estuarine)	0.20361		Octopus	0.10187*		Sea Bass	0.13215*
	Oyster	0.17899*		Sardine	0.09893*		Croaker	0.11357*
	Perch (Estuarine)	0.16939*		Ocean Perch	0.09334*		Trout, mixed sp. (Estuarine)	0.11283*
	Croaker	0.11357*		Mackerel	0.08951*		Trout, mixed sp. (Freshwater)	0.11283*
	Trout, mixed sp. (Estuarine)	0.11283*		Swordfish	0.08677*		Carp	0.10258*
	Herring	0.09321*		Mussels	0.07231*		Octopus	0.10187*
	Salmon (Estuarine)	0.05351		Pompano	0.06020*		Sardine	0.09893*
	Anchovy	0.03540*		Flatfish (Marine)	0.06011		Ocean Perch	0.09334*
	Clam (Estuarine)	0.03513		Halibut	0.01552*		Herring	0.09321*
	Rockfish	0.03441		Shark	0.00685*		Mackerel	0.08951*
	Mullet	0.01943*		Snapper	0.00517*		Swordfish	0.08677*
	Eel	0.00429*		Whitefish (Marine)	0.00425*		Mussels	0.07231*
	Smelts (Estuarine)	0.00352*		Snails (Marine)	0.00404*		Pompano	0.06020*
	Scallop (Estuarine)	0.00113*		Smelts (Marine)	0.00352*		Flatfish (Marine)	0.06011
	Sturgeon (Estuarine)	0.00000*		Roe	0.00166*		Salmon (Estuarine)	0.05351
	<b>Freshwater</b>	Catfish (Freshwater)		0.38540	<b>Unknown</b>		Fish	0.27772
Perch (Freshwater)		0.16939*	Seafood	0.00257*		Clam (Estuarine)	0.03513	
Trout		0.14326*	<b>All Species</b>	Tuna	2.65381	Rockfish	0.03441	
Trout, mixed sp. (Freshwater)		0.11283*		Shrimp	1.92003	Pike	0.02795*	
Carp		0.10258*		Clam (Marine)	1.31093	Mullet	0.01943*	
Pike		0.02795*		Cod	1.26894	Halibut	0.01552*	
Crayfish		0.01177*		Salmon (Marine)	1.07718	Crayfish	0.01177*	
Whitefish (Freshwater)		0.00425*		Flounder	0.51594*	Shark	0.00685*	
Snails (Freshwater)		0.00404*		Catfish (Estuarine)	0.38540	Snapper	0.00517*	
Cisco		0.00071*		Catfish (Freshwater)	0.38540	Eel	0.00429*	
Salmon (Freshwater)		0.00057		Flatfish (Estuarine)	0.32104	Whitefish (Freshwater)	0.00425*	
Sturgeon (Freshwater)		0.00000*		Porgy	0.28107*	Whitefish (Marine)	0.00425*	
<b>Marine</b>		Tuna		2.65381	Pollock	0.28057*	Snails (Freshwater)	0.00404*
		Clam (Marine)		1.31093	Fish	0.27772	Snails (Marine)	0.00404*
		Cod		1.26894	Whiting	0.25299	Smelts (Estuarine)	0.00352*
	Salmon (Marine)	1.07718	Crab (Marine)	0.23118	Smelts (Marine)	0.00352*		
	Porgy	0.28107*	Crab (Estuarine)	0.20361	Seafood	0.00257*		
	Pollock	0.28057*	Haddock	0.19833*	Roe	0.00166*		
	Whiting	0.25299	Oyster	0.17899*	Scallop (Estuarine)	0.00113*		
	Crab (Marine)	0.23118	Perch (Estuarine)	0.16939*	Cisco	0.00071*		
	Haddock	0.19833*	Perch (Freshwater)	0.16939*	Salmon (Freshwater)	0.00057		
					Sturgeon (Estuarine)	0.00000*		
				Sturgeon (Freshwater)	0.00000*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 10,439 individuals to the U.S. population of 127,967,627 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 9. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Individuals of Age 14 and Younger

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.59828	<b>Marine (con't.)</b>	Sea Bass	0.07938*	<b>All Species (con't.)</b>	Porgy	0.06654*
	Flounder	0.17163*		Ocean Perch	0.07377*		Perch (Estuarine)	0.06268*
	Catfish (Estuarine)	0.15938*		Porgy	0.06654*		Perch (Freshwater)	0.06268*
	Crab (Estuarine)	0.09550*		Scallop (Marine)	0.05456*		Scallop (Marine)	0.05456*
	Flatfish (Estuarine)	0.09549*		Pompano	0.05230*		Pompano	0.05230*
	Perch (Estuarine)	0.06268*		Swordfish	0.03393*		Trout	0.05176*
	Croaker	0.03901*		Mackerel	0.02832*		Croaker	0.03901*
	Trout, mixed sp. (Estuarine)	0.03351*		Lobster	0.01790*		Swordfish	0.03393*
	Oyster	0.02273*		Flatfish (Marine)	0.01788*		Trout, mixed sp. (Estuarine)	0.03351*
	Rockfish	0.01580*		Squid	0.00581*		Trout, mixed sp. (Freshwater)	0.03351*
	Mullet	0.01516*		Mussels	0.00457*		Mackerel	0.02832*
	Salmon (Estuarine)	0.01410		Halibut	0.00374*		Oyster	0.02273*
	Herring	0.00766*		Whitefish (Marine)	0.00367*		Lobster	0.01790*
	Clam (Estuarine)	0.00629*		Snails (Marine)	0.00343*		Flatfish (Marine)	0.01788*
	Anchovy	0.00447*		Sardine	0.00255*		Pike	0.01715*
	Scallop (Estuarine)	0.00037*	Snapper	0.00193*	Rockfish		0.01580*	
	Sturgeon (Estuarine)	0.00001*			Mullet		0.01516*	
<b>Freshwater</b>	Catfish (Freshwater)	0.15938*	<b>Unknown</b>	Fish	0.38478	Salmon (Estuarine)	0.01410	
	Perch (Freshwater)	0.06268*		Seafood	0.00107*	Herring	0.00766*	
	Trout	0.05176*	<b>All Species</b>	Tuna	1.52110	Clam (Estuarine)	0.00629*	
	Trout, mixed sp. (Freshwater)	0.03351*		Cod	0.66487	Squid	0.00581*	
	Pike	0.01715*		Shrimp	0.59828	Carp	0.00562*	
	Carp	0.00562*		Fish	0.38478	Mussels	0.00457*	
	Whitefish (Freshwater)	0.00367*		Salmon (Marine)	0.28393	Anchovy	0.00447*	
	Snails (Freshwater)	0.00343*		Pollock	0.24695*	Halibut	0.00374*	
	Cisco	0.00332*		Clam (Marine)	0.23468*	Whitefish (Freshwater)	0.00367*	
	Salmon (Freshwater)	0.00015		Flounder	0.17163*	Whitefish (Marine)	0.00367*	
	Sturgeon (Freshwater)	0.00001*		Catfish (Estuarine)	0.15938*	Snails (Freshwater)	0.00343*	
				Catfish (Freshwater)	0.15938*	Snails (Marine)	0.00343*	
		Haddock		0.11328*	Cisco	0.00332*		
		Whiting		0.11022	Sardine	0.00255*		
		Crab (Marine)	0.10843*	Snapper	0.00193*			
<b>Marine</b>	Tuna	1.52110		Seafood	0.00107*	Scallop (Estuarine)	0.00037*	
	Cod	0.66487		Crab (Estuarine)	0.09550*	Salmon (Freshwater)	0.00015	
	Salmon (Marine)	0.28393		Flatfish (Estuarine)	0.09549*	Sturgeon (Estuarine)	0.00001*	
	Pollock	0.24695*		Sea Bass	0.07938*	Sturgeon (Freshwater)	0.00001*	
	Clam (Marine)	0.23468*		Ocean Perch	0.07377*			
	Haddock	0.11328*						
	Whiting	0.11022						
	Crab (Marine)	0.10843*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 10,459 individuals to the U.S. population of 59,496,815 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 10. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Individuals of Age 15 to 44

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.09253	<b>Marine (con't.)</b>	Whiting	0.20398*	<b>All Species (con't.)</b>	Scallop (Marine)	0.15599*
	Flatfish (Estuarine)	0.36702		Squid	0.16623*		Perch (Estuarine)	0.14394*
	Flounder	0.34363*		Scallop (Marine)	0.15599*		Perch (Freshwater)	0.14394*
	Catfish (Estuarine)	0.31523*		Haddock	0.13754*		Fish	0.14383*
	Crab (Estuarine)	0.22078*		Pompano	0.11321*		Haddock	0.13754*
	Oyster	0.15717*		Sea Bass	0.10137*		Pompano	0.11321*
	Perch (Estuarine)	0.14394*		Octopus	0.09843*		Sea Bass	0.10137*
	Trout, mixed sp. (Estuarine)	0.09166*		Ocean Perch	0.07387*		Octopus	0.09843*
	Croaker	0.05729*		Flatfish (Marine)	0.06872		Trout, mixed sp. (Estuarine)	0.09166*
	Herring	0.04621*		Sardine	0.04593*		Trout, mixed sp. (Freshwater)	0.09166*
	Salmon (Estuarine)	0.04475		Mussels	0.02429*		Ocean Perch	0.07387*
	Anchovy	0.04433*		Swordfish	0.02415*		Flatfish (Marine)	0.06872
	Mullet	0.03400*		Mackerel	0.02377*		Carp	0.06584*
	Rockfish	0.03224*		Halibut	0.01029*		Croaker	0.05729*
	Clam (Estuarine)	0.03064*		Snapper	0.00465*		Herring	0.04621*
	Eel	0.00566*		Conch	0.00344*		Sardine	0.04593*
	Scallop (Estuarine)	0.00105*		Snails (Marine)	0.00100*		Salmon (Estuarine)	0.04475
Sturgeon (Estuarine)	0.00028*	Whitefish (Marine)	0.00031*	Anchovy	0.04433*			
<b>Freshwater</b>	Catfish (Freshwater)	0.31523*	<b>Unknown</b>	Fish	0.14383*	Mullet	0.03400*	
	Trout	0.16591*		Seafood	0.00397*	Rockfish	0.03224*	
	Perch (Freshwater)	0.14394*	<b>All Species</b>	Tuna	2.75464	Clam (Estuarine)	0.03064*	
	Trout, mixed sp. (Freshwater)	0.09166*		Shrimp	2.09253	Mussels	0.02429*	
	Carp	0.06584*		Clam (Marine)	1.14333*	Swordfish	0.02415*	
	Crayfish	0.01274*		Cod	1.12144	Mackerel	0.02377*	
	Pike	0.00393*		Salmon (Marine)	0.90089	Crayfish	0.01274*	
	Snails (Freshwater)	0.00100*		Flatfish (Estuarine)	0.36702	Halibut	0.01029*	
	Cisco	0.00053*		Flounder	0.34363*	Eel	0.00566*	
	Salmon (Freshwater)	0.00047		Catfish (Estuarine)	0.31523*	Snapper	0.00465*	
	Whitefish (Freshwater)	0.00031*		Catfish (Freshwater)	0.31523*	Seafood	0.00397*	
	Sturgeon (Freshwater)	0.00028*		Pollock	0.31083*	Pike	0.00393*	
	<b>Marine</b>	Tuna		2.75464	Porgy	0.26695*	Conch	0.00344*
Clam (Marine)		1.14333*	Crab (Marine)	0.25067*	Scallop (Estuarine)	0.00105*		
Cod		1.12144	Crab (Estuarine)	0.22078*	Snails (Freshwater)	0.00100*		
Salmon (Marine)		0.90089	Lobster	0.21398*	Snails (Marine)	0.00100*		
Pollock		0.31083*	Whiting	0.20398*	Cisco	0.00053*		
Porgy		0.26695*	Squid	0.16623*	Salmon (Freshwater)	0.00047		
Crab (Marine)		0.25067*	Trout	0.16591*	Whitefish (Freshwater)	0.00031*		
Lobster		0.21398*	Oyster	0.15717*	Whitefish (Marine)	0.00031*		
				Sturgeon (Estuarine)	0.00028*			
				Sturgeon (Freshwater)	0.00028*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 4,714 individuals to the U.S. population of 118,190,082 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".



**SECTION 4.1.6 TABLE 11. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
Individuals of Age 45 and Older

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	
<b>Estuarine</b>	Shrimp	1.71013	<b>Marine (con't.)</b>	Crab (Marine)	0.20615*	<b>All Species (con't.)</b>	Scallop (Marine)	0.20319*	
	Flounder	0.81988*		Scallop (Marine)	0.20319*		Carp	0.20170*	
	Catfish (Estuarine)	0.50441		Ocean Perch	0.19049*		Ocean Perch	0.19049*	
	Flatfish (Estuarine)	0.28388		Swordfish	0.18439*		Swordfish	0.18439*	
	Herring	0.22235*		Lobster	0.17610*		Crab (Estuarine)	0.18157*	
	Crab (Estuarine)	0.18157*		Sardine	0.17140*		Lobster	0.17610*	
	Croaker	0.16564*		Squid	0.13957*		Sardine	0.17140*	
	Perch (Estuarine)	0.15432*		Mussels	0.12370*		Croaker	0.16564*	
	Oyster	0.12458*		Sea Bass	0.10536*		Perch (Estuarine)	0.15432*	
	Trout, mixed sp. (Estuarine)	0.11458*		Snapper	0.06689*		Perch (Freshwater)	0.15432*	
	Salmon (Estuarine)	0.08456		Halibut	0.06532*		Squid	0.13957*	
	Rockfish	0.05049*		Flatfish (Marine)	0.05315		Oyster	0.12458*	
	Clam (Estuarine)	0.03628		Whitefish (Marine)	0.02771*		Mussels	0.12370*	
	Anchovy	0.02718*		Pompano	0.02602*		Trout, mixed sp. (Estuarine)	0.11458*	
	Mullet	0.01881*		Octopus	0.01665*		Trout, mixed sp. (Freshwater)	0.11458*	
	Smelts (Estuarine)	0.01292*		Smelts (Marine)	0.01292*		Sea Bass	0.10536*	
	Scallop (Estuarine)	0.00137*		Shark	0.01041*		Salmon (Estuarine)	0.08456	
	Smelts, Rainbow (Estuarine)	0.00115*		Roe	0.00253*		Pike	0.07437*	
<b>Freshwater</b>	Catfish (Freshwater)	0.50441	<b>Unknown</b>	Fish	0.24304*	Snapper	0.06689*		
	Trout	0.22297*		<b>All Species</b>	Tuna	3.23817	Halibut	0.06532*	
	Carp	0.20170*			Shrimp	1.71013	Flatfish (Marine)	0.05315	
	Perch (Freshwater)	0.15432*			Salmon (Marine)	1.70230	Rockfish	0.05049*	
	Trout, mixed sp. (Freshwater)	0.11458*			Cod	1.45523	Clam (Estuarine)	0.03628	
	Pike	0.07437*			Clam (Marine)	1.35381	Whitefish (Freshwater)	0.02771*	
	Whitefish (Freshwater)	0.02771*			Flounder	0.81988*	Whitefish (Marine)	0.02771*	
	Snails (Freshwater)	0.00232*			Haddock	0.51556*	Anchovy	0.02718*	
	Cisco	0.00190*			Catfish (Estuarine)	0.50441	Pompano	0.02602*	
	Smelts, Rainbow (Freshwater)	0.00115*			Catfish (Freshwater)	0.50441	Mullet	0.01881*	
	Salmon (Freshwater)	0.00089			Porgy	0.42879*	Octopus	0.01665*	
	<b>Marine</b>	Tuna			3.23817	Flatfish (Estuarine)	0.28388	Smelts (Estuarine)	0.01292*
		Salmon (Marine)			1.70230	Whiting	0.26159	Smelts (Marine)	0.01292*
Cod		1.45523	Pollock		0.25030*	Shark	0.01041*		
Clam (Marine)		1.35381	Fish	0.24304*	Roe	0.00253*			
Haddock		0.51556*	Trout	0.22297*	Snails (Freshwater)	0.00232*			
Porgy		0.42879*	Herring	0.22235*	Snails (Marine)	0.00232*			
Whiting		0.26159	Mackerel	0.21969*	Cisco	0.00190*			
Pollock		0.25030*	Crab (Marine)	0.20615*	Scallop (Estuarine)	0.00137*			
Mackerel		0.21969*			Smelts, Rainbow (Estuarine)	0.00115*			
					Smelts, Rainbow	0.00115*			
				Salmon (Freshwater)	0.00089				

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,434 individuals to the U.S. population of 84,210,339 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 12. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Individuals of Age 18 and Older

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.94912	<b>Marine (con't.)</b>	Lobster	0.19173*	<b>All Species (con't.)</b>	Perch (Estuarine)	0.15145*
	Flounder	0.55016		Scallop (Marine)	0.18556*		Perch (Freshwater)	0.15145*
	Catfish (Estuarine)	0.39918		Squid	0.16446*		Oyster	0.14306*
	Flatfish (Estuarine)	0.33801		Ocean Perch	0.12428*		Carp	0.12972*
	Crab (Estuarine)	0.21066		Mackerel	0.11161*		Herring	0.12667*
	Perch (Estuarine)	0.15145*		Sardine	0.10403*		Ocean Perch	0.12428*
	Oyster	0.14306*		Swordfish	0.09628*		Mackerel	0.11161*
	Herring	0.12667*		Sea Bass	0.09486*		Croaker	0.10852*
	Croaker	0.10852*		Pompano	0.08106*		Trout, mixed sp. (Estuarine)	0.10416*
	Trout, mixed sp. (Estuarine)	0.10416*		Mussels	0.06935*		Trout, mixed sp. (Freshwater)	0.10416*
	Salmon (Estuarine)	0.06455		Octopus	0.06828*		Sardine	0.10403*
	Rockfish	0.03988		Flatfish (Marine)	0.06328		Swordfish	0.09628*
	Anchovy	0.03807		Halibut	0.03469*		Sea Bass	0.09486*
	Clam (Estuarine)	0.03426		Snapper	0.03190*		Pompano	0.08106*
	Mullet	0.02934*		Whitefish (Marine)	0.01241*		Mussels	0.06935*
	Smelts (Estuarine)	0.00570*		Smelts (Marine)	0.00570*		Octopus	0.06828*
	Eel	0.00350*		Shark	0.00459*		Salmon (Estuarine)	0.06455
	Scallop (Estuarine)	0.00125*		Conch	0.00213*		Flatfish (Marine)	0.06328
	Smelts, Rainbow (Estuarine)	0.00051*		Snails (Marine)	0.00164*		Rockfish	0.03988
	Sturgeon (Estuarine)	0.00017*		Roe	0.00111*		Anchovy	0.03807
<b>Freshwater</b>	Catfish (Freshwater)	0.39918	<b>Unknown</b>	Fish	0.19302	Pike	0.03523*	
	Trout	0.19195*		Seafood	0.00245*	Halibut	0.03469*	
	Perch (Freshwater)	0.15145*	<b>All Species</b>	Tuna	3.04987	Clam (Estuarine)	0.03426	
	Carp	0.12972*		Shrimp	1.94912	Snapper	0.03190*	
	Trout, mixed sp. (Freshwater)	0.10416*		Salmon (Marine)	1.29952	Mullet	0.02934*	
	Pike	0.03523*		Clam (Marine)	1.27835	Whitefish (Freshwater)	0.01241*	
	Whitefish (Freshwater)	0.01241*		Cod	1.27243	Whitefish (Marine)	0.01241*	
	Crayfish	0.00789*		Flounder	0.55016	Crayfish	0.00789*	
	Snails (Freshwater)	0.00164*		Catfish (Estuarine)	0.39918	Smelts (Estuarine)	0.00570*	
	Cisco	0.00117*		Catfish (Freshwater)	0.39918	Smelts (Marine)	0.00570*	
	Salmon (Freshwater)	0.00068		Flatfish (Estuarine)	0.33801	Shark	0.00459*	
	Smelts, Rainbow (Freshwater)	0.00051*		Porgy	0.33666*	Eel	0.00350*	
	Sturgeon (Freshwater)	0.00017*		Haddock	0.29249*	Seafood	0.00245*	
	<b>Marine</b>	Tuna		3.04987	Pollock	0.28503	Conch	0.00213*
Salmon (Marine)		1.29952	Whiting	0.23937	Snails (Freshwater)	0.00164*		
Clam (Marine)		1.27835	Crab (Marine)	0.23918	Snails (Marine)	0.00164*		
Cod		1.27243	Crab (Estuarine)	0.21066	Scallop (Estuarine)	0.00125*		
Porgy		0.33666*	Fish	0.19302	Cisco	0.00117*		
Haddock		0.29249*	Trout	0.19195*	Roe	0.00111*		
Pollock		0.28503	Lobster	0.19173*	Salmon (Freshwater)	0.00068		
Whiting		0.23937	Scallop (Marine)	0.18556*	Smelts, Rainbow (Estuarine)	0.00051*		
Crab (Marine)		0.23918	Squid	0.16446*	Smelts, Rainbow	0.00051*		
					Sturgeon (Estuarine)	0.00017*		
				Sturgeon (Freshwater)	0.00017*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
 (2) Estimates are based on 2-day averages.  
 (3) Estimates are projected from a sample of 9,596 individuals to the U.S. population of 190,930,779 using 4-year combined survey weights.  
 (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
 \*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.1.6 TABLE 13. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 All Individuals

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.63012	<b>Marine (con't.)</b>	Lobster	0.15725*	<b>All Species (con't.)</b>	Perch (Freshwater)	0.12882
	Flounder	0.45769		Scallop (Marine)	0.14813*		Squid	0.12121*
	Catfish (Estuarine)	0.34065		Squid	0.12121*		Oyster	0.11615*
	Flatfish (Estuarine)	0.27860		Ocean Perch	0.11135*		Ocean Perch	0.11135*
	Crab (Estuarine)	0.17971		Sea Bass	0.09766*		Sea Bass	0.09766*
	Perch (Estuarine)	0.12882		Mackerel	0.08780*		Carp	0.09584*
	Oyster	0.11615*		Swordfish	0.07790*		Herring	0.09409*
	Herring	0.09409*		Sardine	0.07642*		Croaker	0.08798*
	Croaker	0.08798*		Pompano	0.07134*		Mackerel	0.08780*
	Trout, mixed sp. (Estuarine)	0.08582*		Flatfish (Marine)	0.05216		Trout, mixed sp. (Estuarine)	0.08582*
	Salmon (Estuarine)	0.05059		Mussels	0.05177*		Trout, mixed sp. (Freshwater)	0.08582*
	Rockfish	0.03437		Octopus	0.04978*		Swordfish	0.07790*
	Anchovy	0.02976		Halibut	0.02649*		Sardine	0.07642*
	Clam (Estuarine)	0.02692		Snapper	0.02405*		Pompano	0.07134*
	Mullet	0.02483*		Whitefish (Marine)	0.00988*		Flatfish (Marine)	0.05216
	Smelts (Estuarine)	0.00415*		Smelts (Marine)	0.00415*		Mussels	0.05177*
	Eel	0.00255*		Shark	0.00335*		Salmon (Estuarine)	0.05059
	Scallop (Estuarine)	0.00100*		Snails (Marine)	0.00198*		Octopus	0.04978*
	Smelts, Rainbow (Estuarine)	0.00037*		Conch	0.00155*		Rockfish	0.03437
	Sturgeon (Estuarine)	0.00013*		Roe	0.00081*		Anchovy	0.02976
<b>Freshwater</b>	Catfish (Freshwater)	0.34065	<b>Unknown</b>	Fish	0.23047	Pike	0.02958*	
	Trout	0.15832*		Seafood	0.00203*	Clam (Estuarine)	0.02692	
	Perch (Freshwater)	0.12882	<b>All Species</b>	Tuna	2.62988	Halibut	0.02649*	
	Carp	0.09584*		Shrimp	1.63012	Mullet	0.02483*	
	Trout, mixed sp. (Freshwater)	0.08582*		Cod	1.12504	Snapper	0.02405*	
	Pike	0.02958*		Salmon (Marine)	1.01842	Whitefish (Freshwater)	0.00988*	
	Whitefish (Freshwater)	0.00988*		Clam (Marine)	1.00458	Whitefish (Marine)	0.00988*	
	Crayfish	0.00575*		Flounder	0.45769	Crayfish	0.00575*	
	Snails (Freshwater)	0.00198*		Catfish (Estuarine)	0.34065	Smelts (Estuarine)	0.00415*	
	Cisco	0.00160*		Catfish (Freshwater)	0.34065	Smelts (Marine)	0.00415*	
	Salmon (Freshwater)	0.00053		Flatfish (Estuarine)	0.27860	Shark	0.00335*	
	Smelts, Rainbow (Freshwater)	0.00037*		Pollock	0.27685	Eel	0.00255*	
	Sturgeon (Freshwater)	0.00013*		Porgy	0.27346*	Seafood	0.00203*	
	<b>Marine</b>	Tuna		2.62988	Haddock	0.25358	Snails (Freshwater)	0.00198*
Cod		1.12504	Fish	0.23047	Snails (Marine)	0.00198*		
Salmon (Marine)		1.01842	Crab (Marine)	0.20404	Cisco	0.00160*		
Clam (Marine)		1.00458	Whiting	0.20120	Conch	0.00155*		
Pollock		0.27685	Crab (Estuarine)	0.17971	Scallop (Estuarine)	0.00100*		
Porgy		0.27346*	Trout	0.15832*	Roe	0.00081*		
Haddock		0.25358	Lobster	0.15725*	Salmon (Freshwater)	0.00053		
Crab (Marine)		0.20404	Scallop (Marine)	0.14813*	Smelts, Rainbow (Estuarine)	0.00037*		
Whiting		0.20120	Perch (Estuarine)	0.12882	Smelts, Rainbow	0.00037*		
					Sturgeon (Estuarine)	0.00013*		
					Sturgeon (Freshwater)	0.00013*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).  
 (2) Estimates are based on 2-day averages.  
 (3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.  
 (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.  
 \*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

**SECTION 4.2.1.1 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES**  
**Consumers Only - Finfish and Shellfish (grams/person/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	445	31.68 (26.76-36.59)	13.24 (11.05-19.78)	79.88 (77.05-103.91)	110.96 (102.99-163.50)	185.36*(163.50-384.30)
15-44	325	55.37 (45.94-64.81)	26.14 (24.36-34.34)	125.85 (116.98-157.77)	189.40*(154.17-259.93)	341.36*(260.17-853.42)
45 and Older	449	48.95 (44.34-53.55)	29.13 (26.31-34.62)	122.80 (118.69-128.00)	158.27 (151.26-165.77)	284.68*(241.15-308.47)
All Ages	1,219	49.40 (44.47-54.32)	25.55 (23.61-28.45)	122.65 (116.98-126.60)	163.23 (151.54-193.84)	320.63*(260.17-345.23)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	442	41.67 (34.91-48.42)	15.24 (11.05-22.38)	121.53 (85.34-148.36)	161.92 (138.62-229.24)	260.79*(260.17-292.51)
15-44	361	66.63 (59.69-73.58)	36.75 (27.68-44.82)	165.04 (158.78-171.03)	226.29*(194.18-250.16)	336.88*(327.00-402.94)
45 and Older	553	65.81 (58.97-72.64)	43.97 (39.66-46.53)	154.32 (148.11-174.05)	214.40 (200.16-222.33)	400.24*(300.80-570.96)
All Ages	1,356	62.85 (57.80-67.89)	35.86 (29.11-38.36)	158.18 (148.36-165.77)	215.36 (202.44-226.45)	335.94*(316.49-437.11)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	887	36.80 (32.53-41.06)	14.79 (11.06-18.91)	103.07 (75.54-120.68)	146.79 (114.76-167.36)	260.02*(250.16-292.51)
15-44	686	61.28 (56.39-66.17)	29.81 (24.74-37.85)	157.82 (150.25-163.50)	217.05 (181.83-253.20)	342.58*(321.14-484.35)
45 and Older	1,002	57.30 (51.90-62.70)	35.43 (31.11-38.41)	141.05 (127.55-150.95)	182.46 (170.54-200.13)	306.92*(261.82-345.48)
All Ages	2,575	56.27 (52.54-60.00)	28.93 (25.81-32.07)	145.26 (138.59-151.33)	188.76 (178.49-211.89)	332.92 (308.47-361.25)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.1 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (grams/person/day)  
Marine: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	670	48.72 (43.72-53.71)	36.29 (29.92-45.06)	98.09 (93.29-112.63)	135.87 (112.63-162.20)	196.22*(162.20-238.40)
15-44	412	70.97 (66.21-75.72)	55.93 (51.86-57.18)	158.48 (128.00-170.79)	181.47 (167.42-202.79)	286.72*(234.64-293.16)
45 and Older	588	82.26 (75.92-88.59)	63.82 (58.46-70.73)	153.34 (140.06-166.08)	203.45 (181.17-252.47)	362.33*(275.42-485.38)
All Ages	1,670	72.22 (68.59-75.84)	56.09 (55.81-56.32)	146.33 (140.30-158.69)	181.64 (168.96-201.62)	286.81*(269.49-293.16)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	677	59.48 (51.26-67.69)	40.37 (35.36-48.55)	144.55 (113.29-168.71)	168.78 (167.02-227.21)	265.11*(170.00-291.59)
15-44	412	99.08 (91.26-106.91)	79.57 (76.45-90.00)	186.07 (174.69-199.50)	232.50 (214.04-254.42)	403.84*(321.46-407.15)
45 and Older	623	89.98 (84.92-95.05)	75.01 (72.67-78.60)	179.83 (167.32-199.97)	224.37 (207.17-280.13)	306.30*(292.54-380.91)
All Ages	1,712	88.69 (83.67-93.71)	71.39 (62.92-73.15)	178.20 (170.00-181.17)	226.11 (214.35-232.65)	354.15*(315.31-403.58)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,347	54.14 (48.36-59.92)	38.47 (34.76-42.24)	119.13 (112.28-144.79)	162.27 (141.90-168.71)	238.23*(218.95-269.35)
15-44	824	84.95 (79.50-90.40)	63.27 (56.71-72.90)	172.00 (168.76-179.57)	213.65 (194.27-229.70)	343.65*(304.86-404.24)
45 and Older	1,211	85.82 (81.47-90.18)	71.38 (66.52-72.90)	168.44 (158.69-181.17)	218.69 (207.30-229.77)	320.12*(299.19-485.38)
All Ages	3,382	80.19 (76.59-83.79)	58.59 (56.32-62.80)	168.88 (165.63-168.95)	207.57 (197.01-214.35)	310.19 (299.19-383.53)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.1 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (grams/person/day)  
All Fish: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	836	54.15 (49.26-59.04)	42.09 (36.29-46.93)	112.47 (97.15-136.87)	155.41 (128.45-162.20)	237.49*(197.85-285.60)
15-44	554	82.50 (74.78-90.23)	57.45 (56.32-62.97)	170.78 (150.99-184.73)	221.67 (197.85-260.17)	336.48*(294.34-345.23)
45 and Older	751	90.52 (85.32-95.72)	72.78 (67.53-76.44)	170.51 (158.69-181.69)	219.81 (197.01-242.53)	325.95*(308.47-612.93)
All Ages	2,141	81.48 (77.30-85.66)	59.34 (56.32-62.93)	163.55 (151.26-170.95)	208.19 (193.84-238.40)	327.02 (285.60-359.57)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	836	69.09 (61.89-76.29)	48.44 (43.66-52.87)	156.98 (136.09-168.79)	227.46 (168.71-260.17)	275.95*(269.35-292.51)
15-44	565	111.90 (105.96-117.85)	90.69 (84.35-97.38)	210.56 (194.95-242.46)	296.12 (249.68-316.49)	427.92*(403.58-465.59)
45 and Older	849	106.50 (101.50-111.49)	85.45 (84.35-94.47)	210.31 (193.29-229.80)	271.07 (241.44-292.54)	392.54*(330.59-535.45)
All Ages	2,250	102.92 (99.01-106.83)	82.12 (77.19-86.23)	206.03 (192.68-218.95)	261.97 (251.30-285.77)	404.08 (380.91-428.04)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,672	61.70 (56.57-66.84)	44.48 (42.18-46.93)	138.41 (125.08-150.10)	168.65 (162.40-232.77)	271.43*(260.17-291.59)
15-44	1,119	97.24 (92.11-102.38)	73.82 (66.40-79.59)	195.07 (183.20-205.95)	255.98 (240.15-283.89)	404.02*(352.42-450.40)
45 and Older	1,600	98.12 (93.61-102.63)	79.39 (76.44-83.74)	186.95 (184.06-197.85)	248.49 (238.00-260.17)	381.40 (330.59-412.99)
All Ages	4,391	92.02 (88.54-95.51)	70.98 (66.40-74.64)	184.46 (179.57-194.85)	249.25 (234.29-259.77)	379.04 (340.20-412.99)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.1 TABLE 4. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	59.15	54.88	63.41
n = 1,633	50th %	32.12	28.37	37.38
N = 33,019,160	90th %	150.15	141.84	154.17
	95th %	201.00	181.93	216.63
	99th %	338.21*	308.47*	345.23*
<b>Marine</b>	Mean	85.09	81.32	88.87
n = 1,978	50th %	67.98	58.46	72.90
N = 40,065,285	90th %	168.94	168.94	174.57
	95th %	214.08	195.88	227.17
	99th %	337.15*	306.41*	380.91*
<b>All Fish</b>	Mean	97.56	93.70	101.43
n = 2,634	50th %	77.60	74.18	81.91
N = 53,194,164	90th %	191.75	184.73	197.92
	95th %	253.16	243.60	261.78
	99th %	399.45	359.13	407.15

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

n = sample size, N = population size

Estimates are projected from the sample to the population of consumers only of age 18 and older, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.1 TABLE 5. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (grams/person/day)  
Children Ages 3-17 by Fine Age Categories**

Freshwater/Estuarine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	442	27.13 (23.16-31.10)	10.14 (8.23-11.91)	72.57 (65.00-79.00)	95.63 (87.22-109.56)	158.99*(136.09-260.17)
Ages 6 to 10	147	43.49 (31.78-55.20)	14.75 (10.44-28.00)	121.60*(82.48-187.27)	186.72*(114.76-260.17)	260.41*(172.07-261.29)
Ages 11 to 15	107	48.97 (39.40-58.54)	28.84 (20.59-38.36)	126.57*(103.91-148.36)	149.90*(134.56-192.68)	307.10*(192.68-384.30)
Ages 16 to 17	28	75.80*(58.87-92.72)	38.57*(26.41-81.75)	158.53*(151.07-171.03)	167.82*(158.78-484.35)	371.61*(171.03-484.35)
Marine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	682	44.51 (40.57-48.45)	29.64 (28.33-33.39)	90.64 (84.27-104.80)	119.10 (101.99-142.83)	227.60*(168.71-292.54)
Ages 6 to 10	217	59.37 (52.62-66.13)	47.97 (42.09-52.40)	128.69 (111.61-158.44)	159.24*(134.93-218.95)	242.54*(218.95-291.59)
Ages 11 to 15	122	72.42 (59.92-84.92)	55.28 (46.93-62.79)	165.26*(157.56-202.79)	203.55*(168.79-227.21)	245.55*(213.57-268.56)
Ages 16 to 17	37	96.86*(65.27-128.45)	53.97*(35.82-99.24)	218.89*(179.57-237.78)	237.47*(179.57-292.54)	365.29*(229.84-428.04)
All Fish						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	834	50.15 (46.29-54.02)	37.75 (33.53-40.00)	103.14 (94.54-124.92)	133.87 (120.68-151.83)	259.99*(195.32-293.29)
Ages 6 to 10	270	70.62 (63.80-77.44)	53.34 (47.54-56.32)	154.67 (130.01-183.22)	218.16*(197.85-261.29)	280.92*(260.17-291.59)
Ages 11 to 15	172	79.55 (70.44-88.66)	55.39 (50.24-62.33)	167.13*(154.04-192.68)	208.78*(205.89-256.95)	285.18*(263.84-327.00)
Ages 16 to 17	52	104.06*(74.99-133.13)	66.79 (57.00-117.03)	200.48*(167.42-242.46)	241.88*(215.72-484.35)	450.96*(292.54-484.35)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.



**SECTION 4.2.1.2 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
Freshwater/Estuarine: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	410	1,198.44 (1,029.46-1,367.41)	513.44 (407.69-685.74)	3,166.98 (2,626.07-3,601.32)	4,928.91 (3,601.32-6,562.71)	9,105.83*(6,874.76-10,966.71)
15-44	315	872.32 (712.96-1,031.69)	416.93 (387.87-490.52)	2,107.98 (1,776.96-2,483.67)	3,152.59*(2,483.67-4,066.39)	5,738.45*(4,584.42-15,930.28)
45 and Older	432	735.62 (658.13-813.10)	415.79 (374.73-485.66)	1,942.58 (1,802.71-2,128.01)	2,486.69 (2,249.20-2,705.64)	3,169.33*(3,027.39-7,077.61)
All Ages	1,157	859.18 (775.50-942.86)	429.00 (396.74-490.47)	2,151.45 (1,940.93-2,475.59)	3,003.95 (2,601.67-3,367.84)	6,101.69*(5,475.07-7,077.61)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	419	1,299.30 (1,106.19-1,492.41)	608.65 (422.96-740.16)	3,556.09 (3,068.02-3,829.70)	4,494.57 (3,829.70-4,981.50)	8,713.70*(6,265.91-11,276.48)
15-44	358	840.99 (750.81-931.18)	441.06 (364.85-562.06)	2,182.03 (2,057.21-2,370.90)	2,819.26*(2,539.40-3,241.25)	4,379.23*(4,056.85-4,930.76)
45 and Older	548	781.71 (701.39-862.04)	509.13 (475.67-541.73)	1,804.23 (1,695.92-1,902.54)	2,511.48 (2,174.82-2,652.33)	4,811.79*(4,035.58-6,986.79)
All Ages	1,325	881.86 (813.96-949.76)	491.65 (433.51-535.87)	2,148.19 (2,044.50-2,317.70)	3,020.89 (2,866.67-3,241.25)	5,332.50*(4,548.33-6,775.26)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	829	1,251.41 (1,135.42-1,367.40)	555.49 (459.36-657.68)	3,456.18 (3,136.39-3,596.68)	4,680.61 (4,083.61-5,246.70)	8,792.31*(7,360.66-10,966.71)
15-44	673	855.40 (778.21-932.60)	425.35 (364.26-490.58)	2,136.28 (2,057.21-2,370.90)	3,071.35 (2,675.46-3,477.96)	5,794.98*(4,066.39-6,095.56)
45 and Older	980	758.87 (694.04-823.70)	473.38 (406.66-500.91)	1,895.84 (1,739.07-1,982.67)	2,511.95 (2,261.55-2,705.64)	4,261.24*(3,117.31-6,418.71)
All Ages	2,482	870.89 (816.01-925.77)	463.50 (416.35-498.58)	2,152.09 (2,063.06-2,294.85)	3,019.08 (2,923.74-3,100.95)	5,839.47 (4,926.18-7,077.61)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.2 TABLE 2. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
Marine: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	629	1,987.63 (1,827.27-2,147.99)	1,431.05 (1,300.95-1,555.93)	4,377.73 (3,926.65-4,962.43)	5,766.68 (5,041.30-6,519.25)	8,184.79*(6,907.39-8,842.35)
15-44	403	1,147.44 (1,061.13-1,233.75)	888.29 (768.24-975.32)	2,403.82 (2,013.87-2,660.31)	3,150.91 (2,620.61-3,325.39)	4,773.68*(4,523.14-5,509.60)
45 and Older	568	1,259.40 (1,159.06-1,359.75)	954.79 (873.25-1,016.78)	2,430.20 (2,258.11-2,627.00)	3,273.58 (2,699.23-4,029.12)	5,798.13*(5,365.37-9,296.60)
All Ages	1,600	1,322.59 (1,260.31-1,384.88)	977.70 (940.93-1,038.55)	2,680.05 (2,477.32-2,977.24)	3,644.19 (3,381.35-4,304.62)	5,895.13*(5,750.10-6,956.17)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	643	2,084.20 (1,842.29-2,326.11)	1,449.68 (1,257.25-1,683.82)	4,734.23 (3,910.58-5,307.31)	5,490.19 (4,943.76-6,627.50)	9,003.82*(7,431.95-10,962.13)
15-44	409	1,241.82 (1,151.05-1,332.59)	992.06 (917.52-1,152.36)	2,448.26 (2,349.12-2,773.24)	2,985.42 (2,869.67-3,265.47)	4,674.21*(3,637.14-5,926.27)
45 and Older	621	1,128.80 (1,062.87-1,194.73)	938.80 (890.02-978.65)	2,294.27 (2,106.03-2,452.29)	2,941.85 (2,808.98-3,525.62)	4,622.17*(4,093.76-4,936.14)
All Ages	1,673	1,337.29 (1,266.51-1,408.08)	994.75 (947.76-1,050.95)	2,744.91 (2,513.27-2,858.44)	3,636.22 (3,449.51-3,921.67)	5,907.67*(5,358.62-6,365.78)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,272	2,037.18 (1,879.79-2,194.56)	1,448.87 (1,341.00-1,654.14)	4,646.42 (4,212.98-4,892.45)	5,664.47 (5,383.65-6,092.84)	8,610.50*(7,754.74-9,183.86)
15-44	812	1,194.89 (1,127.18-1,262.61)	940.26 (883.54-1,004.32)	2,441.99 (2,349.12-2,660.31)	3,045.63 (2,856.16-3,308.73)	4,816.60*(3,932.38-5,237.86)
45 and Older	1,189	1,198.12 (1,135.01-1,261.23)	947.66 (921.51-982.48)	2,394.25 (2,205.30-2,534.21)	3,100.21 (2,933.12-3,500.41)	5,436.20*(4,654.51-7,504.30)
All Ages	3,273	1,329.86 (1,277.84-1,381.88)	991.89 (952.52-1,024.87)	2,709.56 (2,617.80-2,869.67)	3,637.08 (3,544.31-3,926.65)	5,909.76 (5,646.36-6,710.71)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.2 TABLE 3. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
All Fish: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	779	2,182.90 (2,021.34-2,344.46)	1,576.50 (1,445.19-1,720.18)	4,786.46 (4,421.65-5,137.94)	6,217.80 (5,766.06-6,737.72)	10,394.59*(8,679.92-10,966.71)
15-44	541	1,317.33 (1,184.07-1,450.59)	932.29 (847.72-979.18)	2,635.97 (2,385.06-3,051.31)	3,610.69 (3,225.49-4,584.42)	5,712.40*(4,952.21-5,849.33)
45 and Older	725	1,379.70 (1,298.99-1,460.40)	1,059.86 (982.31-1,143.05)	2,639.12 (2,405.80-2,950.04)	3,560.24 (3,007.99-3,967.10)	5,929.17*(5,451.90-9,904.96)
All Ages	2,045	1,469.33 (1,399.84-1,538.81)	1,057.04 (1,000.34-1,112.10)	3,007.80 (2,752.35-3,168.57)	4,087.82 (3,649.24-4,544.15)	7,073.55 (6,519.25-8,761.14)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	788	2,354.71 (2,164.18-2,545.25)	1,707.98 (1,513.87-1,993.25)	5,096.68 (4,680.48-5,534.80)	6,711.74 (6,145.94-7,431.95)	9,181.61*(8,816.19-11,276.48)
15-44	561	1,408.52 (1,338.83-1,478.22)	1,135.77 (1,102.02-1,228.10)	2,769.98 (2,570.03-3,241.25)	3,489.58 (3,091.84-3,725.48)	5,611.79*(5,163.35-5,926.27)
45 and Older	842	1,311.44 (1,249.74-1,373.14)	1,058.58 (1,008.25-1,122.01)	2,563.75 (2,501.12-2,800.60)	3,133.29 (3,050.32-3,584.00)	4,934.94*(4,548.33-6,986.79)
All Ages	2,191	1,518.10 (1,460.86-1,575.34)	1,170.99 (1,078.58-1,250.44)	3,042.73 (2,866.85-3,159.49)	4,029.49 (3,779.02-4,476.97)	6,735.90 (6,095.56-7,117.32)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,567	2,271.12 (2,130.25-2,411.99)	1,640.67 (1,550.53-1,739.13)	4,958.73 (4,647.37-5,449.55)	6,530.88 (5,886.75-6,928.65)	10,389.18*(8,981.50-10,966.71)
15-44	1,102	1,363.41 (1,291.85-1,434.97)	1,043.59 (953.62-1,127.66)	2,727.87 (2,570.03-2,973.82)	3,583.16 (3,274.92-3,998.85)	5,693.65*(4,987.05-5,849.33)
45 and Older	1,567	1,346.73 (1,287.60-1,405.86)	1,060.64 (1,009.41-1,091.61)	2,618.62 (2,545.79-2,752.35)	3,265.20 (3,115.31-3,569.29)	5,806.67 (5,073.18-6,986.79)
All Ages	4,236	1,493.60 (1,439.55-1,547.65)	1,113.20 (1,067.18-1,184.81)	3,020.64 (2,940.55-3,082.23)	4,054.61 (3,815.79-4,218.15)	6,920.37 (6,465.82-7,526.61)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.2 TABLE 4. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish  
Individuals of Age 18 and Older**

Milligrams/kilogram of body weight/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	804.50	748.41	860.59
n = 1,599	50th %	434.51	397.31	490.58
N = 32,354,879	90th %	2,025.26	1,887.67	2,071.95
	95th %	2,679.23	2,539.40	2,947.03
	99th %	4,930.12*	4,284.76*	5,849.33*
<b>Marine</b>	Mean	1,187.38	1,136.88	1,237.89
n = 1,944	50th %	944.70	889.41	981.24
N = 39,352,645	90th %	2,385.90	2,264.99	2,450.37
	95th %	2,997.94	2,907.24	3,190.81
	99th %	4,961.42*	4,523.14*	5,509.60*
<b>All Fish</b>	Mean	1,349.38	1,297.33	1,401.44
n = 2,585	50th %	1,052.01	994.07	1,118.64
N = 52,216,332	90th %	2,641.38	2,539.40	2,773.24
	95th %	3,492.78	3,257.89	3,627.56
	99th %	5,707.99	5,084.85	5,926.27

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

n = sample size, N = population size

Estimates are projected from the sample to the population of consumers only of age 18 and older, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,314,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.1.2 TABLE 5. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
Children Ages 3-17 by Fine Age Categories**

Freshwater/Estuarine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	416	1,531.79 (1,320.41-1,743.17)	564.43 (480.81-632.57)	4,306.98 (3,472.32-4,623.77)	5,257.18 (4,926.18-5,745.90)	10,643.97*(9,083.35-12,734.50)
Ages 6 to 10	132	1,296.06 (1,003.82-1,588.31)	546.20 (299.06-803.64)	3,452.82*(2,626.07-4,670.83)	4,674.91*(3,458.66-8,816.19)	8,314.22*(4,683.60-9,171.80)
Ages 11 to 15	101	868.80 (724.60-1,013.01)	490.55 (405.34-703.33)	2,029.63*(1,628.49-2,104.22)	3,162.00*(2,104.22-3,601.32)	4,664.75*(3,596.68-7,360.66)
Ages 16 to 17	28	1,063.48*(781.00-1,345.96)	454.29*(433.07-759.50)	2,293.14*(2,095.66-2,577.14)	2,505.30*(2,095.66-6,465.82)	5,066.52*(2,294.85-6,465.82)
Marine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	640	2,492.07 (2,274.68-2,709.45)	1,721.85 (1,604.38-1,885.68)	5,302.52 (4,873.35-5,929.75)	6,761.76 (6,097.30-7,167.88)	11,456.59*(7,431.95-14,391.19)
Ages 6 to 10	203	2,120.36 (1,879.96-2,360.76)	1,647.78 (1,478.99-1,947.20)	4,950.01 (4,042.80-5,383.65)	5,817.48*(5,332.97-6,596.20)	8,091.58*(6,145.94-9,183.86)
Ages 11 to 15	120	1,426.94 (1,202.89-1,650.99)	954.61 (809.81-1,280.80)	2,971.34*(2,858.44-3,741.06)	4,278.11*(3,026.04-4,766.31)	5,214.45*(4,647.37-5,646.36)
Ages 16 to 17	37	1,533.58*(1,063.26-2,003.89)	959.91*(526.03-1,701.36)	3,601.82*(2,973.82-4,684.63)	4,475.06*(3,068.24-4,684.63)	4,981.66*(3,467.05-5,237.86)
All Fish						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	779	2,828.41 (2,607.78-3,049.04)	2,106.04 (2,044.93-2,415.76)	5,734.22 (5,267.95-6,706.30)	7,422.36 (6,907.39-8,392.77)	13,829.32*(11,349.28-14,391.19)
Ages 6 to 10	250	2,375.18 (2,198.95-2,551.41)	1,716.93 (1,555.93-1,974.85)	5,135.00 (4,683.60-5,816.44)	6,561.08*(5,404.09-8,816.19)	9,179.11*(8,129.96-10,484.62)
Ages 11 to 15	164	1,532.86 (1,384.02-1,681.70)	1,103.82 (956.22-1,257.25)	3,206.59*(2,944.56-3,484.55)	3,924.64*(3,484.55-4,763.69)	5,624.03*(4,763.69-6,928.65)
Ages 16 to 17	52	1,578.43*(1,187.43-1,969.43)	1,053.60 (750.31-1,821.59)	3,468.11*(2,675.66-4,751.51)	4,504.25*(3,708.72-6,465.82)	5,737.64*(4,751.51-6,465.82)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

**SECTION 4.2.2 TABLE 1. AS PREPARED FISH CONSUMPTION ESTIMATES  
Consumers Only - Finfish and Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	29.46	25.18	33.74
n = 1,093	50th %	2.39	1.87	2.67
N = 14,862,705	90th %	85.47	75.05	116.98
	95th %	128.92	119.00	151.26
	99th %	277.10*	201.41*	308.47*
<b>Estuarine/Marine</b>	Mean	86.98	83.63	90.33
n = 4,352	50th %	65.01	60.92	68.43
N = 64,403,857	90th %	173.93	170.50	181.69
	95th %	228.13	210.02	249.53
	99th %	351.61	306.41	403.91
<b>All Fish</b>	Mean	92.02	88.54	95.51
n = 4,391	50th %	70.98	66.40	74.64
N = 65,139,471	90th %	184.46	179.57	194.85
	95th %	249.25	234.29	259.77
	99th %	379.04	340.20	412.99

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

n = sample size, N = population size

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

## 5. “UNCOOKED” FISH CONSUMPTION ESTIMATES

This section presents tabulated daily average “uncooked” fish consumption estimates and augments these estimates with selected graphical presentations of the data. Estimates and graphics are organized in subsections. This preface to the subsections delineates the organization of the section.

Tables and figures are first organized by estimates for the U.S. population (Section 5.1) or “consumers only” (Section 5.2). For the U.S. population, daily average “uncooked” fish consumption was estimated for:

- C finfish and shellfish (grams/person/day),
- C finfish and shellfish (milligrams/kilogram of body weight/day),
- C finfish (grams/person/day),
- C shellfish (grams/person/day),
- C low-income individuals (grams/person/day),
- C alternate habitat (grams/person/day), and
- C mean consumption by species within habitat (grams/person/day).

For “consumers only,” estimates were calculated for:

- C finfish and shellfish (grams/person/day),
- C finfish and shellfish (milligrams/kilogram of body weight/day), and
- C alternate habitat (grams/person/day).

The tables list estimates of the mean, median, 90th percentile, 95th percentile, and 99th percentile empirical daily average per capita consumption and 90–percent intervals about each estimate. These estimates used survey weights to project data from the USDA’s combined 1994-1996 and 1998 CSFII to daily average per capita consumption by the U.S. population. Estimates project consumption from a combined sample of 20,607 individuals to a population of 261,897,236. Subpopulation sample sizes and the projected subpopulation sizes are included on tables, where appropriate.

When estimates are presented according to age and gender, the age categories are (1) 14 years of age and younger, (2) 15 to 44, and (3) 45 years of age and older. For women, 15 to 44 years approximates the childbearing years. Estimates for the subpopulation of individuals 18 and older describe fish consumption by adults. These estimates project consumption from a combined sample of 9,596 individuals 18 years of age and older to a population of 190,930,779. Estimates are also provided by fine age categories for children ages 3 to 17. The age categories for these tables are (1) ages 3 to 5, (2) ages 6 to 10, (3) ages 11 to 15, and (4) ages 16 to 17. The combined 1994-96, 1998 CSFII contains 7,429 children ages 3 to 17, with a total projected sample weight of 58,923,560.

Estimates for “consumers only” are based on CSFII respondents who reported consumption of fish on at least one of the two days. Daily average estimates for “consumers

only,” as described in Section 3, are determined across the number of days for which fish consumption was reported.

Low-income is defined in the CSFII as those individuals with gross household incomes at or below 130 percent of the federal poverty threshold. A combined sample of 5,866 individuals in the 1994-1996, 1989 CSFII projects to a low-income population of 50,196,483.

Subsections 5.1.5 and 5.2.2 provide estimates according to the alternate habitat assignments of freshwater, estuarine/marine, and all fish. The habitat aggregation in this subsection differs from the habitat categories of freshwater/estuarine and marine. The freshwater/estuarine combination applies to all subsections except Subsections 5.1.5 and 5.2.2. Notice that the “All Fish” estimates in Subsection 5.1.5 match the corresponding “All Fish” estimates in other subsections. For example, the “All Fish” Finfish consumption estimates listed in Table 5.1.5.1 are the same as those listed as “All Fish” in the Finfish subsection. In other words, “All Fish” estimates are calculated across fish habitat type.

Finally, Subsection 5.1.6 lists mean consumption by species for various subpopulations. Interval estimates are not provided. Estimates are listed by habitat in descending order. The five decimal places recorded do not imply significant digits, but rather are included to illustrate those species consumed by various subpopulations.



**SECTION 5.1.1.1 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,182	2.29 (1.78-2.80)	0.00 (0.00-0.22)	13.08 (9.86-16.43)	58.83 (45.78-86.37)
15-44	2,332	5.78 (4.62-6.93)	6.31 (4.66-11.41)	32.37 (27.73-38.04)	109.79 (100.38-154.49)
45 and Older	2,654	6.37 (5.32-7.42)	17.65 (8.94-23.63)	44.88 (37.41-55.41)	108.80 (95.36-123.85)
All Ages	10,168	5.23 (4.52-5.94)	7.29 (3.80-11.91)	31.86 (28.30-37.41)	102.11 (95.52-114.02)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,277	2.99 (2.32-3.66)	0.00 (0.00-0.18)	13.48 (10.20-17.00)	79.03 (55.23-97.86)
15-44	2,382	7.86 (6.67-9.05)	15.63 (13.16-19.78)	49.65 (45.72-66.36)	151.19 (126.38-183.38)
45 and Older	2,780	10.17 (8.61-11.73)	32.47 (27.30-37.22)	73.52 (66.22-77.07)	165.92 (147.73-190.72)
All Ages	10,439	7.42 (6.57-8.27)	14.63 (12.58-17.68)	49.27 (45.63-53.23)	147.82 (132.31-183.38)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	10,459	2.64 (2.20-3.08)	0.00 (0.00-0.00)	13.10 (11.91-14.81)	73.70 (51.47-86.37)
15-44	4,714	6.82 (6.02-7.61)	13.04 (8.62-15.56)	43.58 (37.82-47.42)	135.88 (120.95-167.02)
45 and Older	5,434	8.11 (7.07-9.15)	24.84 (18.84-28.63)	56.53 (48.93-69.65)	144.31 (121.73-156.84)
All Ages	20,607	6.30 (5.72-6.88)	11.65 (8.39-13.69)	41.08 (37.85-43.67)	123.94 (114.02-138.83)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.1 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Marine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,182	5.21 (4.45-5.96)	18.84 (13.49-21.91)	40.12 (37.85-47.68)	81.31 (67.01-98.39)
15-44	2,332	8.95 (7.83-10.08)	37.51 (30.97-37.85)	61.69 (55.77-71.16)	120.58 (116.48-132.54)
45 and Older	2,654	13.71 (12.03-15.38)	51.43 (49.00-55.44)	80.35 (76.85-82.55)	155.57 (148.67-179.23)
All Ages	10,168	9.75 (8.91-10.59)	37.79 (37.34-40.21)	64.66 (59.15-67.73)	128.54 (119.43-142.93)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,277	5.95 (4.91-7.00)	16.98 (13.03-21.44)	39.66 (35.85-41.07)	113.31 (106.25-140.30)
15-44	2,382	12.00 (10.47-13.52)	41.71 (37.84-56.25)	90.15 (75.71-106.67)	151.51 (134.91-192.53)
45 and Older	2,780	14.98 (13.32-16.65)	57.98 (53.49-68.27)	90.73 (85.37-97.30)	168.76 (157.10-186.87)
All Ages	10,439	11.46 (10.40-12.51)	41.28 (37.84-49.65)	82.94 (75.71-96.79)	152.33 (136.64-166.90)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	10,459	5.59 (4.86-6.33)	18.66 (16.09-19.72)	40.20 (39.57-40.42)	103.42 (82.61-123.54)
15-44	4,714	10.48 (9.36-11.61)	37.85 (37.51-41.28)	75.25 (67.25-83.45)	137.12 (121.99-151.03)
45 and Older	5,434	14.29 (12.96-15.62)	55.70 (53.13-57.88)	83.43 (80.68-85.77)	165.98 (155.52-178.04)
All Ages	20,607	10.58 (9.80-11.36)	38.42 (37.80-40.56)	74.89 (69.88-75.60)	139.23 (131.25-148.28)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.1 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 All Fish: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,182	7.50 (6.45-8.54)	28.50 (25.39-34.00)	55.23 (49.00-59.15)	103.90 (95.07-126.23)
15-44	2,332	14.73 (12.95-16.52)	53.62 (46.56-58.78)	85.18 (78.30-94.63)	189.90 (165.08-197.09)
45 and Older	2,654	20.08 (17.92-22.24)	73.43 (67.67-77.31)	104.04 (96.73-112.07)	213.65 (190.12-221.61)
All Ages	10,168	14.98 (13.71-16.24)	56.17 (50.98-59.21)	86.33 (81.16-93.24)	185.73 (162.57-197.20)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	5,277	8.95 (7.64-10.25)	31.46 (24.55-37.51)	56.45 (49.00-69.88)	165.24 (141.61-177.44)
15-44	2,382	19.86 (17.99-21.72)	76.98 (65.79-88.79)	118.58 (110.69-127.12)	242.66 (224.34-254.85)
45 and Older	2,780	25.15 (23.01-27.29)	89.74 (86.46-94.23)	130.67 (125.81-135.54)	226.52 (207.29-278.29)
All Ages	10,439	18.87 (17.67-20.08)	73.51 (66.56-80.51)	113.39 (110.69-118.58)	219.30 (204.75-236.47)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	10,459	8.23 (7.29-9.18)	29.04 (27.62-32.63)	56.29 (52.19-56.73)	127.15 (118.19-149.52)
15-44	4,714	17.30 (15.94-18.66)	64.57 (57.00-73.51)	107.74 (99.24-113.56)	211.26 (197.09-242.30)
45 and Older	5,434	22.40 (20.68-24.12)	80.59 (75.02-85.26)	115.26 (111.65-122.21)	215.74 (208.28-227.62)
All Ages	20,607	16.88 (15.89-17.87)	63.46 (59.46-66.15)	102.29 (97.85-107.63)	198.16 (190.72-208.77)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.1 TABLE 4. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish and Shellfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	7.50	6.75	8.25
	50th %	0.00	0.00	0.00
	90th %	17.37	14.32	21.58
	95th %	49.59	46.87	55.41
	99th %	143.35	125.27	156.84
<b>Marine</b>	Mean	12.41	11.46	13.37
	50th %	0.00	0.00	0.00
	90th %	48.92	47.10	51.17
	95th %	80.68	77.77	83.45
	99th %	150.77	139.66	164.34
<b>All Fish</b>	Mean	19.91	18.69	21.13
	50th %	0.00	0.00	0.00
	90th %	74.79	71.72	75.71
	95th %	111.35	110.03	114.02
	99th %	215.70	197.09	228.53

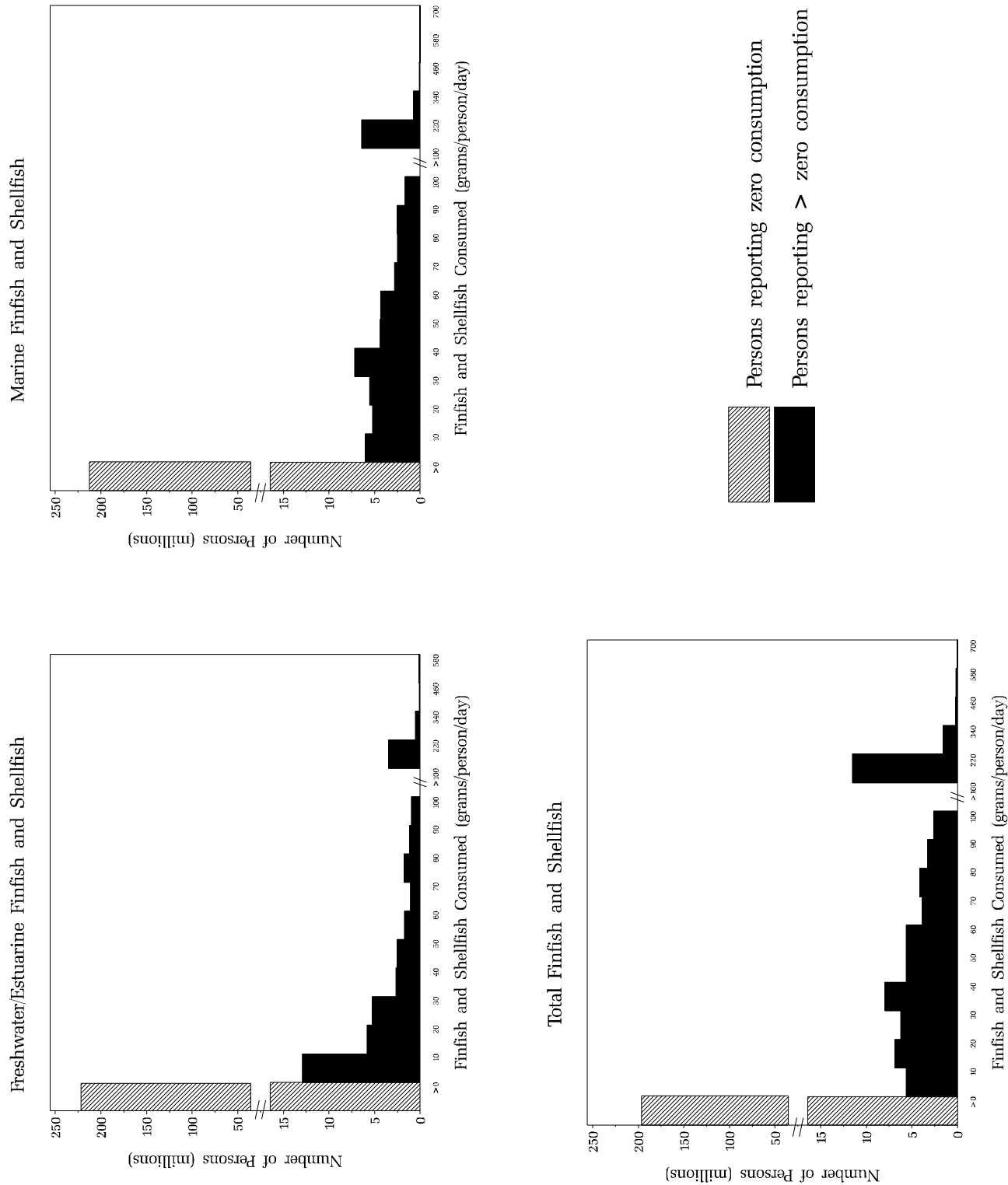
- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.
- \*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.1 TABLE 5. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (grams/person/day)**  
 Children Ages 3-17 by Fine Age Categories

Freshwater/Estuarine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	2.19 (1.80-2.58)	0.05 (0.00-1.53)	12.17 (10.26-14.05)	52.46 (45.57-61.53)
Ages 6 to 10	1,670	2.99 (1.90-4.08)	0.00 (0.00-0.52)	13.06 (4.77-20.11)	78.49*(63.77-110.53)
Ages 11 to 15	1,005	4.31 (3.21-5.41)	2.33 (0.08-7.66)	25.77 (20.97-28.92)	94.82*(83.12-109.45)
Ages 16 to 17	363	4.55 (2.18-6.92)	0.00 (0.00-1.85)	19.32*(13.30-36.75)	109.18*(57.73-154.49)
Marine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	5.51 (4.80-6.23)	19.75 (16.55-23.13)	39.43 (37.68-41.37)	82.27 (73.00-95.44)
Ages 6 to 10	1,670	5.55 (4.57-6.53)	18.90 (14.20-24.33)	38.42 (37.85-41.64)	99.78*(62.82-111.35)
Ages 11 to 15	1,005	7.64 (5.86-9.43)	25.26 (16.38-34.54)	56.48 (45.33-67.07)	131.76*(110.34-148.67)
Ages 16 to 17	363	6.06 (3.70-8.41)	0.00 (0.00-9.26)	29.46*(11.63-90.66)	135.63*(92.00-177.12)
All Fish					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,391	7.70 (6.85-8.56)	32.56 (27.62-34.00)	51.00 (46.26-56.67)	100.54 (89.06-111.35)
Ages 6 to 10	1,670	8.54 (7.06-10.01)	32.62 (27.04-37.85)	56.40 (49.59-69.83)	144.37*(117.42-183.38)
Ages 11 to 15	1,005	11.95 (9.67-14.23)	43.42 (36.73-50.77)	87.36 (69.56-102.56)	170.67*(147.90-176.75)
Ages 16 to 17	363	10.61 (7.00-14.21)	29.33 (9.38-48.66)	83.53*(42.30-114.49)	192.54*(120.51-265.98)

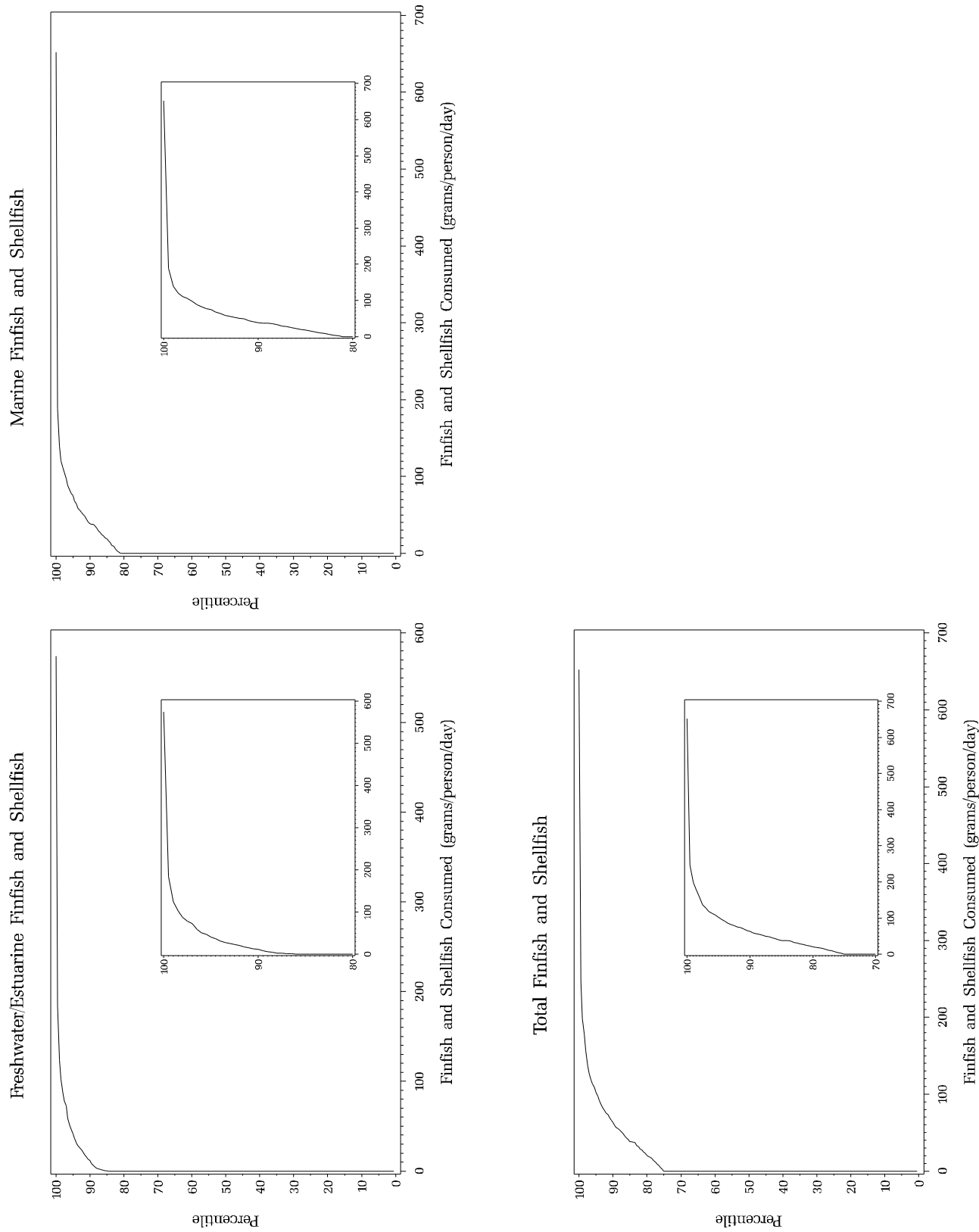
- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 7,429 individuals to the U.S. population of 58,923,560 using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- \*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."  
 \*\*: Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.  
 \*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

# Section 5.1.1.1 Figure 1. Histograms of Uncooked Fish Consumption for U.S. Population: Freshwater/Estuarine, Marine, and Total Fish



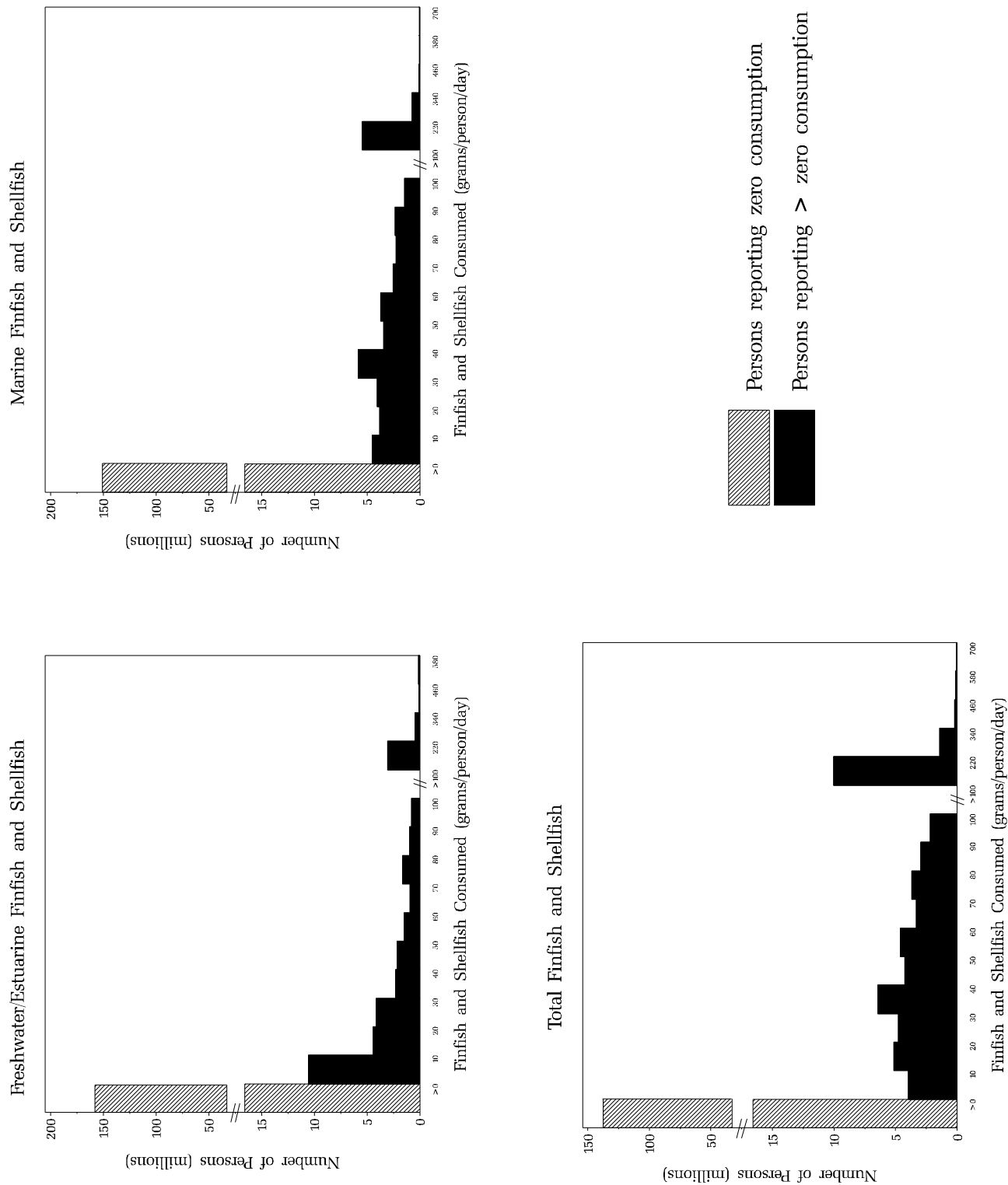
Source of data: 1994—1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

# Section 5.1.1.1 Figure 2. Cumulative Distributions of Uncooked Fish Consumption for U.S. Population: Freshwater/Estuarine, Marine, and Total Fish



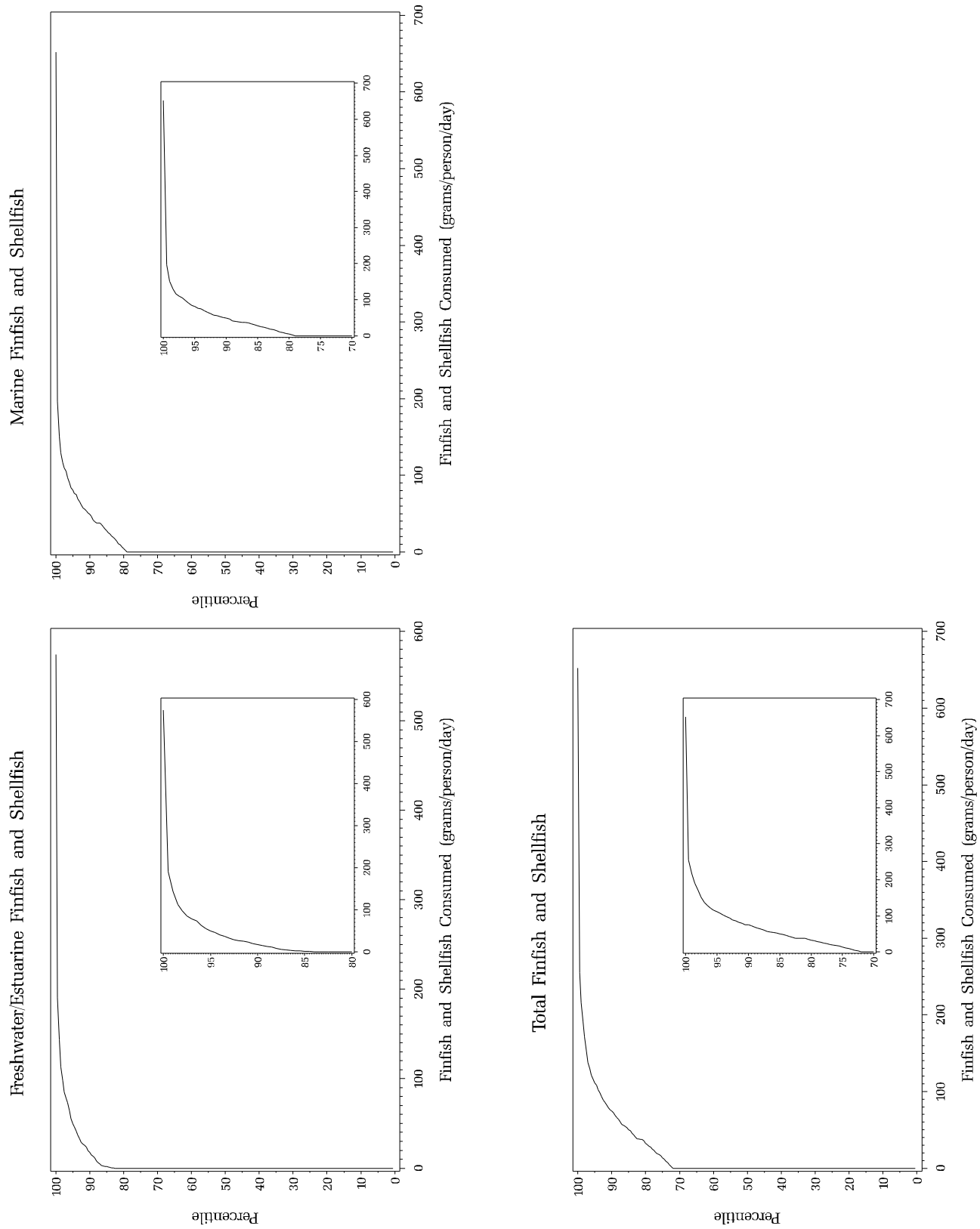
Source of data: 1994–1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

### Section 5.1.1.1 Figure 3. Histograms of Uncooked Fish Consumption for Individuals of Age 18 and Older: Freshwater/Estuarine, Marine, and Total Fish





Section 5.1.1.1 Figure 4. Cumulative Distributions of Uncooked Fish Consumption for Individuals of Age 18 and Older: Freshwater/Estuarine, Marine, and Total Fish



**SECTION 5.1.1.2 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,879	82.71 (69.09-96.33)	0.00 (0.00-1.63)	443.06 (268.78-571.53)	2,179.30 (1,866.36-2,344.90)
15-44	2,275	90.60 (71.02-110.18)	107.16 (57.48-145.25)	481.55 (402.87-537.93)	1,818.06 (1,633.00-2,766.54)
45 and Older	2,569	95.95 (78.42-113.49)	249.76 (123.36-322.47)	654.62 (484.83-776.48)	1,822.44 (1,514.71-1,908.67)
All Ages	9,723	91.19 (79.35-103.03)	116.99 (62.82-165.37)	535.16 (484.51-613.16)	1,871.39 (1,628.72-2,024.73)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,994	94.66 (76.40-112.91)	0.00 (0.00-1.69)	534.35 (370.74-605.13)	2,350.62 (1,919.78-2,500.69)
15-44	2,369	99.29 (83.83-114.74)	201.26 (150.77-253.69)	622.93 (558.03-809.89)	1,910.17 (1,759.99-2,220.71)
45 and Older	2,764	121.08 (102.31-139.85)	377.73 (317.13-429.28)	891.09 (754.19-974.63)	1,963.23 (1,730.85-2,131.71)
All Ages	10,127	105.65 (93.85-117.45)	207.92 (165.04-272.38)	696.52 (629.49-782.29)	2,034.17 (1,855.86-2,220.71)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	9,873	88.57 (76.00-101.13)	0.00 (0.00-0.00)	485.27 (410.58-556.87)	2,246.02 (1,986.93-2,494.96)
15-44	4,644	94.97 (83.38-106.56)	149.92 (114.79-194.84)	558.30 (506.18-623.41)	1,893.18 (1,683.03-2,220.71)
45 and Older	5,333	107.66 (93.63-121.69)	321.75 (249.92-379.40)	751.30 (653.97-870.31)	1,868.09 (1,708.50-1,940.99)
All Ages	19,850	98.38 (89.76-107.01)	159.46 (130.64-198.14)	631.26 (589.62-675.25)	1,942.52 (1,816.07-2,085.94)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.2 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Marine: Age by Gender and All Individuals

Females					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,879	212.38 (183.08-241.68)	591.82 (508.31-785.47)	1,531.85 (1,417.91-1,702.69)	3,707.87 (3,275.52-4,294.55)
15-44	2,275	145.95 (126.34-165.57)	556.98 (462.56-631.95)	994.57 (873.65-1,078.13)	2,055.92 (1,848.19-2,330.47)
45 and Older	2,569	208.81 (184.58-233.03)	801.62 (756.75-844.43)	1,184.19 (1,131.77-1,280.92)	2,463.54 (2,281.66-2,819.84)
All Ages	9,723	181.16 (166.57-195.75)	657.07 (601.37-718.46)	1,158.33 (1,094.11-1,216.39)	2,715.74 (2,382.23-3,051.07)
Males					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	4,994	213.80 (183.32-244.28)	608.64 (480.37-807.52)	1,541.64 (1,379.55-1,887.13)	3,602.96 (3,212.00-4,131.17)
15-44	2,369	149.62 (131.53-167.70)	576.30 (461.01-675.08)	1,113.00 (963.14-1,226.13)	1,990.35 (1,781.96-2,316.99)
45 and Older	2,764	187.49 (166.91-208.07)	712.84 (658.21-851.02)	1,138.09 (1,102.78-1,213.14)	2,275.26 (1,993.39-2,494.58)
All Ages	10,127	175.01 (160.70-189.33)	649.31 (575.11-711.23)	1,205.00 (1,126.68-1,233.48)	2,544.84 (2,314.36-2,704.55)
Both Sexes					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	9,873	213.34 (190.06-236.63)	605.96 (517.49-688.23)	1,543.24 (1,491.15-1,669.61)	3,693.50 (3,317.93-4,064.86)
15-44	4,644	147.83 (132.25-163.42)	568.19 (501.96-629.86)	1,051.60 (972.67-1,183.56)	2,023.01 (1,924.78-2,196.69)
45 and Older	5,333	198.87 (180.90-216.84)	766.84 (717.90-827.74)	1,156.27 (1,114.53-1,214.19)	2,389.14 (2,272.81-2,546.07)
All Ages	19,850	178.07 (166.62-189.53)	651.15 (619.88-674.56)	1,178.29 (1,134.11-1,226.13)	2,586.74 (2,453.58-2,704.55)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.2 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 All Fish: Age by Gender and All Individuals

<b>Females</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	4,879	295.09 (260.55-329.64)	1,045.62 (885.25-1,261.51)	2,037.62 (1,852.86-2,250.83)	4,548.26 (4,116.64-4,976.82)
15-44	2,275	236.56 (205.98-267.13)	834.58 (770.50-980.93)	1,361.81 (1,180.99-1,556.06)	3,112.74 (2,766.54-3,360.63)
45 and Older	2,569	304.76 (271.84-337.69)	1,065.15 (977.59-1,200.47)	1,568.44 (1,471.83-1,670.87)	3,070.76 (2,716.17-3,940.89)
All Ages	9,723	272.35 (250.80-293.90)	970.64 (906.10-1,040.00)	1,565.55 (1,510.55-1,633.00)	3,566.18 (3,269.91-3,782.32)
<b>Males</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	4,994	308.46 (272.78-344.14)	1,121.95 (773.95-1,309.93)	2,135.68 (1,855.54-2,370.65)	4,518.43 (4,055.31-5,464.79)
15-44	2,369	248.90 (225.75-272.06)	982.03 (907.76-1,154.12)	1,532.92 (1,407.00-1,618.52)	3,010.93 (2,819.57-3,349.32)
45 and Older	2,764	308.57 (282.30-334.84)	1,128.10 (1,077.75-1,206.33)	1,604.54 (1,534.16-1,730.85)	2,820.79 (2,587.47-3,203.84)
All Ages	10,127	280.67 (264.16-297.17)	1,057.68 (962.06-1,201.11)	1,643.74 (1,558.85-1,730.85)	3,368.83 (3,203.84-3,680.49)
<b>Both Sexes</b>					
<b>Age</b>	<b>Sample Size</b>	<b>Mean (90% C.I.)</b>	<b>90th % (90% B.I.)**</b>	<b>95th % (90% B.I.)**</b>	<b>99th % (90% B.I.)**</b>
14 and Younger	9,873	301.91 (273.63-330.19)	1,072.09 (960.74-1,161.55)	2,089.18 (1,986.93-2,207.07)	4,538.78 (4,391.38-5,108.45)
15-44	4,644	242.80 (223.18-262.43)	938.01 (877.56-1,018.83)	1,451.26 (1,341.59-1,601.94)	3,094.21 (2,787.73-3,349.32)
45 and Older	5,333	306.53 (282.54-330.52)	1,112.24 (1,001.93-1,167.75)	1,590.82 (1,517.18-1,685.12)	3,014.24 (2,714.46-3,226.17)
All Ages	19,850	276.46 (260.99-291.92)	1,013.28 (975.70-1,051.80)	1,613.06 (1,560.84-1,651.40)	3,456.57 (3,349.32-3,680.49)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 19,850 individuals to the U.S. population of 255,582,609 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.2 TABLE 4. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish**  
**Individuals of Age 18 and Older**

Milligrams/kilogram of body weight/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	101.92	92.04	111.80
	50th %	0.00	0.00	0.00
	90th %	236.26	183.80	277.23
	95th %	669.12	596.79	748.72
	99th %	1,886.07	1,700.40	2,049.16
<b>Marine</b>	Mean	172.92	159.95	185.88
	50th %	0.00	0.00	0.00
	90th %	671.81	651.15	732.18
	95th %	1,115.25	1,078.13	1,182.47
	99th %	2,157.16	2,024.24	2,412.39
<b>All Fish</b>	Mean	274.84	257.92	291.76
	50th %	0.00	0.00	0.00
	90th %	1,016.76	974.63	1,065.28
	95th %	1,549.30	1,480.69	1,591.47
	99th %	3,060.35	2,771.47	3,203.84

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 9,432 individuals of age 18 and older to the population of 187,533,204 individuals of age 18 and older using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
  - (6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.
- \*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.1.2 TABLE 5. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Children Ages 3-17 by Fine Age Categories

Freshwater/Estuarine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	124.06 (102.27-145.85)	0.00 (0.00-83.30)	711.99 (599.12-783.73)	3,091.42 (2,494.58-3,475.13)
Ages 6 to 10	1,553	83.90 (55.40-112.39)	0.00 (0.00-1.44)	354.07 (116.04-685.27)	2,321.97*(1,855.54-2,993.55)
Ages 11 to 15	975	77.21 (60.36-94.05)	20.25 (0.00-116.02)	477.49 (410.58-617.94)	1,609.71*(1,358.21-2,203.21)
Ages 16 to 17	360	65.15 (30.27-100.03)	0.00 (0.00-23.30)	284.54*(166.87-490.64)	1,541.51*(759.77-2,766.54)
Marine					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	309.29 (270.17-348.40)	1,108.19 (983.61-1,332.40)	2,314.42 (2,096.29-2,481.26)	4,607.79 (4,300.65-5,354.28)
Ages 6 to 10	1,553	197.90 (160.52-235.27)	600.28 (474.43-733.47)	1,480.98 (1,309.82-1,548.73)	3,683.68*(2,458.00-4,353.42)
Ages 11 to 15	975	153.32 (117.42-189.22)	481.42 (360.82-608.71)	1,251.20 (807.52-1,389.62)	2,380.67*(2,161.60-3,206.62)
Ages 16 to 17	360	97.67 (58.05-137.29)	0.00 (0.00-177.37)	460.09*(197.13-1,079.45)	2,147.76*(1,647.51-3,901.22)
All Fish					
Age	Sample Size	Mean (90% C.I.)	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	4,112	433.35 (384.55-482.14)	1,841.45 (1,555.24-1,956.89)	2,963.54 (2,790.01-3,194.27)	5,604.49 (5,231.28-6,134.81)
Ages 6 to 10	1,553	281.79 (235.15-328.43)	1,044.81 (744.58-1,218.98)	1,854.14 (1,638.02-2,174.62)	4,371.42*(3,433.34-5,814.38)
Ages 11 to 15	975	230.53 (185.89-275.16)	823.79 (656.60-951.84)	1,530.55 (1,361.86-1,850.22)	3,651.47*(2,744.55-3,794.65)
Ages 16 to 17	360	162.83 (107.07-218.58)	406.03 (145.25-756.35)	1,271.79*(558.00-1,499.75)	3,544.33*(2,766.54-3,945.81)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 7,429 individuals to the U.S. population of 58,923,560 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.2 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish  
All Individuals**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	3.57	3.17	3.97
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	14.05	9.95	16.77
	99th %	95.28	80.65	100.84
<b>Marine</b>	Mean	9.02	8.44	9.60
	50th %	0.00	0.00	0.00
	90th %	37.51	35.70	37.60
	95th %	62.93	61.33	65.52
	99th %	128.38	119.29	135.80
<b>All Fish</b>	Mean	12.59	11.86	13.31
	50th %	0.00	0.00	0.00
	90th %	48.67	45.33	50.42
	95th %	81.75	79.47	85.00
	99th %	173.56	168.02	183.38

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.2 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	4.23	3.70	4.75
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.68
	95th %	23.33	16.36	25.73
	99th %	107.25	95.19	119.64
<b>Marine</b>	Mean	10.41	9.74	11.08
	50th %	0.00	0.00	0.00
	90th %	39.63	37.85	41.72
	95th %	74.32	69.51	75.09
	99th %	136.52	128.95	141.57
<b>All Fish</b>	Mean	14.64	13.78	15.50
	50th %	0.00	0.00	0.00
	90th %	56.58	53.67	57.69
	95th %	90.23	86.10	94.70
	99th %	186.82	173.45	194.00

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.



**SECTION 5.1.3 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Shellfish  
All Individuals**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.73	2.35	3.10
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	12.77	10.50	13.81
	99th %	77.01	69.71	84.05
<b>Marine</b>	Mean	1.57	1.17	1.97
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	54.84	33.06	80.57
<b>All Fish</b>	Mean	4.29	3.70	4.89
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	23.21	18.27	28.26
	99th %	110.54	93.11	112.88

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.3 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Shellfish  
Individuals of Age 18 and Older**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	3.27	2.80	3.75
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.12
	95th %	17.93	14.46	21.86
	99th %	82.24	73.07	92.55
<b>Marine</b>	Mean	2.00	1.46	2.54
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	2.77
	99th %	74.19	50.73	108.55
<b>All Fish</b>	Mean	5.27	4.51	6.03
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	5.85
	95th %	33.67	27.22	39.23
	99th %	113.32	103.53	137.53

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 9,596 individuals of age 18 and older to the population of 190,930,779 individuals of age 18 and older using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.4 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	4.03	2.91	5.16
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	13.25	4.69	17.68
	99th %	109.36	95.52	147.08
<b>Marine</b>	Mean	7.55	6.46	8.64
	50th %	0.00	0.00	0.00
	90th %	23.87	18.25	27.65
	95th %	53.56	48.70	60.60
	99th %	125.17	113.40	147.36
<b>All Fish</b>	Mean	11.59	9.88	13.30
	50th %	0.00	0.00	0.00
	90th %	38.64	37.51	43.85
	95th %	75.25	68.37	82.55
	99th %	190.55	174.00	204.38

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.4 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Shellfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	2.02	1.48	2.56
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	2.04	0.00	2.14
	99th %	72.50	50.59	98.49
<b>Marine</b>	Mean	1.87	0.27	3.46
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	102.53	19.18	108.55
<b>All Fish</b>	Mean	3.88	2.19	5.57
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	12.72	4.91	36.51
	99th %	110.52	97.86	115.54

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
- (2) Estimates are based on 2-day averages.
- (3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.
- (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
- (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
- (6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.
- \*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.4 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish and Shellfish  
Low-income Population**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	6.05	4.78	7.32
	50th %	0.00	0.00	0.00
	90th %	2.13	2.02	4.26
	95th %	31.27	25.74	43.89
	99th %	146.91	110.03	190.72
<b>Marine</b>	Mean	9.42	7.56	11.27
	50th %	0.00	0.00	0.00
	90th %	32.42	24.20	37.80
	95th %	67.09	52.72	100.69
	99th %	137.72	123.83	150.04
<b>All Fish</b>	Mean	15.47	13.17	17.77
	50th %	0.00	0.00	0.00
	90th %	53.87	45.40	64.22
	95th %	105.63	94.89	110.69
	99th %	202.57	183.38	228.33

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Estimates are projected from a sample of 5,866 low-income individuals to the low-income U.S. population of 50,196,483 using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
  - (6) Low-income is defined as individuals from households with gross income at or below 130% of the federal poverty threshold.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.
- \*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.5 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	1.22	1.02	1.42
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.02	0.00	0.03
	99th %	43.34	39.74	49.62
<b>Estuarine/Marine</b>	Mean	11.37	10.68	12.05
	50th %	0.00	0.00	0.00
	90th %	42.96	41.28	45.12
	95th %	75.64	75.02	77.96
	99th %	149.70	142.60	158.83
<b>All Fish</b>	Mean	12.59	11.86	13.31
	50th %	0.00	0.00	0.00
	90th %	48.67	45.33	50.42
	95th %	81.75	79.47	85.00
	99th %	173.56	168.02	183.38

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.5 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	0.01	0.00	0.02
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.00	0.00	0.00
	99th %	0.00	0.00	0.00
<b>Estuarine/Marine</b>	Mean	4.28	3.69	4.88
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	23.21	18.27	28.26
	99th %	110.53	93.11	111.44
<b>All Fish</b>	Mean	4.29	3.70	4.89
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	23.21	18.27	28.26
	99th %	110.54	93.11	112.88

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.5 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Finfish and Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	1.23	1.03	1.43
	50th %	0.00	0.00	0.00
	90th %	0.00	0.00	0.00
	95th %	0.02	0.00	0.03
	99th %	44.43	39.74	49.62
<b>Estuarine/Marine</b>	Mean	15.65	14.68	16.62
	50th %	0.00	0.00	0.00
	90th %	57.42	55.23	61.16
	95th %	95.77	92.00	98.49
	99th %	189.63	177.88	196.00
<b>All Fish</b>	Mean	16.88	15.89	17.87
	50th %	0.00	0.00	0.00
	90th %	63.46	59.46	66.15
	95th %	102.29	97.85	107.63
	99th %	198.16	190.72	208.77

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.



**SECTION 5.1.6 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES**  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Females of Age 14 and Younger

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.61023	<b>Marine (con't.)</b>	Ocean Perch	0.10056*	<b>All Species (con't.)</b>	Trout, mixed sp. (Estuarine)	0.06928*
	Catfish (Estuarine)	0.17855*		Sea Bass	0.05342*		Trout, mixed sp. (Freshwater)	0.06928*
	Crab (Estuarine)	0.17369*		Scallop (Marine)	0.05053*		Perch (Estuarine)	0.06829*
	Flounder	0.15581*		Mackerel	0.04169*		Perch (Freshwater)	0.06829*
	Flatfish (Estuarine)	0.09183*		Pompano	0.03421*		Croaker	0.06074*
	Trout, mixed sp. (Estuarine)	0.06928*		Porgy	0.02083*		Trout	0.06000*
	Perch (Estuarine)	0.06829*		Flatfish (Marine)	0.01719*		Sea Bass	0.05342*
	Croaker	0.06074*		Lobster	0.01717*		Scallop (Marine)	0.05053*
	Mullet	0.03181*		Sardine	0.00761*		Mackerel	0.04169*
	Oyster	0.02131*		Halibut	0.00635*		Pompano	0.03421*
	Salmon (Estuarine)	0.02122*		Swordfish	0.00507*		Mullet	0.03181*
	Herring	0.01715*		Squid	0.00463*		Oyster	0.02131*
	Rockfish	0.00906*		Whitefish (Marine)	0.00355*		Salmon (Estuarine)	0.02122*
	Anchovy	0.00761*		Mussels	0.00306*		Porgy	0.02083*
	Clam (Estuarine)	0.00272*	Snapper	0.00012*	Flatfish (Marine)		0.01719*	
Scallop (Estuarine)	0.00034*			Lobster	0.01717*			
<b>Freshwater</b>	Catfish (Freshwater)	0.17855*	<b>Unknown</b>	Fish	1.10509	Herring	0.01715*	
	Trout, mixed sp. (Freshwater)	0.06928*		Seafood	0.00075*	Rockfish	0.00906*	
	Perch (Freshwater)	0.06829*	<b>All Species</b>	Tuna	1.97276	Carp	0.00840*	
	Trout	0.06000*		Fish	1.10509	Sardine	0.00761*	
	Carp	0.00840*		Cod	0.77726	Anchovy	0.00761*	
	Cisco	0.00534*		Shrimp	0.61023	Halibut	0.00635*	
	Whitefish (Freshwater)	0.00355*		Salmon (Marine)	0.42725*	Cisco	0.00534*	
	Pike	0.00255*		Pollock	0.40081*	Swordfish	0.00507*	
	Salmon (Freshwater)	0.00022*		Crab (Marine)	0.19721*	Squid	0.00463*	
		Catfish (Estuarine)		0.17855*	Whitefish (Freshwater)	0.00355*		
		Catfish (Freshwater)		0.17855*	Whitefish (Marine)	0.00355*		
<b>Marine</b>	Tuna	1.97276	Crab (Estuarine)	0.17369*	Mussels	0.00306*		
	Cod	0.77726	Flounder	0.15581*	Clam (Estuarine)	0.00272*		
	Salmon (Marine)	0.42725*	Haddock	0.12755*	Pike	0.00255*		
	Pollock	0.40081*	Whiting	0.10310*	Seafood	0.00075*		
	Crab (Marine)	0.19721*	Clam (Marine)	0.10149*	Scallop (Estuarine)	0.00034*		
	Haddock	0.12755*	Ocean Perch	0.10056*	Salmon (Freshwater)	0.00022*		
	Whiting	0.10310*	Flatfish (Estuarine)	0.09183*	Snapper	0.00012*		
	Clam (Marine)	0.10149*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,182 individuals to the U.S. population of 29,264,187 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Females of Age 15 to 44

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.40405	<b>Marine (con't.)</b>	Crab (Marine)	0.25721*	<b>All Species (con't.)</b>	Scallop (Marine)	0.20694*
	Catfish (Estuarine)	0.52472*		Pompano	0.20849*		Squid	0.19352*
	Flatfish (Estuarine)	0.38328*		Scallop (Marine)	0.20694*		Porgy	0.17625*
	Crab (Estuarine)	0.22654*		Squid	0.19352*		Ocean Perch	0.16403*
	Flounder	0.21871*		Porgy	0.17625*		Perch (Estuarine)	0.13071*
	Perch (Estuarine)	0.13071*		Ocean Perch	0.16403*		Perch (Freshwater)	0.13071*
	Trout, mixed sp. (Estuarine)	0.10448*		Sardine	0.10923*		Sardine	0.10923*
	Oyster	0.07685*		Whiting	0.10686*		Whiting	0.10686*
	Croaker	0.07633*		Sea Bass	0.07757*		Trout, mixed sp. (Estuarine)	0.10448*
	Mullet	0.06793*		Flatfish (Marine)	0.07176*		Trout, mixed sp. (Freshwater)	0.10448*
	Salmon (Estuarine)	0.05659*		Mackerel	0.04092*		Carp	0.08614*
	Anchovy	0.05551*		Mussels	0.02386*		Sea Bass	0.07757*
	Rockfish	0.04514*		Halibut	0.01524*		Oyster	0.07685*
	Herring	0.04029*		Conch	0.00918*		Croaker	0.07633*
	Clam (Estuarine)	0.00917*		Snapper	0.00835*		Flatfish (Marine)	0.07176*
	Eel	0.00257*	Whitefish (Marine)	0.00066*	Mullet		0.06793*	
	Scallop (Estuarine)	0.00140*			Salmon (Estuarine)		0.05659*	
Sturgeon (Estuarine)	0.00056*	<b>Unknown</b>	Fish	0.24955*	Anchovy	0.05551*		
			Seafood	0.00513*	Rockfish	0.04514*		
<b>Freshwater</b>	Catfish (Freshwater)	0.52472*	<b>All Species</b>	Tuna	3.57218	Mackerel	0.04092*	
	Trout	0.30507*		Shrimp	2.40405	Herring	0.04029*	
	Perch (Freshwater)	0.13071*		Cod	1.20969*	Mussels	0.02386*	
	Trout, mixed sp. (Freshwater)	0.10448*		Salmon (Marine)	1.13914*	Halibut	0.01524*	
	Carp	0.08614*		Catfish (Estuarine)	0.52472*	Pike	0.00992*	
	Pike	0.00992*		Catfish (Freshwater)	0.52472*	Conch	0.00918*	
	Cisco	0.00155*		Flatfish (Estuarine)	0.38328*	Clam (Estuarine)	0.00917*	
	Whitefish (Freshwater)	0.00066*		Lobster	0.36249*	Snapper	0.00835*	
	Salmon (Freshwater)	0.00060*		Clam (Marine)	0.34219*	Seafood	0.00513*	
	Sturgeon (Freshwater)	0.00056*		Haddock	0.31495*	Eel	0.00257*	
				Trout	0.30507*	Cisco	0.00155*	
<b>Marine</b>	Tuna	3.57218	Pollock	0.27859*	Scallop (Estuarine)	0.00140*		
	Cod	1.20969*	Crab (Marine)	0.25721*	Whitefish (Freshwater)	0.00066*		
	Salmon (Marine)	1.13914*	Fish	0.24955*	Whitefish (Marine)	0.00066*		
	Lobster	0.36249*	Crab (Estuarine)	0.22654*	Salmon (Freshwater)	0.00060*		
	Clam (Marine)	0.34219*	Flounder	0.21871*	Sturgeon (Estuarine)	0.00056*		
	Haddock	0.31495*	Pompano	0.20849*	Sturgeon (Freshwater)	0.00056*		
	Pollock	0.27859*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,332 individuals to the U.S. population of 58,970,270 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Females of Age 45 and Older

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.80291	<b>Marine (con't.)</b>	Pollock	0.31580*	<b>All Species (con't.)</b>	Crab (Estuarine)	0.24310*
	Flounder	1.11872*		Crab (Marine)	0.27601*		Mackerel	0.24272*
	Catfish (Estuarine)	0.46136*		Swordfish	0.26351*		Carp	0.24207*
	Herring	0.33205*		Mackerel	0.24272*		Trout	0.20482*
	Flatfish (Estuarine)	0.28202*		Lobster	0.19792*		Lobster	0.19792*
	Crab (Estuarine)	0.24310*		Ocean Perch	0.19707*		Ocean Perch	0.19707*
	Croaker	0.15189*		Scallop (Marine)	0.19065*		Scallop (Marine)	0.19065*
	Perch (Estuarine)	0.14442*		Squid	0.14784*		Croaker	0.15189*
	Salmon (Estuarine)	0.10442		Snapper	0.12836*		Squid	0.14784*
	Oyster	0.09092*		Sea Bass	0.11587*		Perch (Estuarine)	0.14442*
	Rockfish	0.06677*		Halibut	0.11019*		Perch (Freshwater)	0.14442*
	Trout, mixed sp. (Estuarine)	0.05430*		Mussels	0.09922*		Snapper	0.12836*
	Anchovy	0.02753*		Sardine	0.07079*		Sea Bass	0.11587*
	Smelts (Estuarine)	0.02050*		Flatfish (Marine)	0.05280*		Halibut	0.11019*
	Mullet	0.02003*		Pompano	0.04761*		Salmon (Estuarine)	0.10442
	Clam (Estuarine)	0.01708*		Whitefish (Marine)	0.04191*		Mussels	0.09922*
	Smelts, Rainbow (Estuarine)	0.00300*		Smelts (Marine)	0.02050*		Oyster	0.09092*
	Scallop (Estuarine)	0.00129*			Pike		0.07948*	
<b>Freshwater</b>	Catfish (Freshwater)	0.46136*	<b>Unknown</b>	Fish	0.36620*	Sardine	0.07079*	
	Carp	0.24207*	<b>All Species</b>	Tuna	4.57200	Rockfish	0.06677*	
	Trout	0.20482*		Salmon (Marine)	2.10218	Trout, mixed sp. (Estuarine)	0.05430*	
	Perch (Freshwater)	0.14442*		Shrimp	1.80291	Trout, mixed sp. (Freshwater)	0.05430*	
	Pike	0.07948*		Cod	1.75818*	Flatfish (Marine)	0.05280*	
	Trout, mixed sp. (Freshwater)	0.05430*		Flounder	1.11872*	Pompano	0.04761*	
	Whitefish (Freshwater)	0.04191*		Porgy	0.91498*	Whitefish (Freshwater)	0.04191*	
	Cisco	0.00511*		Haddock	0.66393*	Whitefish (Marine)	0.04191*	
	Smelts, Rainbow (Freshwater)	0.00300*		Clam (Marine)	0.63728*	Anchovy	0.02753*	
	Salmon (Freshwater)	0.00110		Catfish (Estuarine)	0.46136*	Smelts (Estuarine)	0.02050*	
				Catfish (Freshwater)	0.46136*	Smelts (Marine)	0.02050*	
				Whiting	0.36624*	Mullet	0.02003*	
		Fish		0.36620*	Clam (Estuarine)	0.01708*		
<b>Marine</b>	Tuna	4.57200	Herring	0.33205*	Cisco	0.00511*		
	Salmon (Marine)	2.10218	Pollock	0.31580*	Smelts, Rainbow (Estuarine)	0.00300*		
	Cod	1.75818*	Flatfish (Estuarine)	0.28202*	Smelts, Rainbow (Freshwater)	0.00300*		
	Porgy	0.91498*	Crab (Marine)	0.27601*	Scallop (Estuarine)	0.00129*		
	Haddock	0.66393*	Swordfish	0.26351*	Salmon (Freshwater)	0.00110		
	Clam (Marine)	0.63728*						
	Whiting	0.36624*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,654 individuals to the U.S. population of 45,695,152 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 4. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
 All Females

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	1.80699	<b>Marine (con't.)</b>	Crab (Marine)	0.25051	<b>All Species (con't.)</b>	Scallop (Marine)	0.16720*
	Flounder	0.51204*		Lobster	0.23089*		Ocean Perch	0.16143*
	Catfish (Estuarine)	0.42746		Whiting	0.19453		Squid	0.13666*
	Flatfish (Estuarine)	0.28505		Scallop (Marine)	0.16720*		Herring	0.13478*
	Crab (Estuarine)	0.22064		Ocean Perch	0.16143*		Carp	0.12235*
	Herring	0.13478*		Squid	0.13666*		Perch (Estuarine)	0.12175*
	Perch (Estuarine)	0.12175*		Pompano	0.11552*		Perch (Freshwater)	0.12175*
	Croaker	0.09870*		Mackerel	0.10994*		Pompano	0.11552*
	Trout, mixed sp. (Estuarine)	0.07967*		Swordfish	0.09101*		Mackerel	0.10994*
	Oyster	0.06952*		Sea Bass	0.08536*		Croaker	0.09870*
	Salmon (Estuarine)	0.06518		Sardine	0.07391*		Swordfish	0.09101*
	Rockfish	0.04463*		Flatfish (Marine)	0.05337		Sea Bass	0.08536*
	Mullet	0.04370*		Snapper	0.04750*		Trout, mixed sp. (Estuarine)	0.07967*
	Anchovy	0.03549*		Halibut	0.04569*		Trout, mixed sp. (Freshwater)	0.07967*
	Clam (Estuarine)	0.01046		Mussels	0.04503*		Sardine	0.07391*
	Smelts (Estuarine)	0.00700*		Whitefish (Marine)	0.01536*		Oyster	0.06952*
	Eel	0.00113*		Smelts (Marine)	0.00700*		Salmon (Estuarine)	0.06518
	Scallop (Estuarine)	0.00113*	Conch	0.00404*	Flatfish (Marine)		0.05337	
	Smelts, Rainbow (Estuarine)	0.00103*	<b>Unknown</b>	Fish	0.47629		Snapper	0.04750*
Sturgeon (Estuarine)	0.00025*	Seafood		0.00242*	Halibut	0.04569*		
<b>Freshwater</b>	Catfish (Freshwater)	0.42746	<b>All Species</b>	Tuna	3.56383	Mussels	0.04503*	
	Trout	0.21732*		Shrimp	1.80699	Rockfish	0.04463*	
	Carp	0.12235*		Salmon (Marine)	1.31216	Mullet	0.04370*	
	Perch (Freshwater)	0.12175*		Cod	1.30234	Anchovy	0.03549*	
	Trout, mixed sp. (Freshwater)	0.07967*		Flounder	0.51204*	Pike	0.03204*	
	Pike	0.03204*		Fish	0.47629	Whitefish (Freshwater)	0.01536*	
	Whitefish (Freshwater)	0.01536*		Catfish (Estuarine)	0.42746	Whitefish (Marine)	0.01536*	
	Cisco	0.00359*		Catfish (Freshwater)	0.42746	Clam (Estuarine)	0.01046	
	Smelts, Rainbow (Freshwater)	0.00103*		Porgy	0.39433*	Smelts (Estuarine)	0.00700*	
	Salmon (Freshwater)	0.00069		Haddock	0.39307*	Smelts (Marine)	0.00700*	
	Sturgeon (Freshwater)	0.00025*		Clam (Marine)	0.39027	Conch	0.00404*	
<b>Marine</b>	Tuna	3.56383	Pollock	0.31799	Cisco	0.00359*		
	Salmon (Marine)	1.31216	Flatfish (Estuarine)	0.28505	Seafood	0.00242*		
	Cod	1.30234	Crab (Marine)	0.25051	Eel	0.00113*		
	Porgy	0.39433*	Lobster	0.23089*	Scallop (Estuarine)	0.00113*		
	Haddock	0.39307*	Crab (Estuarine)	0.22064	Smelts, Rainbow (Estuarine)	0.00103*		
	Clam (Marine)	0.39027	Trout	0.21732*	Smelts, Rainbow (Freshwater)	0.00103*		
	Pollock	0.31799	Whiting	0.19453	Salmon (Freshwater)	0.00069		
					Sturgeon (Estuarine)	0.00025*		
				Sturgeon (Freshwater)	0.00025*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 10,168 individuals to the U.S. population of 133,929,609 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 5. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
**Males of Age 14 and Younger**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.99661	<b>Marine (con't.)</b>	Sea Bass	0.15249*	<b>All Species (con't.)</b>	Clam (Marine)	0.10710*
	Flounder	0.28039*		Pompano	0.11395*		Crab (Marine)	0.09963*
	Catfish (Estuarine)	0.27944*		Clam (Marine)	0.10710*		Ocean Perch	0.08923*
	Flatfish (Estuarine)	0.13791*		Crab (Marine)	0.09963*		Scallop (Marine)	0.08803*
	Perch (Estuarine)	0.11153*		Ocean Perch	0.08923*		Crab (Estuarine)	0.08775*
	Crab (Estuarine)	0.08775*		Scallop (Marine)	0.08803*		Swordfish	0.08263*
	Croaker	0.06106*		Swordfish	0.08263*		Trout	0.07031*
	Rockfish	0.03177*		Lobster	0.03427*		Croaker	0.06106*
	Oyster	0.02870*		Mackerel	0.03359*		Pike	0.03826*
	Trout, mixed sp. (Estuarine)	0.01971*		Flatfish (Marine)	0.02582*		Lobster	0.03427*
	Salmon (Estuarine)	0.01603*		Squid	0.00989*		Mackerel	0.03359*
	Mullet	0.01131*		Mussels	0.00941*		Rockfish	0.03177*
	Anchovy	0.00546*		Snails (Marine)	0.00849*		Oyster	0.02870*
	Clam (Estuarine)	0.00287*		Snapper	0.00445*		Flatfish (Marine)	0.02582*
	Herring	0.00253*		Whitefish (Marine)	0.00405*		Trout, mixed sp. (Estuarine)	0.01971*
	Scallop (Estuarine)	0.00059*	Halibut	0.00280*	Trout, mixed sp. (Freshwater)		0.01971*	
	Sturgeon (Estuarine)	0.00001*			Salmon (Estuarine)		0.01603*	
<b>Freshwater</b>	Catfish (Freshwater)	0.27944*	<b>Unknown</b>	Fish	1.13020	Mullet	0.01131*	
	Perch (Freshwater)	0.11153*		Seafood	0.00263*	Squid	0.00989*	
	Trout	0.07031*	<b>All Species</b>	Tuna	2.27398	Mussels	0.00941*	
	Pike	0.03826*		Fish	1.13020	Snails (Freshwater)	0.00849*	
	Trout, mixed sp. (Freshwater)	0.01971*		Cod	1.00890	Snails (Marine)	0.00849*	
	Snails (Freshwater)	0.00849*		Shrimp	0.99661	Carp	0.00675*	
	Carp	0.00675*		Salmon (Marine)	0.32264*	Anchovy	0.00546*	
	Cisco	0.00435*		Flounder	0.28039*	Snapper	0.00445*	
	Whitefish (Freshwater)	0.00405*		Catfish (Estuarine)	0.27944*	Cisco	0.00435*	
	Salmon (Freshwater)	0.00017*		Catfish (Freshwater)	0.27944*	Whitefish (Freshwater)	0.00405*	
	Sturgeon (Freshwater)	0.00001*		Pollock	0.22009*	Whitefish (Marine)	0.00405*	
		Whiting		0.17899*	Clam (Estuarine)	0.00287*		
		Porgy		0.16384*	Halibut	0.00280*		
<b>Marine</b>	Tuna	2.27398	Haddock	0.16273*	Seafood	0.00263*		
	Cod	1.0089	Sea Bass	0.15249*	Herring	0.00253*		
	Salmon (Marine)	0.32264*	Flatfish (Estuarine)	0.13791*	Scallop (Estuarine)	0.00059*		
	Pollock	0.22009*	Pompano	0.11395*	Salmon (Freshwater)	0.00017*		
	Whiting	0.17899*	Perch (Estuarine)	0.11153*	Sturgeon (Estuarine)	0.00001*		
	Porgy	0.16384*	Perch (Freshwater)	0.11153*	Sturgeon (Freshwater)	0.00001*		
	Haddock	0.16273*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,277 individuals to the U.S. population of 30,232,628 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 6. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Mean Consumption by Species within Habitat  
Males of Age 15 to 44**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	3.30640	<b>Marine (con't.)</b>	Squid	0.22965*	<b>All Species (con't.)</b>	Perch (Estuarine)	0.27173*
	Flounder	0.65596*		Lobster	0.21009*		Perch (Freshwater)	0.27173*
	Flatfish (Estuarine)	0.49001*		Scallop (Marine)	0.19532*		Octopus	0.25391*
	Crab (Estuarine)	0.39673*		Sea Bass	0.19144*		Squid	0.22965*
	Catfish (Estuarine)	0.37497*		Pompano	0.10629*		Lobster	0.21009*
	Oyster	0.31098*		Flatfish (Marine)	0.09174*		Scallop (Marine)	0.19532*
	Perch (Estuarine)	0.27173*		Swordfish	0.06326*		Sea Bass	0.19144*
	Trout, mixed sp. (Estuarine)	0.15976*		Haddock	0.04371*		Trout, mixed sp. (Estuarine)	0.15976*
	Croaker	0.10382*		Mussels	0.04113*		Trout, mixed sp. (Freshwater)	0.15976*
	Herring	0.09237*		Ocean Perch	0.02373*		Trout	0.11287*
	Anchovy	0.07356*		Mackerel	0.02161*		Pompano	0.10629*
	Salmon (Estuarine)	0.06516*		Sardine	0.01438*		Croaker	0.10382*
	Rockfish	0.03775*		Halibut	0.00752*		Carp	0.10030*
	Clam (Estuarine)	0.03586*		Snapper	0.00311*		Herring	0.09237*
	Mullet	0.03201*	Snails (Marine)	0.00251*	Flatfish (Marine)		0.09174*	
	Eel	0.01177*			Anchovy		0.07356*	
	Scallop (Estuarine)	0.00132*	<b>Unknown</b>	Fish	0.52949*		Salmon (Estuarine)	0.06516*
			Seafood	0.00760*	Swordfish	0.06326*		
<b>Freshwater</b>	Catfish (Freshwater)	0.37497*	<b>All Species</b>	Tuna	4.01583	Haddock	0.04371*	
	Perch (Freshwater)	0.27173*		Shrimp	3.30640	Mussels	0.04113*	
	Trout, mixed sp. (Freshwater)	0.15976*		Cod	1.75420*	Rockfish	0.03775*	
	Trout	0.11287*		Clam (Marine)	1.33803*	Clam (Estuarine)	0.03586*	
	Carp	0.10030*		Salmon (Marine)	1.31169*	Crayfish	0.03301*	
	Crayfish	0.03301*		Flounder	0.65596*	Mullet	0.03201*	
	Snails (Freshwater)	0.00251*		Porgy	0.61168*	Ocean Perch	0.02373*	
	Salmon (Freshwater)	0.00069*		Fish	0.52949*	Mackerel	0.02161*	
				Flatfish (Estuarine)	0.49001*	Sardine	0.01438*	
<b>Marine</b>	Tuna	4.01583	Crab (Marine)	0.45044*	Eel	0.01177*		
	Cod	1.75420*	Pollock	0.44856*	Seafood	0.00760*		
	Clam (Marine)	1.33803*	Whiting	0.41284*	Halibut	0.00752*		
	Salmon (Marine)	1.31169*	Crab (Estuarine)	0.39673*	Snapper	0.00311*		
	Porgy	0.61168*	Catfish (Estuarine)	0.37497*	Snails (Freshwater)	0.00251*		
	Crab (Marine)	0.45044*	Catfish (Freshwater)	0.37497*	Snails (Marine)	0.00251*		
	Pollock	0.44856*	Oyster	0.31098*	Scallop (Estuarine)	0.00132*		
	Whiting	0.41284*			Salmon (Freshwater)	0.00069*		
	Octopus	0.25391*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,382 individuals to the U.S. population of 59,219,812 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 7. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Mean Consumption by Species within Habitat  
Males of Age 45 and Older**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.87302	<b>Marine (con't.)</b>	Lobster	0.29487*	<b>All Species (con't.)</b>	Crab (Marine)	0.31772*
	Catfish (Estuarine)	1.04474*		Porgy	0.28964*		Perch (Estuarine)	0.30530*
	Flounder	0.95329*		Ocean Perch	0.28911*		Perch (Freshwater)	0.30530*
	Flatfish (Estuarine)	0.41588*		Mussels	0.27819*		Whiting	0.29754*
	Croaker	0.38286*		Pollock	0.26748*		Lobster	0.29487*
	Perch (Estuarine)	0.30530*		Swordfish	0.21447*		Herring	0.29154*
	Herring	0.29154*		Squid	0.21366*		Porgy	0.28964*
	Crab (Estuarine)	0.27984*		Sea Bass	0.16677*		Ocean Perch	0.28911*
	Trout, mixed sp. (Estuarine)	0.27156*		Flatfish (Marine)	0.07786*		Crab (Estuarine)	0.27984*
	Oyster	0.20701*		Octopus	0.04680*		Mussels	0.27819*
	Salmon (Estuarine)	0.12966		Halibut	0.04672*		Trout, mixed sp. (Estuarine)	0.27156*
	Rockfish	0.06427*		Shark	0.02882*		Trout, mixed sp. (Freshwater)	0.27156*
	Anchovy	0.05388*		Pompano	0.01893*		Pollock	0.26748*
	Mullet	0.03594*		Smelts (Marine)	0.01720*		Swordfish	0.21447*
	Clam (Estuarine)	0.02858*		Snapper	0.01278*		Squid	0.21366*
	Smelts (Estuarine)	0.01720*		Whitefish (Marine)	0.01103*		Oyster	0.20701*
	Scallop (Estuarine)	0.00228*		Roe	0.00695*		Sea Bass	0.16677*
<b>Freshwater</b>	Catfish (Freshwater)	1.04474*	<b>Unknown</b>	Fish	0.76375*	Salmon (Estuarine)	0.12966	
	Trout	0.36993*		<b>All Species</b>	Tuna	4.24818	Pike	0.08024*
	Carp	0.32659*			Shrimp	2.87302	Flatfish (Marine)	0.07786*
	Perch (Freshwater)	0.30530*			Salmon (Marine)	2.61029	Rockfish	0.06427*
	Trout, mixed sp. (Freshwater)	0.27156*			Cod	2.02788	Anchovy	0.05388*
	Pike	0.08024*			Clam (Marine)	1.06659*	Octopus	0.04680*
	Whitefish (Freshwater)	0.01103*			Catfish (Estuarine)	1.04474*	Halibut	0.04672*
	Snails (Freshwater)	0.00637*			Catfish (Freshwater)	1.04474*	Mullet	0.03594*
	Salmon (Freshwater)	0.00137			Flounder	0.95329*	Shark	0.02882*
	<b>Marine</b>	Tuna			4.24818	Fish	0.76375*	Clam (Estuarine)
Salmon (Marine)		2.61029	Haddock		0.64553*	Pompano	0.01893*	
Cod		2.02788	Sardine	0.43926*	Smelts (Estuarine)	0.01720*		
Clam (Marine)		1.06659*	Flatfish (Estuarine)	0.41588*	Smelts (Marine)	0.01720*		
Haddock		0.64553*	Croaker	0.38286*	Snapper	0.01278*		
Sardine		0.43926*	Trout	0.36993*	Whitefish (Freshwater)	0.01103*		
Mackerel		0.33793*	Mackerel	0.33793*	Whitefish (Marine)	0.01103*		
Scallop (Marine)		0.33777*	Scallop (Marine)	0.33777*	Roe	0.00695*		
Crab (Marine)		0.31772*	Carp	0.32659*	Snails (Freshwater)	0.00637*		
Whiting		0.29754*			Snails (Marine)	0.00637*		
					Scallop (Estuarine)	0.00228*		
					Salmon (Freshwater)	0.00137		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 2,780 individuals to the U.S. population of 38,515,187 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 8. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
 All Males

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.63027	<b>Marine (con't.)</b>	Scallop (Marine)	0.21285*	<b>All Species (con't.)</b>	Scallop (Marine)	0.21285*
	Flounder	0.65672*		Lobster	0.19407*		Lobster	0.19407*
	Catfish (Estuarine)	0.55399		Sea Bass	0.17481*		Trout	0.18018*
	Flatfish (Estuarine)	0.38451		Squid	0.17292*		Croaker	0.17770*
	Crab (Estuarine)	0.28855		Sardine	0.13886*		Sea Bass	0.17481*
	Perch (Estuarine)	0.24399*		Octopus	0.13159*		Squid	0.17292*
	Oyster	0.21300*		Mackerel	0.11965*		Trout, mixed sp. (Estuarine)	0.16032*
	Croaker	0.17770*		Ocean Perch	0.11908*		Trout, mixed sp. (Freshwater)	0.16032*
	Trout, mixed sp. (Estuarine)	0.16032*		Swordfish	0.11335*		Carp	0.14630*
	Herring	0.13109*		Mussels	0.10499*		Sardine	0.13886*
	Salmon (Estuarine)	0.07297		Pompano	0.08181*		Octopus	0.13159*
	Anchovy	0.05155*		Flatfish (Marine)	0.07199		Herring	0.13109*
	Rockfish	0.04432		Halibut	0.01820*		Mackerel	0.11965*
	Mullet	0.02830*		Shark	0.00867*		Ocean Perch	0.11908*
	Clam (Estuarine)	0.02588		Snapper	0.00634*		Swordfish	0.11335*
	Eel	0.00545*		Smelts (Marine)	0.00518*		Mussels	0.10499*
	Smelts (Estuarine)	0.00518*		Snails (Marine)	0.00509*		Pompano	0.08181*
	Scallop (Estuarine)	0.00144*		Whitefish (Marine)	0.00428*		Salmon (Estuarine)	0.07297
	Sturgeon (Estuarine)	0.00000*		Roe	0.00209*		Flatfish (Marine)	0.07199
	<b>Freshwater</b>	Catfish (Freshwater)		0.55399	<b>Unknown</b>		Fish	0.74192
Perch (Freshwater)		0.24399*	Seafood	0.00414*		Rockfish	0.04432	
Trout		0.18018*	<b>All Species</b>	Tuna	3.67425	Pike	0.03319*	
Trout, mixed sp. (Freshwater)		0.16032*		Shrimp	2.63027	Mullet	0.02830*	
Carp		0.14630*		Cod	1.66049	Clam (Estuarine)	0.02588	
Pike		0.03319*		Salmon (Marine)	1.46887	Halibut	0.01820*	
Crayfish		0.01528*		Clam (Marine)	0.96552	Crayfish	0.01528*	
Snails (Freshwater)		0.00509*		Fish	0.74192	Shark	0.00867*	
Whitefish (Freshwater)		0.00428*		Flounder	0.65672*	Snapper	0.00634*	
Cisco		0.00103*		Catfish (Estuarine)	0.55399	Eel	0.00545*	
Salmon (Freshwater)		0.00077		Catfish (Freshwater)	0.55399	Smelts (Estuarine)	0.00518*	
Sturgeon (Freshwater)		0.00000*		Porgy	0.40895*	Smelts (Marine)	0.00518*	
<b>Marine</b>		Tuna		3.67425	Flatfish (Estuarine)	0.38451	Snails (Freshwater)	0.00509*
	Cod	1.66049	Pollock	0.34008*	Snails (Marine)	0.00509*		
	Salmon (Marine)	1.46887	Crab (Marine)	0.32761	Whitefish (Freshwater)	0.00428*		
	Clam (Marine)	0.96552	Whiting	0.32289	Whitefish (Marine)	0.00428*		
	Porgy	0.40895*	Crab (Estuarine)	0.28855	Seafood	0.00414*		
	Pollock	0.34008*	Haddock	0.25296*	Roe	0.00209*		
	Crab (Marine)	0.32761	Perch (Estuarine)	0.24399*	Scallop (Estuarine)	0.00144*		
	Whiting	0.32289	Perch (Freshwater)	0.24399*	Cisco	0.00103*		
	Haddock	0.25296*	Oyster	0.21300*	Salmon (Freshwater)	0.00077		
					Sturgeon (Estuarine)	0.00000*		
				Sturgeon (Freshwater)	0.00000*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 10,439 individuals to the U.S. population of 127,967,627 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.



**SECTION 5.1.6 TABLE 9. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
 Individuals of Age 14 and Younger

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	0.80656	<b>Marine (con't.)</b>	Sea Bass	0.10377*	<b>All Species (con't.)</b>	Porgy	0.09350*
	Catfish (Estuarine)	0.22981*		Ocean Perch	0.09480*		Perch (Estuarine)	0.09026*
	Flounder	0.21911*		Porgy	0.09350*		Perch (Freshwater)	0.09026*
	Crab (Estuarine)	0.13002*		Pompano	0.07473*		Pompano	0.07473*
	Flatfish (Estuarine)	0.11525*		Scallop (Marine)	0.06959*		Scallop (Marine)	0.06959*
	Perch (Estuarine)	0.09026*		Swordfish	0.04448*		Trout	0.06524*
	Croaker	0.06090*		Mackerel	0.03758*		Croaker	0.06090*
	Trout, mixed sp. (Estuarine)	0.04409*		Lobster	0.02586*		Swordfish	0.04448*
	Oyster	0.02507*		Flatfish (Marine)	0.02158*		Trout, mixed sp. (Estuarine)	0.04409*
	Mullet	0.02139*		Squid	0.00730*		Trout, mixed sp. (Freshwater)	0.04409*
	Rockfish	0.02060*		Mussels	0.00629*		Mackerel	0.03758*
	Salmon (Estuarine)	0.01858		Halibut	0.00455*		Lobster	0.02586*
	Herring	0.00972*		Snails (Marine)	0.00432*		Oyster	0.02507*
	Anchovy	0.00651*		Whitefish (Marine)	0.00380*		Flatfish (Marine)	0.02158*
	Clam (Estuarine)	0.00280*		Sardine	0.00374*		Mullet	0.02139*
	Scallop (Estuarine)	0.00047*		Snapper	0.00232*		Pike	0.02070*
	Sturgeon (Estuarine)	0.00001*					Rockfish	0.02060*
<b>Freshwater</b>	Catfish (Freshwater)	0.22981*	<b>Unknown</b>	Fish	1.11785	Salmon (Estuarine)	0.01858	
	Perch (Freshwater)	0.09026*		Seafood	0.00170*	Herring	0.00972*	
	Trout	0.06524*	<b>All Species</b>	Tuna	2.12582	Carp	0.00756*	
	Trout, mixed sp. (Freshwater)	0.04409*		Fish	1.11785	Squid	0.00730*	
	Pike	0.02070*		Cod	0.89497	Anchovy	0.00651*	
	Carp	0.00756*		Shrimp	0.80656	Mussels	0.00629*	
	Cisco	0.00484*		Salmon (Marine)	0.37409	Cisco	0.00484*	
	Snails (Freshwater)	0.00432*		Pollock	0.30898*	Halibut	0.00455*	
	Whitefish (Freshwater)	0.00380*		Catfish (Estuarine)	0.22981*	Snails (Freshwater)	0.00432*	
	Salmon (Freshwater)	0.00020		Catfish (Freshwater)	0.22981*	Snails (Marine)	0.00432*	
	Sturgeon (Freshwater)	0.00001*		Flounder	0.21911*	Whitefish (Freshwater)	0.00380*	
				Crab (Marine)	0.14762*	Whitefish (Marine)	0.00380*	
		Haddock		0.14543*	Sardine	0.00374*		
		Whiting		0.14166	Clam (Estuarine)	0.00280*		
<b>Marine</b>	Tuna	2.12582	Crab (Estuarine)	0.13002*	Snapper	0.00232*		
	Cod	0.89497	Flatfish (Estuarine)	0.11525*	Seafood	0.00170*		
	Salmon (Marine)	0.37409	Clam (Marine)	0.10434*	Scallop (Estuarine)	0.00047*		
	Pollock	0.30898*	Sea Bass	0.10377*	Salmon (Freshwater)	0.00020		
	Crab (Marine)	0.14762*	Ocean Perch	0.09480*	Sturgeon (Estuarine)	0.00001*		
	Haddock	0.14543*			Sturgeon (Freshwater)	0.00001*		
	Whiting	0.14166						
	Clam (Marine)	0.10434*						

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 10,459 individuals to the U.S. population of 59,496,815 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 10. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
Individuals of Age 15 to 44

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.85617	<b>Marine (con't.)</b>	Whiting	0.26017*	<b>All Species (con't.)</b>	Perch (Estuarine)	0.20137*
	Catfish (Estuarine)	0.44969*		Squid	0.21162*		Perch (Freshwater)	0.20137*
	Flounder	0.43780*		Scallop (Marine)	0.20112*		Scallop (Marine)	0.20112*
	Flatfish (Estuarine)	0.43676		Haddock	0.17905*		Oyster	0.19416*
	Crab (Estuarine)	0.31181*		Pompano	0.15728*		Haddock	0.17905*
	Perch (Estuarine)	0.20137*		Sea Bass	0.13462*		Pompano	0.15728*
	Oyster	0.19416*		Octopus	0.12722*		Sea Bass	0.13462*
	Trout, mixed sp. (Estuarine)	0.13218*		Ocean Perch	0.09373*		Trout, mixed sp. (Estuarine)	0.13218*
	Croaker	0.09010*		Flatfish (Marine)	0.08177		Trout, mixed sp. (Freshwater)	0.13218*
	Herring	0.06639*		Sardine	0.06170*		Octopus	0.12722*
	Anchovy	0.06455*		Mussels	0.03251*		Ocean Perch	0.09373*
	Salmon (Estuarine)	0.06088		Swordfish	0.03170*		Carp	0.09323*
	Mullet	0.04993*		Mackerel	0.03125*		Croaker	0.09010*
	Rockfish	0.04144*		Halibut	0.01137*		Flatfish (Marine)	0.08177
	Clam (Estuarine)	0.02254*		Snapper	0.00573*		Herring	0.06639*
	Eel	0.00718*		Conch	0.00458*		Anchovy	0.06455*
	Scallop (Estuarine)	0.00136*		Snails (Marine)	0.00126*		Sardine	0.06170*
	Sturgeon (Estuarine)	0.00028*		Whitefish (Marine)	0.00033*		Salmon (Estuarine)	0.06088
<b>Freshwater</b>	Catfish (Freshwater)	0.44969*	<b>Unknown</b>	Fish	0.38982*	Mullet	0.04993*	
	Trout	0.20877*		Seafood	0.00637*	Rockfish	0.04144*	
	Perch (Freshwater)	0.20137*	<b>All Species</b>	Tuna	3.79447	Mussels	0.03251*	
	Trout, mixed sp. (Freshwater)	0.13218*		Shrimp	2.85617	Swordfish	0.03170*	
	Carp	0.09323*		Cod	1.48252	Mackerel	0.03125*	
	Crayfish	0.01654*		Salmon (Marine)	1.22559	Clam (Estuarine)	0.02254*	
	Pike	0.00495*		Clam (Marine)	0.84116*	Crayfish	0.01654*	
	Snails (Freshwater)	0.00126*		Catfish (Estuarine)	0.44969*	Halibut	0.01137*	
	Cisco	0.00077*		Catfish (Freshwater)	0.44969*	Eel	0.00718*	
	Salmon (Freshwater)	0.00064		Flounder	0.43780*	Seafood	0.00637*	
	Whitefish (Freshwater)	0.00033*		Flatfish (Estuarine)	0.43676	Snapper	0.00573*	
	Sturgeon (Freshwater)	0.00028*		Porgy	0.39442*	Pike	0.00495*	
	<b>Marine</b>	Tuna		3.79447	Fish	0.38982*	Conch	0.00458*
		Cod		1.48252	Pollock	0.36375*	Scallop (Estuarine)	0.00136*
Salmon (Marine)		1.22559	Crab (Marine)	0.35402*	Snails (Freshwater)	0.00126*		
Clam (Marine)		0.84116*	Crab (Estuarine)	0.31181*	Snails (Marine)	0.00126*		
Porgy		0.39442*	Lobster	0.28613*	Cisco	0.00077*		
Pollock		0.36375*	Whiting	0.26017*	Salmon (Freshwater)	0.00064		
Crab (Marine)		0.35402*	Squid	0.21162*	Whitefish (Freshwater)	0.00033*		
Lobster		0.28613*	Trout	0.20877*	Whitefish (Marine)	0.00033*		
				Sturgeon (Estuarine)	0.00028*			
				Sturgeon (Freshwater)	0.00028*			

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 4,714 individuals to the U.S. population of 118,190,082 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 11. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
Individuals of Age 45 and Older

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.29235	<b>Marine (con't.)</b>	Mackerel	0.28627*	<b>All Species (con't.)</b>	Trout	0.28033*
	Flounder	1.04306*		Scallop (Marine)	0.25794*		Crab (Estuarine)	0.25990*
	Catfish (Estuarine)	0.72818		Lobster	0.24227*		Scallop (Marine)	0.25794*
	Flatfish (Estuarine)	0.34324		Swordfish	0.24108*		Croaker	0.25753*
	Herring	0.31352*		Sardine	0.23932*		Lobster	0.24227*
	Crab (Estuarine)	0.25990*		Ocean Perch	0.23917*		Swordfish	0.24108*
	Croaker	0.25753*		Mussels	0.18108*		Sardine	0.23932*
	Perch (Estuarine)	0.21800*		Squid	0.17794*		Ocean Perch	0.23917*
	Trout, mixed sp. (Estuarine)	0.15366*		Sea Bass	0.13915*		Perch (Estuarine)	0.21800*
	Oyster	0.14402*		Halibut	0.08116*		Perch (Freshwater)	0.21800*
	Salmon (Estuarine)	0.11597		Snapper	0.07550*		Mussels	0.18108*
	Rockfish	0.06563*		Flatfish (Marine)	0.06426		Squid	0.17794*
	Anchovy	0.03958*		Pompano	0.03449*		Trout, mixed sp. (Estuarine)	0.15366*
	Mullet	0.02731*		Whitefish (Marine)	0.02779*		Trout, mixed sp. (Freshwater)	0.15366*
	Clam (Estuarine)	0.02234		Octopus	0.02140*		Oyster	0.14402*
	Smelts (Estuarine)	0.01899*		Smelts (Marine)	0.01899*		Sea Bass	0.13915*
	Scallop (Estuarine)	0.00174*		Shark	0.01318*		Salmon (Estuarine)	0.11597
	Smelts, Rainbow (Estuarine)	0.00163*		Roe	0.00318*		Halibut	0.08116*
<b>Freshwater</b>	Catfish (Freshwater)	0.72818	<b>Unknown</b>	Fish	0.54803*	Pike	0.07983*	
	Carp	0.28073*		<b>All Species</b>	Tuna	4.42390	Snapper	0.07550*
	Trout	0.28033*			Salmon (Marine)	2.33457	Rockfish	0.06563*
	Perch (Freshwater)	0.21800*			Shrimp	2.29235	Flatfish (Marine)	0.06426
	Trout, mixed sp. (Freshwater)	0.15366*			Cod	1.88153	Anchovy	0.03958*
	Pike	0.07983*			Flounder	1.04306*	Pompano	0.03449*
	Whitefish (Freshwater)	0.02779*			Clam (Marine)	0.83363	Whitefish (Freshwater)	0.02779*
	Snails (Freshwater)	0.00292*			Catfish (Estuarine)	0.72818	Whitefish (Marine)	0.02779*
	Cisco	0.00277*			Catfish (Freshwater)	0.72818	Mullet	0.02731*
	Smelts, Rainbow (Freshwater)	0.00163*			Haddock	0.65552*	Clam (Estuarine)	0.02234
	Salmon (Freshwater)	0.00123			Porgy	0.62897*	Octopus	0.02140*
	<b>Marine</b>	Tuna			4.42390	Fish	0.54803*	Smelts (Estuarine)
Salmon (Marine)		2.33457	Flatfish (Estuarine)		0.34324	Smelts (Marine)	0.01899*	
Cod		1.88153	Whiting	0.33482	Shark	0.01318*		
Clam (Marine)		0.83363	Herring	0.31352*	Roe	0.00318*		
Haddock		0.65552*	Crab (Marine)	0.29509*	Snails (Freshwater)	0.00292*		
Porgy		0.62897*	Pollock	0.29370*	Snails (Marine)	0.00292*		
Whiting		0.33482	Mackerel	0.28627*	Cisco	0.00277*		
Crab (Marine)		0.29509*	Carp	0.28073*	Scallop (Estuarine)	0.00174*		
<b>Pollock</b>		Pollock	0.29370*			Smelts, Rainbow (Estuarine)	0.00163*	
						Smelts,	0.00163*	
					Rainbow(Freshwater)			
					Salmon (Freshwater)	0.00123		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 5,434 individuals to the U.S. population of 84,210,339 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 12. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**U.S. Population - Mean Consumption by Species within Habitat**  
Individuals of Age 18 and Older

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.64686	<b>Marine (con't.)</b>	Lobster	0.25919*	<b>All Species (con't.)</b>	Perch (Freshwater)	0.21256*
	Flounder	0.69946		Scallop (Marine)	0.23749*		Squid	0.20948*
	Catfish (Estuarine)	0.57463		Squid	0.20948*		Carp	0.18153*
	Flatfish (Estuarine)	0.40395		Ocean Perch	0.15663*		Herring	0.17937*
	Crab (Estuarine)	0.29953		Mackerel	0.14560*		Oyster	0.17395*
	Perch (Estuarine)	0.21256*		Sardine	0.14375*		Croaker	0.16936*
	Herring	0.17937*		Swordfish	0.12595*		Ocean Perch	0.15663*
	Oyster	0.17395*		Sea Bass	0.12543*		Trout, mixed sp. (Estuarine)	0.14568*
	Croaker	0.16936*		Pompano	0.11198*		Trout, mixed sp. (Freshwater)	0.14568*
	Trout, mixed sp. (Estuarine)	0.14568*		Mussels	0.09969*		Mackerel	0.14560*
	Salmon (Estuarine)	0.08819		Octopus	0.08819*		Sardine	0.14375*
	Anchovy	0.05544		Flatfish (Marine)	0.07563		Swordfish	0.12595*
	Rockfish	0.05162		Halibut	0.04224*		Sea Bass	0.12543*
	Mullet	0.04295*		Snapper	0.03624*		Pompano	0.11198*
	Clam (Estuarine)	0.02332		Whitefish (Marine)	0.01246*		Mussels	0.09969*
	Smelts (Estuarine)	0.00838*		Smelts (Marine)	0.00838*		Octopus	0.08819*
	Eel	0.00444*		Shark	0.00581*		Salmon (Estuarine)	0.08819
	Scallop (Estuarine)	0.00160*		Conch	0.00284*		Flatfish (Marine)	0.07563
	Smelts, Rainbow (Estuarine)	0.00072*		Snails (Marine)	0.00206*		Anchovy	0.05544
	Sturgeon (Estuarine)	0.00017*		Roe	0.00140*		Rockfish	0.05162
<b>Freshwater</b>	Catfish (Freshwater)	0.57463	<b>Unknown</b>	Fish	0.47575	Mullet	0.04295*	
	Trout	0.24140*		Seafood	0.00394*	Halibut	0.04224*	
	Perch (Freshwater)	0.21256*	<b>All Species</b>	Tuna	4.18375	Pike	0.03827*	
	Carp	0.18153*		Shrimp	2.64686	Snapper	0.03624*	
	Trout, mixed sp. (Freshwater)	0.14568*		Salmon (Marine)	1.77537	Clam (Estuarine)	0.02332	
	Pike	0.03827*		Cod	1.65977	Whitefish (Freshwater)	0.01246*	
	Whitefish (Freshwater)	0.01246*		Clam (Marine)	0.87021	Whitefish (Marine)	0.01246*	
	Crayfish	0.01024*		Flounder	0.69946	Crayfish	0.01024*	
	Snails (Freshwater)	0.00206*		Catfish (Estuarine)	0.57463	Smelts (Estuarine)	0.00838*	
	Cisco	0.00170*		Catfish (Freshwater)	0.57463	Smelts (Marine)	0.00838*	
	Salmon (Freshwater)	0.00093		Porgy	0.49466*	Shark	0.00581*	
	Smelts, Rainbow (Freshwater)	0.00072*		Fish	0.47575	Eel	0.00444*	
	Sturgeon (Freshwater)	0.00017*		Flatfish (Estuarine)	0.40395	Seafood	0.00394*	
	<b>Marine</b>	Tuna		4.18375	Haddock	0.37374*	Conch	0.00284*
Salmon (Marine)		1.77537		Crab (Marine)	0.34008	Snails (Freshwater)	0.00206*	
Cod		1.65977		Pollock	0.33210	Snails (Marine)	0.00206*	
Clam (Marine)		0.87021	Whiting	0.30583	Cisco	0.00170*		
Porgy		0.49466*	Crab (Estuarine)	0.29953	Scallop (Estuarine)	0.00160*		
Haddock		0.37374*	Lobster	0.25919*	Roe	0.00140*		
Crab (Marine)		0.34008	Trout	0.24140*	Salmon (Freshwater)	0.00093		
Pollock		0.33210	Scallop (Marine)	0.23749*	Smelts, Rainbow (Estuarine)	0.00072*		
Whiting		0.30583	Perch (Estuarine)	0.21256*	Smelts, Rainbow	0.00072*		
					Sturgeon (Estuarine)	0.00017*		
					Sturgeon (Freshwater)	0.00017*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 9,596 individuals to the U.S. population of 190,930,779 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.1.6 TABLE 13. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
U.S. Population - Mean Consumption by Species within Habitat  
All Individuals**

Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day	Habitat	Species	Estimated Mean Grams/person/day
<b>Estuarine</b>	Shrimp	2.20926	<b>Marine (con't.)</b>	Lobster	0.21290*	<b>All Species (con't.)</b>	Perch (Freshwater)	0.18148
	Flounder	0.58273		Scallop (Marine)	0.18951*		Squid	0.15438*
	Catfish (Estuarine)	0.48928		Squid	0.15438*		Ocean Perch	0.14074*
	Flatfish (Estuarine)	0.33365		Ocean Perch	0.14074*		Oyster	0.13963*
	Crab (Estuarine)	0.25382		Sea Bass	0.12907*		Croaker	0.13730*
	Perch (Estuarine)	0.18148		Mackerel	0.11468*		Carp	0.13406*
	Oyster	0.13963*		Sardine	0.10565*		Herring	0.13298*
	Croaker	0.13730*		Swordfish	0.10193*		Sea Bass	0.12907*
	Herring	0.13298*		Pompano	0.09905*		Trout, mixed sp. (Estuarine)	0.11908*
	Trout, mixed sp. (Estuarine)	0.11908*		Mussels	0.07432*		Trout, mixed sp. (Freshwater)	0.11908*
	Salmon (Estuarine)	0.06898		Octopus	0.06430*		Mackerel	0.11468*
	Rockfish	0.04448		Flatfish (Marine)	0.06247		Sardine	0.10565*
	Anchovy	0.04334		Halibut	0.03226*		Swordfish	0.10193*
	Mullet	0.03617*		Snapper	0.02739*		Pompano	0.09905*
	Clam (Estuarine)	0.01799		Whitefish (Marine)	0.00995*		Mussels	0.07432*
	Smelts (Estuarine)	0.00611*		Smelts (Marine)	0.00611*		Salmon (Estuarine)	0.06898
	Eel	0.00324*		Shark	0.00424*		Octopus	0.06430*
	Scallop (Estuarine)	0.00128*		Snails (Marine)	0.00249*		Flatfish (Marine)	0.06247
	Smelts, Rainbow (Estuarine)	0.00052*		Conch	0.00207*		Rockfish	0.04448
	Sturgeon (Estuarine)	0.00013*		Roe	0.00102*		Anchovy	0.04334
<b>Freshwater</b>	Catfish (Freshwater)	0.48928	<b>Unknown</b>	Fish	0.60608	Mullet	0.03617*	
	Trout	0.19917*		Seafood	0.00326*	Pike	0.03260*	
	Perch (Freshwater)	0.18148	<b>All Species</b>	Tuna	3.61778	Halibut	0.03226*	
	Carp	0.13406*		Shrimp	2.20926	Snapper	0.02739*	
	Trout, mixed sp. (Freshwater)	0.11908*		Cod	1.47734	Clam (Estuarine)	0.01799	
	Pike	0.03260*		Salmon (Marine)	1.38873	Whitefish (Freshwater)	0.00995*	
	Whitefish (Freshwater)	0.00995*		Clam (Marine)	0.67135	Whitefish (Marine)	0.00995*	
	Crayfish	0.00746*		Fish	0.60608	Crayfish	0.00746*	
	Snails (Freshwater)	0.00249*		Flounder	0.58273	Smelts (Estuarine)	0.00611*	
	Cisco	0.00234*		Catfish (Estuarine)	0.48928	Smelts (Marine)	0.00611*	
	Salmon (Freshwater)	0.00073		Catfish (Freshwater)	0.48928	Shark	0.00424*	
	Smelts, Rainbow (Freshwater)	0.00052*		Porgy	0.40148*	Seafood	0.00326*	
	Sturgeon (Freshwater)	0.00013*		Flatfish (Estuarine)	0.33365	Eel	0.00324*	
	<b>Marine</b>	Tuna		3.61778	Pollock	0.32878	Snails (Freshwater)	0.00249*
Cod		1.47734	Haddock	0.32461	Snails (Marine)	0.00249*		
Salmon (Marine)		1.38873	Crab (Marine)	0.28818	Cisco	0.00234*		
Clam (Marine)		0.67135	Whiting	0.25725	Conch	0.00207*		
Porgy		0.40148*	Crab (Estuarine)	0.25382	Scallop (Estuarine)	0.00128*		
Pollock		0.32878	Lobster	0.21290*	Roe	0.00102*		
Haddock		0.32461	Trout	0.19917*	Salmon (Freshwater)	0.00073		
Crab (Marine)		0.28818	Scallop (Marine)	0.18951*	Smelts, Rainbow (Estuarine)	0.00052*		
Whiting		0.25725	Perch (Estuarine)	0.18148	Smelts, Rainbow	0.00052*		
					Sturgeon (Estuarine)	0.00013*		
					Sturgeon (Freshwater)	0.00013*		

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Estimates are projected from a sample of 20,607 individuals to the U.S. population of 261,897,236 using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States".

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.1 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**Consumers Only - Finfish and Shellfish (grams/person/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	445	46.59 (39.60-53.58)	26.19 (25.21-30.83)	117.47 (104.39-141.91)	172.05 (149.64-204.38)	242.69*(220.06-514.36)
15-44	325	75.01 (61.78-88.24)	36.68 (33.16-43.67)	172.90 (154.81-204.38)	273.59*(204.38-331.40)	502.92*(381.43-1,144.29)
45 and Older	449	65.51 (59.23-71.79)	39.54 (36.82-47.66)	162.67 (153.19-168.05)	203.56 (192.28-225.98)	393.96*(303.36-431.48)
All Ages	1,219	67.17 (60.47-73.87)	36.52 (33.16-38.81)	162.86 (154.49-170.07)	219.13 (198.95-266.64)	461.25*(381.43-507.80)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	442	60.04 (50.23-69.86)	28.17 (25.30-34.25)	158.10 (110.47-195.72)	199.26 (189.39-295.81)	381.31*(380.57-401.00)
15-44	361	92.59 (82.33-102.86)	51.23 (43.89-64.91)	235.64 (225.89-245.66)	305.44*(272.21-366.76)	495.00*(443.83-642.53)
45 and Older	553	90.75 (81.11-100.39)	57.28 (52.24-64.60)	220.58 (203.50-235.86)	295.45 (264.07-332.47)	562.02*(401.54-764.19)
All Ages	1,356	87.45 (80.33-94.58)	51.23 (44.46-52.96)	220.39 (199.52-231.55)	295.80 (288.67-332.55)	489.88*(443.65-595.41)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	887	53.37 (47.40-59.34)	26.27 (26.29-32.87)	144.29 (100.92-172.74)	195.72 (172.66-220.06)	380.99*(366.76-401.00)
15-44	686	84.22 (77.27-91.18)	45.23 (36.82-51.46)	205.48 (197.46-225.89)	295.34 (252.77-345.11)	504.38*(437.86-817.50)
45 and Older	1,002	78.02 (70.41-85.63)	51.19 (46.78-51.83)	190.65 (170.07-202.31)	245.13 (230.39-263.65)	413.06*(381.85-505.38)
All Ages	2,575	77.55 (72.32-82.79)	42.23 (38.81-47.74)	195.71 (188.63-202.31)	258.13 (242.52-288.67)	467.92 (431.48-531.01)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.1 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (grams/person/day)  
Marine: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	670	70.80 (64.62-76.98)	62.03 (53.96-64.88)	134.27 (123.68-154.96)	183.24 (151.42-205.13)	239.96*(208.75-378.75)
15-44	412	90.76 (85.04-96.49)	75.21 (64.44-76.87)	188.19 (162.59-209.95)	240.72 (227.12-265.07)	376.46*(346.84-391.48)
45 and Older	588	103.51 (94.05-112.97)	80.42 (75.93-83.45)	188.89 (170.14-213.33)	239.45 (221.61-283.14)	441.43*(358.71-647.17)
All Ages	1,670	92.93 (88.17-97.68)	75.54 (75.02-75.71)	183.32 (173.64-192.25)	232.17 (226.80-250.35)	384.73*(354.23-396.26)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	677	81.36 (69.38-93.34)	63.44 (53.20-71.71)	197.63 (162.26-226.80)	230.55 (225.02-307.36)	353.11*(243.60-392.00)
15-44	412	126.79 (116.28-137.31)	101.62 (84.24-112.19)	240.29 (226.76-258.10)	279.08 (270.68-369.62)	568.12*(488.38-646.84)
45 and Older	623	113.33 (106.72-119.94)	97.07 (90.77-100.95)	222.89 (205.49-251.72)	284.70 (250.35-323.77)	384.03*(358.71-480.00)
All Ages	1,712	113.61 (107.03-120.18)	83.44 (79.30-95.83)	226.77 (222.67-236.19)	276.85 (269.82-296.56)	482.96*(390.06-501.28)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,347	76.20 (67.82-84.59)	62.29 (56.78-64.37)	160.62 (149.39-200.62)	219.95 (183.35-226.80)	334.78*(307.36-378.75)
15-44	824	108.69 (101.46-115.91)	79.28 (75.71-88.18)	224.79 (213.33-232.76)	269.82 (246.56-279.31)	483.48*(390.06-634.22)
45 and Older	1,211	108.05 (101.67-114.42)	84.39 (81.12-95.34)	205.85 (194.60-223.64)	271.52 (250.35-292.69)	407.21*(373.74-647.17)
All Ages	3,382	102.93 (98.35-107.50)	76.87 (75.71-80.41)	215.32 (207.36-217.10)	258.28 (246.56-269.82)	395.27 (390.06-487.07)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.1 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (grams/person/day)  
All Fish: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	836	79.05 (72.64-85.46)	64.88 (58.10-75.02)	158.21 (142.29-198.35)	204.64 (179.67-218.25)	371.82*(254.30-380.80)
15-44	554	107.86 (97.46-118.26)	77.16 (75.71-86.07)	220.54 (196.78-236.15)	315.06 (245.98-378.00)	494.94*(394.18-507.80)
45 and Older	751	116.57 (108.76-124.38)	91.66 (86.10-98.00)	214.90 (200.35-228.04)	270.16 (236.25-285.86)	443.88*(428.16-817.24)
All Ages	2,141	107.06 (101.32-112.79)	80.46 (77.80-84.26)	207.07 (196.00-226.80)	275.02 (245.71-299.80)	452.94 (394.18-507.80)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	836	96.24 (85.20-107.27)	71.08 (65.25-76.87)	224.70 (194.81-254.30)	335.51 (286.25-353.49)	390.29*(380.57-401.00)
15-44	565	147.65 (139.46-155.85)	113.34 (108.65-123.59)	271.88 (252.77-334.04)	381.38 (323.48-430.80)	635.79*(595.41-646.84)
45 and Older	849	139.15 (131.87-146.43)	113.24 (108.62-121.91)	274.36 (258.20-304.33)	347.94 (319.60-373.74)	504.94*(439.35-693.23)
All Ages	2,250	136.09 (130.47-141.71)	106.93 (98.11-112.74)	266.18 (247.92-288.95)	354.15 (314.85-378.78)	594.77 (505.38-642.53)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,672	87.74 (80.11-95.37)	67.85 (63.87-73.36)	191.38 (172.66-201.31)	248.87 (213.56-330.21)	380.95*(366.76-392.00)
15-44	1,119	127.81 (120.94-134.68)	96.84 (88.19-105.59)	254.73 (241.24-271.11)	357.58 (329.51-381.43)	608.62*(507.80-646.84)
45 and Older	1,600	127.31 (120.36-134.25)	102.74 (98.45-107.31)	243.73 (230.00-258.09)	317.33 (304.33-330.15)	476.38 (439.35-592.99)
All Ages	4,391	121.33 (116.43-126.23)	91.98 (88.94-98.00)	241.04 (232.76-254.85)	329.47 (313.69-343.47)	506.85 (485.63-592.99)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.



**SECTION 5.2.1.1 TABLE 4. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish  
Individuals of Age 18 and Older**

		Grams/person/day		
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater/Estuarine</b>	Mean	81.08	75.05	87.12
n = 1,633	50th %	47.39	41.77	51.46
N = 33,019,160	90th %	199.62	190.37	205.52
	95th %	278.91	252.77	301.15
	99th %	505.65*	443.65*	507.80*
<b>Marine</b>	Mean	107.9	103	112.81
n = 1,978	50th %	82.77	77.31	87.21
N = 40,065,285	90th %	216.59	213.33	222.67
	95th %	269.7	250.76	283.14
	99th %	464.24*	391.48*	487.07*
<b>All Fish</b>	Mean	127.44	121.99	132.89
n = 2,634	50th %	99.21	96.93	106.52
N = 53,194,164	90th %	248.37	236.25	264.07
	95th %	333.76	320.87	348.74
	99th %	518.69	507.8	634.22

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

n = sample size, N = population size

Estimates are projected from the sample to the population of consumers only of age 18 and older, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.1 TABLE 5. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (grams/person/day)  
Children Ages 3-17 by Fine Age Categories**

Freshwater/Estuarine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	442	40.31 (35.00-45.63)	23.04 (20.52-24.48)	95.16 (85.56-101.68)	129.31 (120.46-141.91)	204.84*(199.52-381.43)
Ages 6 to 10	147	61.49 (44.37-78.61)	28.46 (19.29-37.40)	156.86*(117.17-249.69)	247.69*(149.64-381.43)	385.64*(221.05-401.00)
Ages 11 to 15	107	70.66 (58.10-83.21)	41.21 (36.73-52.77)	172.70*(165.70-195.72)	198.76*(172.74-295.81)	392.49*(295.81-514.36)
Ages 16 to 17	28	100.11*(79.50-120.71)	48.10*(38.81-103.48)	203.14*(197.46-248.07)	242.13*(205.52-642.53)	500.59*(241.30-642.53)
Marine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	682	65.61 (60.29-70.93)	53.39 (49.64-55.48)	125.19 (114.05-150.02)	164.84 (138.61-190.45)	315.72*(226.80-390.06)
Ages 6 to 10	217	78.45 (67.42-89.48)	65.21 (58.58-75.60)	150.01 (128.91-201.38)	201.88*(165.23-317.43)	349.99*(222.70-392.00)
Ages 11 to 15	122	101.93 (85.49-118.37)	78.24 (64.25-94.69)	220.07*(205.13-265.07)	262.34*(226.80-307.36)	320.07*(276.78-378.75)
Ages 16 to 17	37	125.51*(80.42-170.60)	65.18*(52.00-116.48)	280.88*(241.01-354.23)	352.54*(241.01-390.06)	529.78*(290.67-650.29)
All Fish						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
Ages 3 to 5	834	74.08 (68.80-79.36)	63.82 (57.65-68.00)	148.66 (135.57-165.10)	183.81 (172.20-222.67)	363.06*(310.40-391.06)
Ages 6 to 10	270	95.46 (85.23-105.70)	75.52 (66.35-76.87)	199.61 (177.00-234.85)	312.94*(254.30-380.80)	387.41*(381.43-401.00)
Ages 11 to 15	172	113.04 (99.37-126.71)	83.71 (80.12-98.73)	227.03*(205.13-295.81)	307.65*(270.68-348.00)	379.97*(353.49-408.75)
Ages 16 to 17	52	135.54*(96.86-174.21)	90.74 (76.00-120.18)	242.38*(205.52-358.28)	356.90*(265.98-642.53)	644.93*(390.06-650.29)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.2 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)**  
 Freshwater/Estuarine: Age by Gender and All Individuals

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	410	1,775.84 (1,543.12-2,008.57)	1,050.48 (904.92-1,293.92)	4,396.58 (3,635.30-4,535.18)	6,855.37 (4,880.55-9,166.35)	11,544.27*(9,166.35-16,107.89)
15-44	315	1,184.72 (961.91-1,407.54)	569.39 (528.72-614.28)	2,921.90 (2,293.90-3,314.44)	4,260.21*(3,265.99-5,972.70)	8,154.42*(6,721.26-20,620.25)
45 and Older	432	986.25 (879.95-1,092.56)	567.75 (508.69-700.34)	2,655.15 (2,312.96-2,874.91)	3,263.27 (2,943.67-3,715.88)	4,630.21*(4,036.52-9,900.08)
All Ages	1,157	1,184.87 (1,070.66-1,299.07)	608.47 (553.86-703.96)	2,874.59 (2,653.94-3,265.99)	4,032.55 (3,515.79-4,406.42)	8,607.63*(7,086.96-9,900.08)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	419	1,894.98 (1,617.67-2,172.29)	1,070.99 (906.09-1,284.75)	4,706.50 (3,991.69-4,989.91)	5,905.22 (5,521.64-6,102.54)	12,628.17*(8,110.63-15,495.24)
15-44	358	1,166.53 (1,034.22-1,298.84)	618.28 (545.62-808.67)	2,998.34 (2,723.72-3,349.32)	4,014.59*(3,711.72-4,635.11)	6,534.31*(5,511.10-8,577.35)
45 and Older	548	1,076.34 (962.97-1,189.70)	708.85 (640.15-745.61)	2,467.22 (2,378.07-2,596.80)	3,446.79 (3,093.01-3,848.85)	6,573.81*(5,556.54-9,351.29)
All Ages	1,325	1,238.12 (1,140.19-1,336.05)	706.66 (630.95-773.28)	3,051.80 (2,735.21-3,221.15)	4,257.39 (4,039.22-4,472.72)	7,998.35*(6,538.75-9,351.29)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	829	1,833.54 (1,680.28-1,986.80)	1,065.77 (965.25-1,146.43)	4,512.39 (4,045.01-4,779.70)	5,985.99 (5,530.84-6,866.67)	12,389.21*(9,851.70-15,495.24)
15-44	673	1,174.70 (1,067.04-1,282.36)	589.87 (531.38-684.35)	2,977.52 (2,739.35-3,221.15)	4,125.11 (3,814.99-4,840.54)	8,580.49*(5,972.70-9,477.16)
45 and Older	980	1,031.89 (940.89-1,122.89)	644.26 (574.50-702.82)	2,507.77 (2,382.97-2,797.32)	3,318.62 (3,034.37-3,715.88)	6,122.45*(4,421.88-8,254.35)
All Ages	2,482	1,213.25 (1,135.87-1,290.64)	671.15 (614.31-702.41)	2,947.02 (2,808.04-3,117.70)	4,135.35 (4,036.52-4,286.52)	8,587.27 (6,950.26-9,900.08)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.2 TABLE 2. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
Marine: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	629	2,893.06 (2,679.48-3,106.65)	2,316.19 (2,138.68-2,523.03)	6,279.04 (5,285.99-6,553.75)	7,898.74 (7,032.80-8,478.02)	10,514.45*(9,321.52-11,980.46)
15-44	403	1,474.84 (1,365.90-1,583.78)	1,156.26 (934.41-1,293.09)	3,101.95 (2,579.94-3,377.58)	3,926.90 (3,440.40-4,928.77)	6,491.00*(5,931.06-7,802.45)
45 and Older	568	1,579.38 (1,439.28-1,719.49)	1,222.89 (1,143.31-1,292.80)	3,027.62 (2,676.03-3,238.80)	3,916.83 (3,584.23-4,560.04)	7,415.79*(6,020.90-12,395.47)
All Ages	1,600	1,732.14 (1,649.10-1,815.18)	1,288.25 (1,223.48-1,355.47)	3,558.43 (3,335.15-3,879.79)	4,878.31 (4,560.04-5,639.68)	8,617.55*(7,802.45-9,321.52)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	643	2,885.20 (2,540.19-3,230.21)	2,264.11 (1,945.98-2,496.33)	6,243.86 (5,390.40-6,930.70)	8,067.74 (6,576.65-8,706.84)	11,870.51*(10,365.38-14,193.47)
15-44	409	1,579.39 (1,458.08-1,700.70)	1,259.93 (1,170.38-1,403.70)	3,063.48 (2,854.63-3,481.12)	3,736.28 (3,554.02-4,048.48)	7,102.85*(4,633.98-7,701.39)
45 and Older	621	1,412.30 (1,328.35-1,496.24)	1,143.28 (1,070.99-1,240.28)	2,811.94 (2,588.88-3,072.28)	3,723.68 (3,386.40-3,986.78)	5,503.98*(5,134.25-6,320.80)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger	1,272	2,892.24 (2,673.50-3,110.98)	2,312.28 (2,085.17-2,523.03)	6,290.16 (5,747.61-6,447.73)	8,046.90 (7,364.88-8,564.35)	11,507.42*(10,124.19-12,054.98)
15-44	812	1,527.49 (1,440.83-1,614.15)	1,214.08 (1,133.41-1,310.12)	3,092.59 (2,854.63-3,317.91)	3,871.96 (3,563.92-4,131.49)	6,897.59*(5,287.11-7,701.39)
45 and Older	1,189	1,500.90 (1,416.26-1,585.54)	1,182.99 (1,151.30-1,251.82)	2,948.00 (2,663.71-3,231.73)	3,888.51 (3,493.94-4,030.41)	6,228.75*(5,409.10-9,759.38)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\*: Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.2 TABLE 3. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
All Fish: Age by Gender and All Individuals**

Females						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger 16,107.89)	779	3,201.90 (2,982.67-3,421.12)	2,398.86 (2,170.72-2,643.17)	6,835.88 (6,595.73-7,364.88)	8,808.04 (8,450.61-9,407.93)	13,906.69*(11,460.65-
15-44	541	1,728.30 (1,547.28-1,909.32)	1,218.26 (1,117.24-1,339.84)	3,436.71 (3,152.98-3,925.41)	5,044.65 (4,221.43-6,122.05)	8,011.49*(6,721.26-8,603.84)
45 and Older	725	1,773.76 (1,657.27-1,890.25)	1,382.84 (1,253.40-1,505.96)	3,422.45 (3,097.51-3,767.38)	4,097.55 (3,870.45-4,852.93)	7,995.99*(6,121.23-15,117.25)
All Ages	2,045	1,962.13 (1,863.57-2,060.69)	1,416.65 (1,346.49-1,476.54)	4,005.49 (3,830.58-4,277.78)	5,791.85 (5,097.48-6,058.66)	9,878.48 (8,970.49-12,234.97)
Males						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger 16,803.15)	788	3,314.34 (3,021.67-3,607.01)	2,502.31 (2,331.61-2,982.29)	7,401.75 (6,240.82-7,626.42)	8,720.25 (8,323.22-10,590.49)	13,024.79*(12,277.87-
15-44	561	1,850.62 (1,753.81-1,947.44)	1,548.07 (1,421.68-1,685.79)	3,599.47 (3,231.56-4,197.45)	4,461.34 (3,991.47-5,063.10)	7,621.43*(7,360.98-8,473.04)
45 and Older	842	1,703.34 (1,615.64-1,791.03)	1,381.95 (1,319.14-1,514.17)	3,395.46 (3,117.70-3,638.01)	4,253.00 (3,912.25-4,685.39)	6,376.22*(5,513.91-9,351.29)
Both Sexes						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th % (90% B.I.)**	95th % (90% B.I.)**	99th % (90% B.I.)**
14 and Younger 15,495.24)	1,567	3,259.63 (3,061.95-3,457.31)	2,471.51 (2,383.35-2,639.21)	7,119.82 (6,533.48-7,589.31)	8,758.28 (8,486.83-9,362.01)	13,954.57*(12,925.50-
15-44	1,102	1,790.11 (1,696.17-1,884.05)	1,349.95 (1,245.33-1,468.79)	3,548.94 (3,317.91-3,833.45)	4,805.84 (4,214.48-5,422.31)	7,838.99*(7,360.98-8,603.84)
45 and Older	1,567	1,739.75 (1,649.88-1,829.61)	1,383.33 (1,337.82-1,434.67)	3,415.94 (3,227.02-3,571.85)	4,260.74 (4,017.22-4,497.06)	6,704.46 (6,195.18-9,351.29)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.2 TABLE 4. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\***  
**Consumers Only - Finfish and Shellfish**  
**Individuals of Age 18 and Older**

Milligrams/kilogram of body weight/day					
Habitat	Statistic	Estimate	90%Interval**		
			Lower Bound	Upper Bound	
<b>Freshwater/Estuarine</b>	Mean	1,101.98	1,023.19	1,180.77	
	n = 1,599	50th %	611.54	684.48	
	N = 32,354,879	90th %	2,693.29	2,507.05	2,820.38
		95th %	3,744.30	3,519.98	4,036.76
		99th %	7,140.34*	6,387.78*	8,603.84*
<b>Marine</b>	Mean	1,500.63	1,439.66	1,561.60	
	n = 1,944	50th %	1,198.84	1,264.66	
	N = 39,352,645	90th %	2,971.29	2,740.02	3,097.51
		95th %	3,749.25	3,578.57	3,961.99
		99th %	6,345.52*	5,653.20*	7,224.38*
<b>All Fish</b>	Mean	1,757.73	1,686.82	1,828.64	
	n = 2,585	50th %	1,371.55	1,436.93	
	N = 52,216,332	90th %	3,438.27	3,302.80	3,584.23
		95th %	4,491.62	4,271.23	4,809.86
		99th %	7,510.01	6,678.75	8,603.84

- (1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).
  - (2) Estimates are based on 2-day averages.
  - (3) Consumers only = Individuals who consumed fish at least once during the 2-day period.  
n = sample size, N = population size  
Estimates are projected from the sample to the population of consumers only of age 18 and older, using 4-year combined survey weights.
  - (4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.
  - (5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
  - (6) 757 individuals did not report body weight. They represent 6,314,627 individuals in the population.
- \*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.
- \*\*\* : Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.1.2 TABLE 5. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish (milligrams/kilogram of body weight/day)  
Children Ages 3-17 by Fine Age Categories**

Freshwater/Estuarine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	416	2,292.48 (2,012.49-2,572.46)	1,348.02 (1,212.55-1,445.88)	5,851.54 (4,702.74-6,067.60)	7,159.77 (6,950.26-7,442.48)	15,599.75*(11,877.48-18,670.16)
Ages 6 to 10	132	1,830.33 (1,415.90-2,244.76)	1,079.54 (476.23-1,326.18)	4,688.16*(3,672.53-5,987.10)	6,207.31*(4,766.57-12,925.50)	12,365.21*(6,762.56-12,925.50)
Ages 11 to 15	101	1,273.34 (1,082.32-1,464.35)	812.22 (701.30-951.84)	2,776.77*(2,090.63-3,026.05)	4,419.34*(3,026.05-5,521.64)	5,717.33*(5,456.55-9,851.70)
Ages 16 to 17	28	1,401.06*(1,057.67-1,744.44)	602.40*(569.88-978.21)	2,970.99*(2,742.84-3,691.94)	3,279.38*(2,766.54-8,577.35)	6,819.39*(3,221.15-8,577.35)
Marine						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	640	3,688.56 (3,394.91-3,982.22)	3,037.20 (2,809.94-3,215.86)	7,253.03 (6,777.31-8,504.16)	9,269.56 (8,414.50-9,991.19)	16,100.30*(11,980.46-17,988.99)
Ages 6 to 10	203	2,786.67 (2,416.59-3,156.75)	2,270.94 (2,014.46-2,643.17)	5,910.28 (4,813.14-7,364.88)	8,001.27*(6,374.62-8,706.84)	10,754.04*(8,706.84-12,054.98)
Ages 11 to 15	120	2,020.41 (1,714.11-2,326.72)	1,391.58 (1,206.31-2,109.25)	4,223.53*(3,743.70-4,781.26)	5,195.12*(3,858.58-6,447.73)	6,838.93*(6,076.20-8,970.49)
Ages 16 to 17	37	2,007.11*(1,302.21-2,712.01)	1,021.20*(805.78-2,101.68)	4,467.70*(3,880.25-7,802.45)	6,537.10*(3,991.47-7,802.45)	7,885.75*(4,660.95-7,957.60)
All Fish						
Age	Sample Size	Mean (90% C.I.)	Median (90% B.I.)**	90th% (90% B.I.)**	95th% (90% B.I.)**	99th% (90% B.I.)**
Ages 3 to 5	779	4,198.31 (3,894.48-4,502.13)	3,638.04 (3,396.23-3,799.48)	8,061.34 (7,366.46-9,222.61)	10,443.58 (9,475.47-12,261.38)	17,873.72*(15,290.07-18,670.16)
Ages 6 to 10	250	3,187.77 (2,923.07-3,452.47)	2,504.85 (2,174.62-2,671.45)	6,543.59 (6,012.89-8,706.84)	8,654.23*(7,085.92-11,756.48)	12,784.91*(10,929.57-13,979.49)
Ages 11 to 15	164	2,199.42 (1,950.32-2,448.52)	1,571.20 (1,457.71-1,770.50)	4,387.23*(3,784.67-5,521.64)	6,233.67*(4,419.83-7,589.31)	8,344.58*(6,076.20-8,970.49)
Ages 16 to 17	52	2,066.16*(1,529.26-2,603.06)	1,347.67 (1,008.69-2,101.68)	3,902.14*(3,536.08-7,891.61)	6,594.32*(4,660.95-8,577.35)	8,209.84*(7,891.61-8,577.35)

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

(6) 757 individuals did not report body weight. They represent 6,343,627 individuals in the population.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**SECTION 5.2.2 TABLE 1. UNCOOKED FISH CONSUMPTION ESTIMATES\*\*\*  
Consumers Only - Finfish and Shellfish  
Alternate Habitat**

Grams/person/day				
Habitat	Statistic	Estimate	90%Interval**	
			Lower Bound	Upper Bound
<b>Freshwater</b>	Mean	41.43	35.60	47.27
n = 1,093	50th %	7.13	6.08	9.07
N = 14,862,705	90th %	120.89	107.59	147.02
	95th %	190.38	158.61	190.72
	99th %	381.98*	258.48*	431.48*
<b>Estuarine/Marine</b>	Mean	114.10	109.43	118.77
n = 4,352	50th %	86.35	82.01	91.27
N = 64,403,857	90th %	226.97	221.61	234.99
	95th %	294.50	269.43	323.68
	99th %	491.05	390.06	597.33
<b>All Fish</b>	Mean	121.33	116.43	126.23
n = 4,391	50th %	91.98	88.94	98.00
N = 65,139,471	90th %	241.04	232.76	254.85
	95th %	329.47	313.69	343.47
	99th %	506.85	485.63	592.99

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day period.

n = sample size, N = population size

Estimates are projected from the sample to the population of consumers only in the United States, using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

(5) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.

\*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States."

\*\* : Percentile intervals were estimated using the percentile bootstrap method with 1,000 bootstrap replications.

\*\*\*: Amount of consumed fish recorded by survey respondents was converted to uncooked fish quantities using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.



## **APPENDIX A**

**TABLE A-1. FRESHWATER/ESTUARINE RATIO FOR UNKNOWN FISH COMPONENTS**

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS BASED ON THE 1994-1996 CSFII FOOD CODES**

**TABLE A-3 "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS BASED ON THE 1998 CSFII FOOD CODES**

**TABLE A-4 "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS BASED ON THE 1994-1996 CSFII FOOD CODES**

**TABLE A-5 "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS BASED ON THE 1998 CSFII FOOD CODES**

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**TABLE A-1. Freshwater/Estuarine Ratios for Unknown Fish Components**

<b>Sections 4. and 5.</b>	<b>Table</b>	<b>Sex</b>	<b>Age</b>	<b>As Prepared Ratio</b>	<b>Uncooked Ratio</b>
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Females	14 and younger	0.29	0.29
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Females	15 to 44	0.37	0.38
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Females	45 and older	0.32	0.33
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Females	All ages	0.33	0.34
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Males	14 and younger	0.29	0.30
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Males	15 to 44	0.40	0.42
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Males	45 and older	0.39	0.41
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Males	All ages	0.37	0.39
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Both Sexes	14 and younger	0.29	0.29
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Both Sexes	15 to 44	0.38	0.40
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Both Sexes	45 and older	0.36	0.38
1.1.1, 1.1.2, 2.1.1, 2.1.2	1, 2, 3	Both Sexes	All ages	0.35	0.37
1.1.1, 1.1.2, 2.1.1, 2.1.2	4		18 and older	0.37	0.39
1.1.1, 1.1.2, 2.1.1, 2.1.2	5		3 to 5	0.27	0.27
1.1.1, 1.1.2, 2.1.1, 2.1.2	5		6 to 10	0.31	0.33
1.1.1, 1.1.2, 2.1.1, 2.1.2	5		11 to 15	0.36	0.37
1.1.1, 1.1.2, 2.1.1, 2.1.2	5		16 to 17	0.34	0.35
<b>Sections 4. and 5.</b>	<b>Table</b>	<b>Sex</b>	<b>Sample</b>	<b>As Prepared Ratio</b>	<b>Uncooked Ratio</b>
1.4	1, 2, 3		Low-Income	0.39	0.39
1.5, 2.2	1, 2, 3		Estuarine/Marine	0.93	0.92

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Abalone (1) ----- HABITAT=Marine -----									
26301110	0	Abalone, cooked, NS as to cooking method	15155	ABALONE,MXD SP,RAW	971.90	907.20	.	92.81	92.81
26301140	0	Abalone, floured or breaded, fried	15155	ABALONE,MXD SP,RAW	480.04	453.60	.	87.83	87.83
26301160	0	Abalone, steamed or poached	15155	ABALONE,MXD SP,RAW	100.84	100.00	.	98.34	98.34
28351110	100423	Fish and vegetable soup, no potatoes (Sopa de pescado) W/ ABALONE	15155	ABALONE,MXD SP,RAW	1,995.64	453.60	.	23.43	23.43
----- SPECIES=Anchovy (4) ----- HABITAT=Estuarine -----									
26101110	0	Anchovy, cooked, NS as to cooking method	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	100.00	91.57	100.00	91.57
26101180	0	Anchovy, canned	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	100.00	91.57	100.00	91.57
27116400	0	Steak tartare (raw ground beef and egg)	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	1.60	91.57	1.60	1.47
27460510	0	Antipasto with ham, fish, cheese, vegetables	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	1,741.00	113.40	91.57	6.51	5.96
72116140	0	Caesar salad (with romaine)	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	694.43	24.00	91.57	3.46	3.16
75146000	0	Greek Salad	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	220.00	7.00	91.57	3.18	2.91
----- SPECIES=Barracuda (6) ----- HABITAT=Marine -----									
26103110	0	Barracuda, cooked, NS as to cooking method	15050	BARRACUDA, RAW	971.90	907.20	.	92.88	92.88
26103120	0	Barracuda, baked or broiled	15050	BARRACUDA, RAW	971.90	907.20	.	92.88	92.88
26103140	0	Barracuda, floured or breaded, fried	15050	BARRACUDA, RAW	480.04	453.60	.	87.84	87.84
26103160	0	Barracuda, steamed or poached	15050	BARRACUDA,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Carp (18) ----- HABITAT=Freshwater -----									
26105110	0	Carp, cooked, NS as to cooking method	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	0	Carp, floured or breaded, fried	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	100582	Carp, floured or breaded, fried W/ CANOLA OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	100867	Carp, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	101165	Carp, floured or breaded, fried W/ CORN OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	203086	Carp, floured or breaded, fried W/ OLIVE OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105120	0	Carp, baked or broiled	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	690.70	626.00	.	89.41	89.41
26105120	202727	Carp, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	689.75	626.00	.	89.26	89.26
26105120	203146	Carp, baked or broiled W/O FAT	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	662.50	626.00	.	94.48	94.48
26105160	0	Carp, steamed or poached	15008	CARP,RAW	100.00	100.00	.	100.00	100.00
26105190	0	Carp, smoked	15008	CARP,RAW	101.00	100.00	.	98.44	98.44
27250060	0	Gefilte fish	15008	CARP,RAW	6,161.70	907.20	.	14.72	14.72
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26107110	0	Catfish, cooked, NS as to cooking method	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107120	0	Catfish, baked or broiled	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	680.70	616.00	.	89.26	89.26
26107120	202363	Catfish, baked or broiled W/ BUTTER, NFS	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	680.88	616.00	.	89.23	89.23

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine ----- (continued) -----									
26107120	202879	Catfish, baked or broiled W/ VEGETABLE OIL, NF S (INCLUDE OIL, NFS)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	679.75	616.00	.	89.10	89.10
26107120	203089	Catfish, baked or broiled W/O FAT	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	652.50	616.00	.	94.42	94.42
26107120	203382	Catfish, baked or broiled W/ CORN OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	679.75	616.00	.	89.10	89.10
26107130	0	Catfish, breaded or battered, baked	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	879.85	616.00	.	63.87	63.87
26107130	100572	Catfish, breaded or battered, baked W/O FAT	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	73.25	73.25
26107130	201360	Catfish, breaded or battered, baked W/ BUTTER, NFS	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	880.38	616.00	.	63.83	63.83
26107140	0	Catfish, floured or breaded, fried	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	100387	Catfish, floured or breaded, fried W/ VEGETABL E OIL, NFS (INCLUDE OIL, NFS)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	100431	Catfish, floured or breaded, fried W/ LARD	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	100436	Catfish, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WE SSON CORN OIL)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	100746	Catfish, floured or breaded, fried W/ OLIVE OI L	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	200942	Catfish, floured or breaded, fried W/ BACON GR EASE	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	202918	Catfish, floured or breaded, fried W/ SOYBEAN OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107150	0	Catfish, battered, fried	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
26107150	201662	Catfish, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
26107150	202685	Catfish, battered, fried W/ CANOLA OIL	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
26107150	203695	Catfish, battered, fried W/ PEANUT OIL	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
26107160	0	Catfish, steamed or poached	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	100.00	.	100.00	100.00
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234	CATFISH,CHANNEL,FARMED,RAW	1,381.60	226.80	.	16.87	16.87
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234	CATFISH,CHANNEL,FARMED,RAW	1,381.60	113.40	.	8.44	8.44
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234N	(26107160) CATFISH,CHANNEL,FARMED,RAW	1,381.60	147.40	.	11.16	11.16
----- SPECIES=Cisco (21) ----- HABITAT=Freshwater -----									
26100190	0	Fish, NS as to type, smoked	15014P	CISCO,SMOKED	99.90	11.60	98.24	11.61	11.41
----- SPECIES=Clam (22) ----- HABITAT=1.93% Estuarine, 98.07% Marine -----									
26303100	0	Clams, raw	15157	CLAM,MXD SP,RAW	100.00	100.00	.	100.00	100.00
26303110	0	Clams, cooked, NS as to cooking method	15157	CLAM,MXD SP,RAW	1,087.25	908.00	.	76.42	76.42
Food Code	Mod	Ingredient	Ingredient	Recipe Weight	Fish Weight	OPP/ USDA %	C_PRATIO	% of Prepared Fish	

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Code	code	Food Name	Code	Name	(grams)	(grams)	Fish	x 100	in Recipe
----- SPECIES=Clam (22) ----- HABITAT=1.93% Estuarine, 98.07% Marine ----- (continued) -----									
26303120	0	Clams, baked or broiled	15157	CLAM,MXD SP,RAW	242.40	226.80	.	92.25	92.25
26303140	0	Clams, floured or breaded, fried	15157	CLAM,MXD SP,RAW	1,085.75	908.00	.	76.56	76.56
26303140	100977	Clams, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15157	CLAM,MXD SP,RAW	1,085.75	908.00	.	76.56	76.56
26303150	0	Clams, battered, fried	15157	CLAM,MXD SP,RAW	902.90	680.40	.	65.95	65.95
26303160	0	Clams, steamed or boiled	15157	CLAM,MXD SP,RAW	411.42	408.00	.	98.96	98.96
26303180	0	Clams, canned	15157	CLAM,MXD SP,RAW	100.00	100.00	.	100.00	100.00
26303190	0	Clams, smoked, in oil	15157	CLAM,MXD SP,RAW	100.84	100.00	.	88.55	88.55
27250020	0	Clams, stuffed	15157	CLAM,MXD SP,RAW	855.04	453.60	.	50.91	50.91
27250270	0	Clams Casino	15157	CLAM,MXD SP,RAW	450.83	174.00	.	38.37	38.37
27250950	0	Shellfish mixture and noodles, tomato-based sauce (mixture)	15157	CLAM,MXD SP,RAW	742.00	56.70	.	7.64	7.64
27350020	0	Paella with seafood	15157	CLAM,MXD SP,RAW	2,281.18	232.00	.	10.01	10.01
27350030	0	Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	15157	CLAM,MXD SP,RAW	1,389.75	226.80	.	16.53	16.53
27350110	0	Bouillabaisse	15157	CLAM,MXD SP,RAW	4,392.60	226.80	.	5.17	5.17
27350310	0	Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15157	CLAM,MXD SP,RAW	1,370.35	226.80	.	16.75	16.75
27360090	0	Paella, NFS	15157	CLAM,MXD SP,RAW	2,219.78	232.00	.	10.25	10.25
27450600	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-base sauce	15157	CLAM,MXD SP,RAW	910.10	113.40	.	12.47	12.47
27450610	0	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-base sauce	15157	CLAM,MXD SP,RAW	940.10	113.40	.	12.08	12.08
27450650	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15157	CLAM,MXD SP,RAW	853.13	113.40	.	13.31	13.31
58155310	0	Paella, Valenciana style, with meat (Paella Valenciana)	15157	CLAM,MXD SP,RAW	2,708.13	360.00	.	11.50	11.50
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15157	CLAM,MXD SP,RAW	1,771.00	120.00	.	6.64	6.64
27150140	0	Clam sauce, white	15160	CLAM,MXD SP,CND,DRND	347.10	226.80	.	65.08	65.08
27150140	100425	Clam sauce, white W/ BUTTER, NFS	15160	CLAM,MXD SP,CND,DRND	349.85	226.80	.	64.70	64.70
27250210	0	Clam cake or patty	15160	CLAM,MXD SP,CND,DRND	779.30	396.90	.	40.80	40.80
27450660	0	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15160	CLAM,MXD SP,CND,DRND	891.68	160.00	.	17.94	17.94
28153010	0	Shrimp and clams in tomato-based sauce, with noodles (frozen meal)	15160	CLAM,MXD SP,CND,DRND	320.91	40.44	.	12.86	12.86
28355140	0	Clam chowder, New England, canned, reduced sodium, ready-to-serve	15160	CLAM,MXD SP,CND,DRND	100.20	7.60	.	7.58	7.58
58132800	0	Spaghetti with clam sauce, NS as to red or white	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	.	29.57	29.57

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Clam (22) ----- HABITAT=1.93% Estuarine, 98.07% Marine ----- (continued) -----

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

58132810	0	te Spaghetti with red clam sauce	15160	CLAM,MXD SP,CND,DRND	2,307.10	226.80	.	9.90	9.90
58132820	0	Spaghetti with white clam sauce	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	.	29.57	29.57
58132820	101043	Spaghetti with white clam sauce w/ MARGARINE-LIKE SPREAD, STICK, SALTED	15160	CLAM,MXD SP,CND,DRND	770.35	226.80	.	29.44	29.44
58304350	0	Linguini with clam sauce (diet frozen meal)	15160	CLAM,MXD SP,CND,DRND	100.00	18.00	.	18.00	18.00
58304400	0	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	15160	CLAM,MXD SP,CND,DRND	269.27	32.28	.	11.99	11.99
28355140	0	Clam chowder, New England, canned, reduced sodium, ready-to-serve	15162	CLAM,MXD SP,CND,LIQ	100.20	0.50	.	0.50	0.50
28350210	0	Clam chowder, NS as to Manhattan or New England style	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	100.00	12.50	31.09	12.55	3.89
28350220	0	Clam chowder, Manhattan	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	200.00	100.00	31.09	50.00	15.55
28355120	0	Clam chowder, New England, prepared with milk	6030	Need 1 can = 305 gm	602.00	305.00	.	50.66	50.66
28355120	100130	Clam chowder, New England, prepared with milk W/ 1% MILK	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28355120	101014	Clam chowder, New England, prepared with milk MADE FROM CONDENSED W/ 1/3 CAN OF SKIM MILK	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	404.00	305.00	.	75.50	75.50
28355120	200270	Clam chowder, New England, prepared with milk W/ 2% MILK	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28355120	200965	Clam chowder, New England, prepared with milk W/ SKIM MILK	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28355120	201749	Clam chowder, New England, prepared with milk W/ WHOLE MILK	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28355120	202311	Clam chowder, New England, prepared with milk W/ HALF AND HALF CREAM	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28350210	0	Clam chowder, NS as to Manhattan or New England style	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	50.00	39.91	50.32	19.96
28355110	0	Clam chowder, New England, NS as to prepared with water or milk	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	100.00	39.91	100.00	39.91
28350210	0	Clam chowder, NS as to Manhattan or New England style	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	100.00	12.50	31.09	12.34	3.89
28350220	0	Clam chowder, Manhattan	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	200.00	100.00	31.09	50.00	15.55
28350210	0	Clam chowder, NS as to Manhattan or New England style	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	25.00	40.51	24.78	10.13
28355130	0	Clam chowder, New England, prepared with water	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	100.00	40.51	100.00	40.51

----- SPECIES=Cod (23) -----

----- HABITAT=Marine -----

26100100	0	Fish, NS as to type, raw	15015	COD,ATLANTIC,RAW	100.00	22.50	.	22.50	22.50
26100130	0	Fish, NS as to type, breaded or battered, baked	15015	COD,ATLANTIC,RAW	1,171.58	204.10	.	16.63	16.63
26100140	0	Fish, NS as to type, floured or breaded, fried	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Cod (23) -----					----- HABITAT=Marine -----				
----- (continued) -----									
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59
26100150	0	Fish, NS as to type, battered, fried	15015	COD,ATLANTIC,RAW	133.00	22.50	.	15.15	15.15

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

26109190	0	Cod, smoked	15015	COD,ATLANTIC,RAW	101.00	100.00	.	99.01	99.01
27450740	0	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15015	COD,ATLANTIC,RAW	1,306.75	907.20	.	69.37	69.37
27450750	0	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	15015	COD,ATLANTIC,RAW	1,431.75	907.20	.	63.44	63.44
28150000	0	Fish dinner, NFS (frozen meal)	15015	COD,ATLANTIC,RAW	159.80	55.00	.	34.42	34.42
28150110	0	Fish and chips (frozen meal)	15015	COD,ATLANTIC,RAW	159.80	55.00	.	34.42	34.42
28150120	0	Fish and chips (frozen meal, large portion)	15015	COD,ATLANTIC,RAW	272.40	93.20	.	34.21	34.21
28150350	0	Cod with vegetable (diet frozen meal)	15015	COD,ATLANTIC,RAW	251.33	100.53	.	40.19	40.19
28150510	0	Fish in lemon-butter sauce with starch item, vegetable (frozen meal)	15015	COD,ATLANTIC,RAW	333.80	80.00	.	23.97	23.97
28150620	0	Fish, batter-dipped, or fish cake, with vegetable, potatoes, dessert (frozen meal)	15015	COD,ATLANTIC,RAW	297.72	96.85	.	32.53	32.53
28350050	0	Fish chowder	15015	COD,ATLANTIC,RAW	1,395.85	453.60	.	32.93	32.93
28350050	203441	Fish chowder W/ HALF AND HALF CREAM	15015	COD,ATLANTIC,RAW	1,391.85	453.60	.	32.74	32.74
28351110	0	Fish and vegetable soup, no potatoes (Sopa de pescado)	15015	COD,ATLANTIC,RAW	1,995.64	453.60	.	23.19	23.19
28351120	0	Fish soup, with potatoes (Sopa de Pescado)	15015	COD,ATLANTIC,RAW	1,883.14	453.60	.	24.53	24.53
28355450	0	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy)	15015	COD,ATLANTIC,RAW	2,953.00	907.20	.	31.11	31.11
28355460	0	Seafood soup with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy)	15015	COD,ATLANTIC,RAW	2,960.20	907.20	.	31.00	31.00
28355470	0	Seafood soup with vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes))	15015	COD,ATLANTIC,RAW	2,953.00	907.20	.	31.15	31.15
28355480	0	Seafood soup with vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes))	15015	COD,ATLANTIC,RAW	2,925.40	907.20	.	31.39	31.39
58117410	0	Codfish fritter, Puerto Rican style (Bacalaito)	15015	COD,ATLANTIC,RAW	1,230.30	645.00	.	29.54	29.54
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15015N	(26100150) COD,ATLANTIC,RAW	224.80	20.54	.	8.18	8.18
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15016	COD,ATLANTIC,CKD, DRY HEAT	100.84	22.50	.	22.31	22.31
26100120	0	Fish, NS as to type, baked or broiled	15016	COD,ATLANTIC,CKD, DRY HEAT	972.08	204.10	.	21.00	21.00
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15016	COD,ATLANTIC,CKD, DRY HEAT	972.08	204.10	.	21.00	21.00
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE	15016	COD,ATLANTIC,CKD, DRY HEAT	970.95	204.10	.	21.02	21.02

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Cod (23) ----- HABITAT=Marine -----					(continued)				
26100120	200986	ABLE OIL, NFS (INCLUDE OIL, NFS) Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS...)	15016	COD,ATLANTIC,CKD, DRY HEAT	970.95	204.10	.	21.02	21.02
28150360	0	Cod in cheese sauce with vegetable (diet frozen meal)	15016	COD,ATLANTIC,CKD, DRY HEAT	262.10	100.00	.	38.15	38.15
28152010	0	Seafood platter with fish cake, fish fillet, s	15016	COD,ATLANTIC,CKD, DRY HEAT	240.00	20.30	.	8.46	8.46

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.



**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27150010	0	callops, shrimp, potatoes (frozen meal) Fish with cream or white sauce, not tuna or lobster (mixture)	15017	COD,ATLANTIC,CND	924.00	324.00	.	35.06	35.06
27250030	0	Codfish ball or cake	15017	COD,ATLANTIC,CND	898.15	396.90	.	40.05	40.05
27250050	0	Fish cake or patty, NS as to fish	15017	COD,ATLANTIC,CND	898.15	396.90	.	40.05	40.05
27250310	0	Haddock cake or patty	15017	COD,ATLANTIC,CND	898.15	396.90	.	40.05	40.05
27351010	0	Codfish with starchy vegetables, Puerto Rican style (Serenata de bacalao) (mixture)	15017	COD,ATLANTIC,CND	2,298.80	226.80	.	9.84	9.84
27351020	0	Codfish salad, Puerto Rican style (Gazpacho de bacalao)	15017	COD,ATLANTIC,CND	1,446.75	340.20	.	23.51	23.51
27351030	0	Stewed codfish, Puerto Rican style (Bacalao guisado)	15017	COD,ATLANTIC,CND	993.30	250.00	.	25.93	25.93
27351040	0	Biscayne codfish, Puerto Rican style (Bacalao a la Vizcaina)	15017	COD,ATLANTIC,CND	1,397.85	350.00	.	24.74	24.74
27351050	0	Codfish salad, Puerto Rican style (Ensalada de bacalao)	15017	COD,ATLANTIC,CND	2,535.60	635.00	.	25.04	25.04
27451070	0	Codfish salad, Puerto Rican style (Serenata)	15017	COD,ATLANTIC,CND	729.60	198.00	.	27.14	27.14
28351160	0	Codfish, rice, and vegetable soup, Puerto Rican style	15017	COD,ATLANTIC,CND	2,886.75	453.60	.	16.25	16.25
28351170	0	Codfish soup with noodles, Puerto Rican style	15017	COD,ATLANTIC,CND	2,957.35	453.60	.	15.84	15.84
58100900	101090	Enchilada with seafood, tomato-based sauce W/ COD	15017	COD,ATLANTIC,CND	1,367.14	384.00	.	27.90	27.90
58409000	0	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	15017N	(27250030) COD,ATLANTIC,CND	847.77	55.68	.	5.95	5.95
28152010	0	Seafood platter with fish cake, fish fillet, scallops, shrimp, potatoes (frozen meal)	15017N	(27250050) COD,ATLANTIC,CND	240.00	33.67	.	12.72	12.72
26100170	0	Fish, NS as to type, dried	15018P	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	88.91	100.00	88.91
26109170	0	Cod, dried, salted	15018P	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	88.91	100.00	88.91
26109180	0	Cod, dried, salted, salt removed in water	15018P	COD,ATLANTIC,DRIED&SALTED	100.00	28.50	88.91	28.50	25.34
27151070	0	Stewed codfish, Puerto Rican style	15018P	COD,ATLANTIC,DRIED&SALTED	1,189.85	250.00	88.91	27.73	18.68
27150250	0	Fish moomchim (Korean style), dried fish with soy sauce	15018P	Need gwd for 1 C; recipe calls for 1 C.	74.11	42.00	88.91	56.67	50.39
26109110	0	Cod, cooked, NS as to cooking method	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	73.82	73.82
26109120	0	Cod, baked or broiled	15019	COD,PACIFIC,RAW	971.90	907.20	.	92.72	92.72
26109120	202670	Cod, baked or broiled W/ BUTTER, NFS	15019	COD,PACIFIC,RAW	972.08	907.20	.	92.70	92.70
26109120	203510	Cod, baked or broiled W/ OLIVE OIL	15019	COD,PACIFIC,RAW	970.70	907.20	.	92.73	92.73
26109130	0	Cod, breaded or battered, baked	15019	COD,PACIFIC,RAW	1,171.05	907.20	.	74.04	74.04
26109130	203682	Cod, breaded or battered, baked W/ SHORTENING,	15019	COD,PACIFIC,RAW	1,163.33	907.20	.	74.30	74.30

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Cod (23) ----- HABITAT=Marine ----- (continued) -----

VEGETABLE									
26109140	0	Cod, floured or breaded, fried	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	73.82	73.82
26109140	101002	Cod, floured or breaded, fried W/ CANOLA OIL	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	73.82	73.82
26109150	0	Cod, battered, fried	15019	COD,PACIFIC,RAW	133.00	100.00	.	69.79	69.79
26109150	101070	Cod, battered, fried W/ VEGETABLE OIL (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	133.00	100.00	.	69.79	69.79
26109150	203652	Cod, battered, fried W/ PEANUT OIL	15019	COD,PACIFIC,RAW	133.00	100.00	.	69.79	69.79
26109160	0	Cod, steamed or poached	15019	COD,PACIFIC,RAW	100.00	100.00	.	100.00	100.00
26109120	200971	Cod, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15019	Cod,Pacific,raw	970.95	907.20	.	92.70	92.70
26109120	201039	Cod, baked or broiled W/O FAT OR W/ NONSTICK S	15019	Cod,Pacific,raw	943.70	907.20	.	96.07	96.07

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

26109120	201359	PRAY (INCLUDE PAM...) Cod, baked or broiled W/ VEGETABLE OIL, NFS (I NCLUDE OIL, NFS)	15019	Cod,Pacific,raw	970.95	907.20	.	92.70	92.70
26109120	201495	Cod, baked or broiled W/ PEANUT OIL	15019	Cod,Pacific,raw	970.70	907.20	.	92.73	92.73
26109130	201456	Cod, breaded or battered, baked W/ FAT FREE MA RGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE PROM ISE ULTRA FAT FREE NONFAT MARGARINE)	15019	Cod,Pacific,raw	1,173.83	907.20	.	75.60	75.60
26109130	201574	Cod, breaded or battered, baked W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15019	Cod,Pacific,raw	1,086.45	907.20	.	81.20	81.20
26100100	0	Fish, NS as to type, raw	15066	POLLOCK,WALLEYE,RAW	100.00	48.20	.	48.20	48.20
26100130	0	Fish, NS as to type, breaded or battered, bake d	15066	POLLOCK,WALLEYE,RAW	1,171.58	437.30	.	35.58	35.58
26100140	0	Fish, NS as to type, floured or breaded, fried	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100150	0	Fish, NS as to type, battered, fried	15066	POLLOCK,WALLEYE,RAW	133.00	48.20	.	32.43	32.43
28150610	0	Fish, batter-dipped or fish cake, with vegetab le, potatoes (frozen meal)	15066N	(26100150) POLLOCK,WALLEYE,RAW	224.80	44.00	.	17.51	17.51
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	100.84	48.20	.	47.80	47.80
26100120	0	Fish, NS as to type, baked or broiled	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	.	44.99	44.99
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTE R, NFS	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	.	44.99	44.99
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGET ABLE OIL, NFS (INCLUDE OIL, NFS)	15067	Pollock,walleye,cooked,dry heat	970.95	437.30	.	45.04	45.04
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15067	Pollock,walleye,cooked,dry heat	970.95	437.30	.	45.04	45.04

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Conch (113) ----- HABITAT=Marine -----									
26304150	0	Conch, battered, fried	15250	CONCH,BKD/BRLD	133.00	100.00	.	69.13	69.13
26304200	0	Conch, baked or broiled	15250	CONCH,BKD/BRLD	100.00	100.00	.	100.00	100.00
----- SPECIES=Crab (24) ----- HABITAT=65.57% Estuarine, 34.43% Marine -----									
26305110	0	Crab, cooked, NS as to cooking method	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26305120	0	Crab, baked or broiled	15140	CRAB,BLUE,CKD,MOIST HEAT	242.40	226.80	.	93.56	93.56
26305120	101036	Crab, baked or broiled W/O FAT	15140	CRAB,BLUE,CKD,MOIST HEAT	228.30	226.80	.	99.34	99.34
26305120	202233	Crab, baked or broiled W/ OLIVE OIL	15140	CRAB,BLUE,CKD,MOIST HEAT	241.80	226.80	.	93.80	93.80
26305160	0	Crab, hard shell, steamed	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
27150020	0	Crab, deviled	15140	CRAB,BLUE,CKD,MOIST HEAT	963.38	453.60	.	46.53	46.53
27150020	100802	Crab, deviled W/ BUTTER, NFS	15140	CRAB,BLUE,CKD,MOIST HEAT	963.91	453.60	.	46.50	46.50
27150030	0	Crab imperial	15140	CRAB,BLUE,CKD,MOIST HEAT	790.38	453.60	.	57.17	57.17
27150130	0	Seafood newburg	15140	CRAB,BLUE,CKD,MOIST HEAT	929.58	113.40	.	11.84	11.84
27151040	0	Crabs in tomato-based sauce, Puerto Rican styl	15140	CRAB,BLUE,CKD,MOIST HEAT	329.63	227.00	.	68.35	68.35

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27250040	0	e (mixture) (Salmorejo de jueyes)								
		Crab cake	15140	CRAB,BLUE,CKD,MOIST HEAT	551.80	453.60	.	81.40	81.40	
27250250	0	Flounder with crab stuffing	15140	CRAB,BLUE,CKD,MOIST HEAT	1,445.40	226.80	.	15.46	15.46	
27250410	0	Shrimp with crab stuffing	15140	CRAB,BLUE,CKD,MOIST HEAT	1,808.90	741.20	.	38.45	38.45	
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	15140	CRAB,BLUE,CKD,MOIST HEAT	3,864.33	67.50	.	1.80	1.80	
27450010	0	Crab salad	15140	CRAB,BLUE,CKD,MOIST HEAT	357.05	226.80	.	63.52	63.52	
27450010	100412	Crab salad W/ TOFU MAYONNAISE (INCLUDE NAYONAI SE)	15140	CRAB,BLUE,CKD,MOIST HEAT	358.30	226.80	.	63.30	63.30	
27450010	203402	Crab salad W/ REAL MAYONNAISE	15140	CRAB,BLUE,CKD,MOIST HEAT	353.30	226.80	.	64.19	64.19	
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15140	CRAB,BLUE,CKD,MOIST HEAT	3,548.33	67.50	.	1.98	1.98	
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15140	CRAB,BLUE,CKD,MOIST HEAT	3,550.01	67.50	.	1.98	1.98	
27550110	0	Crab cake sandwich, on bun	15140	CRAB,BLUE,CKD,MOIST HEAT	1,044.90	453.60	.	41.99	41.99	
28350110	0	Crab soup, NS as to tomato-base or cream style	15140	CRAB,BLUE,CKD,MOIST HEAT	1,217.10	270.00	.	22.34	22.34	
28350120	0	Crab soup, tomato-base	15140	CRAB,BLUE,CKD,MOIST HEAT	2,050.85	453.60	.	22.39	22.39	
28355210	0	Crab soup, prepared with milk	15140	CRAB,BLUE,CKD,MOIST HEAT	1,698.05	453.60	.	26.92	26.92	
28355210	202154	Crab soup, prepared with milk W/ 1% MILK	15140	CRAB,BLUE,CKD,MOIST HEAT	1,698.05	453.60	.	26.94	26.94	
58115210	0	Taco with crab meat, Puerto Rican style (Taco de jueye)	15140	CRAB,BLUE,CKD,MOIST HEAT	1,656.61	453.60	.	26.33	26.33	
58148140	0	Macaroni salad with crab meat	15140	CRAB,BLUE,CKD,MOIST HEAT	751.63	101.25	.	13.47	13.47	
58148140	100659	Macaroni salad with crab meat W/ SOUR CREAM	15140	CRAB,BLUE,CKD,MOIST HEAT	749.75	101.25	.	13.50	13.50	
58148140	200570	Macaroni salad with crab meat W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15140	CRAB,BLUE,CKD,MOIST HEAT	759.50	101.25	.	13.33	13.33	
58148140	201317	Macaroni salad with crab meat W/ REAL MAYONNAISE	15140	CRAB,BLUE,CKD,MOIST HEAT	746.00	101.25	.	13.57	13.57	
					Recipe	Fish	OPP/		% of	
Food	Mod	Food Name	Ingredient	Ingredient	Weight	Weight	USDA	C_PRATIO	Prepared	
Code	code		Code	Name	(grams)	(grams)	%	x 100	Fish	
-----									in Recipe	
----- SPECIES=Crab (24) -----					----- HABITAT=65.57% Estuarine, 34.43% Marine ----- (continued) -----					
77230510	0	SE Cassava pie stuffed with crab meat, Puerto Rican style (Empanada de jueyes)	15140	CRAB,BLUE,CKD,MOIST HEAT	1,796.13	226.80	.	11.80	11.80	
26307140	0	Crab, soft shell, floured or breaded, fried	15140	Need yield for 1 crab after cooking;need 12 crabs	1,245.20	845.20	.	51.62	51.62	
75414020	201920	Mushrooms, stuffed W/ CRABMEAT AND W/ BUTTER, NFS	15140N	(26305110) CRAB,BLUE,CKD,MOIST HEAT	828.85	34.71	.	3.74	3.74	
75414020	202767	Mushrooms, stuffed W/ CRABMEAT	15140N	(26305110) CRAB,BLUE,CKD,MOIST HEAT	828.50	34.71	.	3.74	3.74	
58408010	100177	Won ton soup W/ SHRIMP AND CRAB MEAT	15140N	(26305160) CRAB,BLUE,CKD,MOIST HEAT	3,697.15	233.04	.	6.30	6.30	
26305180	0	Crab, canned	15141	CRAB,BLUE,CND	100.00	100.00	.	100.00	100.00	
27250550	0	Seafood souffle	15141	CRAB,BLUE,CND	599.32	44.96	.	7.48	7.48	
27450080	0	Seafood salad	15141	CRAB,BLUE,CND	529.77	100.00	.	18.88	18.88	
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15141	CRAB,BLUE,CND	530.77	100.00	.	18.84	18.84	
27450180	0	Seafood garden salad with seafood, vegetables excluding tomato and carrots, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	.	15.00	15.00	
27450190	0	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	.	15.00	15.00	
27450190	100116	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL CRAB	15141	CRAB,BLUE,CND	100.00	15.00	.	15.00	15.00	

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27450190	100116	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL CRAB	15141	CRAB,BLUE,CND	100.00	15.00	.	15.00	15.00
27450200	0	Seafood garden salad with seafood, eggs, vegetables excluding tomato and carrots, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	.	15.00	15.00
27450210	0	Seafood garden salad with seafood, eggs, tomato and/or carrots, other vegetables, no dressing	15141	CRAB,BLUE,CND	110.00	15.00	.	13.64	13.64
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15141	CRAB,BLUE,CND	76.99	15.00	.	19.48	19.48
58134310	0	Stuffed shells, with fish and/or shellfish, with tomato sauce	15141	CRAB,BLUE,CND	1,547.61	135.00	.	8.72	8.72

----- SPECIES=Crayfish (26) ----- HABITAT=Freshwater -----

26309140	0	Crayfish, floured or breaded, fried	15145	CRAYFISH,MXD SP,WILD,RAW	901.40	680.40	.	66.08	66.08
26309160	0	Crayfish, boiled or steamed	15146	CRAYFISH,MXD SP,WILD,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17

----- SPECIES=Croaker (27) ----- HABITAT=Estuarine -----

26111110	0	Croaker, cooked, NS as to cooking method	15020	1 lb raw,dressed croaker ylds 268g after ckg w/add	715.25	536.00	.	62.12	62.12
26111130	0	Croaker, breaded or battered, baked	15020	CROAKER,ATLANTIC,RAW	1,171.58	907.20	.	74.08	74.08
26111140	0	Croaker, floured or breaded, fried	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	.	61.75	61.75
26111140	100455	Croaker, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	.	61.75	61.75

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Croaker (27) ----- HABITAT=Estuarine ----- (continued) -----

26111140	101109	Croaker, floured or breaded, fried W/ SOYBEAN OIL (INCLUDE WESSON OIL, NFS...)	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	.	61.75	61.75
26111140	101127	Croaker, floured or breaded, fried W/ PEANUT OIL	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	.	61.75	61.75
26111160	0	Croaker, steamed or poached	15020	CROAKER,ATLANTIC,RAW	100.00	100.00	.	100.00	100.00
27451010	0	Fish a la creole, Puerto Rican style (Pescado frito con mojo)	15020	CROAKER,ATLANTIC,RAW	3,798.90	1,814.40	.	47.94	47.94
26111120	0	Croaker, baked or broiled	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	590.90	526.20	.	87.24	87.24
26111120	101027	Croaker, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.95	526.20	.	86.99	86.99
26111120	201441	Croaker, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.95	526.20	.	86.99	86.99
26111120	201442	Croaker, baked or broiled W/ OLIVE OIL	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.70	526.20	.	87.05	87.05

----- SPECIES=Eel (33) ----- HABITAT=Estuarine -----

26113110	0	Eel, cooked, NS as to cooking method	15025	EEL,MXD SP,RAW	972.70	907.20	.	86.48	86.48
26113160	0	Eel, steamed or poached	15025	EEL,MXD SP,RAW	100.00	100.00	.	100.00	100.00
26113190	0	Eel, smoked	15025	EEL,MXD SP,RAW	100.00	100.00	.	100.00	100.00

----- SPECIES=Fish (35) ----- HABITAT=Unknown -----

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

26100210	0	Fish stick, patty, or fillet, NS as to type, c 15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84
26100220	0	Fish stick, patty, or fillet, NS as to type, b 15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84
26100230	0	Fish stick, patty, or fillet, NS as to type, b 15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84
28150650	0	Fish, breaded, or fish sticks, with pasta, veg 15027N	(26100230) FISH PORTIONS & STK,FRZ,REHTD	100.00	18.20	44.84	18.20	18.20
27150210	0	Fish sauce (bagoong) 6179	SAUCE,FISH,RTS	100.00	100.00	.	100.00	100.00
28310330	0	Beef and rice noodle soup, Oriental style (Vie 6179	SAUCE,FISH,RTS	5,455.88	89.58	.	1.77	1.77
72308000	0	Dark-green leafy vegetable soup with meat, Ori 6179	SAUCE,FISH,RTS	1,319.63	33.63	.	2.55	2.55

----- SPECIES=Flatfish (37) ----- HABITAT=89.62% Estuarine, 10.38% Marine -----

26100100	0	Fish, NS as to type, raw 15028	FLATFISH,RAW	100.00	15.30	.	15.30	15.30
26100130	0	Fish, NS as to type, breaded or battered, bake 15028	FLATFISH,RAW	1,171.58	138.80	.	11.40	11.40
26100140	0	Fish, NS as to type, floured or breaded, fried 15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37
26100140	100258	Fish, NS as to type, floured or breaded, fried 15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37

W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Flatfish (37) ----- HABITAT=89.62% Estuarine, 10.38% Marine ----- (continued) -----

26100140	100854	Fish, NS as to type, floured or breaded, fried 15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37
		W/ SOYBEAN OIL						
26100150	0	Fish, NS as to type, battered, fried 15028	FLATFISH,RAW	133.00	15.30	.	10.38	10.38
27150050	0	Fish timbale or mousse 15028	FLATFISH,RAW	884.69	453.60	.	51.03	51.03
27150310	0	Fish with tomato-based sauce (mixture) 15028	FLATFISH,RAW	694.50	453.60	.	66.00	66.00
27150310	100997	Fish with tomato-based sauce (mixture) W/ BUTT 15028	FLATFISH,RAW	694.59	453.60	.	65.99	65.99
		ER, NFS						
27150310	101137	Fish with tomato-based sauce (mixture) W/ CANO 15028	FLATFISH,RAW	694.03	453.60	.	66.00	66.00
		LA OIL						
27150310	203262	Fish with tomato-based sauce (mixture) W/O FAT 15028	FLATFISH,RAW	680.40	453.60	.	67.63	67.63
27150310	203761	Fish with tomato-based sauce (mixture) W/ VEGE 15028	FLATFISH,RAW	694.03	453.60	.	66.00	66.00
		TABLE OIL, NFS (INCLUDE OIL, NFS)						
27450700	0	Fish and vegetables (including carrots, brocco 15028	FLATFISH,RAW	1,604.65	907.20	.	56.74	56.74
		li, and/or dark-green leafy (no potatoes)), to						
		mato-based sauce (mixture)						
27450710	0	Fish and vegetables (excluding carrots, brocco 15028	FLATFISH,RAW	1,619.65	907.20	.	56.28	56.28
		li, and dark- green leafy (no potatoes)), toma						
		to-based sauce (mixture)						
27460100	0	Lau lau (pork and fish wrapped in taro or spin 15028	FLATFISH,RAW	1,925.53	680.40	.	35.34	35.34
		ach leaves)						
27550000	0	Fish sandwich, on bun, with spread 15028	FLATFISH,RAW	148.60	57.60	.	35.28	35.28
27550000	100254	Fish sandwich, on bun, with spread W/ TARTAR S 15028	FLATFISH,RAW	148.60	57.60	.	35.18	35.18
		AUCE						
27550000	100769	Fish sandwich, on bun, with spread REMOVED SPR 15028	FLATFISH,RAW	133.60	57.60	.	39.41	39.41
		EAD						
58151130	0	Sushi, with vegetables and fish 15028	FLATFISH,RAW	2,394.40	302.55	.	12.42	12.42
28150610	0	Fish, batter-dipped or fish cake, with vegetab 15028N	(26100150) FLATFISH,RAW	224.80	13.97	.	5.60	5.60

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

26100110	0	le, potatoes (frozen meal) Fish, NS as to type, cooked, NS as to cooking method	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	100.84	15.30	.	15.17	15.17
26100120	0	Fish, NS as to type, baked or broiled	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	.	14.28	14.28
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTE R, NFS	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	.	14.28	14.28
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15029	Flatfish,cooked,dry heat	970.95	138.80	.	14.30	14.30
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15029	Flatfish,cooked,dry heat	970.95	138.80	.	14.30	14.30
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine -----									
26115000	0	Flounder, raw	15028	FLATFISH,RAW	100.00	100.00	.	100.00	100.00
26115110	0	Flounder, cooked, NS as to cooking method	15028	FLATFISH,RAW	971.90	907.20	.	92.75	92.75
26115120	0	Flounder, baked or broiled	15028	FLATFISH,RAW	971.90	907.20	.	92.75	92.75
26115120	100464	Flounder, baked or broiled W/O FAT OR W/ NONSTICK	15028	FLATFISH,RAW	943.70	907.20	.	96.09	96.09
					Recipe	Fish	OPP/		% of
Food	Mod	Food Name	Ingredient	Ingredient	Weight	Weight	USDA	C_PRATIO	Prepared
Code	code		Code	Name	(grams)	(grams)	% Fish	x 100	Fish
									in Recipe
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine ----- (continued) -----									
26115120	200314	ICK SPRAY (INCLUDE PAM...) Flounder, baked or broiled W/ CORN OIL	15028	FLATFISH,RAW	970.95	907.20	.	92.72	92.72
26115120	200995	Flounder, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	970.95	907.20	.	92.72	92.72
26115120	201280	Flounder, baked or broiled W/ OLIVE OIL	15028	FLATFISH,RAW	970.70	907.20	.	92.75	92.75
26115120	201381	Flounder, baked or broiled W/ BUTTER, NFS	15028	FLATFISH,RAW	972.08	907.20	.	92.73	92.73
26115130	0	Flounder, breaded or battered, baked	15028	FLATFISH,RAW	1,171.58	907.20	.	74.05	74.05
26115130	100680	Flounder, breaded or battered W/ OLIVE OIL	15028	FLATFISH,RAW	1,167.45	907.20	.	74.00	74.00
26115130	101015	Flounder, breaded or battered, baked W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,168.20	907.20	.	73.94	73.94
26115130	202708	Flounder, breaded or battered, baked W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15028	FLATFISH,RAW	1,086.45	907.20	.	81.25	81.25
26115140	0	Flounder, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115140	100244	Flounder, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115140	100459	Flounder, floured or breaded, fried W/ OLIVE OIL	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115140	100824	Flounder, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115140	100907	Flounder, floured or breaded, fried W/ SOYBEAN OIL	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115140	101072	Flounder, floured or breaded, fried W/ BACON GREASE	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115150	0	Flounder, battered, fried	15028	FLATFISH,RAW	133.00	100.00	.	67.52	67.52
26115150	201594	Flounder, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	133.00	100.00	.	67.52	67.52
26115160	0	Flounder, steamed or poached	15028	FLATFISH,RAW	100.00	100.00	.	100.00	100.00
26115190	0	Flounder, smoked	15028	FLATFISH,RAW	100.50	100.00	.	98.80	98.80
27250250	0	Flounder with crab stuffing	15028	FLATFISH,RAW	1,445.40	907.20	.	61.48	61.48
28150220	0	Flounder with chopped broccoli (diet frozen meal)	15028	FLATFISH,RAW	326.21	113.40	.	34.76	34.76

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
28150370	0	Flounder in cream sauce with potatoes, carrots (diet frozen meal)	15028N	(26115160) FLATFISH,RAW	279.48	85.20	.	30.49	30.49
----- SPECIES=Haddock (41) ----- HABITAT=Marine -----									
26117110	0	Haddock, cooked, NS as to cooking method	15033	HADDOCK,RAW	972.95	907.20	.	92.62	92.62
26117120	0	Haddock, baked or broiled	15033	HADDOCK,RAW	972.95	907.20	.	92.62	92.62
26117120	100291	Haddock, baked or broiled W/ MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE I CAN'T BELIEVE IT'S NOT BUTTER...)	15033	HADDOCK,RAW	973.38	907.20	.	92.76	92.76
26117120	100596	Haddock, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15033	HADDOCK,RAW	944.75	907.20	.	95.95	95.95
26117120	201554	Haddock, baked or broiled W/ VEGETABLE OIL, NF	15033	HADDOCK,RAW	972.00	907.20	.	92.59	92.59
----- SPECIES=Haddock (41) ----- HABITAT=Marine ----- (continued) -----									
		S (INCLUDE OIL, NFS)							
26117120	201747	Haddock, baked or broiled W/ BUTTER, NFS	15033	HADDOCK,RAW	973.13	907.20	.	92.60	92.60
26117120	202548	Haddock, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS...)	15033	HADDOCK,RAW	972.00	907.20	.	92.59	92.59
26117120	203383	Haddock, baked or broiled W/ MARGARINE-LIKE SPREAD, LIQUID, SALTED (INCLUDE PARKAY SQUEEZE SPREAD...)	15033	HADDOCK,RAW	973.13	907.20	.	92.70	92.70
26117130	0	Haddock, breaded or battered, baked	15033	HADDOCK,RAW	1,171.58	907.20	.	74.03	74.03
26117130	202751	Haddock, breaded or battered, baked W/O FAT	15033	HADDOCK,RAW	1,086.45	907.20	.	81.23	81.23
26117130	203691	Haddock, breaded or battered, baked W/ BUTTER, NFS	15033	HADDOCK,RAW	1,171.58	907.20	.	74.04	74.04
26117140	0	Haddock, floured or breaded, fried	15033	HADDOCK,RAW	1,086.45	907.20	.	73.84	73.84
26117140	100866	Haddock, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	1,086.45	907.20	.	73.84	73.84
26117150	0	Haddock, battered, fried	15033	HADDOCK,RAW	133.00	100.00	.	69.86	69.86
26117150	201691	Haddock, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	133.00	100.00	.	69.86	69.86
26117160	0	Haddock, steamed or poached	15033	HADDOCK,RAW	100.00	100.00	.	100.00	100.00
28150210	0	Haddock with chopped spinach (diet frozen meal)	15033	HADDOCK,RAW	273.88	113.40	.	41.41	41.41
27550100	0	Fish sandwich, on bun, with cheese and spread	15033N	(26117140) HADDOCK,RAW	100.00	33.40	.	29.54	29.54
26117190	0	Haddock, smoked	15035	HADDOCK, SMOKED	100.00	100.00	.	100.00	100.00
----- SPECIES=Halibut (43) ----- HABITAT=Marine -----									
26100160	0	Fish, NS as to type, steamed	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	100.00	100.00	.	100.00	100.00
27350110	0	Bouillabaisse	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	4,392.60	453.60	.	10.46	10.46
58151100	0	Sushi, NFS	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	1,345.35	113.40	.	8.43	8.43
28150230	0	Turbot with vegetable (diet frozen meal)	15038	HALIBUT,GREENLAND,RAW	199.00	95.00	.	47.74	47.74
----- SPECIES=Herring (44) ----- HABITAT=Estuarine -----									
26119120	0	Herring, baked or broiled	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	757.70	693.00	.	90.45	90.45
26119120	200993	Herring, baked or broiled W/ OLIVE OIL	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.50	693.00	.	90.33	90.33
26119120	201099	Herring, baked or broiled W/ VEGETABLE OIL, NF	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.75	693.00	.	90.29	90.29

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

S (INCLUDE OIL, NFS)									
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26119120	202972	Herring, baked or broiled W/O FAT	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	729.50	693.00	.	95.10	95.10
26119120	203215	Herring, baked or broiled W/ CORN OIL	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.75	693.00	.	90.29	90.29
26119100	0	Herring, raw	15039	HERRING,ATLANTIC,RAW	100.00	100.00	.	100.00	100.00
26119140	0	Herring, floured or breaded, fried	15039	HERRING,ATLANTIC,RAW	787.05	607.80	.	66.62	66.62
26139170	0	Sardines, dried	15040	sardine	100.00	100.00	.	100.00	100.00
26119110	0	Herring, cooked, NS as to cooking method	15041P	HERRING,ATLANTIC,PICKLED	100.00	100.00	78.20	100.00	78.20
26119160	0	Herring, pickled, in cream sauce	15041P	HERRING,ATLANTIC,PICKLED	1,137.20	907.20	78.20	79.77	62.38
26119180	0	Herring, pickled	15041P	HERRING,ATLANTIC,PICKLED	100.00	100.00	78.20	100.00	78.20
26119170	0	Herring, dried, salted	15042P	HERRING,ATLANTIC,KIPPERED	100.00	100.00	98.07	100.00	98.07
----- SPECIES=Herring (44) ----- HABITAT=Estuarine ----- (continued) -----									
26119190	0	Herring, smoked, kippered	15042P	HERRING,ATLANTIC,KIPPERED	100.00	100.00	98.07	100.00	98.07
26139190	0	Sardines, skinless, boneless, packed in water	15042P	Sardines,cnd	100.00	100.00	98.07	100.00	98.07
27250830	100966	Fish and rice with (mushroom) soup W/ SARDINES	15042N	(26139190) Sardines,cnd	854.55	167.00	98.07	19.93	19.93
----- SPECIES=Lobster (47) ----- HABITAT=Marine -----									
26311140	0	Lobster, floured or breaded, fried	15147	LOBSTER,NORTHERN,RAW	1,086.45	907.20	.	73.91	73.91
27350110	0	Bouillabaisse	15147	LOBSTER,NORTHERN,RAW	4,392.60	226.80	.	5.25	5.25
27451030	0	Lobster creole, Puerto Rican style (Langosta a la criolla)	15147	LOBSTER,NORTHERN,RAW	806.23	340.20	.	42.54	42.54
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15147	LOBSTER,NORTHERN,RAW	1,771.00	226.80	.	12.94	12.94
26311110	0	Lobster, cooked, NS as to cooking method	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26311120	0	Lobster, baked or broiled	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	235.59	227.00	.	96.35	96.35
26311130	0	Lobster, without shell, steamed or boiled	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26311150	0	Lobster, battered, fried	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	133.00	100.00	.	67.67	67.67
26311160	0	Lobster, steamed or boiled	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26311180	0	Lobster, canned	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
27150060	0	Lobster newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	340.20	.	35.64	35.64
27150070	0	Lobster with butter sauce (mixture)	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	187.56	145.00	.	77.31	77.31
27150130	0	Seafood newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	113.40	.	11.90	11.90
27250260	0	Lobster with bread stuffing, baked	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	330.76	226.80	.	68.57	68.57
27450020	0	Lobster salad	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	1,431.50	290.00	.	20.26	20.26
27450080	0	Seafood salad	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	529.77	100.00	.	18.88	18.88
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	530.77	100.00	.	18.84	18.84
28152030	0	Seafood newburg with rice, vegetable (frozen meal)	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	296.68	2.97	.	1.00	1.00
28355250	0	Lobster bisque	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	1,429.23	340.20	.	23.99	23.99
28355250	202683	Lobster bisque W/ SKIM MILK	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	1,433.23	340.20	.	23.96	23.96
28355260	0	Lobster gumbo	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	2,106.80	226.80	.	11.04	11.04
----- SPECIES=Mackerel (49) ----- HABITAT=Marine -----									
26121100	0	Mackerel, raw	15046	MACKEREL,ATLANTIC,RAW	99.00	33.00	.	33.33	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15046	MACKEREL,ATLANTIC,RAW	972.53	302.55	.	31.53	31.53
26121120	0	Mackerel, baked or broiled	15046	MACKEREL,ATLANTIC,RAW	972.53	302.55	.	31.53	31.53
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15046	MACKEREL,ATLANTIC,RAW	971.40	302.55	.	31.53	31.53
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15046	MACKEREL,ATLANTIC,RAW	972.53	302.55	.	31.53	31.53
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15046	MACKEREL,ATLANTIC,RAW	971.15	302.55	.	31.54	31.54

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.



**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26121140	0	Mackerel, floured or breaded, fried	15046	MACKEREL, ATLANTIC, RAW	1,086.90	302.55	.	25.20	25.20
26121160	0	Mackerel, pickled	15046	MACKEREL, ATLANTIC, RAW	467.20	453.60	.	96.36	96.36
26121180	0	Mackerel, canned	15048	MACKEREL, JACK, CND, DRND	100.00	100.00	.	100.00	100.00
27250300	0	Mackerel cake or patty	15048	MACKEREL, JACK, CND, DRND	954.85	453.60	.	43.35	43.35
26121100	0	Mackerel, raw	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	99.00	33.00	.	33.33	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	972.53	302.55	.	30.77	30.77
----- SPECIES=Mackerel (49) ----- HABITAT=Marine ----- (continued) -----									
26121120	0	Mackerel, baked or broiled	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	972.53	302.55	.	30.77	30.77
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	971.40	302.55	.	30.76	30.76
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	972.53	302.55	.	30.77	30.77
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	971.15	302.55	.	30.77	30.77
26121140	0	Mackerel, floured or breaded, fried	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	1,086.90	302.55	.	24.53	24.53
26121100	0	Mackerel, raw	15051	MACKEREL, SPANISH, RAW	99.00	33.00	.	33.33	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15051	MACKEREL, SPANISH, RAW	972.53	302.55	.	30.59	30.59
26121120	0	Mackerel, baked or broiled	15051	MACKEREL, SPANISH, RAW	972.53	302.55	.	30.59	30.59
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15051	MACKEREL, SPANISH, RAW	971.40	302.55	.	30.58	30.58
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15051	MACKEREL, SPANISH, RAW	972.53	302.55	.	30.59	30.59
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15051	MACKEREL, SPANISH, RAW	971.15	302.55	.	30.59	30.59
26121140	0	Mackerel, floured or breaded, fried	15051	MACKEREL, SPANISH, RAW	1,086.90	302.55	.	24.38	24.38
26121190	0	Mackerel, smoked	15201	MACKEREL, PACIFIC &JACK, MXD SP, CKD, DRY HEAT	100.75	100.00	.	99.26	99.26
26121130	0	Mackerel, salted	83110	FISH, MACKEREL, SALTED	100.00	100.00	.	100.00	100.00
26121170	0	Mackerel, dried	83110	FISH, MACKEREL, SALTED	100.00	100.00	.	100.00	100.00
----- SPECIES=Mullet (52) ----- HABITAT=Estuarine -----									
26123100	0	Mullet, raw	15055	MULLET, STRIPED, RAW	100.00	100.00	.	100.00	100.00
26123140	100501	Mullet, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15055	MULLET, STRIPED, RAW	787.05	607.80	.	66.39	66.39
26123160	0	Mullet, steamed or poached	15055	MULLET, STRIPED, RAW	100.00	100.00	.	100.00	100.00
26123140	0	Mullet, floured or breaded, fried	15055	Need gwd for 1 lb raw ylds x; recipe calls for 2 l	787.05	607.80	.	66.39	66.39
26123140	100806	Mullet, floured or breaded, fried W/ CANOLA, S OYBEAN, AND SUNFLOWER OIL	15055	Need gwd for 1 lb raw ylds x; recipe calls for 2 l	787.05	607.80	.	66.39	66.39
26123120	0	Mullet, baked or broiled	15055	Need gwd for 1 lb raw ylds.; recipe calls for 2lbs	672.50	607.80	.	89.08	89.08
26123110	0	Mullet, cooked, NS as to cooking method	15055	Need gwd for 1 lb. raw ylds x; recipe calls for 2 lb	787.05	607.80	.	66.39	66.39
----- SPECIES=Mussels (53) ----- HABITAT=Marine -----									
26313100	0	Mussels, raw	15164	MUSSEL, BLUE, RAW	100.00	100.00	.	100.00	100.00
26313110	0	Mussels, cooked, NS as to cooking method	15164	MUSSEL, BLUE, RAW	484.80	453.60	.	92.33	92.33
26313110	100863	Mussels, cooked, NS as to cooking method W/ CA NOLA OIL	15164	MUSSEL, BLUE, RAW	483.85	453.60	.	92.27	92.27
26313110	203495	Mussels, cooked, NS as to cooking method W/ BU TTER, NFS	15164	MUSSEL, BLUE, RAW	484.98	453.60	.	92.29	92.29
26313160	0	Mussels, steamed or poached	15164	MUSSEL, BLUE, RAW	100.84	100.00	.	98.34	98.34
27150330	0	Mussels with tomato-based sauce (mixture)	15164	MUSSEL, BLUE, RAW	125.00	100.00	.	79.36	79.36
27350110	0	Bouillabaisse	15164	MUSSEL, BLUE, RAW	4,392.60	226.80	.	5.19	5.19
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine -----									
26125100	0	Ocean perch, raw	15057	OCEAN PERCH, ATLANTIC, RAW	100.00	100.00	.	100.00	100.00

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26125110	0	Ocean perch, cooked, NS as to cooking method	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	.	92.75	92.75
26125120	0	Ocean perch, baked or broiled	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	.	92.75	92.75
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine ----- (continued) -----									
26125120	201950	Ocean perch, baked or broiled W/ BUTTER, NFS	15057	OCEAN PERCH,ATLANTIC,RAW	972.08	907.20	.	92.74	92.74
26125120	202334	Ocean perch, baked or broiled W/O FAT OR W/ NO NSTICK SPRAY (INCLUDE PAM...)	15057	OCEAN PERCH,ATLANTIC,RAW	943.70	907.20	.	96.10	96.10
26125120	203091	Ocean perch, baked or broiled W/ OLIVE OIL	15057	OCEAN PERCH,ATLANTIC,RAW	970.70	907.20	.	92.76	92.76
26125130	0	Ocean perch, breaded or battered, baked	15057	OCEAN PERCH,ATLANTIC,RAW	1,128.75	907.20	.	77.54	77.54
26125140	0	Ocean perch, floured or breaded, fried	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	.	73.87	73.87
26125140	100975	Ocean perch, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	.	73.87	73.87
26125150	0	Ocean perch, battered, fried	15057	OCEAN PERCH,ATLANTIC,RAW	133.00	100.00	.	67.54	67.54
26125160	0	Ocean perch, steamed or poached	15057	OCEAN PERCH,ATLANTIC,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Octopus (55) ----- HABITAT=Marine -----									
26205110	0	Octopus, cooked, NS as to cooking method	15166	OCTOPUS,COMMON,RAW	1,086.45	907.20	.	76.44	76.44
26205160	0	Octopus, steamed	15166	OCTOPUS,COMMON,RAW	100.84	100.00	.	98.34	98.34
26205170	0	Octopus, dried	15166	OCTOPUS,COMMON,RAW	100.30	100.00	.	98.86	98.86
26205190	0	Octopus, smoked	15166	OCTOPUS,COMMON,RAW	100.00	100.00	.	100.00	100.00
27451060	0	Octopus salad, Puerto Rican style (Ensalada de pulpo)	15166	OCTOPUS,COMMON,RAW	516.30	226.80	.	43.76	43.76
26205180	0	Octopus, dried, boiled	15230	OCTOPUS,COMMON,CKD,MOIST HEAT	100.30	100.00	.	99.70	99.70
----- SPECIES=Oyster (59) ----- HABITAT=Estuarine -----									
26315100	0	Oysters, raw	15167	OYSTER,EASTERN,WILD,RAW	100.00	100.00	.	100.00	100.00
26315110	0	Oysters, cooked, NS as to cooking method	15167	OYSTER,EASTERN,WILD,RAW	589.20	504.00	.	82.37	82.37
26315120	0	Oysters, baked or broiled	15167	OYSTER,EASTERN,WILD,RAW	242.40	226.80	.	93.56	93.56
26315130	0	Oysters, steamed	15167	OYSTER,EASTERN,WILD,RAW	100.84	100.00	.	98.96	98.96
26315140	0	Oysters, floured or breaded, fried	15167	OYSTER,EASTERN,WILD,RAW	1,086.45	907.20	.	73.75	73.75
26315150	0	Oysters, battered, fried	15167	OYSTER,EASTERN,WILD,RAW	902.90	680.40	.	65.85	65.85
26315190	0	Oysters, smoked	15167	OYSTER,EASTERN,WILD,RAW	100.84	100.00	.	98.65	98.65
27250220	0	Oyster fritter	15167	OYSTER,EASTERN,WILD,RAW	783.90	400.00	.	39.83	39.83
27350200	0	Oyster pie	15167	OYSTER,EASTERN,WILD,RAW	830.84	200.00	.	22.33	22.33
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	15167	OYSTER,EASTERN,WILD,RAW	3,864.33	186.00	.	4.84	4.84
27450250	0	Oysters Rockefeller	15167	OYSTER,EASTERN,WILD,RAW	786.68	336.00	.	42.14	42.14
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15167	OYSTER,EASTERN,WILD,RAW	3,548.33	186.00	.	5.31	5.31
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15167	OYSTER,EASTERN,WILD,RAW	3,550.01	186.00	.	5.31	5.31
28355310	0	Oyster stew	15167	OYSTER,EASTERN,WILD,RAW	1,538.01	496.00	.	32.24	32.24
28355310	100152	Oyster stew W/ SKIM MILK	15167	OYSTER,EASTERN,WILD,RAW	1,542.01	496.00	.	32.18	32.18
28355310	201647	Oyster stew W/ WHOLE MILK	15167	OYSTER,EASTERN,WILD,RAW	1,538.01	496.00	.	32.22	32.22
28355310	202979	Oyster stew W/ WHOLE MILK AND W/ MARGARINE, NF	15167	OYSTER,EASTERN,WILD,RAW	1,538.51	496.00	.	32.23	32.23

OPP/ % of

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	USDA % Fish	C_PRATIO x 100	Prepared Fish in Recipe
----- SPECIES=Oyster (59) -----					----- HABITAT=Estuarine ----- (continued) -----				
58128210	0	S Dressing with oysters	15167	OYSTER,EASTERN,WILD,RAW	969.73	248.00	.	25.57	25.57
32105020	100663	Egg omelet or scrambled egg, with fish W/ ERS	OYST 15167N	(26315120) OYSTER,EASTERN,WILD,RAW	84.58	11.23	.	13.21	13.21
26315180	0	Oysters, canned	15170	OYSTER,EASTERN,CND	100.00	100.00	.	100.00	100.00
27150200	0	Oyster sauce (white sauce-based)	15170	OYSTER,EASTERN,CND	501.80	248.00	.	49.42	49.42
----- SPECIES=Perch (60) -----					----- HABITAT=50% Freshwater, 50% Estuarine -----				
26127140	0	Perch, floured or breaded, fried	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	100350	Perch, floured or breaded, fried W/ OIL, NFS (INCLUDE OIL, NFS)	VEGETABLE 15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	100829	Perch, floured or breaded, fried W/ INCLUDE MAZOLA OIL, NFS; MAZOLA CORN OIL)	CORN OIL ( 15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	100892	Perch, floured or breaded, fried W/ OLIVE OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	100971	Perch, floured or breaded, fried W/ CANOLA OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127110	0	Perch, cooked, NS as to cooking method	15060	Need grm wt.descr.for 1 lb raw ylds...;recipe call	732.65	553.40	.	63.34	63.34
26127120	0	Perch, baked or broiled	15060	PERCH,MXD SP,RAW	971.90	907.20	.	92.75	92.75
26127120	200860	Perch, baked or broiled W/ (INCLUDE OIL, NFS)	VEGETABLE OIL, NFS 15060	PERCH,MXD SP,RAW	970.95	907.20	.	92.72	92.72
26127120	201707	Perch, baked or broiled W/ AZOLA CORN OIL; MAZOLA OIL, NFS)	CORN OIL (INCLUDE M 15060	PERCH,MXD SP,RAW	970.95	907.20	.	92.72	92.72
26127120	203094	Perch, baked or broiled W/ OLIVE OIL	15060	PERCH,MXD SP,RAW	970.70	907.20	.	92.75	92.75
26127120	203332	Perch, baked or broiled W/O FAT	15060	PERCH,MXD SP,RAW	943.70	907.20	.	96.09	96.09
26127120	203610	Perch, baked or broiled W/ BUTTER, NFS	15060	PERCH,MXD SP,RAW	972.08	907.20	.	92.73	92.73
26127130	0	Perch, breaded or battered, baked	15060	PERCH,MXD SP,RAW	1,128.75	907.20	.	77.53	77.53
26127130	100568	Perch, breaded or battered, baked W/ OIL, NFS (INCLUDE OIL, NFS)	VEGETABLE 15060	PERCH,MXD SP,RAW	1,127.33	907.20	.	77.46	77.46
26127130	203003	Perch, breaded or battered, baked W/O FAT	15060	PERCH,MXD SP,RAW	1,086.45	907.20	.	81.24	81.24
26127150	0	Perch, battered, fried	15060	PERCH,MXD SP,RAW	133.00	100.00	.	69.90	69.90
26127150	100862	Perch, battered, fried W/ CANOLA OIL	15060	PERCH,MXD SP,RAW	133.00	100.00	.	69.90	69.90
26127150	202977	Perch, battered, fried W/ WESSON SOYBEAN OIL...)	SOYBEAN OIL (INCLUDE 15060	PERCH,MXD SP,RAW	133.00	100.00	.	69.90	69.90
26127160	0	Perch, steamed or poached	15060	PERCH,MXD SP,RAW	100.00	100.00	.	100.00	100.00
27350030	0	Seafood stew with potatoes and vegetables (exc luding carrots, broccoli, and dark-green leafy ), tomato-base sauce	15060	PERCH,MXD SP,RAW	1,389.75	113.40	.	8.33	8.33
27350310	0	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15060	PERCH,MXD SP,RAW	1,370.35	113.40	.	8.44	8.44
----- SPECIES=Pike (63) -----					----- HABITAT=Freshwater -----				
26129110	0	Pike, cooked, NS as to cooking method	15062	PIKE,NORTHERN,RAW	1,086.45	907.20	.	73.86	73.86
26129120	0	Pike, baked or broiled	15062	PIKE,NORTHERN,RAW	971.90	907.20	.	92.75	92.75
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

----- SPECIES=Pike (63) ----- HABITAT=Freshwater ----- (continued) -----									
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26129120	201172	Pike, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15062	PIKE,NORTHERN,RAW	970.95	907.20	.	92.72	92.72
26129140	0	Pike, floured or breaded, fried	15062	PIKE,NORTHERN,RAW	1,086.45	907.20	.	73.86	73.86
26129150	0	Pike, battered, fried	15062	PIKE,NORTHERN,RAW	133.00	100.00	.	67.52	67.52
26129160	0	Pike, steamed or poached	15062	PIKE,NORTHERN,RAW	100.00	100.00	.	100.00	100.00
27250060	0	Gefilte fish	15062	PIKE,NORTHERN,RAW	6,161.70	2,268.00	.	36.81	36.81
----- SPECIES=Pollock (64) ----- HABITAT=Marine -----									
26100240	0	Fish stick, patty, or fillet, NS as to type, floured or breaded, fried	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	.	73.88	73.88
26100240	101130	Fish stick, patty, or fillet, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	.	73.88	73.88
26100250	0	Fish stick, patty, or fillet, NS as to type, battered, fried	15065	POLLOCK,ATLANTIC,RAW	133.00	100.00	.	67.56	67.56
27250500	0	Kamaboko (Japanese fish cake)	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	.	67.57	67.57
27250510	0	Fish cake (Kamaboko) tempura	15065	POLLOCK,ATLANTIC,RAW	752.34	453.60	.	56.50	56.50
27250520	0	Seafood restructured	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	.	67.57	67.57
28150050	0	Fish parmesan (frozen meal)	15065	POLLOCK,ATLANTIC,RAW	1,687.93	680.40	.	39.18	39.18
28150410	0	Fish and chips with vegetable, potatoes, tomatoes (frozen meal)	15065	POLLOCK,ATLANTIC,RAW	255.80	100.00	.	37.09	37.09
28152030	0	Seafood newburg with rice, vegetable (frozen meal)	15065N	(27250500) POLLOCK,ATLANTIC,RAW	296.68	24.08	.	8.12	8.12
58149210	0	Somen salad	15065N	(27250500) POLLOCK,ATLANTIC,RAW	422.05	47.30	.	11.21	11.21
27450130	0	Crab salad made with imitation crab	15065N	(27250520) POLLOCK,ATLANTIC,RAW	357.05	153.24	.	42.92	42.92
27450130	100551	Crab salad made with imitation crab W/ REAL MAYONNAISE	15065N	(27250520) POLLOCK,ATLANTIC,RAW	353.30	153.24	.	43.37	43.37
27450130	202453	Crab salad made with imitation crab W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15065N	(27250520) POLLOCK,ATLANTIC,RAW	362.30	153.24	.	42.30	42.30
27450130	203191	Crab salad made with imitation crab W/ LOW CALORIE OR DIET MAYONNAISE	15065N	(27250520) POLLOCK,ATLANTIC,RAW	360.80	153.24	.	42.47	42.47
27550000	100344	Fish sandwich, on bun, with spread W/ RESTRUCTURED SEAFOOD	15065N	(27250520) POLLOCK,ATLANTIC,RAW	148.60	38.92	.	23.98	23.98
58111200	0	Puffs, fried, crab meat and cream cheese filled	15065N	(27250520) POLLOCK,ATLANTIC,RAW	892.90	110.68	.	10.44	10.44
58148140	203037	Macaroni salad with crab meat W/ IMITATION CRAB	15065N	(27250520) POLLOCK,ATLANTIC,RAW	744.88	63.85	.	8.57	8.57
58148550	203165	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ RESTRUCTURED SEAFOOD (INCLUDE IMITATION CRAB MEAT) AND W/ LOW CALORIE OR DIET MAYONNAISE (INCLUDE LOWFAT MAYONNAISE)	15065N	(27250520) POLLOCK,ATLANTIC,RAW	959.03	99.04	.	10.33	10.33
----- SPECIES=Pompano (65) ----- HABITAT=Marine -----									
26131110	0	Pompano, cooked, NS as to cooking method	15068	Need grm wt.descr for 1 lb raw ylds...;recipe call	672.50	607.80	.	89.26	89.26

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
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26131120	0	Pompano, baked or broiled	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	672.50	607.80	.	89.26	89.26
26131120	202069	Pompano, baked or broiled W/ BUTTER, NFS	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	672.68	607.80	.	89.23	89.23
26131120	202612	Pompano, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	671.55	607.80	.	89.07	89.07
26131120	203073	Pompano, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	671.55	607.80	.	89.07	89.07
26131140	0	Pompano, floured or breaded, fried	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	.	66.67	66.67
26131140	100951	Pompano, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	.	66.67	66.67
26131100	0	Pompano, raw	15068	POMPANO, FLORIDA, RAW	100.00	100.00	.	100.00	100.00
26131150	0	Pompano, battered, fried	15068	POMPANO, FLORIDA, RAW	133.00	100.00	.	67.93	67.93
26131160	0	Pompano, steamed or poached	15068	POMPANO, FLORIDA, RAW	100.00	100.00	.	100.00	100.00
26131190	0	Pompano, smoked	15068	POMPANO, FLORIDA, RAW	100.67	100.00	.	99.22	99.22
27350110	0	Bouillabaisse	15068	POMPANO, FLORIDA, RAW	4,392.60	453.60	.	10.68	10.68

----- SPECIES=Porgy (66) -----

----- HABITAT=Marine -----

26133120	0	Porgy, baked or broiled	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	590.90	526.20	.	87.35	87.35
26133120	100976	Porgy, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	589.95	526.20	.	87.10	87.10
26133120	200192	Porgy, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	589.95	526.20	.	87.10	87.10
26133120	202615	Porgy, baked or broiled W/ OLIVE OIL	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	589.70	526.20	.	87.15	87.15
26133120	202974	Porgy, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	562.70	526.20	.	93.53	93.53
26133120	203252	Porgy, baked or broiled W/ BUTTER, NFS	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	591.08	526.20	.	87.32	87.32
26133140	0	Porgy, floured or breaded, fried	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	705.45	526.20	.	61.91	61.91
26133140	100567	Porgy, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	705.45	526.20	.	61.91	61.91
26133140	100810	Porgy, floured or breaded, fried W/ CANOLA, SOYBEAN AND SUNFLOWER OIL	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	705.45	526.20	.	61.91	61.91
26133140	101048	Porgy, floured or breaded, fried W/ SOYBEAN OIL	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	705.45	526.20	.	61.91	61.91
26133130	0	Porgy, breaded or battered, baked	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	790.05	526.20	.	62.06	62.06
26133130	100163	Porgy, breaded or battered, baked W/ CORN OIL	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.20	526.20	.	61.74	61.74
26133130	200501	Porgy, breaded or battered, baked W/ CANOLA OIL	15090	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.20	526.20	.	61.74	61.74
26133100	0	Porgy, raw	15090	SCUP, RAW	100.00	100.00	.	100.00	100.00
26133110	0	Porgy, cooked, NS as to cooking method	15090	SCUP, RAW	705.45	526.20	.	61.91	61.91
26133150	0	Porgy, battered, fried	15090	SCUP, RAW	91.00	58.00	.	52.59	52.59
26133150	101117	Porgy, battered, fried W/ CANOLA OIL	15090	SCUP, RAW	91.00	58.00	.	52.59	52.59

----- SPECIES=Porgy (66) -----

----- HABITAT=Marine -----

(continued)

26133160	0	Porgy, steamed or poached	15090	SCUP, RAW	100.00	100.00	.	100.00	100.00
27450750	100467	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ PORGY (INCLUDE SNAPPER...)	15090N	(26133100) SCUP, RAW	1,431.75	907.20	.	63.64	63.64

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

----- SPECIES=Ray (69) ----- HABITAT=Marine -----

26135140 0	Ray, floured or breaded, fried	15095	Need gwd for 1 lb raw yields x;recipe calls for 2	787.05	607.80	.	66.54	66.54
26135110 0	Ray, cooked, NS as to cooking method	15095	Ray,raw	976.60	911.90	.	92.52	92.52
26135120 0	Ray, baked or broiled	15095	Ray,raw	976.60	911.90	.	92.52	92.52
26135160 0	Ray, steamed or poached	15095	Ray,raw	100.00	100.00	.	100.00	100.00

----- SPECIES=Rockfish (72) ----- HABITAT=Estuarine -----

26100100 0	Fish, NS as to type, raw	15070	ROCKFISH,PACIFIC,MXD SP,RAW	100.00	7.10	.	7.10	7.10
26100130 0	Fish, NS as to type, breaded or battered, bake d	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,171.58	64.40	.	5.29	5.29
26100140 0	Fish, NS as to type, floured or breaded, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	.	5.27	5.27
26100140 100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	.	5.27	5.27
26100150 0	Fish, NS as to type, battered, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	133.00	7.10	.	4.81	4.81
26100140 100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15070	rockfish, pacific, mixed species, raw	1,086.45	64.40	.	5.27	5.27
28150610 0	Fish, batter-dipped or fish cake, with vegetab le, potatoes (frozen meal)	15070N	(26100150) ROCKFISH,PACIFIC,MXD SP,RAW	224.80	6.48	.	2.60	2.60
26100110 0	Fish, NS as to type, cooked, NS as to cooking method	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	100.84	7.10	.	7.04	7.04
26100120 0	Fish, NS as to type, baked or broiled	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	.	6.63	6.63
26100120 200264	Fish, NS as to type, baked or broiled W/ BUTTE R, NFS	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	.	6.63	6.63
26100120 200968	Fish, NS as to type, baked or broiled W/ VEGET ABLE OIL, NFS (INCLUDE OIL, NFS)	15071	Rockfish,Pacific,mixed species,cooked,dry heat	970.95	64.40	.	6.63	6.63
26100120 200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15071	Rockfish,Pacific,mixed species,cooked,dry heat	970.95	64.40	.	6.63	6.63

----- SPECIES=Roe (73) ----- HABITAT=Marine -----

26207110 0	Roe, shad, cooked	15072	ROE,MXD SP,RAW	745.10	680.40	.	90.77	90.77
26209100 0	Roe, herring	15072	ROE,MXD SP,RAW	100.00	100.00	.	100.00	100.00
26212100 0	Roe, sea urchin	42026	SEA URCHIN,ROE	100.00	100.00	.	100.00	100.00

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Salmon (75) ----- HABITAT=0.06% Freshwater, 3.02% Estuarine, 96.92% Mari-----

26100190 0		Fish, NS as to type, smoked	15077P	SALMON,CHINOOK,SMOKED	99.90	74.90	98.10	74.97	73.55
26137190 0		Salmon, smoked	15077P	SALMON,CHINOOK,SMOKED	100.00	100.00	98.10	100.00	98.10
26137180 0		Salmon, canned	15080P	SALMON,CHUM,CND,DRND W/BONE	100.00	5.00	98.90	5.00	4.95
27250070 0		Salmon cake or patty	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070 100581		Salmon cake or patty W/ CANOLA OIL	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070 100601		Salmon cake or patty W/ SUNFLOWER OIL	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070 100813		Salmon cake or patty W/ VEGETABLE OIL, NFS (IN CLUDE OIL, NFS)	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070 100890		Salmon cake or patty W/ CANOLA, SOYBEAN, AND S	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
27250070	101058	UNFLOWER OIL Salmon cake or patty W/ SOYBEAN OIL (INCLUDE W ESSON SOYBEAN OIL...)	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27450030	0	Salmon salad	15080P	SALMON,CHUM,CND,DRND W/BONE	927.60	33.60	98.90	3.62	3.58
27450030	100335	Salmon salad W/O EGGS AND W/ FAT FREE MAYONNAI SE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NON FAT MAYONNAISE DRESSING: KRAFT MIRACLE WHIP FR EE NONFAT DRESSING..)	15080P	SALMON,CHUM,CND,DRND W/BONE	795.60	33.60	98.90	4.22	4.18
27450030	100859	Salmon salad W/ REDUCED CALORIE CREAMY DRESSIN G, MADE WITH SOUR CREAM AND/OR BUTTERMILK AND OIL	15080P	SALMON,CHUM,CND,DRND W/BONE	940.10	33.60	98.90	3.57	3.53
27450030	201395	Salmon salad W/ ITALIAN DRESSING (INCLUDE OIL AND VINEGAR)	15080P	SALMON,CHUM,CND,DRND W/BONE	935.10	33.60	98.90	3.59	3.55
27450030	202267	Salmon salad W/ REDUCED CALORIE OR DIET, CHOLE STEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT... )	15080P	SALMON,CHUM,CND,DRND W/BONE	933.10	33.60	98.90	3.60	3.56
27450030	202962	Salmon salad W/ MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP)	15080P	SALMON,CHUM,CND,DRND W/BONE	935.10	33.60	98.90	3.59	3.55
26137100	0	Salmon, raw	15081	SALMON,COHO,WILD,RAW	100.00	100.00	.	100.00	100.00
26137120	0	Salmon, baked or broiled	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	844.90	780.20	.	91.58	91.58
26137120	200202	Salmon, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.95	780.20	.	91.51	91.51
26137120	200265	Salmon, baked or broiled W/ BUTTER, NFS	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	845.08	780.20	.	91.56	91.56
26137120	201145	Salmon, baked or broiled W/ OLIVE OIL	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.70	780.20	.	91.55	91.55
26137120	201437	Salmon, baked or broiled W/O FAT OR W/ NONSTIC K SPRAY (INCLUDE PAM...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	816.70	780.20	.	95.52	95.52
26137120	202595	Salmon, baked or broiled W/ BACON GREASE	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	842.50	780.20	.	91.72	91.72
26137120	203550	Salmon, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.95	780.20	.	91.51	91.51
26137120	203738	Salmon, baked or broiled W/ MARGARINE-LIKE SPR EAD, TUB, SALTED (INCLUDE SHEDD'S SPREAD COUNT RY CROCK, PARKAY...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	845.33	780.20	.	91.80	91.80
26137140	0	Salmon, floured or breaded, fried	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.05	73.05
26137140	100833	Salmon, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.05	73.05
----- SPECIES=Salmon (75) -----					----- HABITAT=0.06% Freshwater, 3.02% Estuarine, 96.92% Marin----- (continued) -----				
26137140	100891	Salmon, floured or breaded, fried W/ SOYBEAN O IL (INCLUDE WESSON SOYBEAN OIL...)	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.05	73.05
26137140	100932	Salmon, floured or breaded, fried W/ CANOLA, S OYBEAN, AND SUNFLOWER OIL	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.05	73.05
26137150	0	Salmon, battered, fried	15083	SALMON,PINK,RAW	133.00	100.00	.	67.65	67.65
26137160	0	Salmon, steamed or poached	15083	SALMON,PINK,RAW	100.00	100.00	.	100.00	100.00
26137170	0	Salmon, dried	15083	SALMON,PINK,RAW	100.00	100.00	.	100.00	100.00
32105020	0	Egg omelet or scrambled egg, with fish	15084P	Need gwd for 1 Tbsp;recipe calls for 1 Tbsp.	84.58	12.00	98.90	14.31	14.03
26100180	0	Fish, NS as to type, canned	15084P	SALMON,PINK,CND,W/BONE &LIQ	100.00	19.40	98.90	19.40	19.19
26137180	0	Salmon, canned	15084P	SALMON,PINK,CND,W/BONE &LIQ	100.00	75.00	98.90	75.00	74.18
27250080	0	Salmon loaf	15084P	SALMON,PINK,CND,W/BONE &LIQ	981.25	454.00	98.90	46.18	45.76
27250080	202992	Salmon loaf W/O FAT	15084P	SALMON,PINK,CND,W/BONE &LIQ	938.95	454.00	98.90	48.67	47.82
27251010	0	Stewed salmon, Puerto Rican style (Salmon quis	15084P	SALMON,PINK,CND,W/BONE &LIQ	1,050.50	453.60	98.90	44.23	42.70

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27450030	0	ado) Salmon salad	15084P	SALMON,PINK,CND,W/BONE &LIQ	927.60	454.00	98.90	48.94	48.41
27450030	100335	Salmon salad W/O EGGS AND W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NON FAT MAYONNAISE DRESSING: KRAFT MIRACLE WHIP FREE NONFAT DRESSING..)	15084P	SALMON,PINK,CND,W/BONE &LIQ	795.60	454.00	98.90	57.06	56.44
27450030	100859	Salmon salad W/ REDUCED CALORIE CREAMY DRESSING, MADE WITH SOUR CREAM AND/OR BUTTERMILK AND OIL	15084P	SALMON,PINK,CND,W/BONE &LIQ	940.10	454.00	98.90	48.29	47.76
27450030	201395	Salmon salad W/ ITALIAN DRESSING (INCLUDE OIL AND VINEGAR)	15084P	SALMON,PINK,CND,W/BONE &LIQ	935.10	454.00	98.90	48.55	48.02
27450030	202267	Salmon salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT...)	15084P	SALMON,PINK,CND,W/BONE &LIQ	933.10	454.00	98.90	48.66	48.12
27450030	202962	Salmon salad W/ MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP)	15084P	SALMON,PINK,CND,W/BONE &LIQ	935.10	454.00	98.90	48.55	48.02
27450310	0	Lomi salmon	15084P	SALMON,PINK,CND,W/BONE &LIQ	1,298.60	453.60	98.90	34.93	34.55
28355350	0	Salmon soup, cream style	15084P	SALMON,PINK,CND,W/BONE &LIQ	1,004.28	453.60	98.90	45.84	44.67
32105020	100563	Egg omelet or scrambled egg, with fish W/ BUTTER, NFS	15084P	on-line says 1 Tb,sheet says 1 Tb=12 gm	84.59	12.00	98.90	14.31	14.03
26100180	0	Fish, NS as to type, canned	15087P	SALMON, SOCKEYE,CND, DRND W/BONE	100.00	5.50	98.90	5.50	5.44
26137180	0	Salmon, canned	15087P	SALMON, SOCKEYE,CND, DRND W/BONE	100.00	20.00	98.90	20.00	19.78
26137110	0	Salmon, cooked, NS as to cooking method	15247	SALMON, COHO,WILD,CKD, DRY HEAT	100.00	100.00	.	100.00	100.00

----- SPECIES=Sardine (77) -----

----- HABITAT=Marine -----

26139110	0	Sardines, cooked	15088P	SARDINE,ATLANTIC,CND,OIL,DRND W/BONE	100.00	100.00	99.24	100.00	99.24
26139180	0	Sardines, canned in oil	15088P	SARDINE,ATLANTIC,CND,OIL,DRND W/BONE	100.00	100.00	99.24	100.00	99.24
27550510	0	Sardine sandwich, with lettuce and spread	15088P	SARDINE,ATLANTIC,CND,OIL,DRND W/BONE	1,225.25	425.25	99.24	34.71	34.44
27250610	100389	Tuna noodle casserole with cream or white sauce W/ TUNA AND SARDINES	15088N	(26139180) SARDINE,ATLANTIC,CND,OIL,DRND W/BONE	1,140.59	160.00	99.24	14.18	14.18
27150350	0	Sardines with tomato-based sauce (mixture)	15089P	SARDINE,PACIFIC,CND,TOMATO SAU,DRND W/BONE	100.00	100.00	77.33	100.00	77.33

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Sardine (77) -----

----- HABITAT=Marine -----

----- (continued) -----

27150370	0	Sardines with mustard sauce (mixture)	15089P	SARDINE,PACIFIC,CND,TOMATO SAU,DRND W/BONE	100.00	100.00	77.33	100.00	77.33
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----- SPECIES=Scallop (79) -----

----- HABITAT=0.58% Estuarine, 99.42% Marine -----

26317110	0	Scallops, cooked, NS as to cooking method	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	.	73.87	73.87
26317120	0	Scallops, baked or broiled	15172	SCALLOP,MXD SP,RAW	706.05	680.40	.	95.61	95.61
26317120	200497	Scallops, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15172	SCALLOP,MXD SP,RAW	705.34	680.40	.	95.58	95.58
26317120	200876	Scallops, baked or broiled W/ BUTTER, NFS	15172	SCALLOP,MXD SP,RAW	706.18	680.40	.	95.59	95.59
26317120	202359	Scallops, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15172	SCALLOP,MXD SP,RAW	684.90	680.40	.	99.18	99.18
26317130	0	Scallops, steamed or boiled	15172	SCALLOP,MXD SP,RAW	941.40	907.20	.	96.37	96.37
26317140	0	Scallops, floured or breaded, fried	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	.	73.87	73.87
26317140	101020	Scallops, floured or breaded, fried W/ CORN OIL	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	.	73.87	73.87
26317150	0	Scallops, battered, fried	15172	SCALLOP,MXD SP,RAW	902.90	680.40	.	66.06	66.06
27250950	0	Shellfish mixture and noodles, tomato-based sauce	15172	SCALLOP,MXD SP,RAW	742.00	56.70	.	7.64	7.64

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.



**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27350110	0	uce (mixture)								
		Bouillabaisse	15172	SCALLOP,MXD SP,RAW	4,392.60	453.60	.	10.44	10.44	
28150810	0	Scallops with potatoes, vegetable (frozen meal )	15172	SCALLOP,MXD SP,RAW	242.80	108.90	.	42.22	42.22	
28152010	0	Seafood platter with fish cake, fish fillet, scallops, shrimp, potatoes (frozen meal)	15172N	(26317140) SCALLOP,MXD SP,RAW	240.00	12.69	.	4.68	4.68	
27150510	0	Scallops with cheese sauce (mixture)	90240	Need gwd for 1 C;recipe calls for 1 C.	241.50	120.00	.	49.69	49.69	
27250110	0	Scallops and noodles with cheese sauce (mixture)	90240	SCALLOPS,STEAMED	1,215.40	453.60	.	37.15	37.15	
58304400	0	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	90240	SCALLOPS,STEAMED	269.27	32.28	.	11.99	11.99	
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine -----										
26141180	0	Sea bass, pickled (Mero en escabeche)	15091	Need gram wt.descr.for 1 slice=.;recipe calls for 2	2,097.73	1,362.00	.	63.52	63.52	
26141120	0	Sea bass, baked or broiled	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	844.90	780.20	.	91.54	91.54	
26141120	200874	Sea bass, baked or broiled W/ BUTTER, NFS	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	845.08	780.20	.	91.52	91.52	
26141120	200913	Sea bass, baked or broiled W/ CORN OIL	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	843.95	780.20	.	91.48	91.48	
26141120	201674	Sea bass, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	843.95	780.20	.	91.48	91.48	
26141120	203065	Sea bass, baked or broiled W/ BUTTER, STICK, UNSALTED	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	845.08	780.20	.	91.55	91.55	
26141120	203326	Sea bass, baked or broiled W/O FAT OR W/ NON-S TICK SPRAY (INCLUDE PAM...)	15091	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	816.70	780.20	.	95.49	95.49	
26141110	0	Sea bass, cooked, NS as to cooking method	15091	Need grm wt.descr.for 1 lb.raw ylds...;recipe call	844.90	780.20	.	91.54	91.54	
26141140	0	Sea bass, floured or breaded, fried	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	.	72.99	72.99	
26141140	100856	Sea bass, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	.	72.99	72.99	
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine ----- (continued) -----										
26141130	0	Sea bass, breaded or battered, baked	15091	SEA BASS,MXD SP,RAW	1,128.75	907.20	.	77.55	77.55	
26141140	100355	Sea bass, floured or breaded, fried W/ PEANUT OIL	15091	SEA BASS,MXD SP,RAW	959.45	780.20	.	72.99	72.99	
26141140	100741	Sea bass, floured or breaded, fried W/ CANOLA OIL	15091	SEA BASS,MXD SP,RAW	959.45	780.20	.	72.99	72.99	
26141160	0	Sea bass, steamed or poached	15091	SEA BASS,MXD SP,RAW	100.00	100.00	.	100.00	100.00	
----- SPECIES=Seafood (83) ----- HABITAT=Unknown -----										
58106900	0	Pizza with seafood, NS as to type of crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	581.88	49.61	.	7.13	7.13	
58106910	0	Pizza with seafood, thin crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	581.88	49.61	.	7.13	7.13	
58106920	0	Pizza with seafood, thick crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	915.63	49.61	.	4.39	4.39	
----- SPECIES=Shad (84) ----- HABITAT=Estuarine -----										
27350040	0	Shad creole, with rice	15094	SHAD,AMERICAN,RAW	1,971.54	907.20	.	46.39	46.39	
----- SPECIES=Shark (85) ----- HABITAT=Marine -----										
26143110	0	Shark, cooked, NS as to cooking method	15095	SHARK,MXD SP,RAW	971.90	907.20	.	92.83	92.83	
26143120	0	Shark, baked or broiled	15095	SHARK,MXD SP,RAW	971.90	907.20	.	92.83	92.83	

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26143160	0	Shark, steamed or poached	15095	SHARK,MXD SP,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine -----									
27250450	0	Shrimp toast, fried	15149	.247 lb EP from .5 lb AP (AH8-15 yield=.494)	334.01	112.04	.	27.59	27.59
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	15149	Need gwd for 1 C;recipe calls for .5 C.	3,864.33	64.00	.	1.72	1.72
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15149	Need gwd for 1 C;recipe calls for .5 C.	3,548.33	64.00	.	1.89	1.89
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15149	RECIPE SHEET	3,550.01	64.00	.	1.89	1.89
26319110	0	Shrimp, cooked, NS as to cooking method	15149	SHRIMP,MXD SP,RAW	100.84	100.00	.	98.86	98.86
26319120	0	Shrimp, baked or broiled	15149	SHRIMP,MXD SP,RAW	941.40	907.20	.	95.62	95.62
26319120	100113	Shrimp, baked or broiled W/ CORN OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	.	95.58	95.58
26319120	100155	Shrimp, baked or broiled W/ PEANUT OIL	15149	SHRIMP,MXD SP,RAW	940.20	907.20	.	95.61	95.61
26319120	200498	Shrimp, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15149	SHRIMP,MXD SP,RAW	940.45	907.20	.	95.58	95.58
26319120	200875	Shrimp, baked or broiled W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	941.58	907.20	.	95.60	95.60
26319120	202678	Shrimp, baked or broiled W/ SESAME OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	.	95.58	95.58
26319120	202863	Shrimp, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15149	SHRIMP,MXD SP,RAW	913.20	907.20	.	99.18	99.18
26319120	203272	Shrimp, baked or broiled W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	940.20	907.20	.	95.61	95.61
----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine ----- (continued) -----									
26319130	0	Shrimp, steamed or boiled	15149	SHRIMP,MXD SP,RAW	100.84	100.00	.	98.90	98.90
26319140	0	Shrimp, floured, breaded, or battered, fried	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	100180	Shrimp, floured, breaded, or battered, fried W/ CANOLA OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	100708	Shrimp, floured, breaded, or battered, fried W/ CORN OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	201330	Shrimp, floured, breaded, or battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	203183	Shrimp, floured, breaded, or battered, fried W/ SOYBEAN OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
27150410	0	Shrimp teriyaki (shrimp with soy-based sauce) (mixture)	15149	SHRIMP,MXD SP,RAW	677.76	453.60	.	66.82	66.82
27151050	0	Shrimp in garlic sauce, Puerto Rican style (mixture) (Camarones al ajillo)	15149	SHRIMP,MXD SP,RAW	531.90	348.00	.	61.75	61.75
27250410	0	Shrimp with crab stuffing	15149	SHRIMP,MXD SP,RAW	1,808.90	680.40	.	35.44	35.44
27350020	0	Paella with seafood	15149	SHRIMP,MXD SP,RAW	2,281.18	48.00	.	2.09	2.09
27350110	0	Bouillabaisse	15149	SHRIMP,MXD SP,RAW	4,392.60	226.80	.	5.26	5.26
27360090	0	Paella, NFS	15149	SHRIMP,MXD SP,RAW	2,219.78	56.00	.	2.50	2.50
27420200	0	Pork hash, Hawaiian style-ground pork, vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	15149	SHRIMP,MXD SP,RAW	331.10	21.00	.	6.34	6.34
27450410	0	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	771.30	98.00	.	12.83	12.83
27450410	100694	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	771.68	98.00	.	12.83	12.83

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BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
27450410	100865	colli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ CANOLA OIL Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	771.30	98.00	.	12.83	12.83
27450410	203621	Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/O FAT	15149	SHRIMP,MXD SP,RAW	730.80	98.00	.	13.63	13.63
27450420	0	Shrimp and vegetables (excluding carrots, broc coli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	741.30	98.00	.	13.36	13.36
27450600	0	Shellfish mixture and vegetables (including ca rrots, broccoli, and/or dark-green leafy (no potatoes)), soy-base sauce	15149	SHRIMP,MXD SP,RAW	910.10	113.40	.	12.60	12.60
27450610	0	Shellfish mixture and vegetables (excluding ca rrots, broccoli, and dark-green leafy (no potatoes)), soy-base sauce	15149	SHRIMP,MXD SP,RAW	940.10	113.40	.	12.19	12.19
27450650	0	Shellfish mixture and vegetables (including ca rrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15149	SHRIMP,MXD SP,RAW	853.13	113.40	.	13.44	13.44
----- SPECIES=Shrimp (88) -----					----- HABITAT=Estuarine ----- (continued) -----				
27450660	0	Shellfish mixture and vegetables (excluding ca rrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15149	SHRIMP,MXD SP,RAW	891.68	113.40	.	12.72	12.72
28150910	0	Shrimp with potatoes, vegetable (frozen meal)	15149	SHRIMP,MXD SP,RAW	242.30	97.00	.	37.74	37.74
28355450	101018	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy) W/ SHRIMP	15149	SHRIMP,MXD SP,RAW	2,953.00	907.20	.	31.35	31.35
58112510	0	Dumpling, steamed, filled with meat, poultry, or seafood	15149	SHRIMP,MXD SP,RAW	818.84	151.05	.	18.71	18.71
58136130	0	Lo mein with shrimp	15149	SHRIMP,MXD SP,RAW	1,101.43	226.80	.	20.62	20.62
58155310	0	Paella, Valenciana style, with meat (Paella Valenciana)	15149	SHRIMP,MXD SP,RAW	2,708.13	72.00	.	2.45	2.45
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15149	SHRIMP,MXD SP,RAW	1,771.00	340.20	.	19.52	19.52
58156110	0	Fried rice, Puerto Rican style (arroz frito)	15149	SHRIMP,MXD SP,RAW	1,221.80	226.80	.	18.51	18.51
58148550	100301	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ TURKEY AND SHRIMP, AND W/ REDUCED CALORIE OR DIET, CHOLESTEROL FREE MAYONNAISE (INCLUDE KRAFT LIGHT)	15149N	(26319120) SHRIMP,MXD SP,RAW	954.45	80.95	.	8.42	8.42
58148550	101031	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ ALL SHRIMP AND W/ LIGHT SOUR CREAM	15149N	(26319120) SHRIMP,MXD SP,RAW	967.53	150.41	.	15.43	15.43
58148550	101089	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ ALL SHRIMP AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15149N	(26319120) SHRIMP,MXD SP,RAW	959.53	150.41	.	15.55	15.55
58408010	100177	Won ton soup W/ SHRIMP AND CRAB MEAT	15149N	(26319130) SHRIMP,MXD SP,RAW	3,697.15	233.04	.	6.29	6.29
58408010	100858	Won ton soup W/ BEEF AND SHRIMP	15149N	(26319130) SHRIMP,MXD SP,RAW	3,697.15	233.04	.	6.29	6.29
28152010	0	Seafood platter with fish cake, fish fillet, s	15149N	(26319140) SHRIMP,MXD SP,RAW	240.00	11.45	.	4.19	4.19

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32110150	0	callops, shrimp, potatoes (frozen meal)							
27150130	0	Shrimp-egg patty (Torta de Cameron seco)	15151	DRIED SHRIMP-also flg3-recipe says 2-1/2 c=320 gm	898.94	320.00	.	24.88	24.88
27250130	0	Seafood newburg	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	929.58	113.40	.	11.84	11.84
27250130	0	Shrimp and noodles with cheese sauce (mixture)	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,215.40	453.60	.	37.00	37.00
27250130	203697	Shrimp and noodles with cheese sauce (mixture) W/ OLIVE OIL	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,213.60	453.60	.	37.03	37.03
27350030	0	Seafood stew with potatoes and vegetables (exc luding carrots, broccoli, and dark-green leafy ), tomato-base sauce	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,389.75	113.40	.	8.37	8.37
27350310	0	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,370.35	113.40	.	8.49	8.49
28153050	0	Shrimp and noodles in tomato-based sauce, with vegetable and fruit dessert (diet frozen meal )	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	100.00	12.70	.	12.70	12.70
58106900	0	Pizza with seafood, NS as to type of crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	581.88	49.61	.	6.92	6.92
----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine ----- (continued) -----									
58106910	0	Pizza with seafood, thin crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	581.88	49.61	.	6.92	6.92
58106920	0	Pizza with seafood, thick crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	915.63	49.61	.	4.26	4.26
58409000	0	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	847.77	22.00	.	2.60	2.60
14620120	0	Shrimp dip, cream cheese base	15152	SHRIMP,MXD SP,CND	434.58	113.40	.	26.09	26.09
26319170	0	Shrimp, dried	15152	SHRIMP,MXD SP,CND	100.00	100.00	.	100.00	100.00
26319180	0	Shrimp, canned	15152	SHRIMP,MXD SP,CND	100.00	100.00	.	100.00	100.00
27150100	0	Shrimp, curried	15152	SHRIMP,MXD SP,CND	936.94	340.20	.	36.57	36.57
27150110	0	Shrimp cocktail (shrimp with cocktail sauce)	15152	SHRIMP,MXD SP,CND	690.95	340.20	.	49.24	49.24
27150160	0	Shrimp with lobster sauce (mixture)	15152	SHRIMP,MXD SP,CND	960.93	453.60	.	47.51	47.51
27150170	0	Sweet and sour shrimp	15152	SHRIMP,MXD SP,CND	174.23	38.40	.	21.49	21.49
27150230	0	Shrimp scampi	15152	SHRIMP,MXD SP,CND	156.38	128.00	.	81.85	81.85
27150230	101055	Shrimp scampi W/ OLIVE OIL	15152	SHRIMP,MXD SP,CND	155.00	128.00	.	82.58	82.58
27250400	0	Shrimp cake or patty	15152	SHRIMP,MXD SP,CND	954.85	453.60	.	43.30	43.30
27250400	100693	Shrimp cake or patty W/ CANOLA OIL	15152	SHRIMP,MXD SP,CND	954.85	453.60	.	43.30	43.30
27250550	0	Seafood souffle	15152	SHRIMP,MXD SP,CND	599.32	42.62	.	7.12	7.12
27250950	0	Shellfish mixture and noodles, tomato-based sauce (mixture)	15152	SHRIMP,MXD SP,CND	742.00	56.70	.	7.64	7.64
27350050	0	Shrimp chow mein or chop suey with noodles	15152	SHRIMP,MXD SP,CND	502.97	96.00	.	19.22	19.22
27350060	0	Shrimp creole, with rice	15152	SHRIMP,MXD SP,CND	1,842.44	680.40	.	37.23	37.23
27351060	0	Shrimp and pasta garden salad (shrimp, pasta salad, tomato and/or carrots, other vegetables), no dressing	15152	SHRIMP,MXD SP,CND	261.00	42.00	.	16.09	16.09
27360080	0	Chow mein or chop suey, NS as to type of meat, with noodles	15152	SHRIMP,MXD SP,CND	968.88	55.00	.	5.63	5.63
27450040	0	Shrimp chow mein or chop suey, no noodles	15152	SHRIMP,MXD SP,CND	449.37	96.00	.	21.82	21.82
27450070	0	Shrimp salad	15152	SHRIMP,MXD SP,CND	548.53	340.20	.	62.02	62.02
27450070	100623	Shrimp salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15152	SHRIMP,MXD SP,CND	557.53	340.20	.	61.02	61.02
27450080	0	Seafood salad	15152	SHRIMP,MXD SP,CND	529.77	100.00	.	18.88	18.88
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	530.77	100.00	.	18.84	18.84

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27450110	0	Shrimp garden salad (shrimp, eggs, tomato and/or carrots, other vegetables), no dressing	15152	SHRIMP,MXD SP,CND	185.80	63.30	.	34.07	34.07
27450120	0	Shrimp garden salad (shrimp, eggs, vegetables excluding tomato and carrots), no dressing	15152	SHRIMP,MXD SP,CND	147.90	63.30	.	42.80	42.80
27450150	0	Fish, tofu, and vegetables, tempura, Hawaiian style (mixture)	15152	SHRIMP,MXD SP,CND	542.92	32.00	.	5.82	5.82
27450180	0	Seafood garden salad with seafood, vegetables excluding tomato and carrots, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	.	15.00	15.00
27450190	0	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	.	15.00	15.00
27450200	0	Seafood garden salad with seafood, eggs, vegetables excluding tomato and carrots, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	.	15.00	15.00
----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine ----- (continued) -----									
27450210	0	Seafood garden salad with seafood, eggs, tomato and/or carrots, other vegetables, no dressing	15152	SHRIMP,MXD SP,CND	110.00	15.00	.	13.64	13.64
27450450	0	Shrimp creole, no rice	15152	SHRIMP,MXD SP,CND	1,317.44	680.40	.	52.22	52.22
28151010	0	Shrimp chow mein with egg rolls, pepper oriental (frozen meal)	15152	SHRIMP,MXD SP,CND	367.40	20.10	.	5.47	5.47
28151030	0	Shrimp creole with rice, peppers (diet frozen meal)	15152	SHRIMP,MXD SP,CND	283.01	22.64	.	8.00	8.00
28152030	0	Seafood newburg with rice, vegetable (frozen meal)	15152	SHRIMP,MXD SP,CND	296.68	23.76	.	8.01	8.01
28152050	0	Shrimp with rice, vegetable (frozen meal)	15152	SHRIMP,MXD SP,CND	311.48	29.64	.	9.52	9.52
28153010	0	Shrimp and clams in tomato-based sauce, with noodles (frozen meal)	15152	SHRIMP,MXD SP,CND	320.91	28.82	.	9.05	9.05
28154010	0	Shrimp and vegetables in sauce with noodles (diet frozen meal)	15152	SHRIMP,MXD SP,CND	314.16	43.68	.	13.90	13.90
28355420	0	Shrimp soup, cream of, prepared with milk	15152	SHRIMP,MXD SP,CND	1,423.23	340.20	.	24.19	24.19
28355440	0	Shrimp gumbo	15152	SHRIMP,MXD SP,CND	2,106.20	226.80	.	10.96	10.96
32105230	0	Shrimp egg foo yung	15152	SHRIMP,MXD SP,CND	507.20	64.00	.	12.65	12.65
32105230	201815	Shrimp egg foo yung W/O FAT	15152	SHRIMP,MXD SP,CND	466.70	64.00	.	13.89	13.89
54406200	0	Shrimp chips (tapioca base)	15152	SHRIMP,MXD SP,CND	100.00	25.00	.	11.21	11.21
58100900	0	Enchilada with seafood, tomato-based sauce	15152	SHRIMP,MXD SP,CND	1,367.14	384.00	.	27.99	27.99
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15152	SHRIMP,MXD SP,CND	76.99	15.00	.	19.48	19.48
58110120	0	Egg roll, with shrimp	15152	SHRIMP,MXD SP,CND	1,142.04	64.00	.	5.59	5.59
58112110	0	Dim sum, meat filled (egg roll-type)	15152	SHRIMP,MXD SP,CND	1,489.47	226.80	.	16.29	16.29
58134310	0	Stuffed shells, with fish and/or shellfish, with tomato sauce	15152	SHRIMP,MXD SP,CND	1,547.61	128.00	.	8.27	8.27
58148150	0	Macaroni salad with shrimp	15152	SHRIMP,MXD SP,CND	746.38	96.00	.	12.86	12.86
58148150	100831	Macaroni salad with shrimp W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	740.75	96.00	.	12.96	12.96
58150510	0	Rice, fried, with shrimp	15152	SHRIMP,MXD SP,CND	1,028.48	64.00	.	6.19	6.19
58407050	0	Instant soup, noodle with egg, shrimp or chicken	15152	SHRIMP,MXD SP,CND	99.00	1.00	.	1.04	1.04
72306000	0	Watercress broth with shrimp	15152	SHRIMP,MXD SP,CND	1,536.05	128.00	.	8.33	8.33
28355410	0	Shrimp soup, cream of, NS as to prepared with milk or water	6256P	SOUP,CRM OF SHRIMP,PREP W/MILK,COMM	597.50	301.00	3.06	50.38	1.54
28355410	0	Shrimp soup, cream of, NS as to prepared with	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	597.50	296.50	3.06	49.62	1.52

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
28355430	0	milk or water Shrimp soup, cream of, prepared with water	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	100.00	100.00	3.06	100.00	3.06
----- SPECIES=Smelts (91) ----- HABITAT=50% Estuarine, 50% Marine -----									
26145120	0	Smelt, baked or broiled	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	672.50	607.80	.	89.00	89.00
26145140	0	Smelt, floured or breaded, fried	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	787.05	607.80	.	66.31	66.31
26145140	100738	Smelt, floured or breaded, fried W/ CANOLA OIL	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	787.05	607.80	.	66.31	66.31
----- SPECIES=Smelts (91) ----- HABITAT=50% Estuarine, 50% Marine -----									
26145110	0	Smelt, cooked, NS as to cooking method	15099	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	.	66.31	66.31
----- SPECIES=Smelts, Rainbow (115) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26145150	0	Smelt, battered, fried	15099	SMELT,RAINBOW,RAW	100.00	67.00	.	56.71	56.71
26145160	0	Smelt, steamed or poached	15099	SMELT,RAINBOW,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Snails (92) ----- HABITAT=50% Freshwater, 50% Marine -----									
26321160	0	Snails, steamed or poached	15177	WHELK,UNSPEC,RAW	100.84	100.00	.	98.34	98.34
26321110	0	Snails, cooked, NS as to cooking method	90560	SNAIL,RAW	467.79	453.60	.	96.36	96.36
----- SPECIES=Snapper (93) ----- HABITAT=Marine -----									
27151030	0	Marinated fish (Ceviche)	15101	SNAPPER,MXD SP,RAW	636.50	339.00	.	53.35	53.35
27350110	0	Bouillabaisse	15101	SNAPPER,MXD SP,RAW	4,392.60	453.60	.	10.49	10.49
27450710	101049	Fish and vegetables (excluding carrots, brocco li, and dark- green leafy (no potatoes)), toma to-based sauce (mixture) W/ SNAPPER	15101	SNAPPER,MXD SP,RAW	1,619.65	907.20	.	56.35	56.35
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15101	SNAPPER,MXD SP,RAW	1,771.00	226.80	.	12.94	12.94
----- SPECIES=Sole (94) ----- HABITAT=Marine -----									
28150240	0	Sole with vegetable (diet frozen meal)	15028	FLATFISH,RAW	215.20	113.40	.	53.05	53.05
----- SPECIES=Squid (97) ----- HABITAT=Marine -----									
26213100	0	Squid, raw	15175	SQUID,MXD SP,RAW	100.00	100.00	.	100.00	100.00
26213120	0	Squid, baked, broiled	15175	SQUID,MXD SP,RAW	706.05	680.40	.	95.61	95.61
26213120	201481	Squid, baked, broiled W/ OLIVE OIL	15175	SQUID,MXD SP,RAW	705.15	680.40	.	95.61	95.61
26213120	202157	Squid, baked, broiled W/ VEGETABLE OIL, NFS (I NCLUDE OIL, NFS)	15175	SQUID,MXD SP,RAW	705.34	680.40	.	95.58	95.58
26213140	0	Squid, breaded, fried	15175	SQUID,MXD SP,RAW	1,086.45	907.20	.	76.48	76.48
26213140	101162	Squid, breaded, fried W/ OLIVE OIL	15175	SQUID,MXD SP,RAW	1,086.45	907.20	.	76.48	76.48
26213160	0	Squid, steamed or boiled	15175	SQUID,MXD SP,RAW	100.84	100.00	.	99.04	99.04
26213170	0	Squid, dried	15175	SQUID,MXD SP,RAW	100.30	100.00	.	98.86	98.86
26213180	0	Squid, pickled	15175	SQUID,MXD SP,RAW	1,183.20	907.20	.	76.90	76.90
26213190	0	Squid, canned	15175	SQUID,MXD SP,RAW	100.60	100.00	.	99.31	99.31
58155910	0	Rice with squid, Puerto Rican style (arroz con calamares)	15175	SQUID,MXD SP,RAW	814.58	226.80	.	25.14	25.14

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Sturgeon (98) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26211100	0	Roe, sturgeon	15012	CAVIAR, BLACK/RED, GRANULAR	100.00	100.00	.	100.00	100.00
26147110	0	Sturgeon, cooked, NS as to cooking method	15104	STURGEON, MXD SP, RAW	100.84	100.00	.	98.96	98.96
26147130	0	Sturgeon, steamed	15104	STURGEON, MXD SP, RAW	100.84	100.00	.	98.96	98.96
26147140	0	Sturgeon, floured or breaded, fried	15104	STURGEON, MXD SP, RAW	1,086.45	907.20	.	73.91	73.91
26147120	0	Sturgeon, baked or broiled	15105	STURGEON, MXD SP, CKD, DRY HEAT	100.00	100.00	.	100.00	100.00
26147190	0	Sturgeon, smoked	15106	STURGEON, MXD SP, SMOKED	100.00	100.00	.	100.00	100.00
----- SPECIES=Swordfish (100) ----- HABITAT=Marine -----									
26149110	0	Swordfish, cooked, NS as to cooking method	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	844.90	780.20	.	91.59	91.59
26149120	0	Swordfish, baked or broiled	15110	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	844.90	780.20	.	91.59	91.59
26149120	200638	Swordfish, baked or broiled W/ OLIVE OIL	15110	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	843.70	780.20	.	91.56	91.56
26149120	201748	Swordfish, baked or broiled W/ BUTTER, NFS	15110	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	845.08	780.20	.	91.57	91.57
26149120	203119	Swordfish, baked or broiled W/ CANOLA OIL	15110	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	843.95	780.20	.	91.52	91.52
26149120	203287	Swordfish, baked or broiled W/ VEGETABLE OIL (INCLUDE OIL, NFS)	15110	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	843.95	780.20	.	91.52	91.52
26149140	0	Swordfish, floured or breaded, fried	15110	SWORDFISH, RAW	1,086.45	907.20	.	73.93	73.93
26149160	0	Swordfish, steamed or poached	15110	SWORDFISH, RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Trout (103) ----- HABITAT=Freshwater -----									
26151110	0	Trout, cooked, NS as to cooking method	15240	Need grm wt.desc.for 1 lb.raw ylds.; recipe calls	844.90	780.20	.	91.65	91.65
26151120	0	Trout, baked or broiled	15240	TROUT, RAINBOW, FARMED, RAW	971.90	907.20	.	92.84	92.84
26151120	100792	Trout, baked or broiled W/ BUTTER, NFS	15240	TROUT, RAINBOW, FARMED, RAW	972.08	907.20	.	92.82	92.82
26151120	200348	Trout, baked or broiled W/ OLIVE OIL	15240	TROUT, RAINBOW, FARMED, RAW	970.70	907.20	.	92.83	92.83
26151120	201266	Trout, baked or broiled W/ CANOLA, SOYBEAN AND SUNFLOWER OIL	15240	TROUT, RAINBOW, FARMED, RAW	970.95	907.20	.	92.80	92.80
26151120	202336	Trout, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL....)	15240	TROUT, RAINBOW, FARMED, RAW	970.95	907.20	.	92.80	92.80
26151120	202836	Trout, baked or broiled W/O FAT	15240	TROUT, RAINBOW, FARMED, RAW	943.70	907.20	.	96.17	96.17
26151160	0	Trout, steamed or poached	15240	TROUT, RAINBOW, FARMED, RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Trout, mixed sp. (114) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26151140	0	Trout, floured or breaded, fried	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	.	73.20	73.20
26151140	100337	Trout, floured or breaded, fried W/ CORN OIL	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	.	73.20	73.20
26151140	101083	Trout, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS...)	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	.	73.20	73.20
26151130	0	Trout, breaded or battered, baked	15114	TROUT, MXD SP, RAW	1,086.45	907.20	.	81.43	81.43
26151150	0	Trout, battered, fried	15114	TROUT, MXD SP, RAW	133.00	100.00	.	70.31	70.31
26151150	202740	Trout, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15114	TROUT, MXD SP, RAW	133.00	100.00	.	70.31	70.31
26151190	0	Trout, smoked	15114	TROUT, MXD SP, RAW	100.50	100.00	.	99.11	99.11

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
-----			SPECIES=Tuna (104)	-----					
-----			----- HABITAT=Marine -----						
26153170	0	Tuna, fresh, dried	15117	TUNA, FRESH, BLUEFIN, RAW	100.00	100.00	.	100.00	100.00
26155180	0	Tuna, canned, oil pack	15119P	TUNA, LT, CND, OIL, DRND	100.00	100.00	93.25	100.00	93.25
27150120	0	Tuna with cream or white sauce (mixture)	15119P	TUNA, LT, CND, OIL, DRND	911.85	311.85	93.25	34.20	31.89
27250150	0	Tuna loaf	15119P	TUNA, LT, CND, OIL, DRND	974.25	438.00	93.25	45.72	41.92
27250160	0	Tuna cake or patty	15119P	TUNA, LT, CND, OIL, DRND	981.25	480.00	93.25	45.67	45.62
27250160	100608	Tuna cake or patty W/ MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE PARKAY SPREAD; SHEDD'S SPREAD COUNTRY CROCK.....)	15119P	TUNA, LT, CND, OIL, DRND	981.25	480.00	93.25	46.09	45.62
27250160	100905	Tuna cake or patty W/ OLIVE OIL	15119P	TUNA, LT, CND, OIL, DRND	981.25	480.00	93.25	45.67	45.62
27250610	0	Tuna noodle casserole with cream or white sauce	15119P	TUNA, LT, CND, OIL, DRND	1,140.59	320.00	93.25	28.35	26.16
27250610	100389	Tuna noodle casserole with cream or white sauce W/ TUNA AND SARDINES	15119P	TUNA, LT, CND, OIL, DRND	1,140.59	160.00	93.25	14.17	13.08
27250610	200943	Tuna noodle casserole with cream or white sauce W/ 2% MILK AND W/ BUTTER, NFS	15119P	TUNA, LT, CND, OIL, DRND	1,140.94	320.00	93.25	28.34	26.15
27250610	202688	Tuna noodle casserole with cream or white sauce W/ WHOLE MILK AND W/ BUTTER, NFS	15119P	TUNA, LT, CND, OIL, DRND	1,140.94	320.00	93.25	28.32	26.15
27250610	203555	Tuna noodle casserole with cream or white sauce W/O FAT	15119P	TUNA, LT, CND, OIL, DRND	1,084.19	320.00	93.25	29.93	27.52
27250630	0	Tuna noodle casserole with (mushroom) soup	15119P	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	93.25	28.20	25.97
27250630	201273	Tuna noodle casserole with (mushroom) soup W/ 2% MILK AND W/ BUTTER, NFS	15119P	TUNA, LT, CND, OIL, DRND	1,149.38	320.00	93.25	28.19	25.96
27250630	202216	Tuna noodle casserole with (mushroom) soup W/ WATER AND W/O FAT	15119P	TUNA, LT, CND, OIL, DRND	1,117.50	320.00	93.25	29.09	26.70
27250630	202584	Tuna noodle casserole with (mushroom) soup W/ 2% MILK	15119P	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	93.25	28.20	25.97
27250630	202593	Tuna noodle casserole with (mushroom) soup W/ SKIM MILK AND W/O FAT	15119P	TUNA, LT, CND, OIL, DRND	1,121.50	320.00	93.25	28.95	26.61
27250630	202723	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK	15119P	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	93.25	28.19	25.97
27250630	203749	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK AND W/O FAT	15119P	TUNA, LT, CND, OIL, DRND	1,121.00	320.00	93.25	28.95	26.62
27250710	0	Tuna and rice with (mushroom) soup (mixture)	15119P	TUNA, LT, CND, OIL, DRND	871.55	160.00	93.25	18.73	17.12
27350070	0	Tuna pot pie	15119P	TUNA, LT, CND, OIL, DRND	842.85	155.93	93.25	18.60	17.25
27350080	0	Tuna noodle casserole with vegetables, cream or white sauce	15119P	TUNA, LT, CND, OIL, DRND	1,139.68	184.28	93.25	16.44	15.08
27350080	100388	Tuna noodle casserole with vegetables, cream or white sauce W/ CARROTS	15119P	TUNA, LT, CND, OIL, DRND	1,139.68	184.28	93.25	16.45	15.08
27350410	0	Tuna noodle casserole with vegetables and (mushroom) soup	15119P	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	93.25	24.10	22.15
27350410	200066	Tuna noodle casserole with vegetables and (mushroom) soup W/ 1% MILK	15119P	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	93.25	24.10	22.15
27350410	203442	Tuna noodle casserole with vegetables and (mushroom) soup W/ 2% MILK	15119P	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	93.25	24.10	22.15
27450510	0	Tuna casserole with vegetables and (mushroom)	15119P	TUNA, LT, CND, OIL, DRND	909.20	292.00	93.25	32.58	29.95

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Code	code	Food Name	Code	Name	(grams)	(grams)	Fish	x 100	in Recipe
----- SPECIES=Tuna (104) ----- HABITAT=Marine -----					(continued) -----				
58140310	0	soup, no noodles Macaroni with tuna, Puerto Rican style (Macarr ones con atun)	15119P	TUNA,LT,CND,OIL,DRND	743.76	127.58	93.25	17.37	15.99
58145120	0	Macaroni or noodles with cheese and tuna	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	100521	Macaroni or noodles with cheese and tuna W/ 2% MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	200545	Macaroni or noodles with cheese and tuna W/ SK IM MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.59	188.81	93.25	17.40	15.97
58145120	201431	Macaroni or noodles with cheese and tuna W/ 1% MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	203026	Macaroni or noodles with cheese and tuna W/ WH OLE MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
26100180	0	Fish, NS as to type, canned	15121P	TUNA,LT,CND,H2O,DRND	100.00	61.40	99.18	61.40	60.90
26155110	0	Tuna, canned, NS as to oil or water pack	15121P	TUNA,LT,CND,H2O,DRND	100.00	100.00	99.18	100.00	99.18
26155190	0	Tuna, canned, water pack	15121P	TUNA,LT,CND,H2O,DRND	100.00	100.00	99.18	100.00	99.18
27250550	0	Seafood souffle	15121P	TUNA,LT,CND,H2O,DRND	599.32	49.00	99.18	8.17	8.11
27250810	0	Fish and rice with tomato-based sauce	15121P	TUNA,LT,CND,H2O,DRND	854.55	167.00	99.18	19.57	19.38
27250820	0	Fish and rice with cream sauce	15121P	TUNA,LT,CND,H2O,DRND	852.24	167.00	99.18	19.55	19.43
27250830	0	Fish and rice with (mushroom) soup	15121P	TUNA,LT,CND,H2O,DRND	854.55	167.00	99.18	19.57	19.38
27250900	0	Fish and noodles with (mushroom) soup	15121P	TUNA,LT,CND,H2O,DRND	877.05	186.50	99.18	21.26	21.09
27350090	0	Fish, noodles, and vegetables (including carrots, broccoli, and/or dark green leafy), cheese sauce (mixture)	15121P	TUNA,LT,CND,H2O,DRND	1,745.50	462.00	99.18	26.51	26.25
27350100	0	Fish, noodles, and vegetables (excluding carrots, broccoli, and dark-green leafy), cheese sauce (mixture)	15121P	TUNA,LT,CND,H2O,DRND	1,685.50	438.00	99.18	25.99	25.77
27450060	0	Tuna salad	15121P	TUNA,LT,CND,H2O,DRND	413.97	223.97	99.18	54.10	53.66
27450060	100008	Tuna salad W/ REAL MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	410.22	223.97	99.18	54.60	54.15
27450060	100321	Tuna salad W/ ITALIAN DRESSING (INCLUDE VINEGAR AND OIL)	15121P	TUNA,LT,CND,H2O,DRND	413.97	223.97	99.18	54.10	53.66
27450060	200020	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT..)	15121P	TUNA,LT,CND,H2O,DRND	413.22	223.97	99.18	54.20	53.76
27450060	200099	Tuna salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121P	TUNA,LT,CND,H2O,DRND	419.22	223.97	99.18	53.42	52.99
27450060	200449	Tuna salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT; HELLMANN'S CHOLESTEROL-FREE REDUCED CALORIE...)	15121P	TUNA,LT,CND,H2O,DRND	412.97	223.97	99.18	54.23	53.79
27450060	200685	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	417.72	223.97	99.18	53.62	53.18
27450060	201412	Tuna salad W/ CREAMY DRESSING WITH SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE RANCH DRESSING)	15121P	TUNA,LT,CND,H2O,DRND	413.97	223.97	99.18	54.10	53.66
27450060	202153	Tuna salad W/O SALAD DRESSING	15121P	TUNA,LT,CND,H2O,DRND	355.22	223.97	99.18	63.05	62.53

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Tuna (104) ----- HABITAT=Marine -----					(continued) -----				

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

27450060	203270	Tuna salad W/ REDUCED CALORIE, FAT FREE, CHOLESTEROL FREE, CREAMY DRESSING MADE WITH SOUR CREAM AND BUTTERMILK AND/OR OIL	15121P	TUNA, LT, CND, H2O, DRND	421.22	223.97	99.18	53.17	52.74
27450090	0	Tuna salad with cheese	15121P	TUNA, LT, CND, H2O, DRND	485.35	223.97	99.18	46.14	45.77
27450090	100140	Tuna salad with cheese W/ REAL MAYONNAISE, W/ NATURAL CHEDDAR OR AMERICAN TYPE CHEESE AND W/ SALSA	15121P	TUNA, LT, CND, H2O, DRND	481.67	223.97	99.18	46.50	46.12
27450090	100275	Tuna salad with cheese W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121P	TUNA, LT, CND, H2O, DRND	484.42	223.97	99.18	46.23	45.85
27450100	0	Tuna salad with egg	15121P	TUNA, LT, CND, H2O, DRND	478.65	223.97	99.18	46.79	46.41
27450100	100026	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121P	TUNA, LT, CND, H2O, DRND	477.72	223.97	99.18	46.88	46.50
27450100	100039	Tuna salad with egg W/ REAL MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	473.97	223.97	99.18	47.25	46.87
27450100	100224	Tuna salad with egg W/ TOMATOES AND W/O DRESSING	15121P	TUNA, LT, CND, H2O, DRND	405.22	223.97	99.18	55.27	54.82
27450100	100614	Tuna salad with egg W/ CREAMY DRESSING WITH SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE RANCH DRESSING....)	15121P	TUNA, LT, CND, H2O, DRND	478.65	223.97	99.18	46.79	46.41
27450100	100959	Tuna salad with egg W/ REAL MAYONNAISE AND W/ EGG WHITES	15121P	TUNA, LT, CND, H2O, DRND	473.97	223.97	99.18	47.25	46.87
27450100	100970	Tuna salad with egg W/ REDUCED-CALORIE OR DIET, CHOLESTEROL FREE, MAYONNAISE (INCLUDE KRAFT LIGHT...)	15121P	TUNA, LT, CND, H2O, DRND	477.40	223.97	99.18	46.91	46.53
27450100	200455	Tuna salad with egg W/ CHOLESTEROL-FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP CHOLESTEROL FREE...)	15121P	TUNA, LT, CND, H2O, DRND	479.90	223.97	99.18	46.67	46.29
27450100	201154	Tuna salad with egg W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121P	TUNA, LT, CND, H2O, DRND	485.22	223.97	99.18	46.16	45.78
27450100	201509	Tuna salad with egg W/ REDUCED CALORIE CREAMY DRESSING W/ SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE LIGHT RANCH DRESSING)	15121P	TUNA, LT, CND, H2O, DRND	481.78	223.97	99.18	46.49	46.11
27450100	202694	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	483.34	223.97	99.18	46.34	45.96
27550710	0	Tuna salad sandwich, with lettuce	15121P	TUNA, LT, CND, H2O, DRND	167.26	57.75	99.18	34.53	34.24
27550710	100003	Tuna salad sandwich, with lettuce W/ REDUCED CALORIE AND/OR HIGH FIBER WHEAT OR CRACKED WHEAT BREAD AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT...)	15121P	TUNA, LT, CND, H2O, DRND	171.06	57.75	99.18	33.76	33.48
27550710	200508	Tuna salad sandwich, with lettuce W/ PITA BREAD	15121P	TUNA, LT, CND, H2O, DRND	160.26	57.75	99.18	36.03	35.74

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Tuna (104) ----- HABITAT=Marine -----					(continued)				
27550720	0	Tuna salad sandwich	15121P	TUNA, LT, CND, H2O, DRND	157.26	57.75	99.18	36.72	36.42
27550720	100053	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD	15121P	TUNA, LT, CND, H2O, DRND	161.26	57.75	99.18	35.81	35.52
27550720	100054	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD	15121P	TUNA, LT, CND, H2O, DRND	162.56	57.75	99.18	35.52	35.23

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe	
27550720	100241	Tuna salad sandwich W/ WHOLE WHEAT ROLL, NS AS TO 100%	15121P	TUNA,LT,CND,H2O,DRND	148.26	57.75	99.18	38.95	38.63	
27550720	100466	Tuna salad sandwich W/ WHEAT OR CRACKED WHEAT BREAD	15121P	TUNA,LT,CND,H2O,DRND	155.26	57.75	99.18	37.19	36.89	
27550720	100844	Tuna salad sandwich W/ REAL MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	156.36	57.75	99.18	36.93	36.63	
27550720	200109	Tuna salad sandwich W/ WHOLE WHEAT BREAD, OTHER THAN 100%, OR NS AS TO 100% AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT...)	15121P	TUNA,LT,CND,H2O,DRND	157.06	57.75	99.18	36.77	36.47	
27550720	200949	Tuna salad sandwich W/ REDUCED CALORIE OR DIET CHOLESTEROL-FREE MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	157.16	57.75	99.18	36.75	36.44	
27550720	201529	Tuna salad sandwich W/ WHOLE WHEAT BREAD, OTHER THAN 100% OR NS AS TO 100%	15121P	TUNA,LT,CND,H2O,DRND	157.26	57.75	99.18	36.72	36.42	
27550720	202074	Tuna salad sandwich W/ RYE BREAD	15121P	TUNA,LT,CND,H2O,DRND	157.26	57.75	99.18	36.72	36.42	
27550720	202823	Tuna salad sandwich W/ RYE BREAD AND W/ REAL MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	156.36	57.75	99.18	36.93	36.63	
27570310	0	Hors d'oeuvres, with spread	15121P	TUNA,LT,CND,H2O,DRND	631.03	184.28	99.18	29.20	28.96	
58120110	0	Crepes, filled with meat, fish, or poultry, with sauce	15121P	TUNA,LT,CND,H2O,DRND	1,559.07	167.00	99.18	10.61	10.62	
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121P	TUNA,LT,CND,H2O,DRND	1,559.07	140.00	99.18	8.95	8.91	
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121P	TUNA,LT,CND,H2O,DRND	1,559.07	140.00	99.18	8.95	8.91	
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121P	TUNA,LT,CND,H2O,DRND	1,559.07	167.00	99.18	10.67	10.62	
58134310	0	Stuffed shells, with fish and/or shellfish, with tomato sauce	15121P	TUNA,LT,CND,H2O,DRND	1,547.61	154.00	99.18	9.95	9.87	
58148130	0	Macaroni salad with tuna	15121P	TUNA,LT,CND,H2O,DRND	765.88	115.50	99.18	15.08	14.96	
58148130	202070	Macaroni salad with tuna W/ REAL MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	760.25	115.50	99.18	15.19	15.07	
58148130	202491	Macaroni salad with tuna W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121P	TUNA,LT,CND,H2O,DRND	764.75	115.50	99.18	15.10	14.98	
58148160	0	Macaroni salad with tuna and egg	15121P	TUNA,LT,CND,H2O,DRND	996.75	167.00	99.18	16.75	16.62	
58148160	201511	Macaroni salad with tuna and egg W/ REAL MAYONNAISE	15121P	TUNA,LT,CND,H2O,DRND	989.25	167.00	99.18	16.88	16.74	
27450190	100411	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL TUNA	15121N	(26155110) TUNA,LT,CND,H2O,DRND	100.00	30.00	99.18	30.00	30.00	
58301130	0	Tuna lasagna (diet frozen meal)	15121N	(26155190) TUNA,LT,CND,H2O,DRND	340.18	34.02	99.18	10.00	10.00	
----- SPECIES=Tuna (104) -----					----- HABITAT=Marine -----			----- (continued) -----		
27550750	0	Tuna salad submarine sandwich, on roll, with lettuce	15121N	(27450060) TUNA,LT,CND,H2O,DRND	213.00	56.27	99.18	26.42	26.42	
27550750	203516	Tuna salad submarine sandwich, on roll, with lettuce W/ WHOLE WHEAT ROLL, NS AS TO 100%	15121N	(27450060) TUNA,LT,CND,H2O,DRND	213.00	56.27	99.18	26.42	26.42	
26100180	0	Fish, NS as to type, canned	15126P	TUNA,CND,H2ODRND,WHITE MEAT	100.00	13.70	99.18	13.70	13.59	
26153100	0	Tuna, fresh, raw	15127	TUNA,YELLOWFIN,RAW	100.00	100.00	.	100.00	100.00	
26153110	0	Tuna, fresh, cooked, NS as to cooking method	15127	TUNA,YELLOWFIN,RAW	971.90	907.20	.	92.87	92.87	

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**TABLE A-2. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

26153120	0	Tuna, fresh, baked or broiled	15127	TUNA, YELLOWFIN, RAW	971.90	907.20	.	92.87	92.87
26153120	100869	Tuna, fresh, baked or broiled W/ SOYBEAN OIL	15127	TUNA, YELLOWFIN, RAW	970.95	907.20	.	92.82	92.82
26153120	200865	Tuna, fresh, baked or broiled W/ CORN OIL	15127	TUNA, YELLOWFIN, RAW	970.95	907.20	.	92.82	92.82
26153120	201598	Tuna, fresh, baked or broiled W/ OLIVE OIL	15127	TUNA, YELLOWFIN, RAW	970.70	907.20	.	92.85	92.85
26153120	202429	Tuna, fresh, baked or broiled W/O FAT OR W/ NO NSTICK SPRAY (INCLUDE PAM...)	15127	TUNA, YELLOWFIN, RAW	943.70	907.20	.	96.20	96.20
26153120	203213	Tuna, fresh, baked or broiled W/ VEGETABLE OIL , NFS (INCLUDE OIL, NFS)	15127	TUNA, YELLOWFIN, RAW	970.95	907.20	.	92.82	92.82
26153140	0	Tuna, fresh, floured or breaded, fried	15127	TUNA, YELLOWFIN, RAW	1,086.45	907.20	.	74.04	74.04
26153160	0	Tuna, fresh, steamed or poached	15127	TUNA, YELLOWFIN, RAW	100.00	100.00	.	100.00	100.00
58151130	100733	Sushi, with vegetables and fish W/ TUNA	15127N	(26153100) TUNA, YELLOWFIN, RAW	2,394.40	302.55	.	12.57	12.57
26153190	0	Tuna, fresh, smoked	15201	Tuna, fresh, smoked	100.00	100.00	.	100.00	100.00
----- SPECIES=Whitefish (109) ----- HABITAT=50% Freshwater, 50% Marine -----									
27250060	0	Gefilte fish	15130	WHITEFISH, MXD SP, RAW	6,161.70	2,268.00	.	36.81	36.81
26100190	0	Fish, NS as to type, smoked	15131P	WHITEFISH, MXD SP, SMOKED	99.90	13.40	98.40	13.41	13.20
----- SPECIES=Whiting (110) ----- HABITAT=Marine -----									
26100100	0	Fish, NS as to type, raw	15132	WHITING, MXD SP, RAW	100.00	6.90	.	6.90	6.90
26100130	0	Fish, NS as to type, breaded or battered, bake d	15132	WHITING, MXD SP, RAW	1,171.58	62.60	.	5.12	5.12
26100140	0	Fish, NS as to type, floured or breaded, fried	15132	WHITING, MXD SP, RAW	1,086.45	62.60	.	5.10	5.10
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING, MXD SP, RAW	1,086.45	62.60	.	5.10	5.10
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15132	WHITING, MXD SP, RAW	1,086.45	62.60	.	5.10	5.10
26100150	0	Fish, NS as to type, battered, fried	15132	WHITING, MXD SP, RAW	133.00	6.90	.	4.66	4.66
26157110	0	Whiting, cooked, NS as to cooking method	15132	WHITING, MXD SP, RAW	971.90	907.20	.	92.73	92.73
26157120	0	Whiting, baked or broiled	15132	WHITING, MXD SP, RAW	971.90	907.20	.	92.73	92.73
26157120	200509	Whiting, baked or broiled W/ CORN OIL	15132	WHITING, MXD SP, RAW	970.95	907.20	.	92.71	92.71
26157120	201895	Whiting, baked or broiled W/O FAT OR W/ NONSTI CK SPRAY (INCLUDE PAM...)	15132	WHITING, MXD SP, RAW	943.70	907.20	.	96.08	96.08
26157120	202454	Whiting, baked or broiled W/ BUTTER, NFS	15132	WHITING, MXD SP, RAW	972.08	907.20	.	92.72	92.72
26157120	203222	Whiting, baked or broiled W/ VEGETABLE OIL, NF S (INCLUDE OIL, NFS)	15132	WHITING, MXD SP, RAW	970.95	907.20	.	92.71	92.71
26157130	0	Whiting, breaded or battered, baked	15132	WHITING, MXD SP, RAW	1,171.05	907.20	.	74.06	74.06
					Recipe	Fish	OPP/ USDA	%	% of
Food	Mod	Food Name	Ingredient	Ingredient	Weight	Weight	Fish	C_PRATIO	Prepared
Code	code		Code	Name	(grams)	(grams)		x 100	Fish
									in Recipe
----- SPECIES=Whiting (110) ----- HABITAT=Marine ----- (continued) -----									
26157140	0	Whiting, floured or breaded, fried	15132	WHITING, MXD SP, RAW	1,086.45	907.20	.	73.84	73.84
26157140	100494	Whiting, floured or breaded, fried W/ VEGETABL E OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING, MXD SP, RAW	1,086.45	907.20	.	73.84	73.84
26157140	100603	Whiting, floured or breaded, fried W/ CANOLA, SOYBEAN, AND SUNFLOWER OIL	15132	WHITING, MXD SP, RAW	1,086.45	907.20	.	73.84	73.84
26157140	202630	Whiting, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15132	WHITING, MXD SP, RAW	1,086.45	907.20	.	73.84	73.84
26157150	0	Whiting, battered, fried	15132	WHITING, MXD SP, RAW	133.00	100.00	.	69.84	69.84
26157150	100778	Whiting, battered, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS;...)	15132	WHITING, MXD SP, RAW	133.00	100.00	.	69.84	69.84
26157150	203463	Whiting, battered, fried W/ VEGETABLE OIL, NFS	15132	WHITING, MXD SP, RAW	133.00	100.00	.	69.84	69.84

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**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Anchovy (4) ----- HABITAT=Estuarine -----									
72116140	0	Caesar salad (with romaine)	15002P	ANCHOVY,EUROPEAN,CND,OIL,DRND	694.43	24.00	91.57	3.46	3.16
----- SPECIES=Carp (18) ----- HABITAT=Freshwater -----									
26105140	101175	Carp, floured or breaded, fried W/ SOYBEAN OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	.	67.13	67.13
26105140	0	Carp, floured or breaded, fried	15008	CARP,RAW	805.25	626.00	.	67.13	67.13
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26107140	100431	Catfish, floured or breaded, fried W/ LARD	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	100436	Catfish, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WE SSON CORN OIL)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	101201	Catfish, floured or breaded, fried W/ CANOLA OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107140	202918	Catfish, floured or breaded, fried W/ SOYBEAN OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	.	66.71	66.71
26107120	0	Catfish, baked or broiled	15234	CATFISH,CHANNEL,FARMED,RAW	680.70	616.00	.	89.26	89.26
26107120	202363	Catfish, baked or broiled W/ BUTTER, NFS	15234	CATFISH,CHANNEL,FARMED,RAW	680.88	616.00	.	89.23	89.23
26107120	202879	Catfish, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	679.75	616.00	.	89.10	89.10
26107130	0	Catfish, breaded or battered, baked	15234	CATFISH,CHANNEL,FARMED,RAW	879.85	616.00	.	63.87	63.87
26107140	0	Catfish, floured or breaded, fried	15234	CATFISH,CHANNEL,FARMED,RAW	795.25	616.00	.	66.71	66.71
26107140	100387	Catfish, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	795.25	616.00	.	66.71	66.71
26107150	0	Catfish, battered, fried	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
26107150	201662	Catfish, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	.	57.01	57.01
----- SPECIES=Cisco (21) ----- HABITAT=Freshwater -----									
26100190	0	Fish, NS as to type, smoked	15014P	CISCO,SMOKED	99.90	11.60	98.24	11.61	11.41
----- SPECIES=Clam (22) ----- HABITAT=2.61% Estuarine, 97.39% Marine -----									
26303140	0	Clams, floured or breaded, fried	15157	CLAM,MXD SP,RAW	1,085.75	908.00	.	76.56	76.56
26303140	100977	Clams, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15157	CLAM,MXD SP,RAW	1,085.75	908.00	.	76.56	76.56
26303150	0	Clams, battered, fried	15157	CLAM,MXD SP,RAW	902.90	680.40	.	65.95	65.95
27350110	0	Bouillabaisse	15157	CLAM,MXD SP,RAW	4,392.60	226.80	.	5.17	5.17
27250210	0	Clam cake or patty	15160	CLAM,MXD SP,CND,DRND	779.30	396.90	.	40.80	40.80
58132820	0	Spaghetti with white clam sauce	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	.	29.57	29.57
28350210	0	Clam chowder, NS as to Manhattan or New England style	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	100.00	12.50	31.09	12.55	3.89
28350220	0	Clam chowder, Manhattan	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	200.00	100.00	31.09	50.00	15.55
					Recipe	Fish	OPP/ USDA		% of Prepared

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**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Weight (grams)	Weight (grams)	% Fish	C_PRATIO x 100	Fish in Recipe
----- SPECIES=Clam (22) ----- HABITAT=2.61% Estuarine, 97.39% Marine ----- (continued) -----									
28355120	0	Clam chowder, New England, prepared with milk	6030	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	.	50.66	50.66
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	50.00	39.91	50.32	19.96
28355110	0	Clam chowder, New England, NS as to prepared w ith water or milk	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	100.00	39.91	100.00	39.91
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	100.00	12.50	31.09	12.34	3.89
28350220	0	Clam chowder, Manhattan	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	200.00	100.00	31.09	50.00	15.55
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	25.00	40.51	24.78	10.13
----- SPECIES=Cod (23) ----- HABITAT=Marine -----									
26100130	0	Fish, NS as to type, breaded or battered, bake d	15015	COD,ATLANTIC,RAW	1,171.58	204.10	.	16.63	16.63
26100140	0	Fish, NS as to type, floured or breaded, fried	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15015	COD,ATLANTIC,RAW	1,086.45	204.10	.	16.59	16.59
26100150	0	Fish, NS as to type, battered, fried	15015	COD,ATLANTIC,RAW	133.00	22.50	.	15.15	15.15
28350050	0	Fish chowder	15015	COD,ATLANTIC,RAW	1,395.85	453.60	.	32.93	32.93
28351110	0	Fish and vegetable soup, no potatoes (Sopa de pescado)	15015	COD,ATLANTIC,RAW	1,995.64	453.60	.	23.19	23.19
28355450	0	Seafood soup with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy)	15015	COD,ATLANTIC,RAW	2,953.00	907.20	.	31.11	31.11
28355460	0	Seafood soup with potatoes and vegetables (exc luding carrots, broccoli, and dark-green leafy )	15015	COD,ATLANTIC,RAW	2,960.20	907.20	.	31.00	31.00
28355470	0	Seafood soup with vegetables (including carrot s, broccoli, and/or dark-green leafy (no potat oes))	15015	COD,ATLANTIC,RAW	2,953.00	907.20	.	31.15	31.15
28355480	0	Seafood soup with vegetables (excluding carrot s, broccoli, and dark-green leafy (no potatoes )	15015	COD,ATLANTIC,RAW	2,925.40	907.20	.	31.39	31.39
28150610	0	Fish, batter-dipped or fish cake, with vegetab le, potatoes (frozen meal)	15015N	(26100150) COD,ATLANTIC,RAW	224.80	20.54	.	8.18	8.18
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15016	COD,ATLANTIC,CKD,DRY HEAT	100.84	22.50	.	22.31	22.31
26100120	0	Fish, NS as to type, baked or broiled	15016	COD,ATLANTIC,CKD,DRY HEAT	972.08	204.10	.	21.00	21.00
26100120	200264	Fish, NS as to type, baked or broiled W/ R, NFS	15016	COD,ATLANTIC,CKD,DRY HEAT	972.08	204.10	.	21.00	21.00
26100120	200968	Fish, NS as to type, baked or broiled W/ ABLE OIL, NFS (INCLUDE OIL, NFS)	15016	COD,ATLANTIC,CKD,DRY HEAT	970.95	204.10	.	21.02	21.02
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

----- SPECIES=Cod (23) ----- HABITAT=Marine ----- (continued) -----									
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
27250030	204844	Codfish ball or cake W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15017	COD,ATLANTIC,CND	898.15	396.90	.	40.05	40.05
27250050	0	Fish cake or patty, NS as to fish	15017	COD,ATLANTIC,CND	898.15	396.90	.	40.05	40.05
26100170	0	Fish, NS as to type, dried	15018P	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	88.91	100.00	88.91
26109120	0	Cod, baked or broiled	15019	COD,PACIFIC,RAW	971.90	907.20	.	92.72	92.72
26109120	201359	Cod, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	970.95	907.20	.	92.70	92.70
26109120	202670	Cod, baked or broiled W/ BUTTER, NFS	15019	COD,PACIFIC,RAW	972.08	907.20	.	92.70	92.70
26109120	203510	Cod, baked or broiled W/ OLIVE OIL	15019	COD,PACIFIC,RAW	970.70	907.20	.	92.73	92.73
26109130	0	Cod, breaded or battered, baked	15019	COD,PACIFIC,RAW	1,171.05	907.20	.	74.04	74.04
26109130	201574	Cod, breaded or battered, baked W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	81.20	81.20
26109140	0	Cod, floured or breaded, fried	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	73.82	73.82
26109140	204165	Cod, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	1,086.45	907.20	.	73.82	73.82
26109150	0	Cod, battered, fried	15019	COD,PACIFIC,RAW	133.00	100.00	.	69.79	69.79
26109150	101070	Cod, battered, fried W/ VEGETABLE OIL (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	133.00	100.00	.	69.79	69.79
26109160	0	Cod, steamed or poached	15019	COD,PACIFIC,RAW	100.00	100.00	.	100.00	100.00
26109120	201495	Cod, baked or broiled W/ PEANUT OIL	15019	Cod,Pacific,raw	970.70	907.20	.	92.73	92.73
26100130	0	Fish, NS as to type, breaded or battered, baked	15066	POLLOCK,WALLEYE,RAW	1,171.58	437.30	.	35.58	35.58
26100140	0	Fish, NS as to type, floured or breaded, fried	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	.	35.50	35.50
26100150	0	Fish, NS as to type, battered, fried	15066	POLLOCK,WALLEYE,RAW	133.00	48.20	.	32.43	32.43
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15066N	(26100150) POLLOCK,WALLEYE,RAW	224.80	44.00	.	17.51	17.51
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	100.84	48.20	.	47.80	47.80
26100120	0	Fish, NS as to type, baked or broiled	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	.	44.99	44.99
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	.	44.99	44.99
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	970.95	437.30	.	45.04	45.04
----- SPECIES=Crab (24) ----- HABITAT=46.83% Estuarine, 53.17% Marine -----									
26305110	0	Crab, cooked, NS as to cooking method	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26305160	0	Crab, hard shell, steamed	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
27150130	0	Seafood newburg	15140	CRAB,BLUE,CKD,MOIST HEAT	929.58	113.40	.	11.84	11.84
27250040	0	Crab cake	15140	CRAB,BLUE,CKD,MOIST HEAT	551.80	453.60	.	81.40	81.40
27250040	204665	Crab cake W/O FAT	15140	CRAB,BLUE,CKD,MOIST HEAT	523.60	453.60	.	86.71	86.71

----- SPECIES=Crab (24) ----- HABITAT=46.83% Estuarine, 53.17% Marine ----- (continued) -----									
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
27464000	0	Gumbo, no rice (New Orleans type with shellfish)	15140	CRAB,BLUE,CKD,MOIST HEAT	3,548.33	67.50	.	1.98	1.98

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

58148140	0	h, pork, and/or poultry, tomatoes, okra)								
		Macaroni salad with crab meat	15140	CRAB,BLUE,CKD,MOIST HEAT	751.63	101.25	.	13.47	13.47	
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15141	CRAB,BLUE,CND	76.99	15.00	.	19.48	19.48	
----- SPECIES=Croaker (27) ----- HABITAT=Estuarine -----										
26111140	0	Croaker, floured or breaded, fried	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	.	61.75	61.75	
----- SPECIES=Fish (35) ----- HABITAT=Unknown -----										
26100210	0	Fish stick, patty, or fillet, NS as to type, cooked, NS as to cooking method	15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84	
26100220	0	Fish stick, patty, or fillet, NS as to type, baked or broiled	15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84	
26100230	0	Fish stick, patty, or fillet, NS as to type, readed or battered, baked	15027P	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	44.84	100.00	44.84	
72308000	0	Dark-green leafy vegetable soup with meat, Oriental style	6179	SAUCE,FISH,RTS	1,319.63	33.63	.	2.55	2.55	
----- SPECIES=Flatfish (37) ----- HABITAT=84.23% Estuarine, 15.77% Marine -----										
26100130	0	Fish, NS as to type, breaded or battered, baked	15028	FLATFISH,RAW	1,171.58	138.80	.	11.40	11.40	
26100140	0	Fish, NS as to type, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37	
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37	
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15028	FLATFISH,RAW	1,086.45	138.80	.	11.37	11.37	
26100150	0	Fish, NS as to type, battered, fried	15028	FLATFISH,RAW	133.00	15.30	.	10.38	10.38	
27150310	0	Fish with tomato-based sauce (mixture)	15028	FLATFISH,RAW	694.50	453.60	.	66.00	66.00	
27150310	101137	Fish with tomato-based sauce (mixture) W/ CANOLA OIL	15028	FLATFISH,RAW	694.03	453.60	.	66.00	66.00	
27150310	203262	Fish with tomato-based sauce (mixture) W/O FAT	15028	FLATFISH,RAW	680.40	453.60	.	67.63	67.63	
27150310	204185	Fish with tomato-based sauce (mixture) W/ CORN OIL	15028	FLATFISH,RAW	694.03	453.60	.	66.00	66.00	
27450700	204770	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), tomato-based sauce (mixture) W/ PALM OIL	15028	FLATFISH,RAW	1,603.45	907.20	.	56.77	56.77	
27450710	0	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)	15028	FLATFISH,RAW	1,619.65	907.20	.	56.28	56.28	
27450710	203868	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)	15028	FLATFISH,RAW	1,618.70	907.20	.	56.29	56.29	
----- SPECIES=Flatfish (37) ----- HABITAT=84.23% Estuarine, 15.77% Marine ----- (continued) -----										
27550000	0	Fish sandwich, on bun, with spread	15028	FLATFISH,RAW	148.60	57.60	.	35.28	35.28	
27550000	100769	Fish sandwich, on bun, with spread REMOVED SPR EAD	15028	FLATFISH,RAW	133.60	57.60	.	39.41	39.41	

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**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15028N	(26100150) FLATFISH,RAW	224.80	13.97	.	5.60	5.60
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	100.84	15.30	.	15.17	15.17
26100120	0	Fish, NS as to type, baked or broiled	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	.	14.28	14.28
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	.	14.28	14.28
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	970.95	138.80	.	14.30	14.30
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine -----									
26115120	0	Flounder, baked or broiled	15028	FLATFISH,RAW	971.90	907.20	.	92.75	92.75
26115120	200995	Flounder, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	970.95	907.20	.	92.72	92.72
26115120	201280	Flounder, baked or broiled W/ OLIVE OIL	15028	FLATFISH,RAW	970.70	907.20	.	92.75	92.75
26115120	201381	Flounder, baked or broiled W/ BUTTER, NFS	15028	FLATFISH,RAW	972.08	907.20	.	92.73	92.73
26115120	203954	Flounder, baked or broiled W/ REAL MAYONNAISE	15028	FLATFISH,RAW	971.20	907.20	.	92.83	92.83
26115130	204063	Flounder, breaded or battered, baked W/ MARGARINE-LIKE SPREAD, REDUCED CALORIE, ABOUT 40% FAT, TUB, SALTED (INCLUDE COUNTRY CROCK LIGHT...)	15028	FLATFISH,RAW	1,173.45	907.20	.	74.92	74.92
26115140	0	Flounder, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	907.20	.	73.86	73.86
26115150	201594	Flounder, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	133.00	100.00	.	67.52	67.52
26115150	204298	Flounder, battered, fried W/ CANOLA OIL	15028	FLATFISH,RAW	133.00	100.00	.	67.52	67.52
26115160	0	Flounder, steamed or poached	15028	FLATFISH,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Haddock (41) ----- HABITAT=Marine -----									
26117110	0	Haddock, cooked, NS as to cooking method	15033	HADDOCK,RAW	972.95	907.20	.	92.62	92.62
26117120	0	Haddock, baked or broiled	15033	HADDOCK,RAW	972.95	907.20	.	92.62	92.62
26117120	201554	Haddock, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	972.00	907.20	.	92.59	92.59
26117120	201747	Haddock, baked or broiled W/ BUTTER, NFS	15033	HADDOCK,RAW	973.13	907.20	.	92.60	92.60
26117130	0	Haddock, breaded or battered, baked	15033	HADDOCK,RAW	1,171.58	907.20	.	74.03	74.03
26117130	202751	Haddock, breaded or battered, baked W/O FAT	15033	HADDOCK,RAW	1,086.45	907.20	.	81.23	81.23
26117140	0	Haddock, floured or breaded, fried	15033	HADDOCK,RAW	1,086.45	907.20	.	73.84	73.84
26117150	0	Haddock, battered, fried	15033	HADDOCK,RAW	133.00	100.00	.	69.86	69.86
----- SPECIES=Halibut (43) ----- HABITAT=Marine -----									
27350110	0	Bouillabaisse	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	4,392.60	453.60	.	10.46	10.46
----- SPECIES=Herring (44) ----- HABITAT=Estuarine -----									
26119140	0	Herring, floured or breaded, fried	15039	HERRING,ATLANTIC,RAW	787.05	607.80	.	66.62	66.62
----- SPECIES=Lobster (47) ----- HABITAT=Marine -----									

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

27350110	0	Bouillabaisse	15147	LOBSTER,NORTHERN,RAW	4,392.60	226.80	.	5.25	5.25
26311110	0	Lobster, cooked, NS as to cooking method	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
26311160	0	Lobster, steamed or boiled	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	.	99.17	99.17
27150060	0	Lobster newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	340.20	.	35.64	35.64
27150130	0	Seafood newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	113.40	.	11.90	11.90
----- SPECIES=Mackerel (49) ----- HABITAT=Marine -----									
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15046	MACKEREL,ATLANTIC,RAW	1,086.90	302.55	.	25.20	25.20
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15050	MACKEREL,PACIFIC&JACK,MXD SP,RAW	1,086.90	302.55	.	24.53	24.53
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15051	MACKEREL,SPANISH,RAW	1,086.90	302.55	.	24.38	24.38
----- SPECIES=Mullet (52) ----- HABITAT=Estuarine -----									
26123160	0	Mullet, steamed or poached	15055	MULLET,STRIPED,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Mussels (53) ----- HABITAT=Marine -----									
26313160	0	Mussels, steamed or poached	15164	MUSSEL,BLUE,RAW	100.84	100.00	.	98.34	98.34
27350110	0	Bouillabaisse	15164	MUSSEL,BLUE,RAW	4,392.60	226.80	.	5.19	5.19
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine -----									
26125120	0	Ocean perch, baked or broiled	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	.	92.75	92.75
26125120	201950	Ocean perch, baked or broiled W/ BUTTER, NFS	15057	OCEAN PERCH,ATLANTIC,RAW	972.08	907.20	.	92.74	92.74
26125130	0	Ocean perch, breaded or battered, baked	15057	OCEAN PERCH,ATLANTIC,RAW	1,128.75	907.20	.	77.54	77.54
26125140	0	Ocean perch, floured or breaded, fried	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	.	73.87	73.87
----- SPECIES=Oyster (59) ----- HABITAT=Estuarine -----									
26315140	0	Oysters, floured or breaded, fried	15167	OYSTER,EASTERN,WILD,RAW	1,086.45	907.20	.	73.75	73.75
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15167	OYSTER,EASTERN,WILD,RAW	3,548.33	186.00	.	5.31	5.31
28355310	101214	Oyster stew W/ MARGARINE, NFS	15167	OYSTER,EASTERN,WILD,RAW	1,538.51	496.00	.	32.24	32.24
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Perch (60) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26127140	100971	Perch, floured or breaded, fried W/ CANOLA OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	101178	Perch, floured or breaded, fried W/ SOYBEAN OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127140	101192	Perch, floured or breaded, fried W/ PEANUT OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	.	63.34	63.34
26127120	0	Perch, baked or broiled	15060	PERCH,MXD SP,RAW	971.90	907.20	.	92.75	92.75
26127120	200860	Perch, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15060	PERCH,MXD SP,RAW	970.95	907.20	.	92.72	92.72
26127120	203332	Perch, baked or broiled W/O FAT	15060	PERCH,MXD SP,RAW	943.70	907.20	.	96.09	96.09
26127130	0	Perch, breaded or battered, baked	15060	PERCH,MXD SP,RAW	1,128.75	907.20	.	77.53	77.53
26127150	0	Perch, battered, fried	15060	PERCH,MXD SP,RAW	133.00	100.00	.	69.90	69.90
26127150	204693	Perch, battered, fried W/ VEGETABLE OIL, NFS (	15060	PERCH,MXD SP,RAW	133.00	100.00	.	69.90	69.90

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

INCLUDE OIL, NFS)

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Pollock (64) ----- HABITAT=Marine -----									
26100240	0	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	.	73.88	73.88
26100240	101130	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	.	73.88	73.88
26100240	204083	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried W/ CORN OIL	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	.	73.88	73.88
26100250	0	Fish stick, patty, or fillet, NS as to type, b 15065 attered, fried	15065	POLLOCK,ATLANTIC,RAW	133.00	100.00	.	67.56	67.56
27250520	0	Seafood restructured	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	.	67.57	67.57
58111200	0	Puffs, fried, crab meat and cream cheese fille d	15065N	(27250520) POLLOCK,ATLANTIC,RAW	892.90	110.68	.	10.44	10.44
----- SPECIES=Pompano (65) ----- HABITAT=Marine -----									
26131120	204584	Pompano, baked or broiled W/ OLIVE OIL	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	671.30	607.80	.	89.12	89.12
26131140	100951	Pompano, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WE SSON CORN OIL)	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	.	66.67	66.67
26131110	0	Pompano, cooked, NS as to cooking method	15068	POMPANO,FLORIDA,RAW	672.50	607.80	.	89.26	89.26
26131140	204139	Pompano, floured or breaded, fried W/ VEGETABL E OIL, NFS (INCLUDE OIL, NFS)	15068	POMPANO,FLORIDA,RAW	787.05	607.80	.	66.67	66.67
27350110	0	Bouillabaisse	15068	POMPANO,FLORIDA,RAW	4,392.60	453.60	.	10.68	10.68
----- SPECIES=Porgy (66) ----- HABITAT=Marine -----									
26133120	0	Porgy, baked or broiled	15090	SCUP,RAW	590.90	526.20	.	87.35	87.35
26133120	100976	Porgy, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	SCUP,RAW	589.95	526.20	.	87.10	87.10
26133120	203252	Porgy, baked or broiled W/ BUTTER, NFS	15090	SCUP,RAW	591.08	526.20	.	87.32	87.32
----- SPECIES=Porgy (66) ----- HABITAT=Marine ----- (continued) -----									
26133140	100567	Porgy, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	SCUP,RAW	705.45	526.20	.	61.91	61.91
26133160	0	Porgy, steamed or poached	15090	SCUP,RAW	100.00	100.00	.	100.00	100.00
----- SPECIES=Rockfish (72) ----- HABITAT=Estuarine -----									
26100130	0	Fish, NS as to type, breaded or battered, bake d	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,171.58	64.40	.	5.29	5.29
26100140	0	Fish, NS as to type, floured or breaded, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	.	5.27	5.27
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	.	5.27	5.27
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	.	5.27	5.27
26100150	0	Fish, NS as to type, battered, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	133.00	7.10	.	4.81	4.81

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**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

28150610	0	Fish, batter-dipped or fish cake, with vegetables, potatoes (frozen meal)	15070N	(26100150) ROCKFISH,PACIFIC,MXD SP,RAW	224.80	6.48	.	2.60	2.60
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	100.84	7.10	.	7.04	7.04
26100120	0	Fish, NS as to type, baked or broiled	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	.	6.63	6.63
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	.	6.63	6.63
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	970.95	64.40	.	6.63	6.63
----- SPECIES=Salmon (75) ----- HABITAT=0.05% Freshwater, 4.73% Estuarine, 95.22% Marine -----									
26100190	0	Fish, NS as to type, smoked	15077P	SALMON,CHINOOK,SMOKED	99.90	74.90	98.10	74.97	73.55
26137190	0	Salmon, smoked	15077P	SALMON,CHINOOK,SMOKED	100.00	100.00	98.10	100.00	98.10
27250070	0	Salmon cake or patty	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070	100813	Salmon cake or patty W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070	101058	Salmon cake or patty W/ SOYBEAN OIL (INCLUDE W/ SOYBEAN OIL...)	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.27	46.84
27250070	204660	Salmon cake or patty W/ BUTTER, NFS	15080P	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	98.90	43.45	46.84
26137100	0	Salmon, raw	15081	SALMON,COHO,WILD,RAW	100.00	100.00	.	100.00	100.00
27450710	204706	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture) W/ SALMON AND OLIVE OIL	15081N	(26137100) SALMON,COHO,WILD,RAW	1,618.45	907.20	.	56.54	56.54
26137120	201145	Salmon, baked or broiled W/ OLIVE OIL	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.70	780.20	.	91.55	91.55
26137140	204329	Salmon, floured or breaded, fried W/ CANOLA OIL	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.05	73.05
26137120	0	Salmon, baked or broiled	15083	SALMON,PINK,RAW	844.90	780.20	.	91.58	91.58
26137120	200265	Salmon, baked or broiled W/ BUTTER, NFS	15083	SALMON,PINK,RAW	845.08	780.20	.	91.56	91.56
26137120	201437	Salmon, baked or broiled W/O FAT OR W/ NONSTICK	15083	SALMON,PINK,RAW	816.70	780.20	.	95.52	95.52
----- SPECIES=Salmon (75) ----- HABITAT=0.05% Freshwater, 4.73% Estuarine, 95.22% Marine ----- (continued) -----									
26137140	0	K SPRAY (INCLUDE PAM...)	15083	SALMON,PINK,RAW	959.45	780.20	.	73.05	73.05
26137140	100833	Salmon, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	SALMON,PINK,RAW	959.45	780.20	.	73.05	73.05
26137160	0	Salmon, steamed or poached	15083	SALMON,PINK,RAW	100.00	100.00	.	100.00	100.00
32105020	100563	Egg omelet or scrambled egg, with fish W/ BUTTER, NFS	15084P	SALMON,PINK,CND,W/BONE & LIQ	84.59	12.00	98.90	14.31	14.03
26137110	0	Salmon, cooked, NS as to cooking method	15247	SALMON,COHO,WILD,CKD,DRY HEAT	100.00	100.00	.	100.00	100.00
----- SPECIES=Scallop (79) ----- HABITAT=0.67% Estuarine, 99.33% Marine -----									
26317110	0	Scallops, cooked, NS as to cooking method	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	.	73.87	73.87
26317140	101203	Scallops, floured or breaded, fried W/ CANOLA OIL	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	.	73.87	73.87
27350110	0	Bouillabaisse	15172	SCALLOP,MXD SP,RAW	4,392.60	453.60	.	10.44	10.44
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine -----									

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26141120	200913	Sea bass, baked or broiled W/ CORN OIL	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	843.95	780.20	.	91.48	91.48
26141140	101182	Sea bass, floured or breaded, fried W/ CORN OIL	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	.	72.99	72.99
26141120	0	Sea bass, baked or broiled	15091	SEA BASS,MXD SP,RAW	844.90	780.20	.	91.54	91.54
26141120	203326	Sea bass, baked or broiled W/O FAT OR W/ NON-S	15091	SEA BASS,MXD SP,RAW	816.70	780.20	.	95.49	95.49
26141140	100856	TICK SPRAY (INCLUDE PAM...) Sea bass, floured or breaded, fried W/ VEGETAB	15091	SEA BASS,MXD SP,RAW	959.45	780.20	.	72.99	72.99
26141160	0	LE OIL, NFS (INCLUDE OIL, NFS) Sea bass, steamed or poached	15091	SEA BASS,MXD SP,RAW	100.00	100.00	.	100.00	100.00

----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine -----

26319110	0	Shrimp, cooked, NS as to cooking method	15149	SHRIMP,MXD SP,RAW	100.84	100.00	.	98.86	98.86
26319120	0	Shrimp, baked or broiled	15149	SHRIMP,MXD SP,RAW	941.40	907.20	.	95.62	95.62
26319120	200498	Shrimp, baked or broiled W/ VEGETABLE OIL, NFS	15149	SHRIMP,MXD SP,RAW	940.45	907.20	.	95.58	95.58
26319120	200875	(INCLUDE OIL, NFS) Shrimp, baked or broiled W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	941.58	907.20	.	95.60	95.60
26319120	202863	Shrimp, baked or broiled W/O FAT OR W/ NONSTIC	15149	SHRIMP,MXD SP,RAW	913.20	907.20	.	99.18	99.18
26319120	204534	K SPRAY (INCLUDE PAM...) Shrimp, baked or broiled W/ CANOLA OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	.	95.58	95.58
26319130	0	Shrimp, steamed or boiled	15149	SHRIMP,MXD SP,RAW	100.84	100.00	.	98.90	98.90
26319140	0	Shrimp, floured, breaded, or battered, fried	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	100180	Shrimp, floured, breaded, or battered, fried W	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	100708	/ CANOLA OIL Shrimp, floured, breaded, or battered, fried W	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16
26319140	201330	/ CORN OIL Shrimp, floured, breaded, or battered, fried W	15149	SHRIMP,MXD SP,RAW	902.90	680.40	.	66.16	66.16

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/ USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
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----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine ----- (continued) -----

27350110	0	/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS) Bouillabaisse	15149	SHRIMP,MXD SP,RAW	4,392.60	226.80	.	5.26	5.26
27450410	0	Shrimp and vegetables (including carrots, broc	15149	SHRIMP,MXD SP,RAW	771.30	98.00	.	12.83	12.83
27450410	100865	coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	771.30	98.00	.	12.83	12.83
27450410	203988	Shrimp and vegetables (including carrots, broc	15149	SHRIMP,MXD SP,RAW	773.37	98.00	.	12.81	12.81
27450410	204020	coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	773.74	98.00	.	12.83	12.83
27464000	0	Shrimp and vegetables (including carrots, broc	15149	SHRIMP,MXD SP,RAW	773.74	98.00	.	12.83	12.83
27464000	0	coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	773.74	98.00	.	12.83	12.83
28355450	101018	Gumbo, no rice (New Orleans type with shellfis	15149	SHRIMP,MXD SP,RAW	3,548.33	64.00	.	1.89	1.89
58112510	0	h, pork, and/or poultry, tomatoes, okra) Seafood soup with potatoes and vegetables (inc	15149	SHRIMP,MXD SP,RAW	2,953.00	907.20	.	31.35	31.35
58112510	0	luding carrots, broccoli, and/or dark-green le	15149	SHRIMP,MXD SP,RAW	2,953.00	907.20	.	31.35	31.35
58112510	0	afy) W/ SHRIMP Dumpling, steamed, filled with meat, poultry,	15149	SHRIMP,MXD SP,RAW	818.84	151.05	.	18.71	18.71
58112510	0	or seafood	15149	SHRIMP,MXD SP,RAW	818.84	151.05	.	18.71	18.71

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58136130	0	Lo mein with shrimp	15149	SHRIMP,MXD SP,RAW	1,101.43	226.80	.	20.62	20.62
58112110	0	Dim sum, meat filled (egg roll-type)	15149N	(58112510) SHRIMP,MXD SP,RAW	100.00	18.45	.	18.71	18.71
27150130	0	Seafood newburg	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	929.58	113.40	.	11.84	11.84
14620120	0	Shrimp dip, cream cheese base	15152	SHRIMP,MXD SP,CND	434.58	113.40	.	26.09	26.09
27150230	0	Shrimp scampi	15152	SHRIMP,MXD SP,CND	156.38	128.00	.	81.85	81.85
27150230	101055	Shrimp scampi W/ OLIVE OIL	15152	SHRIMP,MXD SP,CND	155.00	128.00	.	82.58	82.58
27350060	0	Shrimp creole, with rice	15152	SHRIMP,MXD SP,CND	1,842.44	680.40	.	37.23	37.23
27360080	0	Chow mein or chop suey, NS as to type of meat, with noodles	15152	SHRIMP,MXD SP,CND	968.88	55.00	.	5.63	5.63
54406200	0	Shrimp chips (tapioca base)	15152	SHRIMP,MXD SP,CND	100.00	25.00	.	11.21	11.21
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15152	SHRIMP,MXD SP,CND	76.99	15.00	.	19.48	19.48
58110120	0	Egg roll, with shrimp	15152	SHRIMP,MXD SP,CND	1,142.04	64.00	.	5.59	5.59
58148150	100831	Macaroni salad with shrimp W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	740.75	96.00	.	12.96	12.96
58150510	0	Rice, fried, with shrimp	15152	SHRIMP,MXD SP,CND	1,028.48	64.00	.	6.19	6.19
58407050	0	Instant soup, noodle with egg, shrimp or chicken	15152	SHRIMP,MXD SP,CND	99.00	1.00	.	1.04	1.04
28355430	0	Shrimp soup, cream of, prepared with water	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	100.00	100.00	3.06	100.00	3.06
----- SPECIES=Snapper (93) ----- HABITAT=Marine -----									
27350110	0	Bouillabaisse	15101	SNAPPER,MXD SP,RAW	4,392.60	453.60	.	10.49	10.49
----- SPECIES=Squid (97) ----- HABITAT=Marine -----									
26213120	0	Squid, baked, broiled	15175	SQUID,MXD SP,RAW	706.05	680.40	.	95.61	95.61
26213140	0	Squid, breaded, fried	15175	SQUID,MXD SP,RAW	1,086.45	907.20	.	76.48	76.48
26213160	0	Squid, steamed or boiled	15175	SQUID,MXD SP,RAW	100.84	100.00	.	99.04	99.04
----- SPECIES=Sturgeon (98) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26211100	0	Roe, sturgeon	15012	CAVIAR,BLACK/RED,GRANULAR	100.00	100.00	.	100.00	100.00
----- SPECIES=Swordfish (100) ----- HABITAT=Marine -----									
26149120	0	Swordfish, baked or broiled	15110	SWORDFISH,RAW	844.90	780.20	.	91.59	91.59
----- SPECIES=Trout (103) ----- HABITAT=Freshwater -----									
26151120	202336	Trout, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL....)	15240	TROUT,RAINBOW,FARMED,RAW	970.95	907.20	.	92.80	92.80
26151120	203955	Trout, baked or broiled W/ SESAME OIL	15240	TROUT,RAINBOW,FARMED,RAW	970.95	907.20	.	92.80	92.80
----- SPECIES=Trout, mixed sp. (114) ----- HABITAT=50% Freshwater, 50% Estuarine -----									
26151140	204281	Trout, floured or breaded, fried W/ SOYBEAN OIL	15114	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	.	73.20	73.20
26151130	0	Trout, breaded or battered, baked	15114	TROUT,MXD SP,RAW	1,086.45	907.20	.	81.43	81.43

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26151140	0	Trout, floured or breaded, fried	15114	TROUT,MXD SP,RAW	959.45	780.20	.	73.20	73.20
26151150	202740	Trout, battered, fried W/ VEGETABLE OIL, NFS ( INCLUDE OIL, NFS)	15114	TROUT,MXD SP,RAW	133.00	100.00	.	70.31	70.31
----- SPECIES=Tuna (104) ----- HABITAT=Marine -----									
26155180	0	Tuna, canned, oil pack	15119P	TUNA,LT,CND,OIL,DRND	100.00	100.00	93.25	100.00	93.25
27150120	0	Tuna with cream or white sauce (mixture)	15119P	TUNA,LT,CND,OIL,DRND	911.85	311.85	93.25	34.20	31.89
27250160	0	Tuna cake or patty	15119P	TUNA,LT,CND,OIL,DRND	981.25	480.00	93.25	45.67	45.62
27250610	0	Tuna noodle casserole with cream or white sauce	15119P	TUNA,LT,CND,OIL,DRND	1,140.59	320.00	93.25	28.35	26.16
27250630	0	Tuna noodle casserole with (mushroom) soup	15119P	TUNA,LT,CND,OIL,DRND	1,149.20	320.00	93.25	28.20	25.97
27250630	201273	Tuna noodle casserole with (mushroom) soup W/ 2% MILK AND W/ BUTTER, NFS	15119P	TUNA,LT,CND,OIL,DRND	1,149.38	320.00	93.25	28.19	25.96
27250630	202216	Tuna noodle casserole with (mushroom) soup W/ WATER AND W/O FAT	15119P	TUNA,LT,CND,OIL,DRND	1,117.50	320.00	93.25	29.09	26.70
27250630	202723	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK	15119P	TUNA,LT,CND,OIL,DRND	1,149.20	320.00	93.25	28.19	25.97
27250630	203942	Tuna noodle casserole with (mushroom) soup W/ 1% MILK AND W/ BUTTER, NFS	15119P	TUNA,LT,CND,OIL,DRND	1,149.38	320.00	93.25	28.20	25.96
27350080	0	Tuna noodle casserole with vegetables, cream o	15119P	TUNA,LT,CND,OIL,DRND	1,139.68	184.28	93.25	16.44	15.08
----- SPECIES=Tuna (104) ----- HABITAT=Marine ----- (continued) -----									
27350080	100388	r white sauce Tuna noodle casserole with vegetables, cream o	15119P	TUNA,LT,CND,OIL,DRND	1,139.68	184.28	93.25	16.45	15.08
27350410	0	r white sauce W/ CARROTS Tuna noodle casserole with vegetables and (mus	15119P	TUNA,LT,CND,OIL,DRND	1,229.20	292.00	93.25	24.10	22.15
27350410	204105	hroom) soup Tuna noodle casserole with vegetables and (mus	15119P	TUNA,LT,CND,OIL,DRND	1,225.70	292.00	93.25	24.20	22.22
27350410	204591	hroom) soup W/O MILK Tuna noodle casserole with vegetables and (mus	15119P	TUNA,LT,CND,OIL,DRND	1,229.20	292.00	93.25	24.09	22.15
27450510	0	hroom) soup W/ WHOLE MILK Tuna casserole with vegetables and (mushroom)	15119P	TUNA,LT,CND,OIL,DRND	909.20	292.00	93.25	32.58	29.95
58145120	0	soup, no noodles Macaroni or noodles with cheese and tuna	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	100521	Macaroni or noodles with cheese and tuna W/ 2% MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	200545	Macaroni or noodles with cheese and tuna W/ SK IM MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.59	188.81	93.25	17.40	15.97
58145120	201431	Macaroni or noodles with cheese and tuna W/ 1% MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	203026	Macaroni or noodles with cheese and tuna W/ WHOLE MILK	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.40	15.98
58145120	204559	Macaroni or noodles with cheese and tuna W/ AMERICAN OR CHEDDAR CHEESE BASED CHEESE SPREAD ( INCLUDE VELVEETA) AND W/O MILK	15119P	TUNA,LT,CND,OIL,DRND	1,111.09	188.81	93.25	17.17	15.85
58145120	204847	Macaroni or noodles with cheese and tuna W/ EVAPORATED MILK, NS AS TO FAT CONTENT AND DILUTION	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.39	15.98
58145120	205001	Macaroni or noodles with cheese and tuna W/ RE	15119P	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	93.25	17.44	15.98

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
26155110	0	Tuna, canned, NS as to oil or water pack	15121P	TUNA, LT, CND, H2O, DRND	100.00	100.00	99.18	100.00	99.18
26155190	0	Tuna, canned, water pack	15121P	TUNA, LT, CND, H2O, DRND	100.00	100.00	99.18	100.00	99.18
27450060	0	Tuna salad	15121P	TUNA, LT, CND, H2O, DRND	413.97	223.97	99.18	54.10	53.66
27450060	100008	Tuna salad W/ REAL MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	410.22	223.97	99.18	54.60	54.15
27450060	200020	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT ..)	15121P	TUNA, LT, CND, H2O, DRND	413.22	223.97	99.18	54.20	53.76
27450060	200099	Tuna salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121P	TUNA, LT, CND, H2O, DRND	419.22	223.97	99.18	53.42	52.99
27450060	200449	Tuna salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT; HELLMANN'S CHOLESTEROL-FREE REDUCED CALORIE...)	15121P	TUNA, LT, CND, H2O, DRND	412.97	223.97	99.18	54.23	53.79
27450060	200685	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE (INCLUDE LOWFAT MAYONNAISE, WEIGHT WATCHERS LIGHT)	15121P	TUNA, LT, CND, H2O, DRND	417.72	223.97	99.18	53.62	53.18
----- SPECIES=Tuna (104) ----- HABITAT=Marine ----- (continued) -----									
27450060	202153	HT MAYONNAISE, HELLMAN'S LIGHT MAYONNAISE)	15121P	TUNA, LT, CND, H2O, DRND	355.22	223.97	99.18	63.05	62.53
27450100	0	Tuna salad W/O SALAD DRESSING	15121P	TUNA, LT, CND, H2O, DRND	478.65	223.97	99.18	46.79	46.41
27450100	100026	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121P	TUNA, LT, CND, H2O, DRND	477.72	223.97	99.18	46.88	46.50
27450100	100039	Tuna salad with egg W/ REAL MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	473.97	223.97	99.18	47.25	46.87
27450100	201154	Tuna salad with egg W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121P	TUNA, LT, CND, H2O, DRND	485.22	223.97	99.18	46.16	45.78
27550720	0	Tuna salad sandwich	15121P	TUNA, LT, CND, H2O, DRND	157.26	57.75	99.18	36.72	36.42
27550720	100053	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD	15121P	TUNA, LT, CND, H2O, DRND	161.26	57.75	99.18	35.81	35.52
58148130	0	Macaroni salad with tuna	15121P	TUNA, LT, CND, H2O, DRND	765.88	115.50	99.18	15.08	14.96
58148130	101228	Macaroni salad with tuna W/ LOW CALORIE OR DIET MAYONNAISE (INCLUDE HELLMAN'S LIGHT MAYONNAISE...)	15121P	TUNA, LT, CND, H2O, DRND	771.50	115.50	99.18	14.97	14.85
58148130	202070	Macaroni salad with tuna W/ REAL MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	760.25	115.50	99.18	15.19	15.07
58148160	0	Macaroni salad with tuna and egg	15121P	TUNA, LT, CND, H2O, DRND	996.75	167.00	99.18	16.75	16.62
58148160	201511	Macaroni salad with tuna and egg W/ REAL MAYONNAISE	15121P	TUNA, LT, CND, H2O, DRND	989.25	167.00	99.18	16.88	16.74
26153110	0	Tuna, fresh, cooked, NS as to cooking method	15127	TUNA, YELLOWFIN, RAW	971.90	907.20	.	92.87	92.87
26153120	0	Tuna, fresh, baked or broiled	15127	TUNA, YELLOWFIN, RAW	971.90	907.20	.	92.87	92.87
26153120	200865	Tuna, fresh, baked or broiled W/ CORN OIL	15127	TUNA, YELLOWFIN, RAW	970.95	907.20	.	92.82	92.82
26153120	201598	Tuna, fresh, baked or broiled W/ OLIVE OIL	15127	TUNA, YELLOWFIN, RAW	970.70	907.20	.	92.85	92.85
26153120	202429	Tuna, fresh, baked or broiled W/O FAT OR W/ NO NSTITICK SPRAY (INCLUDE PAM...)	15127	TUNA, YELLOWFIN, RAW	943.70	907.20	.	96.20	96.20
----- SPECIES=Whitefish (109) ----- HABITAT=50% Freshwater, 50% Marine -----									

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.



**TABLE A-3. "AS PREPARED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

26100190	0	Fish, NS as to type, smoked	15131P	WHITEFISH,MXD SP,SMOKED	99.90	13.40	98.40	13.41	13.20
----- SPECIES=Whiting (110) ----- HABITAT=Marine -----									
26100130	0	Fish, NS as to type, breaded or battered, baked	15132	WHITING,MXD SP,RAW	1,171.58	62.60	.	5.12	5.12
26100140	0	Fish, NS as to type, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	62.60	.	5.10	5.10
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	62.60	.	5.10	5.10
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15132	WHITING,MXD SP,RAW	1,086.45	62.60	.	5.10	5.10
26100150	0	Fish, NS as to type, battered, fried	15132	WHITING,MXD SP,RAW	133.00	6.90	.	4.66	4.66
26157120	0	Whiting, baked or broiled	15132	WHITING,MXD SP,RAW	971.90	907.20	.	92.73	92.73
26157120	202454	Whiting, baked or broiled W/ BUTTER, NFS	15132	WHITING,MXD SP,RAW	972.08	907.20	.	92.72	92.72
26157120	203222	Whiting, baked or broiled W/ VEGETABLE OIL, NF	15132	WHITING,MXD SP,RAW	970.95	907.20	.	92.71	92.71
-----									
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	OPP/USDA % Fish	C_PRATIO x 100	% of Prepared Fish in Recipe
----- SPECIES=Whiting (110) ----- HABITAT=Marine ----- (continued) -----									
26157120	204161	S (INCLUDE OIL, NFS) Whiting, baked or broiled, W/ OLIVE OIL	15132	WHITING,MXD SP,RAW	970.70	907.20	.	92.74	92.74
26157130	0	Whiting, breaded or battered, baked	15132	WHITING,MXD SP,RAW	1,171.05	907.20	.	74.06	74.06
26157140	0	Whiting, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	907.20	.	73.84	73.84
26157140	202630	Whiting, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	907.20	.	73.84	73.84
26157140	204896	Whiting, floured or breaded, fried W/ CANOLA OIL	15132	WHITING,MXD SP,RAW	1,086.45	907.20	.	73.84	73.84
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15132N	(26100150) WHITING,MXD SP,RAW	224.80	6.30	.	2.52	2.52
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15133	WHITING,MXD SP,CKD,DRY HEAT	100.84	6.90	.	6.84	6.84
26100120	0	Fish, NS as to type, baked or broiled	15133	WHITING,MXD SP,CKD,DRY HEAT	972.08	62.60	.	6.44	6.44
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15133	WHITING,MXD SP,CKD,DRY HEAT	972.08	62.60	.	6.44	6.44
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15133	WHITING,MXD SP,CKD,DRY HEAT	970.95	62.60	.	6.45	6.45

Note: INGCODE with suffix P means OPP/USDA %Fish is given in Table C-1.

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
(INCLUDE OIL, NFS)										
26157160	0	Whiting, steamed or poached	15132	WHITING,MXD SP,RAW	100.00	100.00	.		100.00	100.00
28150610	0	Fish, batter-dipped or fish cake, with vegetables, potatoes (frozen meal)	15132N	(26100150) WHITING,MXD SP,RAW	224.80	6.30	.		2.52	2.52
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15133	WHITING,MXD SP,CKD, DRY HEAT	100.84	6.90	.		6.84	6.84
26100120	0	Fish, NS as to type, baked or broiled	15133	WHITING,MXD SP,CKD, DRY HEAT	972.08	62.60	.		6.44	6.44
26100120	200264	Fish, NS as to type, baked or broiled W/ R, NFS	15133	WHITING,MXD SP,CKD, DRY HEAT	972.08	62.60	.		6.44	6.44
26100120	200968	Fish, NS as to type, baked or broiled W/ ABLE OIL, NFS (INCLUDE OIL, NFS)	15133	Whiting,mixed species,cooked,dry heat	970.95	62.60	.		6.45	6.45
26100120	200986	Fish, NS as to type, baked or broiled W/ OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15133	Whiting,mixed species,cooked,dry heat	970.95	62.60	.		6.45	6.45

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Abalone (1) ----- HABITAT=Marine -----										
26301110	0	Abalone, cooked, NS as to cooking method	15155	ABALONE,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26301140	0	Abalone, floured or breaded, fried	15155	ABALONE,MXD SP,RAW	480.04	453.60	85.00	111.17	.	111.17
26301160	0	Abalone, steamed or poached	15155	ABALONE,MXD SP,RAW	100.84	100.00	50.00	198.33	.	198.33
28351110	100423	Fish and vegetable soup, no potatoes (Sopa de pescado) W/ ABALONE	15155	ABALONE,MXD SP,RAW	1,995.64	453.60	85.00	26.74	.	26.74
----- SPECIES=Anchovy (4) ----- HABITAT=Estuarine -----										
26101110	0	Anchovy, cooked, NS as to cooking method	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	100.00	100.00	100.00	25.00	133.33
26101180	0	Anchovy, canned	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	100.00	100.00	100.00	25.00	133.33
27116400	0	Steak tartare (raw ground beef and egg)	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	100.00	1.60	100.00	1.60	25.00	2.13
27460510	0	Antipasto with ham, fish, cheese, vegetables	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	1,741.00	113.40	100.00	6.51	25.00	8.68
72116140	0	Caesar salad (with romaine)	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	694.43	24.00	100.00	3.46	25.00	4.61
75146000	0	Greek Salad	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	220.00	7.00	100.00	3.18	25.00	4.24

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Barracuda (6) ----- HABITAT=Marine -----										
26103110	0	Barracuda, cooked, NS as to cooking method	15050	BARRACUDA, RAW	971.90	907.20	80.00	116.68	.	116.68
26103120	0	Barracuda, baked or broiled	15050	BARRACUDA, RAW	971.90	907.20	80.00	116.68	.	116.68
26103140	0	Barracuda, floured or breaded, fried	15050	BARRACUDA, RAW	480.04	453.60	85.00	111.17	.	111.17
26103160	0	Barracuda, steamed or poached	15050	BARRACUDA, RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Carp (18) ----- HABITAT=Freshwater -----										
26105110	0	Carp, cooked, NS as to cooking method	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	0	Carp, floured or breaded, fried	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	100582	Carp, floured or breaded, fried W/ CANOLA OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	100867	Carp, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	101165	Carp, floured or breaded, fried W/ CORN OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	203086	Carp, floured or breaded, fried W/ OLIVE OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105120	0	Carp, baked or broiled	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	690.70	626.00	71.50	126.76	.	126.76
26105120	202727	Carp, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	689.75	626.00	71.50	126.93	.	126.93
26105120	203146	Carp, baked or broiled W/O FAT	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	662.50	626.00	71.50	132.15	.	132.15
26105160	0	Carp, steamed or poached	15008	CARP,RAW	100.00	100.00	79.00	126.58	.	126.58
26105190	0	Carp, smoked	15008	CARP,RAW	101.00	100.00	63.40	156.17	.	156.17
27250060	0	Gefilte fish	15008	CARP,RAW	6,161.70	907.20	100.00	14.72	.	14.72
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26107110	0	Catfish, cooked, NS as to cooking method	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107120	0	Catfish, baked or broiled	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	680.70	616.00	71.10	127.28	.	127.28
26107120	202363	Catfish, baked or broiled W/ BUTTER, NFS	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	680.88	616.00	71.10	127.25	.	127.25
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine ----- (continued) -----										
26107120	202879	Catfish, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	679.75	616.00	71.10	127.46	.	127.46
26107120	203089	Catfish, baked or broiled W/O FAT	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	652.50	616.00	71.10	132.78	.	132.78
26107120	203382	Catfish, baked or broiled W/ CORN OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	679.75	616.00	71.10	127.46	.	127.46
26107130	0	Catfish, breaded or battered, baked	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	879.85	616.00	73.10	95.78	.	95.78
26107130	100572	Catfish, breaded or battered, baked W/O FAT	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	73.10	105.96	.	105.96
26107130	201360	Catfish, breaded or battered, baked W/ BUTTER, NFS	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	880.38	616.00	73.10	95.72	.	95.72
26107140	0	Catfish, floured or breaded, fried	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	100387	Catfish, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	100431	Catfish, floured or breaded, fried W/ LARD	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	100436	Catfish, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	100746	Catfish, floured or breaded, fried W/ OLIVE OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	200942	Catfish, floured or breaded, fried W/ BACON GRASE	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	202918	Catfish, floured or breaded, fried W/ SOYBEAN	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-54

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

OIL										
26107150	0	Catfish, battered, fried	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
26107150	201662	Catfish, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
26107150	202685	Catfish, battered, fried W/ CANOLA OIL	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
26107150	203695	Catfish, battered, fried W/ PEANUT OIL	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
26107160	0	Catfish, steamed or poached	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	100.00	80.00	125.00	.	125.00
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234	CATFISH,CHANNEL,FARMED,RAW	1,381.60	226.80	80.00	20.52	.	20.52
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234	CATFISH,CHANNEL,FARMED,RAW	1,381.60	113.40	80.00	10.26	.	10.26
27350310	100142	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy), tomato-base sauce W/ ALL CATFISH	15234N	(26107160) CATFISH,CHANNEL,FARMED,RAW	1,381.60	147.40	80.00	16.67	21.00	21.10
----- SPECIES=Cisco (21) ----- HABITAT=Freshwater -----										
26100190	0	Fish, NS as to type, smoked	15014	CISCO,SMOKED	99.90	11.60	100.00	11.61	30.23	16.64
----- SPECIES=Clam (22) ----- HABITAT=1.93% Estuarine, 98.07% Marine -----										
26303100	0	Clams, raw	15157	CLAM,MXD SP,RAW	100.00	100.00	100.00	100.00	.	100.00
26303110	0	Clams, cooked, NS as to cooking method	15157	CLAM,MXD SP,RAW	1,087.25	908.00	85.00	98.25	.	98.25

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Clam (22) -----			----- HABITAT=1.93% Estuarine, 98.07% Marine -----			----- (continued) -----				
26303120	0	Clams, baked or broiled	15157	CLAM,MXD SP,RAW	242.40	226.80	80.00	116.96	.	116.96
26303140	0	Clams, floured or breaded, fried	15157	CLAM,MXD SP,RAW	1,085.75	908.00	85.00	98.39	.	98.39
26303140	100977	Clams, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15157	CLAM,MXD SP,RAW	1,085.75	908.00	85.00	98.39	.	98.39
26303150	0	Clams, battered, fried	15157	CLAM,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26303160	0	Clams, steamed or boiled	15157	CLAM,MXD SP,RAW	411.42	408.00	80.00	123.96	.	123.96
26303180	0	Clams, canned	15157	CLAM,MXD SP,RAW	100.00	100.00	80.00	125.00	.	125.00
26303190	0	Clams, smoked, in oil	15157	CLAM,MXD SP,RAW	100.84	100.00	89.40	110.93	.	110.93
27250020	0	Clams, stuffed	15157	CLAM,MXD SP,RAW	855.04	453.60	80.00	66.31	.	66.31
27250270	0	Clams Casino	15157	CLAM,MXD SP,RAW	450.83	174.00	90.00	42.88	.	42.88
27250950	0	Shellfish mixture and noodles, tomato-based sauce (mixture)	15157	CLAM,MXD SP,RAW	742.00	56.70	100.00	7.64	.	7.64
27350020	0	Paella with seafood	15157	CLAM,MXD SP,RAW	2,281.18	232.00	90.00	11.30	.	11.30
27350030	0	Seafood stew with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy), tomato-base sauce	15157	CLAM,MXD SP,RAW	1,389.75	226.80	80.00	20.40	.	20.40
27350110	0	Bouillabaisse	15157	CLAM,MXD SP,RAW	4,392.60	226.80	80.00	6.45	.	6.45
27350310	0	Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15157	CLAM,MXD SP,RAW	1,370.35	226.80	80.00	20.69	.	20.69
27360090	0	Paella, NFS	15157	CLAM,MXD SP,RAW	2,219.78	232.00	90.00	11.61	.	11.61
27450600	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-base sauce	15157	CLAM,MXD SP,RAW	910.10	113.40	88.00	14.16	.	14.16
27450610	0	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-base sauce	15157	CLAM,MXD SP,RAW	940.10	113.40	88.00	13.71	.	13.71
27450650	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15157	CLAM,MXD SP,RAW	853.13	113.40	88.00	15.10	.	15.10
58155310	0	Paella, Valenciana style, with meat (Paella Valenciana)	15157	CLAM,MXD SP,RAW	2,708.13	360.00	61.90	21.48	.	21.48
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15157	CLAM,MXD SP,RAW	1,771.00	120.00	67.40	10.05	.	10.05
27150140	0	Clam sauce, white	15160	CLAM,MXD SP,CND,DRND	347.10	226.80	95.00	68.78	25.00	91.71
27150140	100425	Clam sauce, white W/ BUTTER, NFS	15160	CLAM,MXD SP,CND,DRND	349.85	226.80	95.00	68.24	25.00	90.99
27250210	0	Clam cake or patty	15160	CLAM,MXD SP,CND,DRND	779.30	396.90	88.60	57.48	25.00	76.64
27450660	0	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15160	CLAM,MXD SP,CND,DRND	891.68	160.00	100.00	17.94	25.00	23.92
28153010	0	Shrimp and clams in tomato-based sauce, with noodles (frozen meal)	15160	CLAM,MXD SP,CND,DRND	320.91	40.44	90.00	14.00	25.00	18.67
28355140	0	Clam chowder, New England, canned, reduced sodium, ready-to-serve	15160	CLAM,MXD SP,CND,DRND	100.20	7.60	100.00	7.58	25.00	10.11
58132800	0	Spaghetti with clam sauce, NS as to red or white	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	100.00	29.57	25.00	39.42

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-56

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Clam (22) ----- HABITAT=1.93% Estuarine, 98.07% Marine ----- (continued) -----										
58132810	0	te Spaghetti with red clam sauce	15160	CLAM,MXD SP,CND,DRND	2,307.10	226.80	95.80	10.26	25.00	13.68
58132820	0	Spaghetti with white clam sauce	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	100.00	29.57	25.00	39.42
58132820	101043	Spaghetti with white clam sauce W/ MARGARINE-LIKE SPREAD, STICK, SALTED	15160	CLAM,MXD SP,CND,DRND	770.35	226.80	100.00	29.44	25.00	39.25
58304350	0	Linguini with clam sauce (diet frozen meal)	15160	CLAM,MXD SP,CND,DRND	100.00	18.00	100.00	18.00	25.00	24.00
58304400	0	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	15160	CLAM,MXD SP,CND,DRND	269.27	32.28	100.00	11.99	25.00	15.98
28355140	0	Clam chowder, New England, canned, reduced sodium, ready-to-serve	15162	CLAM,MXD SP,CND,LIQ	100.20	0.50	100.00	0.50	25.00	0.67
28350210	0	Clam chowder, NS as to Manhattan or New England style	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	100.00	12.50	80.00	15.63	.	1.17
28350220	0	Clam chowder, Manhattan	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	200.00	100.00	100.00	50.00	.	3.75
28355120	0	Clam chowder, New England, prepared with milk	6030P	Need 1 can = 305 gm	602.00	305.00	100.00	50.66	25.00	3.80
28355120	100130	Clam chowder, New England, prepared with milk W/ 1% MILK	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28355120	101014	Clam chowder, New England, prepared with milk MADE FROM CONDENSED W/ 1/3 CAN OF SKIM MILK	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	404.00	305.00	100.00	75.50	25.00	5.66
28355120	200270	Clam chowder, New England, prepared with milk W/ 2% MILK	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28355120	200965	Clam chowder, New England, prepared with milk W/ SKIM MILK	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28355120	201749	Clam chowder, New England, prepared with milk W/ WHOLE MILK	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28355120	202311	Clam chowder, New England, prepared with milk W/ HALF AND HALF CREAM	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28350210	0	Clam chowder, NS as to Manhattan or New England style	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	50.00	80.00	62.50	.	4.69
28355110	0	Clam chowder, New England, NS as to prepared with water or milk	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	100.00	100.00	100.00	.	7.50
28350210	0	Clam chowder, NS as to Manhattan or New England style	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	100.00	12.50	80.00	15.63	.	1.17
28350220	0	Clam chowder, Manhattan	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	200.00	100.00	100.00	50.00	.	3.75
28350210	0	Clam chowder, NS as to Manhattan or New England style	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	25.00	80.00	31.25	.	2.34
28355130	0	Clam chowder, New England, prepared with water	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	100.00	100.00	100.00	.	7.50
----- SPECIES=Cod (23) ----- HABITAT=Marine -----										
26100100	0	Fish, NS as to type, raw	15015	COD,ATLANTIC,RAW	100.00	22.50	100.00	22.50	.	22.50
26100130	0	Fish, NS as to type, breaded or battered, baked	15015	COD,ATLANTIC,RAW	1,171.58	204.10	80.00	21.78	.	21.78
26100140	0	Fish, NS as to type, floured or breaded, fried	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Cod (23) -----			----- HABITAT=Marine -----			(continued)				
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35
26100150	0	Fish, NS as to type, battered, fried	15015	COD,ATLANTIC,RAW	133.00	22.50	88.00	19.22	.	19.22
26109190	0	Cod, smoked	15015	COD,ATLANTIC,RAW	101.00	100.00	100.00	99.01	.	99.01
27450740	0	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15015	COD,ATLANTIC,RAW	1,306.75	907.20	90.00	77.14	.	77.14
27450750	0	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	15015	COD,ATLANTIC,RAW	1,431.75	907.20	90.00	70.40	.	70.40
28150000	0	Fish dinner, NFS (frozen meal)	15015	COD,ATLANTIC,RAW	159.80	55.00	100.00	34.42	.	34.42
28150110	0	Fish and chips (frozen meal)	15015	COD,ATLANTIC,RAW	159.80	55.00	100.00	34.42	.	34.42
28150120	0	Fish and chips (frozen meal, large portion)	15015	COD,ATLANTIC,RAW	272.40	93.20	100.00	34.21	.	34.21
28150350	0	Cod with vegetable (diet frozen meal)	15015	COD,ATLANTIC,RAW	251.33	100.53	76.00	52.63	.	52.63
28150510	0	Fish in lemon-butter sauce with starch item, vegetable (frozen meal)	15015	COD,ATLANTIC,RAW	333.80	80.00	100.00	23.97	.	23.97
28150620	0	Fish, batter-dipped, or fish cake, with vegetable, potatoes, dessert (frozen meal)	15015	COD,ATLANTIC,RAW	297.72	96.85	100.00	32.53	.	32.53
28350050	0	Fish chowder	15015	COD,ATLANTIC,RAW	1,395.85	453.60	80.00	40.62	.	40.62
28350050	203441	Fish chowder W/ HALF AND HALF CREAM	15015	COD,ATLANTIC,RAW	1,391.85	453.60	80.00	40.74	.	40.74
28351110	0	Fish and vegetable soup, no potatoes (Sopa de pescado)	15015	COD,ATLANTIC,RAW	1,995.64	453.60	85.00	26.74	.	26.74
28351120	0	Fish soup, with potatoes (Sopa de Pescado)	15015	COD,ATLANTIC,RAW	1,883.14	453.60	85.00	28.34	.	28.34
28355450	0	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy)	15015	COD,ATLANTIC,RAW	2,953.00	907.20	85.00	36.14	.	36.14
28355460	0	Seafood soup with potatoes and vegetables (excluding carrots, broccoli, and dark-green leafy)	15015	COD,ATLANTIC,RAW	2,960.20	907.20	85.00	36.05	.	36.05
28355470	0	Seafood soup with vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes))	15015	COD,ATLANTIC,RAW	2,953.00	907.20	85.00	36.14	.	36.14
28355480	0	Seafood soup with vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes))	15015	COD,ATLANTIC,RAW	2,925.40	907.20	85.00	36.48	.	36.48
58117410	0	Codfish fritter, Puerto Rican style (Bacalaito)	15015	COD,ATLANTIC,RAW	1,230.30	645.00	64.50	81.28	.	81.28
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15015N	(26100150) COD,ATLANTIC,RAW	224.80	20.54	100.00	10.38	12.00	11.80
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15016	COD,ATLANTIC,CKD, DRY HEAT	100.84	22.50	100.00	22.31	25.00	29.75
26100120	0	Fish, NS as to type, baked or broiled	15016	COD,ATLANTIC,CKD, DRY HEAT	972.08	204.10	100.00	21.00	25.00	28.00
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15016	COD,ATLANTIC,CKD, DRY HEAT	972.08	204.10	100.00	21.00	25.00	28.00
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE	15016	COD,ATLANTIC,CKD, DRY HEAT	970.95	204.10	100.00	21.02	25.00	28.03

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-58

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Cod (23) -----			----- HABITAT=Marine -----			----- (continued) -----				
26100120	200986	ABLE OIL, NFS (INCLUDE OIL, NFS) Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15016	COD,ATLANTIC,CKD,DRY HEAT	970.95	204.10	100.00	21.02	25.00	28.03
28150360	0	Cod in cheese sauce with vegetable (diet froze n meal)	15016	COD,ATLANTIC,CKD,DRY HEAT	262.10	100.00	100.00	38.15	25.00	50.87
28152010	0	Seafood platter with fish cake, fish fillet, s callops, shrimp, potatoes (frozen meal)	15016	COD,ATLANTIC,CKD,DRY HEAT	240.00	20.30	100.00	8.46	25.00	11.28
27150010	0	Fish with cream or white sauce, not tuna or lobster (mixture)	15017	COD,ATLANTIC,CND	924.00	324.00	100.00	35.06	25.00	46.75
27250030	0	Codfish ball or cake	15017	COD,ATLANTIC,CND	898.15	396.90	88.00	50.22	25.00	66.96
27250050	0	Fish cake or patty, NS as to fish	15017	COD,ATLANTIC,CND	898.15	396.90	88.00	50.22	25.00	66.96
27250310	0	Haddock cake or patty	15017	COD,ATLANTIC,CND	898.15	396.90	88.00	50.22	25.00	66.96
27351010	0	Codfish with starchy vegetables, Puerto Rican style (Serenata de bacalao) (mixture)	15017	COD,ATLANTIC,CND	2,298.80	226.80	96.30	10.25	25.00	13.66
27351020	0	Codfish salad, Puerto Rican style (Gazpacho de bacalao)	15017	COD,ATLANTIC,CND	1,446.75	340.20	100.00	23.51	25.00	31.35
27351030	0	Stewed codfish, Puerto Rican style (Bacalao guisado)	15017	COD,ATLANTIC,CND	993.30	250.00	71.50	35.20	25.00	46.93
27351040	0	Biscayne codfish, Puerto Rican style (Bacalao a la Vizcaina)	15017	COD,ATLANTIC,CND	1,397.85	350.00	73.60	34.02	25.00	45.36
27351050	0	Codfish salad, Puerto Rican style (Ensalada de bacalao)	15017	COD,ATLANTIC,CND	2,535.60	635.00	100.00	25.04	25.00	33.39
27451070	0	Codfish salad, Puerto Rican style (Serenata)	15017	COD,ATLANTIC,CND	729.60	198.00	100.00	27.14	25.00	36.18
28351160	0	Codfish, rice, and vegetable soup, Puerto Rican style	15017	COD,ATLANTIC,CND	2,886.75	453.60	80.00	19.64	25.00	26.19
28351170	0	Codfish soup with noodles, Puerto Rican style	15017	COD,ATLANTIC,CND	2,957.35	453.60	80.00	19.17	25.00	25.56
58100900	101090	Enchilada with seafood, tomato-based sauce W/ COD	15017	COD,ATLANTIC,CND	1,367.14	384.00	90.00	31.21	25.00	41.61
58409000	0	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	15017N	(27250030) COD,ATLANTIC,CND	847.77	55.68	100.00	7.46	25.00	9.95
28152010	0	Seafood platter with fish cake, fish fillet, s callops, shrimp, potatoes (frozen meal)	15017N	(27250050) COD,ATLANTIC,CND	240.00	33.67	100.00	15.94	25.00	21.26
26100170	0	Fish, NS as to type, dried	15018	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	100.00	100.00	80.01	500.25
26109170	0	Cod, dried, salted	15018	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	100.00	100.00	80.01	500.25
26109180	0	Cod, dried, salted, salt removed in water	15018	COD,ATLANTIC,DRIED&SALTED	100.00	28.50	100.00	28.50	80.01	142.57
27151070	0	Stewed codfish, Puerto Rican style	15018	COD,ATLANTIC,DRIED&SALTED	1,189.85	250.00	71.00	29.59	80.01	148.04
27150250	0	Fish moomchim (Korean style), dried fish with soy sauce	15018	Need gwd for 1 C; recipe calls for 1 C.	74.11	42.00	100.00	56.67	80.01	283.52
26109110	0	Cod, cooked, NS as to cooking method	15019	COD,PACIFIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26109120	0	Cod, baked or broiled	15019	COD,PACIFIC,RAW	971.90	907.20	80.00	116.68	.	116.68
26109120	202670	Cod, baked or broiled W/ BUTTER, NFS	15019	COD,PACIFIC,RAW	972.08	907.20	80.00	116.66	.	116.66
26109120	203510	Cod, baked or broiled W/ OLIVE OIL	15019	COD,PACIFIC,RAW	970.70	907.20	80.00	116.82	.	116.82
26109130	0	Cod, breaded or battered, baked	15019	COD,PACIFIC,RAW	1,171.05	907.20	80.00	96.84	.	96.84
26109130	203682	Cod, breaded or battered, baked W/ SHORTENING,	15019	COD,PACIFIC,RAW	1,163.33	907.20	80.00	97.48	.	97.48

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-59



**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Cod (23) -----			----- HABITAT=Marine -----			(continued)				
		VEGETABLE								
26109140	0	Cod, floured or breaded, fried	15019	COD, PACIFIC, RAW	1,086.45	907.20	88.00	94.89	.	94.89
26109140	101002	Cod, floured or breaded, fried W/ CANOLA OIL	15019	COD, PACIFIC, RAW	1,086.45	907.20	88.00	94.89	.	94.89
26109150	0	Cod, battered, fried	15019	COD, PACIFIC, RAW	133.00	100.00	85.00	88.46	.	88.46
26109150	101070	Cod, battered, fried W/ VEGETABLE OIL (INCLUDE OIL, NFS)	15019	COD, PACIFIC, RAW	133.00	100.00	85.00	88.46	.	88.46
26109150	203652	Cod, battered, fried W/ PEANUT OIL	15019	COD, PACIFIC, RAW	133.00	100.00	85.00	88.46	.	88.46
26109160	0	Cod, steamed or poached	15019	COD, PACIFIC, RAW	100.00	100.00	80.00	125.00	.	125.00
26109120	200971	Cod, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15019	Cod, Pacific, raw	970.95	907.20	80.00	116.79	.	116.79
26109120	201039	Cod, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15019	Cod, Pacific, raw	943.70	907.20	80.00	120.17	.	120.17
26109120	201359	Cod, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15019	Cod, Pacific, raw	970.95	907.20	80.00	116.79	.	116.79
26109120	201495	Cod, baked or broiled W/ PEANUT OIL	15019	Cod, Pacific, raw	970.70	907.20	80.00	116.82	.	116.82
26109130	201456	Cod, breaded or battered, baked W/ FAT FREE MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE PROMISE ULTRA FAT FREE NONFAT MARGARINE)	15019	Cod, Pacific, raw	1,173.83	907.20	80.00	96.61	.	96.61
26109130	201574	Cod, breaded or battered, baked W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15019	Cod, Pacific, raw	1,086.45	907.20	80.00	104.38	.	104.38
26100100	0	Fish, NS as to type, raw	15066	POLLOCK, WALLEYE, RAW	100.00	48.20	100.00	48.20	.	48.20
26100130	0	Fish, NS as to type, breaded or battered, baked	15066	POLLOCK, WALLEYE, RAW	1,171.58	437.30	80.00	46.66	.	46.66
26100140	0	Fish, NS as to type, floured or breaded, fried	15066	POLLOCK, WALLEYE, RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15066	POLLOCK, WALLEYE, RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15066	POLLOCK, WALLEYE, RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100150	0	Fish, NS as to type, battered, fried	15066	POLLOCK, WALLEYE, RAW	133.00	48.20	88.00	41.18	.	41.18
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15066N	(26100150) POLLOCK, WALLEYE, RAW	224.80	44.00	100.00	22.24	12.00	25.27
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15067	POLLOCK, WALLEYE, CKD, DRY HEAT	100.84	48.20	100.00	47.80	25.00	63.73
26100120	0	Fish, NS as to type, baked or broiled	15067	POLLOCK, WALLEYE, CKD, DRY HEAT	972.08	437.30	100.00	44.99	25.00	59.98
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15067	POLLOCK, WALLEYE, CKD, DRY HEAT	972.08	437.30	100.00	44.99	25.00	59.98
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15067	Pollock, walleye, cooked, dry heat	970.95	437.30	100.00	45.04	25.00	60.05
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS...)	15067	Pollock, walleye, cooked, dry heat	970.95	437.30	100.00	45.04	25.00	60.05

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-60**

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Conch (113) -----			----- HABITAT=Marine -----							
26304150	0	Conch, battered, fried	15250	CONCH,BKD/BRLD	133.00	100.00	101.00	74.44	25.00	99.26
26304200	0	Conch, baked or broiled	15250	CONCH,BKD/BRLD	100.00	100.00	100.00	100.00	25.00	133.33
----- SPECIES=Crab (24) -----			----- HABITAT=65.57% Estuarine, 34.43% Marine -----							
26305110	0	Crab, cooked, NS as to cooking method	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26305120	0	Crab, baked or broiled	15140	CRAB,BLUE,CKD,MOIST HEAT	242.40	226.80	100.00	93.56	25.00	124.75
26305120	101036	Crab, baked or broiled W/O FAT	15140	CRAB,BLUE,CKD,MOIST HEAT	228.30	226.80	100.00	99.34	25.00	132.46
26305120	202233	Crab, baked or broiled W/ OLIVE OIL	15140	CRAB,BLUE,CKD,MOIST HEAT	241.80	226.80	100.00	93.80	25.00	125.06
26305160	0	Crab, hard shell, steamed	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
27150020	0	Crab, deviled	15140	CRAB,BLUE,CKD,MOIST HEAT	963.38	453.60	95.00	49.56	25.00	66.08
27150020	100802	Crab, deviled W/ BUTTER, NFS	15140	CRAB,BLUE,CKD,MOIST HEAT	963.91	453.60	95.00	49.54	25.00	66.05
27150030	0	Crab imperial	15140	CRAB,BLUE,CKD,MOIST HEAT	790.38	453.60	90.40	63.49	25.00	84.65
27150130	0	Seafood newburg	15140	CRAB,BLUE,CKD,MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
27151040	0	Crabs in tomato-based sauce, Puerto Rican styl e (mixture) (Salmorejo de jueyes)	15140	CRAB,BLUE,CKD,MOIST HEAT	329.63	227.00	89.40	77.03	25.00	102.71
27250040	0	Crab cake	15140	CRAB,BLUE,CKD,MOIST HEAT	551.80	453.60	80.00	102.75	25.00	137.01
27250250	0	Flounder with crab stuffing	15140	CRAB,BLUE,CKD,MOIST HEAT	1,445.40	226.80	80.00	19.61	25.00	26.15
27250410	0	Shrimp with crab stuffing	15140	CRAB,BLUE,CKD,MOIST HEAT	1,808.90	741.20	89.00	46.04	25.00	61.39
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice )	15140	CRAB,BLUE,CKD,MOIST HEAT	3,864.33	67.50	77.10	2.27	25.00	3.02
27450010	0	Crab salad	15140	CRAB,BLUE,CKD,MOIST HEAT	357.05	226.80	100.00	63.52	25.00	84.69
27450010	100412	Crab salad W/ TOFU MAYONNAISE (INCLUDE NAYONAI SE)	15140	CRAB,BLUE,CKD,MOIST HEAT	358.30	226.80	100.00	63.30	25.00	84.40
27450010	203402	Crab salad W/ REAL MAYONNAISE	15140	CRAB,BLUE,CKD,MOIST HEAT	353.30	226.80	100.00	64.19	25.00	85.59
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15140	CRAB,BLUE,CKD,MOIST HEAT	3,548.33	67.50	75.00	2.54	25.00	3.38
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15140	CRAB,BLUE,CKD,MOIST HEAT	3,550.01	67.50	75.00	2.54	25.00	3.38
27550110	0	Crab cake sandwich, on bun	15140	CRAB,BLUE,CKD,MOIST HEAT	1,044.90	453.60	92.50	46.93	25.00	62.57
28350110	0	Crab soup, NS as to tomato-base or cream style	15140	CRAB,BLUE,CKD,MOIST HEAT	1,217.10	270.00	90.00	24.65	25.00	32.87
28350120	0	Crab soup, tomato-base	15140	CRAB,BLUE,CKD,MOIST HEAT	2,050.85	453.60	90.00	24.58	25.00	32.77
28355210	0	Crab soup, prepared with milk	15140	CRAB,BLUE,CKD,MOIST HEAT	1,698.05	453.60	90.00	29.68	25.00	39.57
28355210	202154	Crab soup, prepared with milk W/ 1% MILK	15140	CRAB,BLUE,CKD,MOIST HEAT	1,698.05	453.60	90.00	29.68	25.00	39.57
58115210	0	Taco with crab meat, Puerto Rican style (Taco de jueye)	15140	CRAB,BLUE,CKD,MOIST HEAT	1,656.61	453.60	85.00	32.21	25.00	42.95
58148140	0	Macaroni salad with crab meat	15140	CRAB,BLUE,CKD,MOIST HEAT	751.63	101.25	100.00	13.47	25.00	17.96
58148140	100659	Macaroni salad with crab meat W/ SOUR CREAM	15140	CRAB,BLUE,CKD,MOIST HEAT	749.75	101.25	100.00	13.50	25.00	18.01
58148140	200570	Macaroni salad with crab meat W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15140	CRAB,BLUE,CKD,MOIST HEAT	759.50	101.25	100.00	13.33	25.00	17.77
58148140	201317	Macaroni salad with crab meat W/ REAL MAYONNAISE	15140	CRAB,BLUE,CKD,MOIST HEAT	746.00	101.25	100.00	13.57	25.00	18.10

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-61

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Crab (24) ----- HABITAT=65.57% Estuarine, 34.43% Marine ----- (continued) -----										
77230510	0	SE Cassava pie stuffed with crab meat, Puerto Rican style (Empanada de jueyes)	15140	CRAB,BLUE,CKD,MOIST HEAT	1,796.13	226.80	49.40	25.56	25.00	34.08
26307140	0	Crab, soft shell, floured or breaded, fried	15140	Need yield for 1 crab after cooking;need 12 crabs	1,245.20	845.20	83.50	81.29	25.00	108.39
75414020	201920	Mushrooms, stuffed W/ CRABMEAT AND W/ BUTTER, NFS	15140N	(26305110) CRAB,BLUE,CKD,MOIST HEAT	828.85	34.71	65.00	6.44	25.00	8.59
75414020	202767	Mushrooms, stuffed W/ CRABMEAT	15140N	(26305110) CRAB,BLUE,CKD,MOIST HEAT	828.50	34.71	65.00	6.45	25.00	8.59
58408010	100177	Won ton soup W/ SHRIMP AND CRAB MEAT	15140N	(26305160) CRAB,BLUE,CKD,MOIST HEAT	3,697.15	233.04	100.00	6.30	21.00	7.98
26305180	0	Crab, canned	15141	CRAB,BLUE,CND	100.00	100.00	100.00	100.00	25.00	133.33
27250550	0	Seafood souffle	15141	CRAB,BLUE,CND	599.32	44.96	94.00	7.98	25.00	10.64
27450080	0	Seafood salad	15141	CRAB,BLUE,CND	529.77	100.00	100.00	18.88	25.00	25.17
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15141	CRAB,BLUE,CND	530.77	100.00	100.00	18.84	25.00	25.12
27450180	0	Seafood garden salad with seafood, vegetables excluding tomato and carrots, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450190	0	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450190	100116	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL CRAB	15141	CRAB,BLUE,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450190	100116	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL CRAB	15141	CRAB,BLUE,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450200	0	Seafood garden salad with seafood, eggs, vegetables excluding tomato and carrots, no dressing	15141	CRAB,BLUE,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450210	0	Seafood garden salad with seafood, eggs, tomato and/or carrots, other vegetables, no dressing	15141	CRAB,BLUE,CND	110.00	15.00	100.00	13.64	25.00	18.18
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15141	CRAB,BLUE,CND	76.99	15.00	100.00	19.48	25.00	25.98
58134310	0	Stuffed shells, with fish and/or shellfish, with tomato sauce	15141	CRAB,BLUE,CND	1,547.61	135.00	100.00	8.72	25.00	11.63
----- SPECIES=Crayfish (26) ----- HABITAT=Freshwater -----										
26309140	0	Crayfish, floured or breaded, fried	15145	CRAYFISH,MXD SP,WILD,RAW	901.40	680.40	88.00	85.78	.	85.78
26309160	0	Crayfish, boiled or steamed	15146	CRAYFISH,MXD SP,WILD,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
----- SPECIES=Croaker (27) ----- HABITAT=Estuarine -----										
26111110	0	Croaker, cooked, NS as to cooking method	15020	1 lb raw,dressed croaker ylds 268g after ckg w/add	715.25	536.00	76.80	97.58	.	97.58
26111130	0	Croaker, breaded or battered, baked	15020	CROAKER,ATLANTIC,RAW	1,171.58	907.20	80.00	96.79	.	96.79
26111140	0	Croaker, floured or breaded, fried	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	76.80	97.12	.	97.12
26111140	100455	Croaker, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	76.80	97.12	.	97.12

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-62

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Croaker (27) ----- HABITAT=Estuarine ----- (continued) -----										
26111140	101109	Croaker, floured or breaded, fried W/ OIL (INCLUDE WESSON OIL, NFS...)	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	76.80	97.12	.	97.12
26111140	101127	Croaker, floured or breaded, fried W/ IL	15020	CROAKER,ATLANTIC,RAW	705.45	526.20	76.80	97.12	.	97.12
26111160	0	Croaker, steamed or poached	15020	CROAKER,ATLANTIC,RAW	100.00	100.00	79.00	126.58	.	126.58
27451010	0	Fish a la creole, Puerto Rican style (Pescado frito con mojo)	15020	CROAKER,ATLANTIC,RAW	3,798.90	1,814.40	75.20	63.51	.	63.51
26111120	0	Croaker, baked or broiled	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	590.90	526.20	67.10	132.71	.	132.71
26111120	101027	Croaker, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.95	526.20	67.10	132.93	.	132.93
26111120	201441	Croaker, baked or broiled W/ VEGETABLE OIL, NF S (INCLUDE OIL, NFS)	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.95	526.20	67.10	132.93	.	132.93
26111120	201442	Croaker, baked or broiled W/ OLIVE OIL	15020	Need 2 lbs raw croaker in recipe;42%refuse factor.	589.70	526.20	67.10	132.98	.	132.98
----- SPECIES=Eel (33) ----- HABITAT=Estuarine -----										
26113110	0	Eel, cooked, NS as to cooking method	15025	EEL,MXD SP,RAW	972.70	907.20	85.00	109.72	.	109.72
26113160	0	Eel, steamed or poached	15025	EEL,MXD SP,RAW	100.00	100.00	79.00	126.58	.	126.58
26113190	0	Eel, smoked	15025	EEL,MXD SP,RAW	100.00	100.00	63.70	156.99	.	156.99
----- SPECIES=Fish (35) ----- HABITAT=Unknown -----										
26100210	0	Fish stick, patty, or fillet, NS as to type, c ooked, NS as to cooking method	15027	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	100.00	100.00	25.00	133.33
26100220	0	Fish stick, patty, or fillet, NS as to type, b ailed or broiled	15027	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	100.00	100.00	25.00	133.33
26100230	0	Fish stick, patty, or fillet, NS as to type, b readed or battered, baked	15027	FISH PORTIONS & STK,FRZ,REHTD	100.00	100.00	100.00	100.00	25.00	133.33
28150650	0	Fish, breaded, or fish sticks, with pasta, veg etable and dessert (frozen meal)	15027N	(26100230) FISH PORTIONS & STK,FRZ,REHTD	100.00	18.20	100.00	18.20	25.00	24.27
27150210	0	Fish sauce (bagoong)	6179P	SAUCE,FISH,RTS	100.00	100.00	100.00	100.00	.	7.50
28310330	0	Beef and rice noodle soup, Oriental style (Vie tnamese Pho Bo)	6179P	SAUCE,FISH,RTS	5,455.88	89.58	71.90	2.28	.	0.17
72308000	0	Dark-green leafy vegetable soup with meat, Ori ental style	6179P	SAUCE,FISH,RTS	1,319.63	33.63	100.00	2.55	.	0.19
----- SPECIES=Flatfish (37) ----- HABITAT=89.62% Estuarine, 10.38% Marine -----										
26100100	0	Fish, NS as to type, raw	15028	FLATFISH,RAW	100.00	15.30	100.00	15.30	.	15.30
26100130	0	Fish, NS as to type, breaded or battered, bake d	15028	FLATFISH,RAW	1,171.58	138.80	80.00	14.81	.	14.81
26100140	0	Fish, NS as to type, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	138.80	88.00	14.52	.	14.52
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,086.45	138.80	88.00	14.52	.	14.52

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-63

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Flatfish (37) ----- HABITAT=89.62% Estuarine, 10.38% Marine ----- (continued) -----										
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15028	FLATFISH,RAW	1,086.45	138.80	88.00	14.52	.	14.52
26100150	0	Fish, NS as to type, battered, fried	15028	FLATFISH,RAW	133.00	15.30	88.00	13.07	.	13.07
27150050	0	Fish timbale or mousse	15028	FLATFISH,RAW	884.69	453.60	96.00	53.41	.	53.41
27150310	0	Fish with tomato-based sauce (mixture)	15028	FLATFISH,RAW	694.50	453.60	80.00	81.64	.	81.64
27150310	100997	Fish with tomato-based sauce (mixture) W/ BUTT ER, NFS	15028	FLATFISH,RAW	694.59	453.60	80.00	81.63	.	81.63
27150310	101137	Fish with tomato-based sauce (mixture) W/ CANO LA OIL	15028	FLATFISH,RAW	694.03	453.60	80.00	81.70	.	81.70
27150310	203262	Fish with tomato-based sauce (mixture) W/O FAT	15028	FLATFISH,RAW	680.40	453.60	80.00	83.33	.	83.33
27150310	203761	Fish with tomato-based sauce (mixture) W/ VEGE TABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	694.03	453.60	80.00	81.70	.	81.70
27450700	0	Fish and vegetables (including carrots, brocco li, and/or dark-green leafy (no potatoes)), to mato-based sauce (mixture)	15028	FLATFISH,RAW	1,604.65	907.20	90.00	62.82	.	62.82
27450710	0	Fish and vegetables (excluding carrots, brocco li, and dark- green leafy (no potatoes)), toma to-based sauce (mixture)	15028	FLATFISH,RAW	1,619.65	907.20	90.00	62.24	.	62.24
27460100	0	Lau lau (pork and fish wrapped in taro or spin ach leaves)	15028	FLATFISH,RAW	1,925.53	680.40	100.00	35.34	.	35.34
27550000	0	Fish sandwich, on bun, with spread	15028	FLATFISH,RAW	148.60	57.60	94.50	41.02	.	41.02
27550000	100254	Fish sandwich, on bun, with spread W/ TARTAR S AUCE	15028	FLATFISH,RAW	148.60	57.60	94.50	41.02	.	41.02
27550000	100769	Fish sandwich, on bun, with spread REMOVED SPR EAD	15028	FLATFISH,RAW	133.60	57.60	94.50	45.62	.	45.62
58151130	0	Sushi, with vegetables and fish	15028	FLATFISH,RAW	2,394.40	302.55	90.00	14.04	.	14.04
28150610	0	Fish, batter-dipped or fish cake, with vegetab le, potatoes (frozen meal)	15028N	(26100150) FLATFISH,RAW	224.80	13.97	100.00	7.06	12.00	8.02
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	100.84	15.30	100.00	15.17	25.00	20.23
26100120	0	Fish, NS as to type, baked or broiled	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	100.00	14.28	25.00	19.04
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTE R, NFS	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	100.00	14.28	25.00	19.04
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGET ABLE OIL, NFS (INCLUDE OIL, NFS)	15029	Flatfish,cooked,dry heat	970.95	138.80	100.00	14.30	25.00	19.06
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15029	Flatfish,cooked,dry heat	970.95	138.80	100.00	14.30	25.00	19.06
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine -----										
26115000	0	Flounder, raw	15028	FLATFISH,RAW	100.00	100.00	100.00	100.00	.	100.00
26115110	0	Flounder, cooked, NS as to cooking method	15028	FLATFISH,RAW	971.90	907.20	80.00	116.68	.	116.68
26115120	0	Flounder, baked or broiled	15028	FLATFISH,RAW	971.90	907.20	80.00	116.68	.	116.68
26115120	100464	Flounder, baked or broiled W/O FAT OR W/ NONST	15028	FLATFISH,RAW	943.70	907.20	80.00	120.17	.	120.17

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-64

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine ----- (continued) -----										
		ICK SPRAY (INCLUDE PAM...)								
26115120	200314	Flounder, baked or broiled W/ CORN OIL	15028	FLATFISH,RAW	970.95	907.20	80.00	116.79	.	116.79
26115120	200995	Flounder, baked or broiled W/ VEGETABLE OIL, N FS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	970.95	907.20	80.00	116.79	.	116.79
26115120	201280	Flounder, baked or broiled W/ OLIVE OIL	15028	FLATFISH,RAW	970.70	907.20	80.00	116.82	.	116.82
26115120	201381	Flounder, baked or broiled W/ BUTTER, NFS	15028	FLATFISH,RAW	972.08	907.20	80.00	116.66	.	116.66
26115130	0	Flounder, breaded or battered, baked	15028	FLATFISH,RAW	1,171.58	907.20	80.00	96.79	.	96.79
26115130	100680	Flounder, breaded or battered, baked W/ OLIVE OIL	15028	FLATFISH,RAW	1,167.45	907.20	80.00	97.13	.	97.13
26115130	101015	Flounder, breaded or battered, baked W/ BLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,168.20	907.20	80.00	97.07	.	97.07
26115130	202708	Flounder, breaded or battered, baked W/O FAT O R W/ NONSTICK SPRAY (INCLUDE PAM...)	15028	FLATFISH,RAW	1,086.45	907.20	80.00	104.38	.	104.38
26115140	0	Flounder, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115140	100244	Flounder, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115140	100459	Flounder, floured or breaded, fried W/ OLIVE OIL	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115140	100824	Flounder, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115140	100907	Flounder, floured or breaded, fried W/ SOYBEAN OIL	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115140	101072	Flounder, floured or breaded, fried W/ BACON REASE	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115150	0	Flounder, battered, fried	15028	FLATFISH,RAW	133.00	100.00	88.00	85.44	.	85.44
26115150	201594	Flounder, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	133.00	100.00	88.00	85.44	.	85.44
26115160	0	Flounder, steamed or poached	15028	FLATFISH,RAW	100.00	100.00	80.00	125.00	.	125.00
26115190	0	Flounder, smoked	15028	FLATFISH,RAW	100.50	100.00	41.40	240.34	.	240.34
27250250	0	Flounder with crab stuffing	15028	FLATFISH,RAW	1,445.40	907.20	80.00	78.46	.	78.46
28150220	0	Flounder with chopped broccoli (diet frozen meal)	15028	FLATFISH,RAW	326.21	113.40	100.00	34.76	.	34.76
28150370	0	Flounder in cream sauce with potatoes, carrots (diet frozen meal)	15028N	(26115160) FLATFISH,RAW	279.48	85.20	100.00	38.11	21.00	48.24
----- SPECIES=Haddock (41) ----- HABITAT=Marine -----										
26117110	0	Haddock, cooked, NS as to cooking method	15033	HADDOCK,RAW	972.95	907.20	80.00	116.55	.	116.55
26117120	0	Haddock, baked or broiled	15033	HADDOCK,RAW	972.95	907.20	80.00	116.55	.	116.55
26117120	100291	Haddock, baked or broiled W/ MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE I CAN'T BELIEVE IT'S NOT BUTTER....)	15033	HADDOCK,RAW	973.38	907.20	80.00	116.50	.	116.50
26117120	100596	Haddock, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15033	HADDOCK,RAW	944.75	907.20	80.00	120.03	.	120.03
26117120	201554	Haddock, baked or broiled W/ VEGETABLE OIL, NFS	15033	HADDOCK,RAW	972.00	907.20	80.00	116.67	.	116.67

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-65

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Haddock (41) ----- HABITAT=Marine ----- (continued) -----										
		S (INCLUDE OIL, NFS)								
26117120	201747	Haddock, baked or broiled W/ BUTTER, NFS	15033	HADDOCK,RAW	973.13	907.20	80.00	116.53	.	116.53
26117120	202548	Haddock, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS...)	15033	HADDOCK,RAW	972.00	907.20	80.00	116.67	.	116.67
26117120	203383	Haddock, baked or broiled W/ MARGARINE-LIKE SPREAD, LIQUID, SALTED (INCLUDE PARKAY SQUEEZE S PREAD...)	15033	HADDOCK,RAW	973.13	907.20	80.00	116.53	.	116.53
26117130	0	Haddock, breaded or battered, baked	15033	HADDOCK,RAW	1,171.58	907.20	80.00	96.79	.	96.79
26117130	202751	Haddock, breaded or battered, baked W/O FAT	15033	HADDOCK,RAW	1,086.45	907.20	80.00	104.38	.	104.38
26117130	203691	Haddock, breaded or battered, baked W/ BUTTER, NFS	15033	HADDOCK,RAW	1,171.58	907.20	80.00	96.79	.	96.79
26117140	0	Haddock, floured or breaded, fried	15033	HADDOCK,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26117140	100866	Haddock, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26117150	0	Haddock, battered, fried	15033	HADDOCK,RAW	133.00	100.00	85.00	88.46	.	88.46
26117150	201691	Haddock, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	133.00	100.00	85.00	88.46	.	88.46
26117160	0	Haddock, steamed or poached	15033	HADDOCK,RAW	100.00	100.00	79.00	126.58	.	126.58
28150210	0	Haddock with chopped spinach (diet frozen meal )	15033	HADDOCK,RAW	273.88	113.40	100.00	41.41	.	41.41
27550100	0	Fish sandwich, on bun, with cheese and spread	15033N	(26117140) HADDOCK,RAW	100.00	33.40	100.00	37.96	12.00	43.13
26117190	0	Haddock, smoked	15035	HADDOCK,SMOKED	100.00	100.00	100.00	100.00	10.56	111.81
----- SPECIES=Halibut (43) ----- HABITAT=Marine -----										
26100160	0	Fish, NS as to type, steamed	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	100.00	100.00	79.00	126.58	.	126.58
27350110	0	Bouillabaisse	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	4,392.60	453.60	80.00	12.91	.	12.91
58151100	0	Sushi, NFS	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	1,345.35	113.40	100.00	8.43	.	8.43
28150230	0	Turbot with vegetable (diet frozen meal)	15038	HALIBUT,GREENLAND,RAW	199.00	95.00	100.00	47.74	.	47.74
----- SPECIES=Herring (44) ----- HABITAT=Estuarine -----										
26119120	0	Herring, baked or broiled	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	757.70	693.00	71.10	128.64	.	128.64
26119120	200993	Herring, baked or broiled W/ OLIVE OIL	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.50	693.00	71.10	128.84	.	128.84
26119120	201099	Herring, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.75	693.00	71.10	128.80	.	128.80
26119120	202972	Herring, baked or broiled W/O FAT	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	729.50	693.00	71.10	133.61	.	133.61
26119120	203215	Herring, baked or broiled W/ CORN OIL	15039	1 lb raw,dressed herring ylds 231g after ckg w/add	756.75	693.00	71.10	128.80	.	128.80
26119100	0	Herring, raw	15039	HERRING,ATLANTIC,RAW	100.00	100.00	100.00	100.00	.	100.00
26119140	0	Herring, floured or breaded, fried	15039	HERRING,ATLANTIC,RAW	787.05	607.80	79.20	97.51	.	97.51
26139170	0	Sardines, dried	15040	sardine	100.00	100.00	100.00	100.00	.	100.00
26119110	0	Herring, cooked, NS as to cooking method	15041	HERRING,ATLANTIC,PICKLED	100.00	100.00	100.00	100.00	14.80	117.37
26119160	0	Herring, pickled, in cream sauce	15041	HERRING,ATLANTIC,PICKLED	1,137.20	907.20	100.00	79.77	14.80	93.63
26119180	0	Herring, pickled	15041	HERRING,ATLANTIC,PICKLED	100.00	100.00	100.00	100.00	14.80	117.37
26119170	0	Herring, dried, salted	15042	HERRING,ATLANTIC,KIPPERED	100.00	100.00	54.00	185.19	10.30	206.45

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-66

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Herring (44) ----- HABITAT=Estuarine ----- (continued) -----										
26119190	0	Herring, smoked, kippered	15042	HERRING, ATLANTIC, KIPPERED	100.00	100.00	100.00	100.00	10.30	111.48
26139190	0	Sardines, skinless, boneless, packed in water	15042	Sardines, cnd	100.00	100.00	100.00	100.00	25.00	133.33
27250830	100966	Fish and rice with (mushroom) soup W/ SARDINES	15042N	(26139190) Sardines, cnd	854.55	167.00	90.00	21.71	25.00	28.95
----- SPECIES=Lobster (47) ----- HABITAT=Marine -----										
26311140	0	Lobster, floured or breaded, fried	15147	LOBSTER, NORTHERN, RAW	1,086.45	907.20	88.00	94.89	.	94.89
27350110	0	Bouillabaisse	15147	LOBSTER, NORTHERN, RAW	4,392.60	226.80	80.00	6.45	.	6.45
27451030	0	Lobster creole, Puerto Rican style (Langosta a la criolla)	15147	LOBSTER, NORTHERN, RAW	806.23	340.20	69.50	60.71	.	60.71
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15147	LOBSTER, NORTHERN, RAW	1,771.00	226.80	67.40	19.00	.	19.00
26311110	0	Lobster, cooked, NS as to cooking method	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26311120	0	Lobster, baked or broiled	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	235.59	227.00	100.00	96.35	25.00	128.47
26311130	0	Lobster, without shell, steamed or boiled	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26311150	0	Lobster, battered, fried	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	133.00	100.00	88.00	85.44	25.00	113.92
26311160	0	Lobster, steamed or boiled	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26311180	0	Lobster, canned	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
27150060	0	Lobster newburg	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	929.58	340.20	80.00	45.75	25.00	61.00
27150070	0	Lobster with butter sauce (mixture)	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	187.56	145.00	100.00	77.31	25.00	103.08
27150130	0	Seafood newburg	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
27250260	0	Lobster with bread stuffing, baked	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	330.76	226.80	100.00	68.57	25.00	91.43
27450020	0	Lobster salad	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	1,431.50	290.00	100.00	20.26	25.00	27.01
27450080	0	Seafood salad	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	529.77	100.00	100.00	18.88	25.00	25.17
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	530.77	100.00	100.00	18.84	25.00	25.12
28152030	0	Seafood newburg with rice, vegetable (frozen meal)	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	296.68	2.97	100.00	1.00	25.00	1.33
28355250	0	Lobster bisque	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	1,429.23	340.20	90.00	26.45	25.00	35.26
28355250	202683	Lobster bisque W/ SKIM MILK	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	1,433.23	340.20	90.00	26.37	25.00	35.17
28355260	0	Lobster gumbo	15148	LOBSTER, NORTHERN, CKD, MOIST HEAT	2,106.80	226.80	82.60	13.03	25.00	17.38
----- SPECIES=Mackerel (49) ----- HABITAT=Marine -----										
26121100	0	Mackerel, raw	15046	MACKEREL, ATLANTIC, RAW	99.00	33.00	100.00	33.33	.	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15046	MACKEREL, ATLANTIC, RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	0	Mackerel, baked or broiled	15046	MACKEREL, ATLANTIC, RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15046	MACKEREL, ATLANTIC, RAW	971.40	302.55	80.00	38.93	.	38.93
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15046	MACKEREL, ATLANTIC, RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15046	MACKEREL, ATLANTIC, RAW	971.15	302.55	80.00	38.94	.	38.94
26121140	0	Mackerel, floured or breaded, fried	15046	MACKEREL, ATLANTIC, RAW	1,086.90	302.55	88.00	31.63	.	31.63
26121160	0	Mackerel, pickled	15046	MACKEREL, ATLANTIC, RAW	467.20	453.60	80.00	121.36	.	121.36
26121180	0	Mackerel, canned	15048	MACKEREL, JACK, CND, DRND	100.00	100.00	100.00	100.00	25.00	133.33
27250300	0	Mackerel cake or patty	15048	MACKEREL, JACK, CND, DRND	954.85	453.60	80.10	59.31	25.00	79.08
26121100	0	Mackerel, raw	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	99.00	33.00	100.00	33.33	.	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15050	MACKEREL, PACIFIC&JACK, MXD SP, RAW	972.53	302.55	80.00	38.89	.	38.89

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-67



**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Mackerel (49) ----- HABITAT=Marine ----- (continued) -----										
26121120	0	Mackerel, baked or broiled	15050	MACKEREL, PACIFIC&JACK,MXD SP,RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15050	MACKEREL, PACIFIC&JACK,MXD SP,RAW	971.40	302.55	80.00	38.93	.	38.93
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15050	MACKEREL, PACIFIC&JACK,MXD SP,RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15050	MACKEREL, PACIFIC&JACK,MXD SP,RAW	971.15	302.55	80.00	38.94	.	38.94
26121140	0	Mackerel, floured or breaded, fried	15050	MACKEREL, PACIFIC&JACK,MXD SP,RAW	1,086.90	302.55	88.00	31.63	.	31.63
26121100	0	Mackerel, raw	15051	MACKEREL, SPANISH,RAW	99.00	33.00	100.00	33.33	.	33.33
26121110	0	Mackerel, cooked, NS as to cooking method	15051	MACKEREL, SPANISH,RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	0	Mackerel, baked or broiled	15051	MACKEREL, SPANISH,RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	100145	Mackerel, baked or broiled W/ CORN OIL	15051	MACKEREL, SPANISH,RAW	971.40	302.55	80.00	38.93	.	38.93
26121120	203649	Mackerel, baked or broiled W/ BUTTER, NFS	15051	MACKEREL, SPANISH,RAW	972.53	302.55	80.00	38.89	.	38.89
26121120	203744	Mackerel, baked or broiled W/ OLIVE OIL	15051	MACKEREL, SPANISH,RAW	971.15	302.55	80.00	38.94	.	38.94
26121140	0	Mackerel, floured or breaded, fried	15051	MACKEREL, SPANISH,RAW	1,086.90	302.55	88.00	31.63	.	31.63
26121190	0	Mackerel, smoked	15201	MACKEREL, PACIFIC &JACK,MXD SP,CKD, DRY HEAT	100.75	100.00	100.00	99.26	20.60	125.01
26121130	0	Mackerel, salted	83110	FISH,MACKEREL, SALTED	100.00	100.00	100.00	100.00	30.00	142.86
26121170	0	Mackerel, dried	83110	FISH,MACKEREL, SALTED	100.00	100.00	100.00	100.00	30.00	142.86
----- SPECIES=Mullet (52) ----- HABITAT=Estuarine -----										
26123100	0	Mullet, raw	15055	MULLET, STRIPED,RAW	100.00	100.00	100.00	100.00	.	100.00
26123140	100501	Mullet, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15055	MULLET, STRIPED,RAW	787.05	607.80	79.20	97.51	.	97.51
26123160	0	Mullet, steamed or poached	15055	MULLET, STRIPED,RAW	100.00	100.00	79.00	126.58	.	126.58
26123140	0	Mullet, floured or breaded, fried	15055	Need gwd for 1 lb raw ylds x; recipe calls for 2 l	787.05	607.80	79.20	97.51	.	97.51
26123140	100806	Mullet, floured or breaded, fried W/ CANOLA, S OYBEAN, AND SUNFLOWER OIL	15055	Need gwd for 1 lb raw ylds x; recipe calls for 2 l	787.05	607.80	79.20	97.51	.	97.51
26123120	0	Mullet, baked or broiled	15055	Need gwd for 1 lb raw ylds.; recipe calls for 2lbs	672.50	607.80	71.10	127.12	.	127.12
26123110	0	Mullet, cooked, NS as to cooking method	15055	Need gwd for 1 lb.raw ylds x; recipe calls for 2 lb	787.05	607.80	79.20	97.51	.	97.51
----- SPECIES=Mussels (53) ----- HABITAT=Marine -----										
26313100	0	Mussels, raw	15164	MUSSEL,BLUE,RAW	100.00	100.00	100.00	100.00	.	100.00
26313110	0	Mussels, cooked, NS as to cooking method	15164	MUSSEL,BLUE,RAW	484.80	453.60	80.90	115.65	.	115.65
26313110	100863	Mussels, cooked, NS as to cooking method W/ CA NOLA OIL	15164	MUSSEL,BLUE,RAW	483.85	453.60	80.90	115.88	.	115.88
26313110	203495	Mussels, cooked, NS as to cooking method W/ BU TTER, NFS	15164	MUSSEL,BLUE,RAW	484.98	453.60	80.90	115.61	.	115.61
26313160	0	Mussels, steamed or poached	15164	MUSSEL,BLUE,RAW	100.84	100.00	50.00	198.33	.	198.33
27150330	0	Mussels with tomato-based sauce (mixture)	15164	MUSSEL,BLUE,RAW	125.00	100.00	80.00	100.00	.	100.00
27350110	0	Bouillabaisse	15164	MUSSEL,BLUE,RAW	4,392.60	226.80	80.00	6.45	.	6.45
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine -----										
26125100	0	Ocean perch, raw	15057	OCEAN PERCH,ATLANTIC,RAW	100.00	100.00	100.00	100.00	.	100.00
26125110	0	Ocean perch, cooked, NS as to cooking method	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	80.00	116.68	.	116.68
26125120	0	Ocean perch, baked or broiled	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	80.00	116.68	.	116.68

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-68

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine ----- (continued) -----										
26125120	201950	Ocean perch, baked or broiled W/ BUTTER, NFS	15057	OCEAN PERCH,ATLANTIC,RAW	972.08	907.20	80.00	116.66	.	116.66
26125120	202334	Ocean perch, baked or broiled W/O FAT OR W/ NO NSTICK SPRAY (INCLUDE PAM...)	15057	OCEAN PERCH,ATLANTIC,RAW	943.70	907.20	80.00	120.17	.	120.17
26125120	203091	Ocean perch, baked or broiled W/ OLIVE OIL	15057	OCEAN PERCH,ATLANTIC,RAW	970.70	907.20	80.00	116.82	.	116.82
26125130	0	Ocean perch, breaded or battered, baked	15057	OCEAN PERCH,ATLANTIC,RAW	1,128.75	907.20	80.00	100.47	.	100.47
26125140	0	Ocean perch, floured or breaded, fried	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26125140	100975	Ocean perch, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26125150	0	Ocean perch, battered, fried	15057	OCEAN PERCH,ATLANTIC,RAW	133.00	100.00	88.00	85.44	.	85.44
26125160	0	Ocean perch, steamed or poached	15057	OCEAN PERCH,ATLANTIC,RAW	100.00	100.00	80.00	125.00	.	125.00
----- SPECIES=Octopus (55) ----- HABITAT=Marine -----										
26205110	0	Octopus, cooked, NS as to cooking method	15166	OCTOPUS,COMMON,RAW	1,086.45	907.20	85.00	98.24	.	98.24
26205160	0	Octopus, steamed	15166	OCTOPUS,COMMON,RAW	100.84	100.00	50.00	198.33	.	198.33
26205170	0	Octopus, dried	15166	OCTOPUS,COMMON,RAW	100.30	100.00	26.30	379.09	.	379.09
26205190	0	Octopus, smoked	15166	OCTOPUS,COMMON,RAW	100.00	100.00	58.70	170.36	.	170.36
27451060	0	Octopus salad, Puerto Rican style (Ensalada de pulpo)	15166	OCTOPUS,COMMON,RAW	516.30	226.80	72.30	60.76	.	60.76
26205180	0	Octopus, dried, boiled	15230	OCTOPUS,COMMON,CKD,MOIST HEAT	100.30	100.00	100.00	99.70	25.00	132.93
----- SPECIES=Oyster (59) ----- HABITAT=Estuarine -----										
26315100	0	Oysters, raw	15167	OYSTER,EASTERN,WILD,RAW	100.00	100.00	100.00	100.00	.	100.00
26315110	0	Oysters, cooked, NS as to cooking method	15167	OYSTER,EASTERN,WILD,RAW	589.20	504.00	80.00	106.92	.	106.92
26315120	0	Oysters, baked or broiled	15167	OYSTER,EASTERN,WILD,RAW	242.40	226.80	100.00	93.56	.	93.56
26315130	0	Oysters, steamed	15167	OYSTER,EASTERN,WILD,RAW	100.84	100.00	80.00	123.96	.	123.96
26315140	0	Oysters, floured or breaded, fried	15167	OYSTER,EASTERN,WILD,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26315150	0	Oysters, battered, fried	15167	OYSTER,EASTERN,WILD,RAW	902.90	680.40	88.00	85.63	.	85.63
26315190	0	Oysters, smoked	15167	OYSTER,EASTERN,WILD,RAW	100.84	100.00	61.60	160.99	.	160.99
27250220	0	Oyster fritter	15167	OYSTER,EASTERN,WILD,RAW	783.90	400.00	90.00	56.70	.	56.70
27350200	0	Oyster pie	15167	OYSTER,EASTERN,WILD,RAW	830.84	200.00	82.00	29.36	.	29.36
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice)	15167	OYSTER,EASTERN,WILD,RAW	3,864.33	186.00	77.10	6.24	.	6.24
27450250	0	Oysters Rockefeller	15167	OYSTER,EASTERN,WILD,RAW	786.68	336.00	90.00	47.46	.	47.46
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15167	OYSTER,EASTERN,WILD,RAW	3,548.33	186.00	75.00	6.99	.	6.99
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15167	OYSTER,EASTERN,WILD,RAW	3,550.01	186.00	75.00	6.99	.	6.99
28355310	0	Oyster stew	15167	OYSTER,EASTERN,WILD,RAW	1,538.01	496.00	94.00	34.31	.	34.31
28355310	100152	Oyster stew W/ SKIM MILK	15167	OYSTER,EASTERN,WILD,RAW	1,542.01	496.00	94.00	34.22	.	34.22
28355310	201647	Oyster stew W/ WHOLE MILK	15167	OYSTER,EASTERN,WILD,RAW	1,538.01	496.00	94.00	34.31	.	34.31
28355310	202979	Oyster stew W/ WHOLE MILK AND W/ MARGARINE, NF	15167	OYSTER,EASTERN,WILD,RAW	1,538.51	496.00	94.00	34.30	.	34.30

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-69**

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Oyster (59) -----			----- HABITAT=Estuarine -----			----- (continued) -----				
		S								
58128210	0	Dressing with oysters	15167	OYSTER, EASTERN, WILD, RAW	969.73	248.00	100.00	25.57	.	25.57
32105020	100663	Egg omelet or scrambled egg, with fish W/ OYST ERS	15167N	(26315120) OYSTER, EASTERN, WILD, RAW	84.58	11.23	91.00	14.59	25.00	19.45
26315180	0	Oysters, canned	15170	OYSTER, EASTERN, CND	100.00	100.00	92.00	108.70	25.00	144.93
27150200	0	Oyster sauce (white sauce-based)	15170	OYSTER, EASTERN, CND	501.80	248.00	100.00	49.42	25.00	65.90
----- SPECIES=Perch (60) -----			----- HABITAT=50% Freshwater, 50% Estuarine -----							
26127140	0	Perch, floured or breaded, fried	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	100350	Perch, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	100829	Perch, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA OIL, NFS; MAZOLA CORN OIL)	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	100892	Perch, floured or breaded, fried W/ OLIVE OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	100971	Perch, floured or breaded, fried W/ CANOLA OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127110	0	Perch, cooked, NS as to cooking method	15060	Need gram wt.descr for 1 lb raw ylds...;recipe call	732.65	553.40	77.70	97.21	.	97.21
26127120	0	Perch, baked or broiled	15060	PERCH, MXD SP, RAW	971.90	907.20	80.00	116.68	.	116.68
26127120	200860	Perch, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15060	PERCH, MXD SP, RAW	970.95	907.20	80.00	116.79	.	116.79
26127120	201707	Perch, baked or broiled W/ CORN OIL (INCLUDE M AZOLA CORN OIL; MAZOLA OIL, NFS)	15060	PERCH, MXD SP, RAW	970.95	907.20	80.00	116.79	.	116.79
26127120	203094	Perch, baked or broiled W/ OLIVE OIL	15060	PERCH, MXD SP, RAW	970.70	907.20	80.00	116.82	.	116.82
26127120	203332	Perch, baked or broiled W/O FAT	15060	PERCH, MXD SP, RAW	943.70	907.20	80.00	120.17	.	120.17
26127120	203610	Perch, baked or broiled W/ BUTTER, NFS	15060	PERCH, MXD SP, RAW	972.08	907.20	80.00	116.66	.	116.66
26127130	0	Perch, breaded or battered, baked	15060	PERCH, MXD SP, RAW	1,128.75	907.20	80.00	100.47	.	100.47
26127130	100568	Perch, breaded or battered, baked W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15060	PERCH, MXD SP, RAW	1,127.33	907.20	80.00	100.59	.	100.59
26127130	203003	Perch, breaded or battered, baked W/O FAT	15060	PERCH, MXD SP, RAW	1,086.45	907.20	80.00	104.38	.	104.38
26127150	0	Perch, battered, fried	15060	PERCH, MXD SP, RAW	133.00	100.00	85.00	88.46	.	88.46
26127150	100862	Perch, battered, fried W/ CANOLA OIL	15060	PERCH, MXD SP, RAW	133.00	100.00	85.00	88.46	.	88.46
26127150	202977	Perch, battered, fried W/ SOYBEAN OIL (INCLUDE WESSON SOYBEAN OIL...)	15060	PERCH, MXD SP, RAW	133.00	100.00	85.00	88.46	.	88.46
26127160	0	Perch, steamed or poached	15060	PERCH, MXD SP, RAW	100.00	100.00	80.00	125.00	.	125.00
27350030	0	Seafood stew with potatoes and vegetables (exc luding carrots, broccoli, and dark-green leafy ), tomato-base sauce	15060	PERCH, MXD SP, RAW	1,389.75	113.40	80.00	10.20	.	10.20
27350310	0	Seafood stew with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15060	PERCH, MXD SP, RAW	1,370.35	113.40	80.00	10.34	.	10.34
----- SPECIES=Pike (63) -----			----- HABITAT=Freshwater -----							
26129110	0	Pike, cooked, NS as to cooking method	15062	PIKE, NORTHERN, RAW	1,086.45	907.20	88.00	94.89	.	94.89
26129120	0	Pike, baked or broiled	15062	PIKE, NORTHERN, RAW	971.90	907.20	80.00	116.68	.	116.68

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-70**

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Pike (63) -----			----- HABITAT=Freshwater -----			----- (continued) -----				
26129120	201172	Pike, baked or broiled W/ VEGETABLE OIL, NFS ( INCLUDE OIL, NFS)	15062	PIKE,NORTHERN,RAW	970.95	907.20	80.00	116.79	.	116.79
26129140	0	Pike, floured or breaded, fried	15062	PIKE,NORTHERN,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26129150	0	Pike, battered, fried	15062	PIKE,NORTHERN,RAW	133.00	100.00	88.00	85.44	.	85.44
26129160	0	Pike, steamed or poached	15062	PIKE,NORTHERN,RAW	100.00	100.00	79.00	126.58	.	126.58
27250060	0	Gefilte fish	15062	PIKE,NORTHERN,RAW	6,161.70	2,268.00	100.00	36.81	.	36.81
----- SPECIES=Pollock (64) -----			----- HABITAT=Marine -----							
26100240	0	Fish stick, patty, or fillet, NS as to type, f loured or breaded, fried	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26100240	101130	Fish stick, patty, or fillet, NS as to type, f loured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26100250	0	Fish stick, patty, or fillet, NS as to type, b attered, fried	15065	POLLOCK,ATLANTIC,RAW	133.00	100.00	88.00	85.44	.	85.44
27250500	0	Kamaboko (Japanese fish cake)	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	100.00	67.57	.	67.57
27250510	0	Fish cake (Kamaboko) tempura	15065	POLLOCK,ATLANTIC,RAW	752.34	453.60	95.00	63.47	.	63.47
27250520	0	Seafood restructured	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	100.00	67.57	.	67.57
28150050	0	Fish parmesan (frozen meal)	15065	POLLOCK,ATLANTIC,RAW	1,687.93	680.40	80.00	50.39	.	50.39
28150410	0	Fish and chips with vegetable, potatoes, tomat oes (frozen meal)	15065	POLLOCK,ATLANTIC,RAW	255.80	100.00	93.80	41.68	.	41.68
28152030	0	Seafood newburg with rice, vegetable (frozen meal)	15065N	(27250500) POLLOCK,ATLANTIC,RAW	296.68	24.08	100.00	8.12	.	8.12
58149210	0	Somen salad	15065N	(27250500) POLLOCK,ATLANTIC,RAW	422.05	47.30	100.00	11.21	.	11.21
27450130	0	Crab salad made with imitation crab	15065N	(27250520) POLLOCK,ATLANTIC,RAW	357.05	153.24	100.00	42.92	.	42.92
27450130	100551	Crab salad made with imitation crab W/ REAL MA YONNAISE	15065N	(27250520) POLLOCK,ATLANTIC,RAW	353.30	153.24	100.00	43.37	.	43.37
27450130	202453	Crab salad made with imitation crab W/ FAT FRE E MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAF T FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRAC LE WHIP FREE NONFAT DRESSING...)	15065N	(27250520) POLLOCK,ATLANTIC,RAW	362.30	153.24	100.00	42.30	.	42.30
27450130	203191	Crab salad made with imitation crab W/ LOW CAL ORIE OR DIET MAYONNAISE	15065N	(27250520) POLLOCK,ATLANTIC,RAW	360.80	153.24	100.00	42.47	.	42.47
27550000	100344	Fish sandwich, on bun, with spread W/ RESTRUCT URED SEAFOOD	15065N	(27250520) POLLOCK,ATLANTIC,RAW	148.60	38.92	94.50	27.71	.	27.71
58111200	0	Puffs, fried, crab meat and cream cheese fille d	15065N	(27250520) POLLOCK,ATLANTIC,RAW	892.90	110.68	76.00	16.31	.	16.31
58148140	203037	Macaroni salad with crab meat W/ IMITATION CRA B	15065N	(27250520) POLLOCK,ATLANTIC,RAW	744.88	63.85	100.00	8.57	.	8.57
58148550	203165	Pasta salad with meat (macaroni or noodles, ve getables, meat, dressing) W/ RESTRUCTURED SEAF OOD (INCLUDE IMITATION CRAB MEAT) AND W/ LOW C ALORIE OR DIET MAYONNAISE (INCLUDE LOWFAT MAYO NNAISE)	15065N	(27250520) POLLOCK,ATLANTIC,RAW	959.03	99.04	100.00	10.33	.	10.33

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-71**

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Pompano (65) ----- HABITAT=Marine -----										
26131110	0	Pompano, cooked, NS as to cooking method	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe call	672.50	607.80	70.70	127.83	.	127.83
26131120	0	Pompano, baked or broiled	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	672.50	607.80	70.70	127.83	.	127.83
26131120	202069	Pompano, baked or broiled W/ BUTTER, NFS	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	672.68	607.80	70.70	127.80	.	127.80
26131120	202612	Pompano, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	671.55	607.80	70.70	128.02	.	128.02
26131120	203073	Pompano, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	671.55	607.80	70.70	128.02	.	128.02
26131140	0	Pompano, floured or breaded, fried	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	787.05	607.80	79.20	97.51	.	97.51
26131140	100951	Pompano, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15068	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	787.05	607.80	79.20	97.51	.	97.51
26131100	0	Pompano, raw	15068	POMPANO, FLORIDA, RAW	100.00	100.00	100.00	100.00	.	100.00
26131150	0	Pompano, battered, fried	15068	POMPANO, FLORIDA, RAW	133.00	100.00	88.00	85.44	.	85.44
26131160	0	Pompano, steamed or poached	15068	POMPANO, FLORIDA, RAW	100.00	100.00	80.00	125.00	.	125.00
26131190	0	Pompano, smoked	15068	POMPANO, FLORIDA, RAW	100.67	100.00	85.00	116.86	.	116.86
27350110	0	Bouillabaisse	15068	POMPANO, FLORIDA, RAW	4,392.60	453.60	80.00	12.91	.	12.91
----- SPECIES=Porgy (66) ----- HABITAT=Marine -----										
26133120	0	Porgy, baked or broiled	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	590.90	526.20	67.10	132.71	.	132.71
26133120	100976	Porgy, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	589.95	526.20	67.10	132.93	.	132.93
26133120	200192	Porgy, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL)	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	589.95	526.20	67.10	132.93	.	132.93
26133120	202615	Porgy, baked or broiled W/ OLIVE OIL	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	589.70	526.20	67.10	132.98	.	132.98
26133120	202974	Porgy, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	562.70	526.20	67.10	139.36	.	139.36
26133120	203252	Porgy, baked or broiled W/ BUTTER, NFS	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	591.08	526.20	67.10	132.67	.	132.67
26133140	0	Porgy, floured or breaded, fried	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	705.45	526.20	76.80	97.12	.	97.12
26133140	100567	Porgy, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	705.45	526.20	76.80	97.12	.	97.12
26133140	100810	Porgy, floured or breaded, fried W/ CANOLA, SOYBEAN AND SUNFLOWER OIL	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	705.45	526.20	76.80	97.12	.	97.12
26133140	101048	Porgy, floured or breaded, fried W/ SOYBEAN OIL	15090	Need grm wt.descr.for 1 lb raw ylds...;recipe calls	705.45	526.20	76.80	97.12	.	97.12
26133130	0	Porgy, breaded or battered, baked	15090	Need grm wt.descr.for 1 lb.raw ylds...;recipe calls	790.05	526.20	80.00	83.25	.	83.25
26133130	100163	Porgy, breaded or battered, baked W/ CORN OIL	15090	Need grm wt.descr.for 1 lb.raw ylds...;recipe calls	787.20	526.20	80.00	83.56	.	83.56
26133130	200501	Porgy, breaded or battered, baked W/ CANOLA OIL	15090	Need grm wt.descr.for 1 lb.raw ylds...;recipe calls	787.20	526.20	80.00	83.56	.	83.56
26133100	0	Porgy, raw	15090	SCUP, RAW	100.00	100.00	100.00	100.00	.	100.00
26133110	0	Porgy, cooked, NS as to cooking method	15090	SCUP, RAW	705.45	526.20	76.80	97.12	.	97.12
26133150	0	Porgy, battered, fried	15090	SCUP, RAW	91.00	58.00	81.50	78.20	.	78.20
26133150	101117	Porgy, battered, fried W/ CANOLA OIL	15090	SCUP, RAW	91.00	58.00	81.50	78.20	.	78.20

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-72

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Porgy (66) ----- HABITAT=Marine ----- (continued) -----										
26133160	0	Porgy, steamed or poached	15090	SCUP,RAW	100.00	100.00	80.00	125.00	.	125.00
27450750	100467	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ PORGY (INCLUDE SNAPPER ...)	15090N	(26133100) SCUP,RAW	1,431.75	907.20	90.00	70.40	.	70.40
----- SPECIES=Ray (69) ----- HABITAT=Marine -----										
26135140	0	Ray, floured or breaded, fried	15095	Need gwd for 1 lb raw yields x;recipe calls for 2	787.05	607.80	79.20	97.51	.	97.51
26135110	0	Ray, cooked, NS as to cooking method	15095	Ray,raw	976.60	911.90	70.70	132.07	.	132.07
26135120	0	Ray, baked or broiled	15095	Ray,raw	976.60	911.90	70.70	132.07	.	132.07
26135160	0	Ray, steamed or poached	15095	Ray,raw	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Rockfish (72) ----- HABITAT=Estuarine -----										
26100100	0	Fish, NS as to type, raw	15070	ROCKFISH,PACIFIC,MXD SP,RAW	100.00	7.10	100.00	7.10	.	7.10
26100130	0	Fish, NS as to type, breaded or battered, baked	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,171.58	64.40	80.00	6.87	.	6.87
26100140	0	Fish, NS as to type, floured or breaded, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	88.00	6.74	.	6.74
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	88.00	6.74	.	6.74
26100150	0	Fish, NS as to type, battered, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	133.00	7.10	88.00	6.07	.	6.07
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15070	rockfish, pacific, mixed species, raw	1,086.45	64.40	88.00	6.74	.	6.74
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15070N	(26100150) ROCKFISH,PACIFIC,MXD SP,RAW	224.80	6.48	100.00	3.28	12.00	3.72
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	100.84	7.10	100.00	7.04	25.00	9.39
26100120	0	Fish, NS as to type, baked or broiled	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	100.00	6.63	25.00	8.83
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	100.00	6.63	25.00	8.83
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15071	Rockfish,Pacific,mixed species,cooked,dry heat	970.95	64.40	100.00	6.63	25.00	8.84
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15071	Rockfish,Pacific,mixed species,cooked,dry heat	970.95	64.40	100.00	6.63	25.00	8.84
----- SPECIES=Roe (73) ----- HABITAT=Marine -----										
26207110	0	Roe, shad, cooked	15072	ROE,MXD SP,RAW	745.10	680.40	80.00	114.15	.	114.15
26209100	0	Roe, herring	15072	ROE,MXD SP,RAW	100.00	100.00	100.00	100.00	.	100.00
26212100	0	Roe, sea urchin	42026	SEA URCHIN,ROE	100.00	100.00	100.00	100.00	.	100.00

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-73

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Salmon (75) ----- HABITAT=0.06% Freshwater, 3.02% Estuarine, 96.92% Mari-----										
26100190	0	Fish, NS as to type, smoked	15077	SALMON, CHINOOK, SMOKED	99.90	74.90	100.00	74.97	5.00	78.92
26137190	0	Salmon, smoked	15077	SALMON, CHINOOK, SMOKED	100.00	100.00	100.00	100.00	5.00	105.26
26137180	0	Salmon, canned	15080	SALMON, CHUM, CND, DRND W/BONE	100.00	5.00	100.00	5.00	25.00	6.67
27250070	0	Salmon cake or patty	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	100581	Salmon cake or patty W/ CANOLA OIL	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	100601	Salmon cake or patty W/ SUNFLOWER OIL	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	100813	Salmon cake or patty W/ VEGETABLE OIL, NFS (IN CLUDE OIL, NFS)	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	100890	Salmon cake or patty W/ CANOLA, SOYBEAN, AND S UNFLOWER OIL	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	101058	Salmon cake or patty W/ SOYBEAN OIL (INCLUDE W ESSION SOYBEAN OIL...)	15080	SALMON, CHUM, CND, DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27450030	0	Salmon salad	15080	SALMON, CHUM, CND, DRND W/BONE	927.60	33.60	100.00	3.62	25.00	4.83
27450030	100335	Salmon salad W/O EGGS AND W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NON FAT MAYONNAISE DRESSING: KRAFT MIRACLE WHIP FREE NONFAT DRESSING..)	15080	SALMON, CHUM, CND, DRND W/BONE	795.60	33.60	100.00	4.22	25.00	5.63
27450030	100859	Salmon salad W/ REDUCED CALORIE CREAMY DRESSING, MADE WITH SOUR CREAM AND/OR BUTTERMILK AND OIL	15080	SALMON, CHUM, CND, DRND W/BONE	940.10	33.60	100.00	3.57	25.00	4.77
27450030	201395	Salmon salad W/ ITALIAN DRESSING (INCLUDE OIL AND VINEGAR)	15080	SALMON, CHUM, CND, DRND W/BONE	935.10	33.60	100.00	3.59	25.00	4.79
27450030	202267	Salmon salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT...)	15080	SALMON, CHUM, CND, DRND W/BONE	933.10	33.60	100.00	3.60	25.00	4.80
27450030	202962	Salmon salad W/ MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP)	15080	SALMON, CHUM, CND, DRND W/BONE	935.10	33.60	100.00	3.59	25.00	4.79
26137100	0	Salmon, raw	15081	SALMON, COHO, WILD, RAW	100.00	100.00	100.00	100.00	.	100.00
26137120	0	Salmon, baked or broiled	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	844.90	780.20	76.90	120.08	.	120.08
26137120	200202	Salmon, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.95	780.20	76.90	120.22	.	120.22
26137120	200265	Salmon, baked or broiled W/ BUTTER, NFS	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	845.08	780.20	76.90	120.06	.	120.06
26137120	201145	Salmon, baked or broiled W/ OLIVE OIL	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.70	780.20	76.90	120.25	.	120.25
26137120	201437	Salmon, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	816.70	780.20	76.90	124.23	.	124.23
26137120	202595	Salmon, baked or broiled W/ BACON GREASE	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	842.50	780.20	76.90	120.42	.	120.42
26137120	203550	Salmon, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.95	780.20	76.90	120.22	.	120.22
26137120	203738	Salmon, baked or broiled W/ MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE SHEDD'S SPREAD COUNTRY CROCK, PARKAY...)	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	845.33	780.20	76.90	120.02	.	120.02
26137140	0	Salmon, floured or breaded, fried	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	83.00	97.97	.	97.97
26137140	100833	Salmon, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	83.00	97.97	.	97.97

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-74**

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Salmon (75) ----- HABITAT=0.06% Freshwater, 3.02% Estuarine, 96.92% Marine----- (continued) -----										
26137140	100891	Salmon, floured or breaded, fried W/ IL (INCLUDE WESSON SOYBEAN OIL...)	15083	SOYBEAN O	959.45	780.20	83.00	97.97	.	97.97
26137140	100932	Salmon, floured or breaded, fried W/ OYBEAN, AND SUNFLOWER OIL	15083	CANOLA, S	959.45	780.20	83.00	97.97	.	97.97
26137150	0	Salmon, battered, fried	15083	SALMON, PINK, RAW	133.00	100.00	88.00	85.44	.	85.44
26137160	0	Salmon, steamed or poached	15083	SALMON, PINK, RAW	100.00	100.00	80.00	125.00	.	125.00
26137170	0	Salmon, dried	15083	SALMON, PINK, RAW	100.00	100.00	80.00	125.00	.	125.00
32105020	0	Egg omelet or scrambled egg, with fish	15084	Need gwd for 1 Tbsp; recipe calls for 1 Tbsp.	84.58	12.00	91.00	15.59	25.00	20.79
26100180	0	Fish, NS as to type, canned	15084	SALMON, PINK, CND, W/BONE & LIQ	100.00	19.40	100.00	19.40	25.00	25.87
26137180	0	Salmon, canned	15084	SALMON, PINK, CND, W/BONE & LIQ	100.00	75.00	100.00	75.00	25.00	100.00
27250080	0	Salmon loaf	15084	SALMON, PINK, CND, W/BONE & LIQ	981.25	454.00	80.00	57.83	25.00	77.11
27250080	202992	Salmon loaf W/O FAT	15084	SALMON, PINK, CND, W/BONE & LIQ	938.95	454.00	80.00	60.44	25.00	80.59
27251010	0	Stewed salmon, Puerto Rican style (Salmon guisado)	15084	SALMON, PINK, CND, W/BONE & LIQ	1,050.50	453.60	77.50	55.72	25.00	74.29
27450030	0	Salmon salad	15084	SALMON, PINK, CND, W/BONE & LIQ	927.60	454.00	100.00	48.94	25.00	65.26
27450030	100335	Salmon salad W/O EGGS AND W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NON FAT MAYONNAISE DRESSING: KRAFT MIRACLE WHIP FREE NONFAT DRESSING..)	15084	SALMON, PINK, CND, W/BONE & LIQ	795.60	454.00	100.00	57.06	25.00	76.09
27450030	100859	Salmon salad W/ REDUCED CALORIE CREAMY DRESSING, MADE WITH SOUR CREAM AND/OR BUTTERMILK AND OIL	15084	SALMON, PINK, CND, W/BONE & LIQ	940.10	454.00	100.00	48.29	25.00	64.39
27450030	201395	Salmon salad W/ ITALIAN DRESSING (INCLUDE OIL AND VINEGAR)	15084	SALMON, PINK, CND, W/BONE & LIQ	935.10	454.00	100.00	48.55	25.00	64.73
27450030	202267	Salmon salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT...)	15084	SALMON, PINK, CND, W/BONE & LIQ	933.10	454.00	100.00	48.66	25.00	64.87
27450030	202962	Salmon salad W/ MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP)	15084	SALMON, PINK, CND, W/BONE & LIQ	935.10	454.00	100.00	48.55	25.00	64.73
27450310	0	Lomi salmon	15084	SALMON, PINK, CND, W/BONE & LIQ	1,298.60	453.60	100.00	34.93	25.00	46.57
28355350	0	Salmon soup, cream style	15084	SALMON, PINK, CND, W/BONE & LIQ	1,004.28	453.60	90.00	50.19	25.00	66.91
32105020	100563	Egg omelet or scrambled egg, with fish W/ BUTTER, NFS	15084	on-line says 1 Tb, sheet says 1 Tb=12 gm	84.59	12.00	91.00	15.59	25.00	20.79
26100180	0	Fish, NS as to type, canned	15087	SALMON, SOCKEYE, CND, DRND W/BONE	100.00	5.50	100.00	5.50	25.00	7.33
26137180	0	Salmon, canned	15087	SALMON, SOCKEYE, CND, DRND W/BONE	100.00	20.00	100.00	20.00	25.00	26.67
26137110	0	Salmon, cooked, NS as to cooking method	15247	SALMON, COHO, WILD, CKD, DRY HEAT	100.00	100.00	100.00	100.00	25.00	133.33
----- SPECIES=Sardine (77) ----- HABITAT=Marine -----										
26139110	0	Sardines, cooked	15088	SARDINE, ATLANTIC, CND, OIL, DRND W/BONE	100.00	100.00	100.00	100.00	25.00	133.33
26139180	0	Sardines, canned in oil	15088	SARDINE, ATLANTIC, CND, OIL, DRND W/BONE	100.00	100.00	100.00	100.00	25.00	133.33
27550510	0	Sardine sandwich, with lettuce and spread	15088	SARDINE, ATLANTIC, CND, OIL, DRND W/BONE	1,225.25	425.25	100.00	34.71	25.00	46.28
27250610	100389	Tuna noodle casserole with cream or white sauce W/ TUNA AND SARDINES	15088N	(26139180) SARDINE, ATLANTIC, CND, OIL, DRND W/BONE	1,140.59	160.00	90.00	15.59	25.00	20.78
27150350	0	Sardines with tomato-based sauce (mixture)	15089	SARDINE, PACIFIC, CND, TOMATO SAU, DRND W/BONE	100.00	100.00	100.00	100.00	25.00	133.33

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-75**



**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Sardine (77) ----- HABITAT=Marine ----- (continued) -----										
27150370	0	Sardines with mustard sauce (mixture)	15089	SARDINE,PACIFIC,CND,TOMATO SAU,DRND W/BONE	100.00	100.00	100.00	100.00	25.00	133.33
----- SPECIES=Scallop (79) ----- HABITAT=0.58% Estuarine, 99.42% Marine -----										
26317110	0	Scallops, cooked, NS as to cooking method	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26317120	0	Scallops, baked or broiled	15172	SCALLOP,MXD SP,RAW	706.05	680.40	80.00	120.46	.	120.46
26317120	200497	Scallops, baked or broiled W/ VEGETABLE OIL, N FS (INCLUDE OIL, NFS)	15172	SCALLOP,MXD SP,RAW	705.34	680.40	80.00	120.58	.	120.58
26317120	200876	Scallops, baked or broiled W/ BUTTER, NFS	15172	SCALLOP,MXD SP,RAW	706.18	680.40	80.00	120.44	.	120.44
26317120	202359	Scallops, baked or broiled W/O FAT OR W/ NONST ICK SPRAY (INCLUDE PAM...)	15172	SCALLOP,MXD SP,RAW	684.90	680.40	80.00	124.18	.	124.18
26317130	0	Scallops, steamed or boiled	15172	SCALLOP,MXD SP,RAW	941.40	907.20	100.00	96.37	.	96.37
26317140	0	Scallops, floured or breaded, fried	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26317140	101020	Scallops, floured or breaded, fried W/ CORN OIL	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26317150	0	Scallops, battered, fried	15172	SCALLOP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
27250950	0	Shellfish mixture and noodles, tomato-based sauce (mixture)	15172	SCALLOP,MXD SP,RAW	742.00	56.70	100.00	7.64	.	7.64
27350110	0	Bouillabaisse	15172	SCALLOP,MXD SP,RAW	4,392.60	453.60	80.00	12.91	.	12.91
28150810	0	Scallops with potatoes, vegetable (frozen meal)	15172	SCALLOP,MXD SP,RAW	242.80	108.90	93.60	47.92	.	47.92
28152010	0	Seafood platter with fish cake, fish fillet, scallops, shrimp, potatoes (frozen meal)	15172N	(26317140) SCALLOP,MXD SP,RAW	240.00	12.69	100.00	6.01	12.00	6.83
27150510	0	Scallops with cheese sauce (mixture)	90240	Need gwd for 1 C;recipe calls for 1 C.	241.50	120.00	100.00	49.69	21.00	62.90
27250110	0	Scallops and noodles with cheese sauce (mixture)	90240	SCALLOPS,STEAMED	1,215.40	453.60	90.00	41.47	21.00	52.49
58304400	0	Linguini with vegetables and seafood in white wine sauce (diet frozen meal)	90240	SCALLOPS,STEAMED	269.27	32.28	100.00	11.99	21.00	15.17
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine -----										
26141180	0	Sea bass, pickled (Mero en escabeche)	15091	Need gram wt.descr.for 1 slice=.;recipe calls for	2,097.73	1,362.00	91.50	70.96	.	70.96
26141120	0	Sea bass, baked or broiled	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	844.90	780.20	76.90	120.08	.	120.08
26141120	200874	Sea bass, baked or broiled W/ BUTTER, NFS	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	845.08	780.20	76.90	120.06	.	120.06
26141120	200913	Sea bass, baked or broiled W/ CORN OIL	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	843.95	780.20	76.90	120.22	.	120.22
26141120	201674	Sea bass, baked or broiled W/ VEGETABLE OIL, N FS (INCLUDE OIL, NFS)	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	843.95	780.20	76.90	120.22	.	120.22
26141120	203065	Sea bass, baked or broiled W/ BUTTER, STICK, UNSALTED	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	845.08	780.20	76.90	120.06	.	120.06
26141120	203326	Sea bass, baked or broiled W/O FAT OR W/ NONST ICK SPRAY (INCLUDE PAM...)	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	816.70	780.20	76.90	124.23	.	124.23
26141110	0	Sea bass, cooked, NS as to cooking method	15091	Need grm wt.descr.for 1 lb.raw ylds...;recipe call	844.90	780.20	76.90	120.08	.	120.08
26141140	0	Sea bass, floured or breaded, fried	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	83.00	97.97	.	97.97
26141140	100856	Sea bass, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	83.00	97.97	.	97.97

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-76

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine ----- (continued) -----										
26141130	0	Sea bass, breaded or battered, baked	15091	SEA BASS,MXD SP,RAW	1,128.75	907.20	80.00	100.47	.	100.47
26141140	100355	Sea bass, floured or breaded, fried W/ PEANUT OIL	15091	SEA BASS,MXD SP,RAW	959.45	780.20	83.00	97.97	.	97.97
26141140	100741	Sea bass, floured or breaded, fried W/ CANOLA OIL	15091	SEA BASS,MXD SP,RAW	959.45	780.20	83.00	97.97	.	97.97
26141160	0	Sea bass, steamed or poached	15091	SEA BASS,MXD SP,RAW	100.00	100.00	80.00	125.00	.	125.00
----- SPECIES=Seafood (83) ----- HABITAT=Unknown -----										
58106900	0	Pizza with seafood, NS as to type of crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	581.88	49.61	75.00	11.37	.	11.37
58106910	0	Pizza with seafood, thin crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	581.88	49.61	75.00	11.37	.	11.37
58106920	0	Pizza with seafood, thick crust	15138	CRAB,ALASKA KING,IMITN,FROM SURIMI	915.63	49.61	75.00	7.22	.	7.22
----- SPECIES=Shad (84) ----- HABITAT=Estuarine -----										
27350040	0	Shad creole, with rice	15094	SHAD,AMERICAN,RAW	1,971.54	907.20	88.90	51.76	.	51.76
----- SPECIES=Shark (85) ----- HABITAT=Marine -----										
26143110	0	Shark, cooked, NS as to cooking method	15095	SHARK,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26143120	0	Shark, baked or broiled	15095	SHARK,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26143160	0	Shark, steamed or poached	15095	SHARK,MXD SP,RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine -----										
27250450	0	Shrimp toast, fried	15149	.247 lb EP from .5 lb AP (AH8-15 yield=.494)	334.01	112.04	105.00	31.95	.	31.95
27363000	0	Gumbo with rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra, rice )	15149	Need gwd for 1 C;recipe calls for .5 C.	3,864.33	64.00	77.10	2.15	.	2.15
27464000	0	Gumbo, no rice (New Orleans type with shellfish, h, pork, and/or poultry, tomatoes, okra)	15149	Need gwd for 1 C;recipe calls for .5 C.	3,548.33	64.00	75.00	2.40	.	2.40
27464000	100414	Gumbo, no rice (New Orleans type with shellfish, h, pork, and/or poultry, tomatoes, okra) W/ BUTTER, NFS	15149	RECIPE SHEET	3,550.01	64.00	75.00	2.40	.	2.40
26319110	0	Shrimp, cooked, NS as to cooking method	15149	SHRIMP,MXD SP,RAW	100.84	100.00	73.00	135.85	.	135.85
26319120	0	Shrimp, baked or broiled	15149	SHRIMP,MXD SP,RAW	941.40	907.20	80.00	120.46	.	120.46
26319120	100113	Shrimp, baked or broiled W/ CORN OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	80.00	120.58	.	120.58
26319120	100155	Shrimp, baked or broiled W/ PEANUT OIL	15149	SHRIMP,MXD SP,RAW	940.20	907.20	80.00	120.61	.	120.61
26319120	200498	Shrimp, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15149	SHRIMP,MXD SP,RAW	940.45	907.20	80.00	120.58	.	120.58
26319120	200875	Shrimp, baked or broiled W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	941.58	907.20	80.00	120.44	.	120.44
26319120	202678	Shrimp, baked or broiled W/ SESAME OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	80.00	120.58	.	120.58
26319120	202863	Shrimp, baked or broiled W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15149	SHRIMP,MXD SP,RAW	913.20	907.20	80.00	124.18	.	124.18
26319120	203272	Shrimp, baked or broiled W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	940.20	907.20	80.00	120.61	.	120.61

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-77

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Shrimp (88) -----			----- HABITAT=Estuarine -----			----- (continued) -----				
26319130	0	Shrimp, steamed or boiled	15149	SHRIMP,MXD SP,RAW	100.84	100.00	76.00	130.48	.	130.48
26319140	0	Shrimp, floured, breaded, or battered, fried	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	100180	Shrimp, floured, breaded, or battered, fried W / CANOLA OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	100708	Shrimp, floured, breaded, or battered, fried W / CORN OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	201330	Shrimp, floured, breaded, or battered, fried W / VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	203183	Shrimp, floured, breaded, or battered, fried W / SOYBEAN OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
27150410	0	Shrimp teriyaki (shrimp with soy-based sauce) (mixture)	15149	SHRIMP,MXD SP,RAW	677.76	453.60	76.00	88.06	.	88.06
27151050	0	Shrimp in garlic sauce, Puerto Rican style (mixture) (Camarones al ajillo)	15149	SHRIMP,MXD SP,RAW	531.90	348.00	78.70	83.13	.	83.13
27250410	0	Shrimp with crab stuffing	15149	SHRIMP,MXD SP,RAW	1,808.90	680.40	89.00	42.26	.	42.26
27350020	0	Paella with seafood	15149	SHRIMP,MXD SP,RAW	2,281.18	48.00	90.00	2.34	.	2.34
27350110	0	Bouillabaisse	15149	SHRIMP,MXD SP,RAW	4,392.60	226.80	80.00	6.45	.	6.45
27360090	0	Paella, NFS	15149	SHRIMP,MXD SP,RAW	2,219.78	56.00	90.00	2.80	.	2.80
27420200	0	Pork hash, Hawaiian style-ground pork, vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce	15149	SHRIMP,MXD SP,RAW	331.10	21.00	100.00	6.34	.	6.34
27450410	0	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	771.30	98.00	88.00	14.44	.	14.44
27450410	100694	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ CANOLA OIL	15149	SHRIMP,MXD SP,RAW	771.68	98.00	88.00	14.43	.	14.43
27450410	100865	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	771.30	98.00	88.00	14.44	.	14.44
27450410	203621	Shrimp and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/O FAT	15149	SHRIMP,MXD SP,RAW	730.80	98.00	88.00	15.24	.	15.24
27450420	0	Shrimp and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	741.30	98.00	88.00	15.02	.	15.02
27450600	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), soy-base sauce	15149	SHRIMP,MXD SP,RAW	910.10	113.40	88.00	14.16	.	14.16
27450610	0	Shellfish mixture and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), soy-base sauce	15149	SHRIMP,MXD SP,RAW	940.10	113.40	88.00	13.71	.	13.71
27450650	0	Shellfish mixture and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15149	SHRIMP,MXD SP,RAW	853.13	113.40	88.00	15.10	.	15.10

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-78

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Shrimp (88) -----			----- HABITAT=Estuarine -----			(continued)				
27450660	0	Shellfish mixture and vegetables (excluding ca roots, broccoli, and dark-green leafy (no potatoes)), (mushroom) soup (mixture)	15149	SHRIMP,MXD SP,RAW	891.68	113.40	100.00	12.72	.	12.72
28150910	0	Shrimp with potatoes, vegetable (frozen meal)	15149	SHRIMP,MXD SP,RAW	242.30	97.00	93.70	42.72	.	42.72
28355450	101018	Seafood soup with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy) W/ SHRIMP	15149	SHRIMP,MXD SP,RAW	2,953.00	907.20	85.00	36.14	.	36.14
58112510	0	Dumpling, steamed, filled with meat, poultry, or seafood	15149	SHRIMP,MXD SP,RAW	818.84	151.05	120.00	15.37	.	15.37
58136130	0	Lo mein with shrimp	15149	SHRIMP,MXD SP,RAW	1,101.43	226.80	95.00	21.68	.	21.68
58155310	0	Paella, Valenciana style, with meat (Paella Valenciana)	15149	SHRIMP,MXD SP,RAW	2,708.13	72.00	61.90	4.30	.	4.30
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15149	SHRIMP,MXD SP,RAW	1,771.00	340.20	67.40	28.50	.	28.50
58156110	0	Fried rice, Puerto Rican style (arroz frito)	15149	SHRIMP,MXD SP,RAW	1,221.80	226.80	86.70	21.41	.	21.41
58148550	100301	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ TURKEY AND SHRIMP, AND W/ REDUCED CALORIE OR DIET, CHOLESTEROL FREE MAYONNAISE (INCLUDE KRAFT LIGHT)	15149N	(26319120) SHRIMP,MXD SP,RAW	954.45	80.95	100.00	10.60	25.00	14.14
58148550	101031	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ ALL SHRIMP AND W/ LIGHT SOUR CREAM	15149N	(26319120) SHRIMP,MXD SP,RAW	967.53	150.41	100.00	19.43	25.00	25.91
58148550	101089	Pasta salad with meat (macaroni or noodles, vegetables, meat, dressing) W/ ALL SHRIMP AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15149N	(26319120) SHRIMP,MXD SP,RAW	959.53	150.41	100.00	19.59	25.00	26.13
58408010	100177	Won ton soup W/ SHRIMP AND CRAB MEAT	15149N	(26319130) SHRIMP,MXD SP,RAW	3,697.15	233.04	100.00	8.29	21.00	10.50
58408010	100858	Won ton soup W/ BEEF AND SHRIMP	15149N	(26319130) SHRIMP,MXD SP,RAW	3,697.15	233.04	100.00	8.29	21.00	10.50
28152010	0	Seafood platter with fish cake, fish fillet, scallops, shrimp, potatoes (frozen meal)	15149N	(26319140) SHRIMP,MXD SP,RAW	240.00	11.45	100.00	5.42	12.00	6.16
32110150	0	Shrimp-egg patty (Torta de Cameron seco)	15151	DRIED SHRIMP-also flg3-recipe says 2-1/2 c=320 gm	898.94	320.00	64.00	55.62	25.00	74.16
27150130	0	Seafood newburg	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
27250130	0	Shrimp and noodles with cheese sauce (mixture)	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,215.40	453.60	90.00	41.47	25.00	55.29
27250130	203697	Shrimp and noodles with cheese sauce (mixture) W/ OLIVE OIL	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,213.60	453.60	90.00	41.53	25.00	55.37
27350030	0	Seafood stew with potatoes and vegetables (including carrots, broccoli, and dark-green leafy), tomato-base sauce	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,389.75	113.40	80.00	10.20	25.00	13.60
27350310	0	Seafood stew with potatoes and vegetables (including carrots, broccoli, and/or dark-green leafy), tomato-base sauce	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	1,370.35	113.40	80.00	10.34	25.00	13.79
28153050	0	Shrimp and noodles in tomato-based sauce, with vegetable and fruit dessert (diet frozen meal)	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	100.00	12.70	100.00	12.70	25.00	16.93
58106900	0	Pizza with seafood, NS as to type of crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	581.88	49.61	75.00	11.37	25.00	15.16

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-79

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Shrimp (88) -----			----- HABITAT=Estuarine -----			(continued)				
58106910	0	Pizza with seafood, thin crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	581.88	49.61	75.00	11.37	25.00	15.16
58106920	0	Pizza with seafood, thick crust	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	915.63	49.61	75.00	7.22	25.00	9.63
58409000	0	Noodle soup, with fish ball, shrimp, and dark green leafy vegetable	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	847.77	22.00	100.00	2.60	25.00	3.46
14620120	0	Shrimp dip, cream cheese base	15152	SHRIMP,MXD SP,CND	434.58	113.40	100.00	26.09	25.00	34.79
26319170	0	Shrimp, dried	15152	SHRIMP,MXD SP,CND	100.00	100.00	39.50	253.16	25.00	337.55
26319180	0	Shrimp, canned	15152	SHRIMP,MXD SP,CND	100.00	100.00	100.00	100.00	25.00	133.33
27150100	0	Shrimp, curried	15152	SHRIMP,MXD SP,CND	936.94	340.20	90.00	40.34	25.00	53.79
27150110	0	Shrimp cocktail (shrimp with cocktail sauce)	15152	SHRIMP,MXD SP,CND	690.95	340.20	100.00	49.24	25.00	65.65
27150160	0	Shrimp with lobster sauce (mixture)	15152	SHRIMP,MXD SP,CND	960.93	453.60	80.00	59.01	25.00	78.67
27150170	0	Sweet and sour shrimp	15152	SHRIMP,MXD SP,CND	174.23	38.40	95.00	23.20	25.00	30.93
27150230	0	Shrimp scampi	15152	SHRIMP,MXD SP,CND	156.38	128.00	100.00	81.85	25.00	109.14
27150230	101055	Shrimp scampi W/ OLIVE OIL	15152	SHRIMP,MXD SP,CND	155.00	128.00	100.00	82.58	25.00	110.11
27250400	0	Shrimp cake or patty	15152	SHRIMP,MXD SP,CND	954.85	453.60	88.00	53.98	25.00	71.98
27250400	100693	Shrimp cake or patty W/ CANOLA OIL	15152	SHRIMP,MXD SP,CND	954.85	453.60	88.00	53.98	25.00	71.98
27250550	0	Seafood souffle	15152	SHRIMP,MXD SP,CND	599.32	42.62	94.00	7.57	25.00	10.09
27250950	0	Shellfish mixture and noodles, tomato-based sauce (mixture)	15152	SHRIMP,MXD SP,CND	742.00	56.70	100.00	7.64	25.00	10.19
27350050	0	Shrimp chow mein or chop suey with noodles	15152	SHRIMP,MXD SP,CND	502.97	96.00	89.00	21.45	25.00	28.59
27350060	0	Shrimp creole, with rice	15152	SHRIMP,MXD SP,CND	1,842.44	680.40	85.90	42.99	25.00	57.32
27351060	0	Shrimp and pasta garden salad (shrimp, pasta salad, tomato and/or carrots, other vegetables), no dressing	15152	SHRIMP,MXD SP,CND	261.00	42.00	100.00	16.09	25.00	21.46
27360080	0	Chow mein or chop suey, NS as to type of meat, with noodles	15152	SHRIMP,MXD SP,CND	968.88	55.00	90.00	6.31	25.00	8.41
27450040	0	Shrimp chow mein or chop suey, no noodles	15152	SHRIMP,MXD SP,CND	449.37	96.00	87.90	24.30	25.00	32.41
27450070	0	Shrimp salad	15152	SHRIMP,MXD SP,CND	548.53	340.20	100.00	62.02	25.00	82.69
27450070	100623	Shrimp salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15152	SHRIMP,MXD SP,CND	557.53	340.20	100.00	61.02	25.00	81.36
27450080	0	Seafood salad	15152	SHRIMP,MXD SP,CND	529.77	100.00	100.00	18.88	25.00	25.17
27450080	101095	Seafood salad W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	530.77	100.00	100.00	18.84	25.00	25.12
27450110	0	Shrimp garden salad (shrimp, eggs, tomato and/or carrots, other vegetables), no dressing	15152	SHRIMP,MXD SP,CND	185.80	63.30	100.00	34.07	25.00	45.43
27450120	0	Shrimp garden salad (shrimp, eggs, vegetables excluding tomato and carrots), no dressing	15152	SHRIMP,MXD SP,CND	147.90	63.30	100.00	42.80	25.00	57.07
27450150	0	Fish, tofu, and vegetables, tempura, Hawaiian style (mixture)	15152	SHRIMP,MXD SP,CND	542.92	32.00	80.00	7.37	25.00	9.82
27450180	0	Seafood garden salad with seafood, vegetables excluding tomato and carrots, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450190	0	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	100.00	15.00	25.00	20.00
27450200	0	Seafood garden salad with seafood, eggs, vegetables excluding tomato and carrots, no dressing	15152	SHRIMP,MXD SP,CND	100.00	15.00	100.00	15.00	25.00	20.00

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-80

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Shrimp (88) -----			----- HABITAT=Estuarine -----			----- (continued) -----				
27450210	0	g Seafood garden salad with seafood, eggs, tomat o and/or carrots, other vegetables, no dressin g	15152	SHRIMP,MXD SP,CND	110.00	15.00	100.00	13.64	25.00	18.18
27450450	0	g Shrimp creole, no rice	15152	SHRIMP,MXD SP,CND	1,317.44	680.40	85.90	60.12	25.00	80.16
28151010	0	Shrimp chow mein with egg rolls, pepper orient al (frozen meal)	15152	SHRIMP,MXD SP,CND	367.40	20.10	100.00	5.47	25.00	7.29
28151030	0	Shrimp creole with rice, peppers (diet frozen meal)	15152	SHRIMP,MXD SP,CND	283.01	22.64	100.00	8.00	25.00	10.67
28152030	0	Seafood newburg with rice, vegetable (frozen m eal)	15152	SHRIMP,MXD SP,CND	296.68	23.76	100.00	8.01	25.00	10.68
28152050	0	Shrimp with rice, vegetable (frozen meal)	15152	SHRIMP,MXD SP,CND	311.48	29.64	100.00	9.52	25.00	12.69
28153010	0	Shrimp and clams in tomato-based sauce, with n oodles (frozen meal)	15152	SHRIMP,MXD SP,CND	320.91	28.82	90.00	9.98	25.00	13.30
28154010	0	Shrimp and vegetables in sauce with noodles (d iet frozen meal)	15152	SHRIMP,MXD SP,CND	314.16	43.68	100.00	13.90	25.00	18.54
28355420	0	Shrimp soup, cream of, prepared with milk	15152	SHRIMP,MXD SP,CND	1,423.23	340.20	90.00	26.56	25.00	35.41
28355440	0	Shrimp gumbo	15152	SHRIMP,MXD SP,CND	2,106.20	226.80	90.00	11.96	25.00	15.95
32105230	0	Shrimp egg foo yung	15152	SHRIMP,MXD SP,CND	507.20	64.00	88.00	14.34	25.00	19.12
32105230	201815	Shrimp egg foo yung W/O FAT	15152	SHRIMP,MXD SP,CND	466.70	64.00	88.00	15.58	25.00	20.78
54406200	0	Shrimp chips (tapioca base)	15152	SHRIMP,MXD SP,CND	100.00	25.00	78.00	32.05	25.00	42.74
58100900	0	Enchilada with seafood, tomato-based sauce	15152	SHRIMP,MXD SP,CND	1,367.14	384.00	90.00	31.21	25.00	41.61
58101540	0	Taco or tostada with fish, lettuce, tomato, sa lsa	15152	SHRIMP,MXD SP,CND	76.99	15.00	100.00	19.48	25.00	25.98
58110120	0	Egg roll, with shrimp	15152	SHRIMP,MXD SP,CND	1,142.04	64.00	76.00	7.37	25.00	9.83
58112110	0	Dim sum, meat filled (egg roll-type)	15152	SHRIMP,MXD SP,CND	1,489.47	226.80	130.00	11.71	25.00	15.62
58134310	0	Stuffed shells, with fish and/or shellfish, wi th tomato sauce	15152	SHRIMP,MXD SP,CND	1,547.61	128.00	100.00	8.27	25.00	11.03
58148150	0	Macaroni salad with shrimp	15152	SHRIMP,MXD SP,CND	746.38	96.00	100.00	12.86	25.00	17.15
58148150	100831	Macaroni salad with shrimp W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	740.75	96.00	100.00	12.96	25.00	17.28
58150510	0	Rice, fried, with shrimp	15152	SHRIMP,MXD SP,CND	1,028.48	64.00	90.00	6.91	25.00	9.22
58407050	0	Instant soup, noodle with egg, shrimp or chick en	15152	SHRIMP,MXD SP,CND	99.00	1.00	85.00	1.19	25.00	1.58
72306000	0	Watercress broth with shrimp	15152	SHRIMP,MXD SP,CND	1,536.05	128.00	100.00	8.33	25.00	11.11
28355410	0	Shrimp soup, cream of, NS as to prepared with milk or water	6256P	SOUP,CRM OF SHRIMP,PREP W/MILK,COMM	597.50	301.00	100.00	50.38	.	3.78
28355410	0	Shrimp soup, cream of, NS as to prepared with milk or water	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	597.50	296.50	100.00	49.62	.	3.72
28355430	0	Shrimp soup, cream of, prepared with water	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	100.00	100.00	100.00	100.00	.	7.50
----- SPECIES=Smelts (91) -----			----- HABITAT=50% Estuarine, 50% Marine -----							
26145120	0	Smelt, baked or broiled	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	672.50	607.80	70.70	127.83	.	127.83
26145140	0	Smelt, floured or breaded, fried	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	787.05	607.80	79.20	97.51	.	97.51
26145140	100738	Smelt, floured or breaded, fried W/ CANOLA OIL	15099	Need grm wt.desc.for 1 lb.raw ylds.;recipe calls	787.05	607.80	79.20	97.51	.	97.51

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-81

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Smelts (91) ----- HABITAT=50% Estuarine, 50% Marine ----- (continued) -----										
26145110	0	Smelt, cooked, NS as to cooking method	15099	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	79.20	97.51	.	97.51
----- SPECIES=Smelts, Rainbow (115) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26145150	0	Smelt, battered, fried	15099	SMELT,RAINBOW,RAW	100.00	67.00	83.30	80.43	.	80.43
26145160	0	Smelt, steamed or poached	15099	SMELT,RAINBOW,RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Snails (92) ----- HABITAT=50% Freshwater, 50% Marine -----										
26321160	0	Snails, steamed or poached	15177	WHELK,UNSPEC,RAW	100.84	100.00	50.00	198.33	.	198.33
26321110	0	Snails, cooked, NS as to cooking method	90560	SNAIL,RAW	467.79	453.60	80.00	121.21	.	121.21
----- SPECIES=Snapper (93) ----- HABITAT=Marine -----										
27151030	0	Marinated fish (Ceviche)	15101	SNAPPER,MXD SP,RAW	636.50	339.00	97.80	54.46	.	54.46
27350110	0	Bouillabaisse	15101	SNAPPER,MXD SP,RAW	4,392.60	453.60	80.00	12.91	.	12.91
27450710	101049	Fish and vegetables (excluding carrots, brocco li, and dark- green leafy (no potatoes)), toma to-based sauce (mixture) W/ SNAPPER	15101	SNAPPER,MXD SP,RAW	1,619.65	907.20	90.00	62.24	.	62.24
58155320	0	Seafood paella, Puerto Rican style (Paella a la marinera)	15101	SNAPPER,MXD SP,RAW	1,771.00	226.80	67.40	19.00	.	19.00
----- SPECIES=Sole (94) ----- HABITAT=Marine -----										
28150240	0	Sole with vegetable (diet frozen meal)	15028	FLATFISH,RAW	215.20	113.40	80.00	65.87	.	65.87
----- SPECIES=Squid (97) ----- HABITAT=Marine -----										
26213100	0	Squid, raw	15175	SQUID,MXD SP,RAW	100.00	100.00	100.00	100.00	.	100.00
26213120	0	Squid, baked, broiled	15175	SQUID,MXD SP,RAW	706.05	680.40	80.00	120.46	.	120.46
26213120	201481	Squid, baked, broiled W/ OLIVE OIL	15175	SQUID,MXD SP,RAW	705.15	680.40	80.00	120.61	.	120.61
26213120	202157	Squid, baked, broiled W/ VEGETABLE OIL, NFS (I NCLUDE OIL, NFS)	15175	SQUID,MXD SP,RAW	705.34	680.40	80.00	120.58	.	120.58
26213140	0	Squid, breaded, fried	15175	SQUID,MXD SP,RAW	1,086.45	907.20	85.00	98.24	.	98.24
26213140	101162	Squid, breaded, fried W/ OLIVE OIL	15175	SQUID,MXD SP,RAW	1,086.45	907.20	85.00	98.24	.	98.24
26213160	0	Squid, steamed or boiled	15175	SQUID,MXD SP,RAW	100.84	100.00	86.50	114.64	.	114.64
26213170	0	Squid, dried	15175	SQUID,MXD SP,RAW	100.30	100.00	26.30	379.09	.	379.09
26213180	0	Squid, pickled	15175	SQUID,MXD SP,RAW	1,183.20	907.20	80.00	95.84	.	95.84
26213190	0	Squid, canned	15175	SQUID,MXD SP,RAW	100.60	100.00	86.50	114.92	.	114.92
58155910	0	Rice with squid, Puerto Rican style (arroz con calamares)	15175	SQUID,MXD SP,RAW	814.58	226.80	69.10	40.29	.	40.29

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-82

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Sturgeon (98) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26211100	0	Roe, sturgeon	15012	CAVIAR, BLACK/RED, GRANULAR	100.00	100.00	100.00	100.00	.	100.00
26147110	0	Sturgeon, cooked, NS as to cooking method	15104	STURGEON, MXD SP, RAW	100.84	100.00	80.00	123.96	.	123.96
26147130	0	Sturgeon, steamed	15104	STURGEON, MXD SP, RAW	100.84	100.00	80.00	123.96	.	123.96
26147140	0	Sturgeon, floured or breaded, fried	15104	STURGEON, MXD SP, RAW	1,086.45	907.20	88.00	94.89	.	94.89
26147120	0	Sturgeon, baked or broiled	15105	STURGEON, MXD SP, CKD, DRY HEAT	100.00	100.00	100.00	100.00	25.00	133.33
26147190	0	Sturgeon, smoked	15106	STURGEON, MXD SP, SMOKED	100.00	100.00	100.00	100.00	15.50	118.34
----- SPECIES=Swordfish (100) ----- HABITAT=Marine -----										
26149110	0	Swordfish, cooked, NS as to cooking method	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	844.90	780.20	76.90	120.08	.	120.08
26149120	0	Swordfish, baked or broiled	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	844.90	780.20	76.90	120.08	.	120.08
26149120	200638	Swordfish, baked or broiled W/ OLIVE OIL	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	843.70	780.20	76.90	120.25	.	120.25
26149120	201748	Swordfish, baked or broiled W/ BUTTER, NFS	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	845.08	780.20	76.90	120.06	.	120.06
26149120	203119	Swordfish, baked or broiled W/ CANOLA OIL	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	843.95	780.20	76.90	120.22	.	120.22
26149120	203287	Swordfish, baked or broiled W/ VEGETABLE OIL ( INCLUDE OIL, NFS)	15110	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	843.95	780.20	76.90	120.22	.	120.22
26149140	0	Swordfish, floured or breaded, fried	15110	SWORDFISH, RAW	1,086.45	907.20	88.00	94.89	.	94.89
26149160	0	Swordfish, steamed or poached	15110	SWORDFISH, RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Trout (103) ----- HABITAT=Freshwater -----										
26151110	0	Trout, cooked, NS as to cooking method	15240	Need grm wt.desc.for 1 lb raw ylds.; recipe calls	844.90	780.20	76.90	120.08	.	120.08
26151120	0	Trout, baked or broiled	15240	TROUT, RAINBOW, FARMED, RAW	971.90	907.20	80.00	116.68	.	116.68
26151120	100792	Trout, baked or broiled W/ BUTTER, NFS	15240	TROUT, RAINBOW, FARMED, RAW	972.08	907.20	80.00	116.66	.	116.66
26151120	200348	Trout, baked or broiled W/ OLIVE OIL	15240	TROUT, RAINBOW, FARMED, RAW	970.70	907.20	80.00	116.82	.	116.82
26151120	201266	Trout, baked or broiled W/ CANOLA, SOYBEAN AND SUNFLOWER OIL	15240	TROUT, RAINBOW, FARMED, RAW	970.95	907.20	80.00	116.79	.	116.79
26151120	202336	Trout, baked or broiled W/ CORN OIL (INCLUDE M AZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL....)	15240	TROUT, RAINBOW, FARMED, RAW	970.95	907.20	80.00	116.79	.	116.79
26151120	202836	Trout, baked or broiled W/O FAT	15240	TROUT, RAINBOW, FARMED, RAW	943.70	907.20	80.00	120.17	.	120.17
26151160	0	Trout, steamed or poached	15240	TROUT, RAINBOW, FARMED, RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Trout, mixed sp. (114) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26151140	0	Trout, floured or breaded, fried	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	83.00	97.97	.	97.97
26151140	100337	Trout, floured or breaded, fried W/ CORN OIL	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	83.00	97.97	.	97.97
26151140	101083	Trout, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS...)	15114	Need grm wt.descr.for 1 lb raw ylds.; recipe calls	959.45	780.20	83.00	97.97	.	97.97
26151130	0	Trout, breaded or battered, baked	15114	TROUT, MXD SP, RAW	1,086.45	907.20	80.00	104.38	.	104.38
26151150	0	Trout, battered, fried	15114	TROUT, MXD SP, RAW	133.00	100.00	85.00	88.46	.	88.46
26151150	202740	Trout, battered, fried W/ VEGETABLE OIL, NFS ( INCLUDE OIL, NFS)	15114	TROUT, MXD SP, RAW	133.00	100.00	85.00	88.46	.	88.46
26151190	0	Trout, smoked	15114	TROUT, MXD SP, RAW	100.50	100.00	55.80	178.32	.	178.32



**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Tuna (104) -----			----- HABITAT=Marine -----							
26153170	0	Tuna, fresh, dried	15117	TUNA, FRESH, BLUEFIN, RAW	100.00	100.00	80.00	125.00	.	125.00
26155180	0	Tuna, canned, oil pack	15119	TUNA, LT, CND, OIL, DRND	100.00	100.00	100.00	100.00	25.00	133.33
27150120	0	Tuna with cream or white sauce (mixture)	15119	TUNA, LT, CND, OIL, DRND	911.85	311.85	100.00	34.20	25.00	45.60
27250150	0	Tuna loaf	15119	TUNA, LT, CND, OIL, DRND	974.25	438.00	80.00	56.20	25.00	74.93
27250160	0	Tuna cake or patty	15119	TUNA, LT, CND, OIL, DRND	981.25	480.00	88.00	55.59	25.00	74.12
27250160	100608	Tuna cake or patty W/ MARGARINE-LIKE SPREAD, TUB, SALTED (INCLUDE PARKAY SPREAD; SHEDD'S SPREAD COUNTRY CROCK.....)	15119	TUNA, LT, CND, OIL, DRND	981.25	480.00	88.00	55.59	25.00	74.12
27250160	100905	Tuna cake or patty W/ OLIVE OIL	15119	TUNA, LT, CND, OIL, DRND	981.25	480.00	88.00	55.59	25.00	74.12
27250610	0	Tuna noodle casserole with cream or white sauce	15119	TUNA, LT, CND, OIL, DRND	1,140.59	320.00	90.00	31.17	25.00	41.56
27250610	100389	Tuna noodle casserole with cream or white sauce W/ TUNA AND SARDINES	15119	TUNA, LT, CND, OIL, DRND	1,140.59	160.00	90.00	15.59	25.00	20.78
27250610	200943	Tuna noodle casserole with cream or white sauce W/ 2% MILK AND W/ BUTTER, NFS	15119	TUNA, LT, CND, OIL, DRND	1,140.94	320.00	90.00	31.16	25.00	41.55
27250610	202688	Tuna noodle casserole with cream or white sauce W/ WHOLE MILK AND W/ BUTTER, NFS	15119	TUNA, LT, CND, OIL, DRND	1,140.94	320.00	90.00	31.16	25.00	41.55
27250610	203555	Tuna noodle casserole with cream or white sauce W/O FAT	15119	TUNA, LT, CND, OIL, DRND	1,084.19	320.00	90.00	32.79	25.00	43.73
27250630	0	Tuna noodle casserole with (mushroom) soup	15119	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	90.00	30.94	25.00	41.25
27250630	201273	Tuna noodle casserole with (mushroom) soup W/ 2% MILK AND W/ BUTTER, NFS	15119	TUNA, LT, CND, OIL, DRND	1,149.38	320.00	90.00	30.93	25.00	41.25
27250630	202216	Tuna noodle casserole with (mushroom) soup W/ WATER AND W/O FAT	15119	TUNA, LT, CND, OIL, DRND	1,117.50	320.00	90.00	31.82	25.00	42.42
27250630	202584	Tuna noodle casserole with (mushroom) soup W/ 2% MILK	15119	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	90.00	30.94	25.00	41.25
27250630	202593	Tuna noodle casserole with (mushroom) soup W/ SKIM MILK AND W/O FAT	15119	TUNA, LT, CND, OIL, DRND	1,121.50	320.00	90.00	31.70	25.00	42.27
27250630	202723	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK	15119	TUNA, LT, CND, OIL, DRND	1,149.20	320.00	90.00	30.94	25.00	41.25
27250630	203749	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK AND W/O FAT	15119	TUNA, LT, CND, OIL, DRND	1,121.00	320.00	90.00	31.72	25.00	42.29
27250710	0	Tuna and rice with (mushroom) soup (mixture)	15119	TUNA, LT, CND, OIL, DRND	871.55	160.00	90.00	20.40	25.00	27.20
27350070	0	Tuna pot pie	15119	TUNA, LT, CND, OIL, DRND	842.85	155.93	91.00	20.33	25.00	27.11
27350080	0	Tuna noodle casserole with vegetables, cream or white sauce	15119	TUNA, LT, CND, OIL, DRND	1,139.68	184.28	90.00	17.97	25.00	23.95
27350080	100388	Tuna noodle casserole with vegetables, cream or white sauce W/ CARROTS	15119	TUNA, LT, CND, OIL, DRND	1,139.68	184.28	90.00	17.97	25.00	23.95
27350410	0	Tuna noodle casserole with vegetables and (mushroom) soup	15119	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	90.00	26.39	25.00	35.19
27350410	200066	Tuna noodle casserole with vegetables and (mushroom) soup W/ 1% MILK	15119	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	90.00	26.39	25.00	35.19
27350410	203442	Tuna noodle casserole with vegetables and (mushroom) soup W/ 2% MILK	15119	TUNA, LT, CND, OIL, DRND	1,229.20	292.00	90.00	26.39	25.00	35.19
27450510	0	Tuna casserole with vegetables and (mushroom)	15119	TUNA, LT, CND, OIL, DRND	909.20	292.00	90.00	35.68	25.00	47.58

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-84

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Tuna (104) -----			----- HABITAT=Marine -----			----- (continued) -----				
58140310	0	soup, no noodles Macaroni with tuna, Puerto Rican style (Macarr ones con atun)	15119	TUNA, LT, CND, OIL, DRND	743.76	127.58	91.40	18.77	25.00	25.02
58145120	0	Macaroni or noodles with cheese and tuna	15119	TUNA, LT, CND, OIL, DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	100521	Macaroni or noodles with cheese and tuna W/ 2% MILK	15119	TUNA, LT, CND, OIL, DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	200545	Macaroni or noodles with cheese and tuna W/ SK IM MILK	15119	TUNA, LT, CND, OIL, DRND	1,102.59	188.81	90.00	19.03	25.00	25.37
58145120	201431	Macaroni or noodles with cheese and tuna W/ 1% MILK	15119	TUNA, LT, CND, OIL, DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	203026	Macaroni or noodles with cheese and tuna W/ WH OLE MILK	15119	TUNA, LT, CND, OIL, DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
26100180	0	Fish, NS as to type, canned	15121	TUNA, LT, CND, H2O, DRND	100.00	61.40	100.00	61.40	25.00	81.87
26155110	0	Tuna, canned, NS as to oil or water pack	15121	TUNA, LT, CND, H2O, DRND	100.00	100.00	100.00	100.00	25.00	133.33
26155190	0	Tuna, canned, water pack	15121	TUNA, LT, CND, H2O, DRND	100.00	100.00	100.00	100.00	25.00	133.33
27250550	0	Seafood souffle	15121	TUNA, LT, CND, H2O, DRND	599.32	49.00	94.00	8.70	25.00	11.60
27250810	0	Fish and rice with tomato-based sauce	15121	TUNA, LT, CND, H2O, DRND	854.55	167.00	90.00	21.71	25.00	28.95
27250820	0	Fish and rice with cream sauce	15121	TUNA, LT, CND, H2O, DRND	852.24	167.00	90.00	21.77	25.00	29.03
27250830	0	Fish and rice with (mushroom) soup	15121	TUNA, LT, CND, H2O, DRND	854.55	167.00	90.00	21.71	25.00	28.95
27250900	0	Fish and noodles with (mushroom) soup	15121	TUNA, LT, CND, H2O, DRND	877.05	186.50	100.00	21.26	25.00	28.35
27350090	0	Fish, noodles, and vegetables (including carrots, broccoli, and/or dark green leafy), cheese sauce (mixture)	15121	TUNA, LT, CND, H2O, DRND	1,745.50	462.00	95.00	27.86	25.00	37.15
27350100	0	Fish, noodles, and vegetables (excluding carrots, broccoli, and dark-green leafy), cheese sauce (mixture)	15121	TUNA, LT, CND, H2O, DRND	1,685.50	438.00	95.00	27.35	25.00	36.47
27450060	0	Tuna salad	15121	TUNA, LT, CND, H2O, DRND	413.97	223.97	100.00	54.10	25.00	72.14
27450060	100008	Tuna salad W/ REAL MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	410.22	223.97	100.00	54.60	25.00	72.80
27450060	100321	Tuna salad W/ ITALIAN DRESSING (INCLUDE VINEGAR AND OIL)	15121	TUNA, LT, CND, H2O, DRND	413.97	223.97	100.00	54.10	25.00	72.14
27450060	200020	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT..)	15121	TUNA, LT, CND, H2O, DRND	413.22	223.97	100.00	54.20	25.00	72.27
27450060	200099	Tuna salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121	TUNA, LT, CND, H2O, DRND	419.22	223.97	100.00	53.42	25.00	71.23
27450060	200449	Tuna salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT; HELLMANN'S CHOLESTEROL-FREE REDUCED CALORIE...)	15121	TUNA, LT, CND, H2O, DRND	412.97	223.97	100.00	54.23	25.00	72.31
27450060	200685	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	417.72	223.97	100.00	53.62	25.00	71.49
27450060	201412	Tuna salad W/ CREAMY DRESSING WITH SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE RANCH DRESSING)	15121	TUNA, LT, CND, H2O, DRND	413.97	223.97	100.00	54.10	25.00	72.14
27450060	202153	Tuna salad W/O SALAD DRESSING	15121	TUNA, LT, CND, H2O, DRND	355.22	223.97	100.00	63.05	25.00	84.07

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-85

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Tuna (104) -----			----- HABITAT=Marine -----			----- (continued) -----				
27450060	203270	Tuna salad W/ REDUCED CALORIE, FAT FREE, CHOLESTEROL FREE, CREAMY DRESSING MADE WITH SOUR CREAM AND BUTTERMILK AND/OR OIL	15121	TUNA,LT,CND,H2O,DRND	421.22	223.97	100.00	53.17	25.00	70.89
27450090	0	Tuna salad with cheese	15121	TUNA,LT,CND,H2O,DRND	485.35	223.97	100.00	46.14	25.00	61.53
27450090	100140	Tuna salad with cheese W/ REAL MAYONNAISE, W/ NATURAL CHEDDAR OR AMERICAN TYPE CHEESE AND W/ SALSA	15121	TUNA,LT,CND,H2O,DRND	481.67	223.97	100.00	46.50	25.00	62.00
27450090	100275	Tuna salad with cheese W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121	TUNA,LT,CND,H2O,DRND	484.42	223.97	100.00	46.23	25.00	61.65
27450100	0	Tuna salad with egg	15121	TUNA,LT,CND,H2O,DRND	478.65	223.97	100.00	46.79	25.00	62.39
27450100	100026	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121	TUNA,LT,CND,H2O,DRND	477.72	223.97	100.00	46.88	25.00	62.51
27450100	100039	Tuna salad with egg W/ REAL MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	473.97	223.97	100.00	47.25	25.00	63.00
27450100	100224	Tuna salad with egg W/ TOMATOES AND W/O DRESSING	15121	TUNA,LT,CND,H2O,DRND	405.22	223.97	100.00	55.27	25.00	73.69
27450100	100614	Tuna salad with egg W/ CREAMY DRESSING WITH SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE RANCH DRESSING....)	15121	TUNA,LT,CND,H2O,DRND	478.65	223.97	100.00	46.79	25.00	62.39
27450100	100959	Tuna salad with egg W/ REAL MAYONNAISE AND W/ EGG WHITES	15121	TUNA,LT,CND,H2O,DRND	473.97	223.97	100.00	47.25	25.00	63.00
27450100	100970	Tuna salad with egg W/ REDUCED-CALORIE OR DIET, CHOLESTEROL FREE, MAYONNAISE (INCLUDE KRAFT LIGHT...)	15121	TUNA,LT,CND,H2O,DRND	477.40	223.97	100.00	46.91	25.00	62.55
27450100	200455	Tuna salad with egg W/ CHOLESTEROL-FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP CHOLESTEROL FREE...)	15121	TUNA,LT,CND,H2O,DRND	479.90	223.97	100.00	46.67	25.00	62.23
27450100	201154	Tuna salad with egg W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121	TUNA,LT,CND,H2O,DRND	485.22	223.97	100.00	46.16	25.00	61.54
27450100	201509	Tuna salad with egg W/ REDUCED CALORIE CREAMY DRESSING W/ SOUR CREAM AND/OR BUTTERMILK AND OIL (INCLUDE LIGHT RANCH DRESSING)	15121	TUNA,LT,CND,H2O,DRND	481.78	223.97	100.00	46.49	25.00	61.98
27450100	202694	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	483.34	223.97	100.00	46.34	25.00	61.78
27550710	0	Tuna salad sandwich, with lettuce	15121	TUNA,LT,CND,H2O,DRND	167.26	57.75	100.00	34.53	25.00	46.04
27550710	100003	Tuna salad sandwich, with lettuce W/ REDUCED CALORIE AND/OR HIGH FIBER WHEAT OR CRACKED WHEAT BREAD AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT...)	15121	TUNA,LT,CND,H2O,DRND	171.06	57.75	100.00	33.76	25.00	45.01
27550710	200508	Tuna salad sandwich, with lettuce W/ PITA BREAD	15121	TUNA,LT,CND,H2O,DRND	160.26	57.75	100.00	36.03	25.00	48.05

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-86

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Tuna (104) -----			----- HABITAT=Marine -----			(continued)				
27550720	0	Tuna salad sandwich	15121	TUNA,LT,CND,H2O,DRND	157.26	57.75	100.00	36.72	25.00	48.96
27550720	100053	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD	15121	TUNA,LT,CND,H2O,DRND	161.26	57.75	100.00	35.81	25.00	47.75
27550720	100054	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD AND W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121	TUNA,LT,CND,H2O,DRND	162.56	57.75	100.00	35.52	25.00	47.37
27550720	100241	Tuna salad sandwich W/ WHOLE WHEAT ROLL, NS AS TO 100%	15121	TUNA,LT,CND,H2O,DRND	148.26	57.75	100.00	38.95	25.00	51.93
27550720	100466	Tuna salad sandwich W/ WHEAT OR CRACKED WHEAT BREAD	15121	TUNA,LT,CND,H2O,DRND	155.26	57.75	100.00	37.19	25.00	49.59
27550720	100844	Tuna salad sandwich W/ REAL MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	156.36	57.75	100.00	36.93	25.00	49.24
27550720	200109	Tuna salad sandwich W/ WHOLE WHEAT BREAD, OTHER THAN 100%, OR NS AS TO 100% AND W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT...)	15121	TUNA,LT,CND,H2O,DRND	157.06	57.75	100.00	36.77	25.00	49.02
27550720	200949	Tuna salad sandwich W/ REDUCED CALORIE OR DIET CHOLESTEROL-FREE MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	157.16	57.75	100.00	36.75	25.00	48.99
27550720	201529	Tuna salad sandwich W/ WHOLE WHEAT BREAD, OTHER THAN 100% OR NS AS TO 100%	15121	TUNA,LT,CND,H2O,DRND	157.26	57.75	100.00	36.72	25.00	48.96
27550720	202074	Tuna salad sandwich W/ RYE BREAD	15121	TUNA,LT,CND,H2O,DRND	157.26	57.75	100.00	36.72	25.00	48.96
27550720	202823	Tuna salad sandwich W/ RYE BREAD AND W/ REAL MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	156.36	57.75	100.00	36.93	25.00	49.24
27570310	0	Hors d'oeuvres, with spread	15121	TUNA,LT,CND,H2O,DRND	631.03	184.28	100.00	29.20	25.00	38.94
58120110	0	Crepes, filled with meat, fish, or poultry, with sauce	15121	TUNA,LT,CND,H2O,DRND	1,559.07	167.00	90.00	11.90	25.00	15.87
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121	TUNA,LT,CND,H2O,DRND	1,559.07	140.00	90.00	9.98	25.00	13.30
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121	TUNA,LT,CND,H2O,DRND	1,559.07	140.00	90.00	9.98	25.00	13.30
58120110	101081	Crepes, filled with meat, fish, or poultry, with sauce W/ ALL TUNA	15121	TUNA,LT,CND,H2O,DRND	1,559.07	167.00	90.00	11.90	25.00	15.87
58134310	0	Stuffed shells, with fish and/or shellfish, with tomato sauce	15121	TUNA,LT,CND,H2O,DRND	1,547.61	154.00	100.00	9.95	25.00	13.27
58148130	0	Macaroni salad with tuna	15121	TUNA,LT,CND,H2O,DRND	765.88	115.50	100.00	15.08	25.00	20.11
58148130	202070	Macaroni salad with tuna W/ REAL MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	760.25	115.50	100.00	15.19	25.00	20.26
58148130	202491	Macaroni salad with tuna W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121	TUNA,LT,CND,H2O,DRND	764.75	115.50	100.00	15.10	25.00	20.14
58148160	0	Macaroni salad with tuna and egg	15121	TUNA,LT,CND,H2O,DRND	996.75	167.00	100.00	16.75	25.00	22.34
58148160	201511	Macaroni salad with tuna and egg W/ REAL MAYONNAISE	15121	TUNA,LT,CND,H2O,DRND	989.25	167.00	100.00	16.88	25.00	22.51
27450190	100411	Seafood garden salad with seafood, tomato and/or carrots, other vegetables, no dressing W/ ALL TUNA	15121N	(26155110) TUNA,LT,CND,H2O,DRND	100.00	30.00	100.00	30.00	25.00	40.00
58301130	0	Tuna lasagna (diet frozen meal)	15121N	(26155190) TUNA,LT,CND,H2O,DRND	340.18	34.02	100.00	10.00	25.00	13.33

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Tuna (104) ----- HABITAT=Marine ----- (continued) -----										
27550750	0	Tuna salad submarine sandwich, on roll, with 1 ettuce	15121N	(27450060) TUNA,LT,CND,H2O,DRND	213.00	56.27	100.00	26.42	.	26.42
27550750	203516	Tuna salad submarine sandwich, on roll, with 1 ettuce W/ WHOLE WHEAT ROLL, NS AS TO 100%	15121N	(27450060) TUNA,LT,CND,H2O,DRND	213.00	56.27	100.00	26.42	.	26.42
26100180	0	Fish, NS as to type, canned	15126	TUNA,CND,H2ODRND,WHITE MEAT	100.00	13.70	100.00	13.70	25.00	18.27
26153100	0	Tuna, fresh, raw	15127	TUNA,YELLOWFIN,RAW	100.00	100.00	100.00	100.00	.	100.00
26153110	0	Tuna, fresh, cooked, NS as to cooking method	15127	TUNA,YELLOWFIN,RAW	971.90	907.20	80.00	116.68	.	116.68
26153120	0	Tuna, fresh, baked or broiled	15127	TUNA,YELLOWFIN,RAW	971.90	907.20	80.00	116.68	.	116.68
26153120	100869	Tuna, fresh, baked or broiled W/ SOYBEAN OIL	15127	TUNA,YELLOWFIN,RAW	970.95	907.20	80.00	116.79	.	116.79
26153120	200865	Tuna, fresh, baked or broiled W/ CORN OIL	15127	TUNA,YELLOWFIN,RAW	970.95	907.20	80.00	116.79	.	116.79
26153120	201598	Tuna, fresh, baked or broiled W/ OLIVE OIL	15127	TUNA,YELLOWFIN,RAW	970.70	907.20	80.00	116.82	.	116.82
26153120	202429	Tuna, fresh, baked or broiled W/O FAT OR W/ NO NSTICK SPRAY (INCLUDE PAM...)	15127	TUNA,YELLOWFIN,RAW	943.70	907.20	80.00	120.17	.	120.17
26153120	203213	Tuna, fresh, baked or broiled W/ VEGETABLE OIL , NFS (INCLUDE OIL, NFS)	15127	TUNA,YELLOWFIN,RAW	970.95	907.20	80.00	116.79	.	116.79
26153140	0	Tuna, fresh, floured or breaded, fried	15127	TUNA,YELLOWFIN,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26153160	0	Tuna, fresh, steamed or poached	15127	TUNA,YELLOWFIN,RAW	100.00	100.00	79.00	126.58	.	126.58
58151130	100733	Sushi, with vegetables and fish W/ TUNA	15127N	(26153100) TUNA,YELLOWFIN,RAW	2,394.40	302.55	90.00	14.04	.	14.04
26153190	0	Tuna, fresh, smoked	15201	Tuna,fresh,smoked	100.00	100.00	100.00	100.00	20.60	125.94
----- SPECIES=Whitefish (109) ----- HABITAT=50% Freshwater, 50% Marine -----										
27250060	0	Gefilte fish	15130	WHITEFISH,MXD SP,RAW	6,161.70	2,268.00	100.00	36.81	.	36.81
26100190	0	Fish, NS as to type, smoked	15131	WHITEFISH,MXD SP,SMOKED	99.90	13.40	100.00	13.41	5.20	14.15
----- SPECIES=Whiting (110) ----- HABITAT=Marine -----										
26100100	0	Fish, NS as to type, raw	15132	WHITING,MXD SP,RAW	100.00	6.90	100.00	6.90	.	6.90
26100130	0	Fish, NS as to type, breaded or battered, bake d	15132	WHITING,MXD SP,RAW	1,171.58	62.60	80.00	6.68	.	6.68
26100140	0	Fish, NS as to type, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100140	100854	Fish, NS as to type, floured or breaded, fried W/ SOYBEAN OIL	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100150	0	Fish, NS as to type, battered, fried	15132	WHITING,MXD SP,RAW	133.00	6.90	88.00	5.90	.	5.90
26157110	0	Whiting, cooked, NS as to cooking method	15132	WHITING,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26157120	0	Whiting, baked or broiled	15132	WHITING,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26157120	200509	Whiting, baked or broiled W/ CORN OIL	15132	WHITING,MXD SP,RAW	970.95	907.20	80.00	116.79	.	116.79
26157120	201895	Whiting, baked or broiled W/O FAT OR W/ NONSTI CK SPRAY (INCLUDE PAM...)	15132	WHITING,MXD SP,RAW	943.70	907.20	80.00	120.17	.	120.17
26157120	202454	Whiting, baked or broiled W/ BUTTER, NFS	15132	WHITING,MXD SP,RAW	972.08	907.20	80.00	116.66	.	116.66
26157120	203222	Whiting, baked or broiled W/ VEGETABLE OIL, NF S (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	970.95	907.20	80.00	116.79	.	116.79
26157130	0	Whiting, breaded or battered, baked	15132	WHITING,MXD SP,RAW	1,171.05	907.20	80.00	96.84	.	96.84

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-88

**TABLE A-4. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1994-1996 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Whiting (110) ----- HABITAT=Marine ----- (continued) -----										
26157140	0	Whiting, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157140	100494	Whiting, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157140	100603	Whiting, floured or breaded, fried W/ CANOLA, SOYBEAN, AND SUNFLOWER OIL	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157140	202630	Whiting, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157150	0	Whiting, battered, fried	15132	WHITING,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46
26157150	100778	Whiting, battered, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS;...)	15132	WHITING,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46
26157150	203463	Whiting, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46
26157160	0	Whiting, steamed or poached	15132	WHITING,MXD SP,RAW	100.00	100.00	79.00	126.58	.	126.58
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15132N	(26100150) WHITING,MXD SP,RAW	224.80	6.30	100.00	3.18	12.00	3.62
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15133	WHITING,MXD SP,CKD, DRY HEAT	100.84	6.90	100.00	6.84	25.00	9.12
26100120	0	Fish, NS as to type, baked or broiled	15133	WHITING,MXD SP,CKD, DRY HEAT	972.08	62.60	100.00	6.44	25.00	8.59
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15133	WHITING,MXD SP,CKD, DRY HEAT	972.08	62.60	100.00	6.44	25.00	8.59
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15133	Whiting,mixed species,cooked,dry heat	970.95	62.60	100.00	6.45	25.00	8.60
26100120	200986	Fish, NS as to type, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS. ...)	15133	Whiting,mixed species,cooked,dry heat	970.95	62.60	100.00	6.45	25.00	8.60

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-89

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Anchovy (4) ----- HABITAT=Estuarine -----										
72116140	0	Caesar salad (with romaine)	15002	ANCHOVY,EUROPEAN,CND,OIL,DRND	694.43	24.00	100.00	3.46	25.00	4.61
----- SPECIES=Carp (18) ----- HABITAT=Freshwater -----										
26105140	101175	Carp, floured or breaded, fried W/ SOYBEAN OIL	15008	1 lb raw,dressed carp ylds 313g after ckg w/added	805.25	626.00	79.40	97.91	.	97.91
26105140	0	Carp, floured or breaded, fried	15008	CARP,RAW	805.25	626.00	79.40	97.91	.	97.91
----- SPECIES=Catfish (19) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26107140	100431	Catfish, floured or breaded, fried W/ LARD	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	100436	Catfish, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WE SSON CORN OIL)	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	101201	Catfish, floured or breaded, fried W/ CANOLA OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107140	202918	Catfish, floured or breaded, fried W/ SOYBEAN OIL	15234	1 lb raw,dressed catfish ylds 308g after ckg w/add	795.25	616.00	79.20	97.80	.	97.80
26107120	0	Catfish, baked or broiled	15234	CATFISH,CHANNEL,FARMED,RAW	680.70	616.00	71.10	127.28	.	127.28
26107120	202363	Catfish, baked or broiled W/ BUTTER, NFS	15234	CATFISH,CHANNEL,FARMED,RAW	680.88	616.00	71.10	127.25	.	127.25
26107120	202879	Catfish, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	679.75	616.00	71.10	127.46	.	127.46
26107130	0	Catfish, breaded or battered, baked	15234	CATFISH,CHANNEL,FARMED,RAW	879.85	616.00	73.10	95.78	.	95.78
26107140	0	Catfish, floured or breaded, fried	15234	CATFISH,CHANNEL,FARMED,RAW	795.25	616.00	79.20	97.80	.	97.80
26107140	100387	Catfish, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	795.25	616.00	79.20	97.80	.	97.80
26107150	0	Catfish, battered, fried	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
26107150	201662	Catfish, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15234	CATFISH,CHANNEL,FARMED,RAW	100.00	67.00	83.30	80.43	.	80.43
----- SPECIES=Cisco (21) ----- HABITAT=Freshwater -----										
26100190	0	Fish, NS as to type, smoked	15014	CISCO,SMOKED	99.90	11.60	100.00	11.61	30.23	16.64
----- SPECIES=Clam (22) ----- HABITAT=2.61% Estuarine, 97.39% Marine -----										
26303140	0	Clams, floured or breaded, fried	15157	CLAM,MXD SP,RAW	1,085.75	908.00	85.00	98.39	.	98.39
26303140	100977	Clams, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15157	CLAM,MXD SP,RAW	1,085.75	908.00	85.00	98.39	.	98.39
26303150	0	Clams, battered, fried	15157	CLAM,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
27350110	0	Bouillabaisse	15157	CLAM,MXD SP,RAW	4,392.60	226.80	80.00	6.45	.	6.45
27250210	0	Clam cake or patty	15160	CLAM,MXD SP,CND,DRND	779.30	396.90	88.60	57.48	25.00	76.64
58132820	0	Spaghetti with white clam sauce	15160	CLAM,MXD SP,CND,DRND	767.10	226.80	100.00	29.57	25.00	39.42
28350210	0	Clam chowder, NS as to Manhattan or New England style	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	100.00	12.50	80.00	15.63	.	1.17
28350220	0	Clam chowder, Manhattan	6027P	SOUP,MANHATTAN CLAM CHOWDER,CHUNKY,RTS	200.00	100.00	100.00	50.00	.	3.75

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-89

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Weight (grams)	Weight (grams)	% Yield	C_GUI	due to process.	Fish in Recipe
----- SPECIES=Clam (22) ----- HABITAT=2.61% Estuarine, 97.39% Marine ----- (continued) -----										
28355120	0	Clam chowder, New England, prepared with milk	6030P	SOUP,CLAM CHOWDER,NEW ENG,CND,COND	602.00	305.00	100.00	50.66	25.00	3.80
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	50.00	80.00	62.50	.	4.69
28355110	0	Clam chowder, New England, NS as to prepared w ith water or milk	6230P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/MILK	100.00	100.00	100.00	100.00	.	7.50
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	100.00	12.50	80.00	15.63	.	1.17
28350220	0	Clam chowder, Manhattan	6428P	SOUP,CLAM CHOWDER,MANHATTAN,PREP W/H2O	200.00	100.00	100.00	50.00	.	3.75
28350210	0	Clam chowder, NS as to Manhattan or New Englan d style	6430P	SOUP,CLAM CHOWDER,NEW ENG,PREP W/H2O,COMM	100.00	25.00	80.00	31.25	.	2.34
----- SPECIES=Cod (23) ----- HABITAT=Marine -----										
26100130	0	Fish, NS as to type, breaded or battered, bake d	15015	COD,ATLANTIC,RAW	1,171.58	204.10	80.00	21.78	.	21.78
26100140	0	Fish, NS as to type, floured or breaded, fried	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15015	COD,ATLANTIC,RAW	1,086.45	204.10	88.00	21.35	.	21.35
26100150	0	Fish, NS as to type, battered, fried	15015	COD,ATLANTIC,RAW	133.00	22.50	88.00	19.22	.	19.22
28350050	0	Fish chowder	15015	COD,ATLANTIC,RAW	1,395.85	453.60	80.00	40.62	.	40.62
28351110	0	Fish and vegetable soup, no potatoes (Sopa de pescado)	15015	COD,ATLANTIC,RAW	1,995.64	453.60	85.00	26.74	.	26.74
28355450	0	Seafood soup with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy)	15015	COD,ATLANTIC,RAW	2,953.00	907.20	85.00	36.14	.	36.14
28355460	0	Seafood soup with potatoes and vegetables (exc luding carrots, broccoli, and dark-green leafy )	15015	COD,ATLANTIC,RAW	2,960.20	907.20	85.00	36.05	.	36.05
28355470	0	Seafood soup with vegetables (including carrot s, broccoli, and/or dark-green leafy (no potat oes))	15015	COD,ATLANTIC,RAW	2,953.00	907.20	85.00	36.14	.	36.14
28355480	0	Seafood soup with vegetables (excluding carrot s, broccoli, and dark-green leafy (no potatoes )	15015	COD,ATLANTIC,RAW	2,925.40	907.20	85.00	36.48	.	36.48
28150610	0	Fish, batter-dipped or fish cake, with vegetab le, potatoes (frozen meal)	15015N	(26100150) COD,ATLANTIC,RAW	224.80	20.54	100.00	10.38	12.00	11.80
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15016	COD,ATLANTIC,CKD,DRY HEAT	100.84	22.50	100.00	22.31	25.00	29.75
26100120	0	Fish, NS as to type, baked or broiled	15016	COD,ATLANTIC,CKD,DRY HEAT	972.08	204.10	100.00	21.00	25.00	28.00
26100120	200264	Fish, NS as to type, baked or broiled W/ R, NFS	15016	COD,ATLANTIC,CKD,DRY HEAT	972.08	204.10	100.00	21.00	25.00	28.00
26100120	200968	Fish, NS as to type, baked or broiled W/ ABLE OIL, NFS (INCLUDE OIL, NFS)	15016	COD,ATLANTIC,CKD,DRY HEAT	970.95	204.10	100.00	21.02	25.00	28.03
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-90**



**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

----- SPECIES=Cod (23) ----- HABITAT=Marine ----- (continued) -----										
27250030	204844	Codfish ball or cake W/ VEGETABLE OIL, NFS (IN CLUDE OIL, NFS	15017	COD,ATLANTIC,CND	898.15	396.90	88.00	50.22	25.00	66.96
27250050	0	Fish cake or patty, NS as to fish	15017	COD,ATLANTIC,CND	898.15	396.90	88.00	50.22	25.00	66.96
26100170	0	Fish, NS as to type, dried	15018	COD,ATLANTIC,DRIED&SALTED	100.00	100.00	100.00	100.00	80.01	500.25
26109120	0	Cod, baked or broiled	15019	COD,PACIFIC,RAW	971.90	907.20	80.00	116.68	.	116.68
26109120	201359	Cod, baked or broiled W/ VEGETABLE OIL, NFS (I NCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	970.95	907.20	80.00	116.79	.	116.79
26109120	202670	Cod, baked or broiled W/ BUTTER, NFS	15019	COD,PACIFIC,RAW	972.08	907.20	80.00	116.66	.	116.66
26109120	203510	Cod, baked or broiled W/ OLIVE OIL	15019	COD,PACIFIC,RAW	970.70	907.20	80.00	116.82	.	116.82
26109130	0	Cod, breaded or battered, baked	15019	COD,PACIFIC,RAW	1,171.05	907.20	80.00	96.84	.	96.84
26109130	201574	Cod, breaded or battered, baked W/O FAT OR W/ NONSTICK SPRAY (INCLUDE PAM...)	15019	COD,PACIFIC,RAW	1,086.45	907.20	80.00	104.38	.	104.38
26109140	0	Cod, floured or breaded, fried	15019	COD,PACIFIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26109140	204165	Cod, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26109150	0	Cod, battered, fried	15019	COD,PACIFIC,RAW	133.00	100.00	85.00	88.46	.	88.46
26109150	101070	Cod, battered, fried W/ VEGETABLE OIL (INCLUDE OIL, NFS)	15019	COD,PACIFIC,RAW	133.00	100.00	85.00	88.46	.	88.46
26109160	0	Cod, steamed or poached	15019	COD,PACIFIC,RAW	100.00	100.00	80.00	125.00	.	125.00
26109120	201495	Cod, baked or broiled W/ PEANUT OIL	15019	Cod,Pacific,raw	970.70	907.20	80.00	116.82	.	116.82
26100130	0	Fish, NS as to type, breaded or battered, baked	15066	POLLOCK,WALLEYE,RAW	1,171.58	437.30	80.00	46.66	.	46.66
26100140	0	Fish, NS as to type, floured or breaded, fried	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15066	POLLOCK,WALLEYE,RAW	1,086.45	437.30	88.00	45.74	.	45.74
26100150	0	Fish, NS as to type, battered, fried	15066	POLLOCK,WALLEYE,RAW	133.00	48.20	88.00	41.18	.	41.18
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15066N	(26100150) POLLOCK,WALLEYE,RAW	224.80	44.00	100.00	22.24	12.00	25.27
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	100.84	48.20	100.00	47.80	25.00	63.73
26100120	0	Fish, NS as to type, baked or broiled	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	100.00	44.99	25.00	59.98
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	972.08	437.30	100.00	44.99	25.00	59.98
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15067	POLLOCK,WALLEYE,CKD,DRY HEAT	970.95	437.30	100.00	45.04	25.00	60.05

----- SPECIES=Crab (24) ----- HABITAT=46.83% Estuarine, 53.17% Marine -----										
26305110	0	Crab, cooked, NS as to cooking method	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26305160	0	Crab, hard shell, steamed	15140	CRAB,BLUE,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
27150130	0	Seafood newburg	15140	CRAB,BLUE,CKD,MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
27250040	0	Crab cake	15140	CRAB,BLUE,CKD,MOIST HEAT	551.80	453.60	80.00	102.75	25.00	137.01
27250040	204665	Crab cake W/O FAT	15140	CRAB,BLUE,CKD,MOIST HEAT	523.60	453.60	80.00	108.29	25.00	144.39

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
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----- SPECIES=Crab (24) ----- HABITAT=46.83% Estuarine, 53.17% Marine ----- (continued) -----										
27464000	0	Gumbo, no rice (New Orleans type with shellfish)	15140	CRAB,BLUE,CKD,MOIST HEAT	3,548.33	67.50	75.00	2.54	25.00	3.38

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-91**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

58148140	0	h, pork, and/or poultry, tomatoes, okra)																		
		Macaroni salad with crab meat	15140	CRAB,BLUE,CKD,MOIST HEAT		751.63	101.25	100.00	13.47	25.00	17.96									
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15141	CRAB,BLUE,CND		76.99	15.00	100.00	19.48	25.00	25.98									
----- SPECIES=Croaker (27) ----- HABITAT=Estuarine -----																				
26111140	0	Croaker, floured or breaded, fried	15020	CROAKER,ATLANTIC,RAW		705.45	526.20	76.80	97.12	.	97.12									
----- SPECIES=Fish (35) ----- HABITAT=Unknown -----																				
26100210	0	Fish stick, patty, or fillet, NS as to type, cooked, NS as to cooking method	15027	FISH PORTIONS & STK,FRZ,REHTD		100.00	100.00	100.00	100.00	25.00	133.33									
26100220	0	Fish stick, patty, or fillet, NS as to type, baked or broiled	15027	FISH PORTIONS & STK,FRZ,REHTD		100.00	100.00	100.00	100.00	25.00	133.33									
26100230	0	Fish stick, patty, or fillet, NS as to type, readed or battered, baked	15027	FISH PORTIONS & STK,FRZ,REHTD		100.00	100.00	100.00	100.00	25.00	133.33									
72308000	0	Dark-green leafy vegetable soup with meat, Oriental style	6179P	SAUCE,FISH,RTS		1,319.63	33.63	100.00	2.55	.	0.19									
----- SPECIES=Flatfish (37) ----- HABITAT=84.23% Estuarine, 15.77% Marine -----																				
26100130	0	Fish, NS as to type, breaded or battered, baked	15028	FLATFISH,RAW		1,171.58	138.80	80.00	14.81	.	14.81									
26100140	0	Fish, NS as to type, floured or breaded, fried	15028	FLATFISH,RAW		1,086.45	138.80	88.00	14.52	.	14.52									
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW		1,086.45	138.80	88.00	14.52	.	14.52									
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15028	FLATFISH,RAW		1,086.45	138.80	88.00	14.52	.	14.52									
26100150	0	Fish, NS as to type, battered, fried	15028	FLATFISH,RAW		133.00	15.30	88.00	13.07	.	13.07									
27150310	0	Fish with tomato-based sauce (mixture)	15028	FLATFISH,RAW		694.50	453.60	80.00	81.64	.	81.64									
27150310	101137	Fish with tomato-based sauce (mixture) W/ CANOLA OIL	15028	FLATFISH,RAW		694.03	453.60	80.00	81.70	.	81.70									
27150310	203262	Fish with tomato-based sauce (mixture) W/O FAT	15028	FLATFISH,RAW		680.40	453.60	80.00	83.33	.	83.33									
27150310	204185	Fish with tomato-based sauce (mixture) W/ CORN OIL	15028	FLATFISH,RAW		694.03	453.60	80.00	81.70	.	81.70									
27450700	204770	Fish and vegetables (including carrots, broccoli, and/or dark-green leafy (no potatoes)), tomato-based sauce (mixture) W/ PALM OIL	15028	FLATFISH,RAW		1,603.45	907.20	90.00	62.86	.	62.86									
27450710	0	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)	15028	FLATFISH,RAW		1,619.65	907.20	90.00	62.24	.	62.24									
27450710	203868	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture)	15028	FLATFISH,RAW		1,618.70	907.20	90.00	62.27	.	62.27									
											% moist.	% of								
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	Yield %	C_GUI	Loss due to process.	Uncooked in Recipe										
----- SPECIES=Flatfish (37) ----- HABITAT=84.23% Estuarine, 15.77% Marine ----- (continued) -----																				
27550000	0	Fish sandwich, on bun, with spread	15028	FLATFISH,RAW	148.60	57.60	94.50	41.02	.	41.02										
27550000	100769	Fish sandwich, on bun, with spread REMOVED EAD	15028	FLATFISH,RAW	133.60	57.60	94.50	45.62	.	45.62										

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-92

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15028N	(26100150) FLATFISH,RAW	224.80	13.97	100.00	7.06	12.00	8.02
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	100.84	15.30	100.00	15.17	25.00	20.23
26100120	0	Fish, NS as to type, baked or broiled	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	100.00	14.28	25.00	19.04
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	972.08	138.80	100.00	14.28	25.00	19.04
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15029	FLATFISH (FLOUNDER & SOLE SP),CKD,DRY HEAT	970.95	138.80	100.00	14.30	25.00	19.06
----- SPECIES=Flounder (38) ----- HABITAT=Estuarine -----										
26115120	0	Flounder, baked or broiled	15028	FLATFISH,RAW	971.90	907.20	80.00	116.68	.	116.68
26115120	200995	Flounder, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	970.95	907.20	80.00	116.79	.	116.79
26115120	201280	Flounder, baked or broiled W/ OLIVE OIL	15028	FLATFISH,RAW	970.70	907.20	80.00	116.82	.	116.82
26115120	201381	Flounder, baked or broiled W/ BUTTER, NFS	15028	FLATFISH,RAW	972.08	907.20	80.00	116.66	.	116.66
26115120	203954	Flounder, baked or broiled W/ REAL MAYONNAISE	15028	FLATFISH,RAW	971.20	907.20	80.00	116.76	.	116.76
26115130	204063	Flounder, breaded or battered, baked W/ MARGARINE-LIKE SPREAD, REDUCED CALORIE, ABOUT 40% FAT, TUB, SALTED (INCLUDE COUNTRY CROCK LIGHT...)	15028	FLATFISH,RAW	1,173.45	907.20	80.00	96.64	.	96.64
26115140	0	Flounder, floured or breaded, fried	15028	FLATFISH,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26115150	201594	Flounder, battered, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15028	FLATFISH,RAW	133.00	100.00	88.00	85.44	.	85.44
26115150	204298	Flounder, battered, fried W/ CANOLA OIL	15028	FLATFISH,RAW	133.00	100.00	88.00	85.44	.	85.44
26115160	0	Flounder, steamed or poached	15028	FLATFISH,RAW	100.00	100.00	80.00	125.00	.	125.00
----- SPECIES=Haddock (41) ----- HABITAT=Marine -----										
26117110	0	Haddock, cooked, NS as to cooking method	15033	HADDOCK,RAW	972.95	907.20	80.00	116.55	.	116.55
26117120	0	Haddock, baked or broiled	15033	HADDOCK,RAW	972.95	907.20	80.00	116.55	.	116.55
26117120	201554	Haddock, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15033	HADDOCK,RAW	972.00	907.20	80.00	116.67	.	116.67
26117120	201747	Haddock, baked or broiled W/ BUTTER, NFS	15033	HADDOCK,RAW	973.13	907.20	80.00	116.53	.	116.53
26117130	0	Haddock, breaded or battered, baked	15033	HADDOCK,RAW	1,171.58	907.20	80.00	96.79	.	96.79
26117130	202751	Haddock, breaded or battered, baked W/O FAT	15033	HADDOCK,RAW	1,086.45	907.20	80.00	104.38	.	104.38
26117140	0	Haddock, floured or breaded, fried	15033	HADDOCK,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26117150	0	Haddock, battered, fried	15033	HADDOCK,RAW	133.00	100.00	85.00	88.46	.	88.46
----- SPECIES=Halibut (43) ----- HABITAT=Marine -----										
27350110	0	Bouillabaisse	15036	HALIBUT,ATLANTIC&PACIFIC,RAW	4,392.60	453.60	80.00	12.91	.	12.91
----- SPECIES=Herring (44) ----- HABITAT=Estuarine -----										
26119140	0	Herring, floured or breaded, fried	15039	HERRING,ATLANTIC,RAW	787.05	607.80	79.20	97.51	.	97.51
----- SPECIES=Lobster (47) ----- HABITAT=Marine -----										

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	Yield %	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
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Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-93**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

27350110	0	Bouillabaisse	15147	LOBSTER,NORTHERN,RAW	4,392.60	226.80	80.00	6.45	.	6.45
26311110	0	Lobster, cooked, NS as to cooking method	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
26311160	0	Lobster, steamed or boiled	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	100.84	100.00	100.00	99.17	25.00	132.22
27150060	0	Lobster newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	340.20	80.00	45.75	25.00	61.00
27150130	0	Seafood newburg	15148	LOBSTER,NORTHERN,CKD,MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
----- SPECIES=Mackerel (49) ----- HABITAT=Marine -----										
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15046	MACKEREL,ATLANTIC,RAW	1,086.90	302.55	88.00	31.63	.	31.63
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15050	MACKEREL,PACIFIC&JACK,MXD SP,RAW	1,086.90	302.55	88.00	31.63	.	31.63
26121140	204690	Mackerel, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15051	MACKEREL,SPANISH,RAW	1,086.90	302.55	88.00	31.63	.	31.63
----- SPECIES=Mullet (52) ----- HABITAT=Estuarine -----										
26123160	0	Mullet, steamed or poached	15055	MULLET,STRIPED,RAW	100.00	100.00	79.00	126.58	.	126.58
----- SPECIES=Mussels (53) ----- HABITAT=Marine -----										
26313160	0	Mussels, steamed or poached	15164	MUSSEL,BLUE,RAW	100.84	100.00	50.00	198.33	.	198.33
27350110	0	Bouillabaisse	15164	MUSSEL,BLUE,RAW	4,392.60	226.80	80.00	6.45	.	6.45
----- SPECIES=Ocean Perch (54) ----- HABITAT=Marine -----										
26125120	0	Ocean perch, baked or broiled	15057	OCEAN PERCH,ATLANTIC,RAW	971.90	907.20	80.00	116.68	.	116.68
26125120	201950	Ocean perch, baked or broiled W/ BUTTER, NFS	15057	OCEAN PERCH,ATLANTIC,RAW	972.08	907.20	80.00	116.66	.	116.66
26125130	0	Ocean perch, breaded or battered, baked	15057	OCEAN PERCH,ATLANTIC,RAW	1,128.75	907.20	80.00	100.47	.	100.47
26125140	0	Ocean perch, floured or breaded, fried	15057	OCEAN PERCH,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
----- SPECIES=Oyster (59) ----- HABITAT=Estuarine -----										
26315140	0	Oysters, floured or breaded, fried	15167	OYSTER,EASTERN,WILD,RAW	1,086.45	907.20	88.00	94.89	.	94.89
27464000	0	Gumbo, no rice (New Orleans type with shellfish, pork, and/or poultry, tomatoes, okra)	15167	OYSTER,EASTERN,WILD,RAW	3,548.33	186.00	75.00	6.99	.	6.99
28355310	101214	Oyster stew W/ MARGARINE, NFS	15167	OYSTER,EASTERN,WILD,RAW	1,538.51	496.00	94.00	34.30	.	34.30
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Perch (60) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26127140	100971	Perch, floured or breaded, fried W/ CANOLA OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	101178	Perch, floured or breaded, fried W/ SOYBEAN OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127140	101192	Perch, floured or breaded, fried W/ PEANUT OIL	15060	Need gram wt.descr for 1 lb raw ylds...;recipe cal	732.65	553.40	77.70	97.21	.	97.21
26127120	0	Perch, baked or broiled	15060	PERCH,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26127120	200860	Perch, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15060	PERCH,MXD SP,RAW	970.95	907.20	80.00	116.79	.	116.79
26127120	203332	Perch, baked or broiled W/O FAT	15060	PERCH,MXD SP,RAW	943.70	907.20	80.00	120.17	.	120.17
26127130	0	Perch, breaded or battered, baked	15060	PERCH,MXD SP,RAW	1,128.75	907.20	80.00	100.47	.	100.47
26127150	0	Perch, battered, fried	15060	PERCH,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46
26127150	204693	Perch, battered, fried W/ VEGETABLE OIL, NFS (	15060	PERCH,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-94

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

INCLUDE OIL, NFS)

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
----- SPECIES=Pollock (64) ----- HABITAT=Marine -----										
26100240	0	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26100240	101130	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26100240	204083	Fish stick, patty, or fillet, NS as to type, f 15065 loured or breaded, fried W/ CORN OIL	15065	POLLOCK,ATLANTIC,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26100250	0	Fish stick, patty, or fillet, NS as to type, b 15065 attered, fried	15065	POLLOCK,ATLANTIC,RAW	133.00	100.00	88.00	85.44	.	85.44
27250520	0	Seafood restructured	15065	POLLOCK,ATLANTIC,RAW	148.00	100.00	100.00	67.57	.	67.57
58111200	0	Puffs, fried, crab meat and cream cheese fille d	15065N	(27250520) POLLOCK,ATLANTIC,RAW	892.90	110.68	76.00	16.31	.	16.31
----- SPECIES=Pompano (65) ----- HABITAT=Marine -----										
26131120	204584	Pompano, baked or broiled W/ OLIVE OIL	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	671.30	607.80	70.70	128.06	.	128.06
26131140	100951	Pompano, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WE SSON CORN OIL)	15068	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	787.05	607.80	79.20	97.51	.	97.51
26131110	0	Pompano, cooked, NS as to cooking method	15068	POMPANO,FLORIDA,RAW	672.50	607.80	70.70	127.83	.	127.83
26131140	204139	Pompano, floured or breaded, fried W/ VEGETABL E OIL, NFS (INCLUDE OIL, NFS)	15068	POMPANO,FLORIDA,RAW	787.05	607.80	79.20	97.51	.	97.51
27350110	0	Bouillabaisse	15068	POMPANO,FLORIDA,RAW	4,392.60	453.60	80.00	12.91	.	12.91
----- SPECIES=Porgy (66) ----- HABITAT=Marine -----										
26133120	0	Porgy, baked or broiled	15090	SCUP,RAW	590.90	526.20	67.10	132.71	.	132.71
26133120	100976	Porgy, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	SCUP,RAW	589.95	526.20	67.10	132.93	.	132.93
26133120	203252	Porgy, baked or broiled W/ BUTTER, NFS	15090	SCUP,RAW	591.08	526.20	67.10	132.67	.	132.67
----- SPECIES=Porgy (66) ----- HABITAT=Marine ----- (continued) -----										
26133140	100567	Porgy, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15090	SCUP,RAW	705.45	526.20	76.80	97.12	.	97.12
26133160	0	Porgy, steamed or poached	15090	SCUP,RAW	100.00	100.00	80.00	125.00	.	125.00
----- SPECIES=Rockfish (72) ----- HABITAT=Estuarine -----										
26100130	0	Fish, NS as to type, breaded or battered, bake d	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,171.58	64.40	80.00	6.87	.	6.87
26100140	0	Fish, NS as to type, floured or breaded, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	88.00	6.74	.	6.74
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	88.00	6.74	.	6.74
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15070	ROCKFISH,PACIFIC,MXD SP,RAW	1,086.45	64.40	88.00	6.74	.	6.74
26100150	0	Fish, NS as to type, battered, fried	15070	ROCKFISH,PACIFIC,MXD SP,RAW	133.00	7.10	88.00	6.07	.	6.07

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-95**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

28150610	0	Fish, batter-dipped or fish cake, with vegetables, potatoes (frozen meal)	15070N	(26100150) ROCKFISH,PACIFIC,MXD SP,RAW	224.80	6.48	100.00	3.28	12.00	3.72
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	100.84	7.10	100.00	7.04	25.00	9.39
26100120	0	Fish, NS as to type, baked or broiled	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	100.00	6.63	25.00	8.83
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	972.08	64.40	100.00	6.63	25.00	8.83
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15071	ROCKFISH,PACIFIC,MXD SP,CKD,DRY HEAT	970.95	64.40	100.00	6.63	25.00	8.84
----- SPECIES=Salmon (75) ----- HABITAT=0.05% Freshwater, 4.73% Estuarine, 95.22% Marine-----										
26100190	0	Fish, NS as to type, smoked	15077	SALMON,CHINOOK,SMOKED	99.90	74.90	100.00	74.97	5.00	78.92
26137190	0	Salmon, smoked	15077	SALMON,CHINOOK,SMOKED	100.00	100.00	100.00	100.00	5.00	105.26
27250070	0	Salmon cake or patty	15080	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	100813	Salmon cake or patty W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15080	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	101058	Salmon cake or patty W/ SOYBEAN OIL (INCLUDE W/ SOYBEAN OIL...)	15080	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
27250070	204660	Salmon cake or patty W/ BUTTER, NFS	15080	SALMON,CHUM,CND,DRND W/BONE	957.85	453.60	88.00	53.81	25.00	71.75
26137100	0	Salmon, raw	15081	SALMON,COHO,WILD,RAW	100.00	100.00	100.00	100.00	.	100.00
27450710	204706	Fish and vegetables (excluding carrots, broccoli, and dark-green leafy (no potatoes)), tomato-based sauce (mixture) W/ SALMON AND OLIVE OIL	15081N	(26137100) SALMON,COHO,WILD,RAW	1,618.45	907.20	90.00	62.28	.	62.28
26137120	201145	Salmon, baked or broiled W/ OLIVE OIL	15083	Need grm wt.descr.for 1 lb raw yld.;recipe calls	843.70	780.20	76.90	120.25	.	120.25
26137140	204329	Salmon, floured or breaded, fried W/ CANOLA OIL	15083	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	83.00	97.97	.	97.97
26137120	0	Salmon, baked or broiled	15083	SALMON,PINK,RAW	844.90	780.20	76.90	120.08	.	120.08
26137120	200265	Salmon, baked or broiled W/ BUTTER, NFS	15083	SALMON,PINK,RAW	845.08	780.20	76.90	120.06	.	120.06
26137120	201437	Salmon, baked or broiled W/O FAT OR W/ NONSTICK	15083	SALMON,PINK,RAW	816.70	780.20	76.90	124.23	.	124.23
----- SPECIES=Salmon (75) ----- HABITAT=0.05% Freshwater, 4.73% Estuarine, 95.22% Marine----- (continued) -----										
26137140	0	K SPRAY (INCLUDE PAM...)	15083	SALMON,PINK,RAW	959.45	780.20	83.00	97.97	.	97.97
26137140	100833	Salmon, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15083	SALMON,PINK,RAW	959.45	780.20	83.00	97.97	.	97.97
26137160	0	Salmon, steamed or poached	15083	SALMON,PINK,RAW	100.00	100.00	80.00	125.00	.	125.00
32105020	100563	Egg omelet or scrambled egg, with fish W/ BUTTER, NFS	15084	SALMON,PINK,CND,W/BONE & LIQ	84.59	12.00	91.00	15.59	25.00	20.79
26137110	0	Salmon, cooked, NS as to cooking method	15247	SALMON,COHO,WILD,CKD,DRY HEAT	100.00	100.00	100.00	100.00	25.00	133.33
----- SPECIES=Scallop (79) ----- HABITAT=0.67% Estuarine, 99.33% Marine -----										
26317110	0	Scallops, cooked, NS as to cooking method	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26317140	101203	Scallops, floured or breaded, fried W/ CANOLA OIL	15172	SCALLOP,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
27350110	0	Bouillabaisse	15172	SCALLOP,MXD SP,RAW	4,392.60	453.60	80.00	12.91	.	12.91
----- SPECIES=Sea Bass (82) ----- HABITAT=Marine -----										

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-96**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

26141120	200913	Sea bass, baked or broiled W/ CORN OIL	15091	Need grm wt.desc.for 1 lb raw ylds.;recipe calls	843.95	780.20	76.90	120.22	.	120.22
26141140	101182	Sea bass, floured or breaded, fried W/ CORN OIL	15091	Need gwd for 1 lb raw ylds.;recipe calls for 2 lb	959.45	780.20	83.00	97.97	.	97.97
26141120	0	Sea bass, baked or broiled	15091	SEA BASS,MXD SP,RAW	844.90	780.20	76.90	120.08	.	120.08
26141120	203326	Sea bass, baked or broiled W/O FAT OR W/ NON-S TICK SPRAY (INCLUDE PAM...)	15091	SEA BASS,MXD SP,RAW	816.70	780.20	76.90	124.23	.	124.23
26141140	100856	Sea bass, floured or breaded, fried W/ VEGETAB LE OIL, NFS (INCLUDE OIL, NFS)	15091	SEA BASS,MXD SP,RAW	959.45	780.20	83.00	97.97	.	97.97
26141160	0	Sea bass, steamed or poached	15091	SEA BASS,MXD SP,RAW	100.00	100.00	80.00	125.00	.	125.00

----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine -----

26319110	0	Shrimp, cooked, NS as to cooking method	15149	SHRIMP,MXD SP,RAW	100.84	100.00	73.00	135.85	.	135.85
26319120	0	Shrimp, baked or broiled	15149	SHRIMP,MXD SP,RAW	941.40	907.20	80.00	120.46	.	120.46
26319120	200498	Shrimp, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15149	SHRIMP,MXD SP,RAW	940.45	907.20	80.00	120.58	.	120.58
26319120	200875	Shrimp, baked or broiled W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	941.58	907.20	80.00	120.44	.	120.44
26319120	202863	Shrimp, baked or broiled W/O FAT OR W/ NONSTIC K SPRAY (INCLUDE PAM...)	15149	SHRIMP,MXD SP,RAW	913.20	907.20	80.00	124.18	.	124.18
26319120	204534	Shrimp, baked or broiled W/ CANOLA OIL	15149	SHRIMP,MXD SP,RAW	940.45	907.20	80.00	120.58	.	120.58
26319130	0	Shrimp, steamed or boiled	15149	SHRIMP,MXD SP,RAW	100.84	100.00	76.00	130.48	.	130.48
26319140	0	Shrimp, floured, breaded, or battered, fried	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	100180	Shrimp, floured, breaded, or battered, fried W / CANOLA OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	100708	Shrimp, floured, breaded, or battered, fried W / CORN OIL	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63
26319140	201330	Shrimp, floured, breaded, or battered, fried W	15149	SHRIMP,MXD SP,RAW	902.90	680.40	88.00	85.63	.	85.63

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
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----- SPECIES=Shrimp (88) ----- HABITAT=Estuarine ----- (continued) -----

27350110	0	/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS) Bouillabaisse	15149	SHRIMP,MXD SP,RAW	4,392.60	226.80	80.00	6.45	.	6.45
27450410	0	Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture)	15149	SHRIMP,MXD SP,RAW	771.30	98.00	88.00	14.44	.	14.44
27450410	100865	Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ OLIVE OIL	15149	SHRIMP,MXD SP,RAW	771.30	98.00	88.00	14.44	.	14.44
27450410	203988	Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ BUTTER, NFS	15149	SHRIMP,MXD SP,RAW	773.37	98.00	88.00	14.40	.	14.40
27450410	204020	Shrimp and vegetables (including carrots, broc coli, and/or dark-green leafy (no potatoes)), soy-based sauce (mixture) W/ MARGARINE, NFS	15149	SHRIMP,MXD SP,RAW	773.74	98.00	88.00	14.39	.	14.39
27464000	0	Gumbo, no rice (New Orleans type with shellfis h, pork, and/or poultry, tomatoes, okra)	15149	SHRIMP,MXD SP,RAW	3,548.33	64.00	75.00	2.40	.	2.40
28355450	101018	Seafood soup with potatoes and vegetables (inc luding carrots, broccoli, and/or dark-green le afy) W/ SHRIMP	15149	SHRIMP,MXD SP,RAW	2,953.00	907.20	85.00	36.14	.	36.14
58112510	0	Dumpling, steamed, filled with meat, poultry, or seafood	15149	SHRIMP,MXD SP,RAW	818.84	151.05	120.00	15.37	.	15.37

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-97**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
58136130	0	Lo mein with shrimp	15149	SHRIMP,MXD SP,RAW	1,101.43	226.80	95.00	21.68	.	21.68
58112110	0	Dim sum, meat filled (egg roll-type)	15149N	(58112510) SHRIMP,MXD SP,RAW	100.00	18.45	100.00	15.37	21.00	19.46
27150130	0	Seafood newburg	15151	SHRIMP,MXD SP,CKD,MOIST HEAT	929.58	113.40	80.00	15.25	25.00	20.33
14620120	0	Shrimp dip, cream cheese base	15152	SHRIMP,MXD SP,CND	434.58	113.40	100.00	26.09	25.00	34.79
27150230	0	Shrimp scampi	15152	SHRIMP,MXD SP,CND	156.38	128.00	100.00	81.85	25.00	109.14
27150230	101055	Shrimp scampi W/ OLIVE OIL	15152	SHRIMP,MXD SP,CND	155.00	128.00	100.00	82.58	25.00	110.11
27350060	0	Shrimp creole, with rice	15152	SHRIMP,MXD SP,CND	1,842.44	680.40	85.90	42.99	25.00	57.32
27360080	0	Chow mein or chop suey, NS as to type of meat, with noodles	15152	SHRIMP,MXD SP,CND	968.88	55.00	90.00	6.31	25.00	8.41
54406200	0	Shrimp chips (tapioca base)	15152	SHRIMP,MXD SP,CND	100.00	25.00	78.00	32.05	25.00	42.74
58101540	0	Taco or tostada with fish, lettuce, tomato, salsa	15152	SHRIMP,MXD SP,CND	76.99	15.00	100.00	19.48	25.00	25.98
58110120	0	Egg roll, with shrimp	15152	SHRIMP,MXD SP,CND	1,142.04	64.00	76.00	7.37	25.00	9.83
58148150	100831	Macaroni salad with shrimp W/ REAL MAYONNAISE	15152	SHRIMP,MXD SP,CND	740.75	96.00	100.00	12.96	25.00	17.28
58150510	0	Rice, fried, with shrimp	15152	SHRIMP,MXD SP,CND	1,028.48	64.00	90.00	6.91	25.00	9.22
58407050	0	Instant soup, noodle with egg, shrimp or chicken	15152	SHRIMP,MXD SP,CND	99.00	1.00	85.00	1.19	25.00	1.58
28355430	0	Shrimp soup, cream of, prepared with water	6456P	SOUP,CRM OF SHRIMP,PREP W/H2O,COMM	100.00	100.00	100.00	100.00	.	7.50
----- SPECIES=Snapper (93) ----- HABITAT=Marine -----										
27350110	0	Bouillabaisse	15101	SNAPPER,MXD SP,RAW	4,392.60	453.60	80.00	12.91	.	12.91
----- SPECIES=Squid (97) ----- HABITAT=Marine -----										
26213120	0	Squid, baked, broiled	15175	SQUID,MXD SP,RAW	706.05	680.40	80.00	120.46	.	120.46
26213140	0	Squid, breaded, fried	15175	SQUID,MXD SP,RAW	1,086.45	907.20	85.00	98.24	.	98.24
26213160	0	Squid, steamed or boiled	15175	SQUID,MXD SP,RAW	100.84	100.00	86.50	114.64	.	114.64
----- SPECIES=Sturgeon (98) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26211100	0	Roe, sturgeon	15012	CAVIAR,BLACK/RED,GRANULAR	100.00	100.00	100.00	100.00	.	100.00
----- SPECIES=Swordfish (100) ----- HABITAT=Marine -----										
26149120	0	Swordfish, baked or broiled	15110	SWORDFISH,RAW	844.90	780.20	76.90	120.08	.	120.08
----- SPECIES=Trout (103) ----- HABITAT=Freshwater -----										
26151120	202336	Trout, baked or broiled W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS; WESSON CORN OIL....)	15240	TROUT,RAINBOW,FARMED,RAW	970.95	907.20	80.00	116.79	.	116.79
26151120	203955	Trout, baked or broiled W/ SESAME OIL	15240	TROUT,RAINBOW,FARMED,RAW	970.95	907.20	80.00	116.79	.	116.79
----- SPECIES=Trout, mixed sp. (114) ----- HABITAT=50% Freshwater, 50% Estuarine -----										
26151140	204281	Trout, floured or breaded, fried W/ SOYBEAN OIL	15114	Need grm wt.descr.for 1 lb raw ylds.;recipe calls	959.45	780.20	83.00	97.97	.	97.97
26151130	0	Trout, breaded or battered, baked	15114	TROUT,MXD SP,RAW	1,086.45	907.20	80.00	104.38	.	104.38

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-98**



**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

26151140	0	Trout, floured or breaded, fried	15114	TROUT,MXD SP,RAW	959.45	780.20	83.00	97.97	.	97.97
26151150	202740	Trout, battered, fried W/ VEGETABLE OIL, NFS ( INCLUDE OIL, NFS)	15114	TROUT,MXD SP,RAW	133.00	100.00	85.00	88.46	.	88.46
----- SPECIES=Tuna (104) ----- HABITAT=Marine -----										
26155180	0	Tuna, canned, oil pack	15119	TUNA,LT,CND,OIL,DRND	100.00	100.00	100.00	100.00	25.00	133.33
27150120	0	Tuna with cream or white sauce (mixture)	15119	TUNA,LT,CND,OIL,DRND	911.85	311.85	100.00	34.20	25.00	45.60
27250160	0	Tuna cake or patty	15119	TUNA,LT,CND,OIL,DRND	981.25	480.00	88.00	55.59	25.00	74.12
27250610	0	Tuna noodle casserole with cream or white sauce	15119	TUNA,LT,CND,OIL,DRND	1,140.59	320.00	90.00	31.17	25.00	41.56
27250630	0	Tuna noodle casserole with (mushroom) soup	15119	TUNA,LT,CND,OIL,DRND	1,149.20	320.00	90.00	30.94	25.00	41.25
27250630	201273	Tuna noodle casserole with (mushroom) soup W/ 2% MILK AND W/ BUTTER, NFS	15119	TUNA,LT,CND,OIL,DRND	1,149.38	320.00	90.00	30.93	25.00	41.25
27250630	202216	Tuna noodle casserole with (mushroom) soup W/ WATER AND W/O FAT	15119	TUNA,LT,CND,OIL,DRND	1,117.50	320.00	90.00	31.82	25.00	42.42
27250630	202723	Tuna noodle casserole with (mushroom) soup W/ WHOLE MILK	15119	TUNA,LT,CND,OIL,DRND	1,149.20	320.00	90.00	30.94	25.00	41.25
27250630	203942	Tuna noodle casserole with (mushroom) soup W/ 1% MILK AND W/ BUTTER, NFS	15119	TUNA,LT,CND,OIL,DRND	1,149.38	320.00	90.00	30.93	25.00	41.25
27350080	0	Tuna noodle casserole with vegetables, cream o	15119	TUNA,LT,CND,OIL,DRND	1,139.68	184.28	90.00	17.97	25.00	23.95
----- SPECIES=Tuna (104) ----- HABITAT=Marine ----- (continued) -----										
27350080	100388	r white sauce Tuna noodle casserole with vegetables, cream o	15119	TUNA,LT,CND,OIL,DRND	1,139.68	184.28	90.00	17.97	25.00	23.95
27350410	0	r white sauce W/ CARROTS Tuna noodle casserole with vegetables and (mus	15119	TUNA,LT,CND,OIL,DRND	1,229.20	292.00	90.00	26.39	25.00	35.19
27350410	204105	hroom) soup Tuna noodle casserole with vegetables and (mus	15119	TUNA,LT,CND,OIL,DRND	1,225.70	292.00	90.00	26.47	25.00	35.29
27350410	204591	hroom) soup W/O MILK Tuna noodle casserole with vegetables and (mus	15119	TUNA,LT,CND,OIL,DRND	1,229.20	292.00	90.00	26.39	25.00	35.19
27450510	0	hroom) soup W/ WHOLE MILK Tuna casserole with vegetables and (mushroom)	15119	TUNA,LT,CND,OIL,DRND	909.20	292.00	90.00	35.68	25.00	47.58
58145120	0	soup, no noodles Macaroni or noodles with cheese and tuna	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	100521	Macaroni or noodles with cheese and tuna W/ 2% MILK	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	200545	Macaroni or noodles with cheese and tuna W/ SK IM MILK	15119	TUNA,LT,CND,OIL,DRND	1,102.59	188.81	90.00	19.03	25.00	25.37
58145120	201431	Macaroni or noodles with cheese and tuna W/ 1% MILK	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	203026	Macaroni or noodles with cheese and tuna W/ WHOLE MILK	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	204559	Macaroni or noodles with cheese and tuna W/ AMERICAN OR CHEDDAR CHEESE BASED CHEESE SPREAD ( INCLUDE VELVEETA) AND W/O MILK	15119	TUNA,LT,CND,OIL,DRND	1,111.09	188.81	90.00	18.88	25.00	25.18
58145120	204847	Macaroni or noodles with cheese and tuna W/ EVAPORATED MILK, NS AS TO FAT CONTENT AND DILUTION	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38
58145120	205001	Macaroni or noodles with cheese and tuna W/ RE	15119	TUNA,LT,CND,OIL,DRND	1,102.09	188.81	90.00	19.04	25.00	25.38

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-99**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	C_GUI	% moist. Loss due to process.	% of Uncooked Fish in Recipe
26155110	0	Tuna, canned, NS as to oil or water pack	15121	TUNA, LT, CND, H2O, DRND	100.00	100.00	100.00	100.00	25.00	133.33
26155190	0	Tuna, canned, water pack	15121	TUNA, LT, CND, H2O, DRND	100.00	100.00	100.00	100.00	25.00	133.33
27450060	0	Tuna salad	15121	TUNA, LT, CND, H2O, DRND	413.97	223.97	100.00	54.10	25.00	72.14
27450060	100008	Tuna salad W/ REAL MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	410.22	223.97	100.00	54.60	25.00	72.80
27450060	200020	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT ..)	15121	TUNA, LT, CND, H2O, DRND	413.22	223.97	100.00	54.20	25.00	72.27
27450060	200099	Tuna salad W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121	TUNA, LT, CND, H2O, DRND	419.22	223.97	100.00	53.42	25.00	71.23
27450060	200449	Tuna salad W/ REDUCED CALORIE OR DIET, CHOLESTEROL-FREE MAYONNAISE (INCLUDE KRAFT LIGHT; HELLMANN'S CHOLESTEROL-FREE REDUCED CALORIE...)	15121	TUNA, LT, CND, H2O, DRND	412.97	223.97	100.00	54.23	25.00	72.31
27450060	200685	Tuna salad W/ LOW CALORIE OR DIET MAYONNAISE (INCLUDE LOWFAT MAYONNAISE, WEIGHT WATCHERS LIGHT)	15121	TUNA, LT, CND, H2O, DRND	417.72	223.97	100.00	53.62	25.00	71.49
----- SPECIES=Tuna (104) ----- HABITAT=Marine ----- (continued) -----										
27450060	202153	HT MAYONNAISE, HELLMAN'S LIGHT MAYONNAISE)	15121	TUNA, LT, CND, H2O, DRND	355.22	223.97	100.00	63.05	25.00	84.07
27450100	0	Tuna salad W/O SALAD DRESSING	15121	TUNA, LT, CND, H2O, DRND	478.65	223.97	100.00	46.79	25.00	62.39
27450100	100026	Tuna salad with egg W/ LOW CALORIE OR DIET MAYONNAISE-TYPE SALAD DRESSING (INCLUDE MIRACLE WHIP LIGHT)	15121	TUNA, LT, CND, H2O, DRND	477.72	223.97	100.00	46.88	25.00	62.51
27450100	100039	Tuna salad with egg W/ REAL MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	473.97	223.97	100.00	47.25	25.00	63.00
27450100	201154	Tuna salad with egg W/ FAT FREE MAYONNAISE-TYPE SALAD DRESSING (INCLUDE KRAFT FREE NONFAT MAYONNAISE DRESSING; KRAFT MIRACLE WHIP FREE NONFAT DRESSING...)	15121	TUNA, LT, CND, H2O, DRND	485.22	223.97	100.00	46.16	25.00	61.54
27550720	0	Tuna salad sandwich	15121	TUNA, LT, CND, H2O, DRND	157.26	57.75	100.00	36.72	25.00	48.96
27550720	100053	Tuna salad sandwich W/ 100% WHOLE WHEAT BREAD	15121	TUNA, LT, CND, H2O, DRND	161.26	57.75	100.00	35.81	25.00	47.75
58148130	0	Macaroni salad with tuna	15121	TUNA, LT, CND, H2O, DRND	765.88	115.50	100.00	15.08	25.00	20.11
58148130	101228	Macaroni salad with tuna W/ LOW CALORIE OR DIET MAYONNAISE (INCLUDE HELLMAN'S LIGHT MAYONNAISE...)	15121	TUNA, LT, CND, H2O, DRND	771.50	115.50	100.00	14.97	25.00	19.96
58148130	202070	Macaroni salad with tuna W/ REAL MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	760.25	115.50	100.00	15.19	25.00	20.26
58148160	0	Macaroni salad with tuna and egg	15121	TUNA, LT, CND, H2O, DRND	996.75	167.00	100.00	16.75	25.00	22.34
58148160	201511	Macaroni salad with tuna and egg W/ REAL MAYONNAISE	15121	TUNA, LT, CND, H2O, DRND	989.25	167.00	100.00	16.88	25.00	22.51
26153110	0	Tuna, fresh, cooked, NS as to cooking method	15127	TUNA, YELLOWFIN, RAW	971.90	907.20	80.00	116.68	.	116.68
26153120	0	Tuna, fresh, baked or broiled	15127	TUNA, YELLOWFIN, RAW	971.90	907.20	80.00	116.68	.	116.68
26153120	200865	Tuna, fresh, baked or broiled W/ CORN OIL	15127	TUNA, YELLOWFIN, RAW	970.95	907.20	80.00	116.79	.	116.79
26153120	201598	Tuna, fresh, baked or broiled W/ OLIVE OIL	15127	TUNA, YELLOWFIN, RAW	970.70	907.20	80.00	116.82	.	116.82
26153120	202429	Tuna, fresh, baked or broiled W/O FAT OR W/ NO NASTICK SPRAY (INCLUDE PAM...)	15127	TUNA, YELLOWFIN, RAW	943.70	907.20	80.00	120.17	.	120.17
----- SPECIES=Whitefish (109) ----- HABITAT=50% Freshwater, 50% Marine -----										

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. **A-100**

**TABLE A-5. "UNCOOKED" PERCENTAGE BY FISH SPECIES AND THEIR CURRENT HABITAT ASSIGNMENTS  
BASED ON THE 1998 CSFII FOOD CODES**

26100190	0	Fish, NS as to type, smoked	15131	WHITEFISH,MXD SP,SMOKED	99.90	13.40	100.00	13.41	5.20	14.15
----- SPECIES=Whiting (110) ----- HABITAT=Marine -----										
26100130	0	Fish, NS as to type, breaded or battered, baked	15132	WHITING,MXD SP,RAW	1,171.58	62.60	80.00	6.68	.	6.68
26100140	0	Fish, NS as to type, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100140	100258	Fish, NS as to type, floured or breaded, fried W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100140	204195	Fish, NS as to type, floured or breaded, fried W/ CORN OIL	15132	WHITING,MXD SP,RAW	1,086.45	62.60	88.00	6.55	.	6.55
26100150	0	Fish, NS as to type, battered, fried	15132	WHITING,MXD SP,RAW	133.00	6.90	88.00	5.90	.	5.90
26157120	0	Whiting, baked or broiled	15132	WHITING,MXD SP,RAW	971.90	907.20	80.00	116.68	.	116.68
26157120	202454	Whiting, baked or broiled W/ BUTTER, NFS	15132	WHITING,MXD SP,RAW	972.08	907.20	80.00	116.66	.	116.66
26157120	203222	Whiting, baked or broiled W/ VEGETABLE OIL, NF	15132	WHITING,MXD SP,RAW	970.95	907.20	80.00	116.79	.	116.79
-----										
Food Code	Mod code	Food Name	Ingredient Code	Ingredient Name	Recipe Weight (grams)	Fish Weight (grams)	% Yield	% moist. Loss due to C_GUI process.	% of Uncooked Fish in Recipe	
----- SPECIES=Whiting (110) ----- HABITAT=Marine ----- (continued) -----										
		S (INCLUDE OIL, NFS)								
26157120	204161	Whiting, baked or broiled, W/ OLIVE OIL	15132	WHITING,MXD SP,RAW	970.70	907.20	80.00	116.82	.	116.82
26157130	0	Whiting, breaded or battered, baked	15132	WHITING,MXD SP,RAW	1,171.05	907.20	80.00	96.84	.	96.84
26157140	0	Whiting, floured or breaded, fried	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157140	202630	Whiting, floured or breaded, fried W/ CORN OIL (INCLUDE MAZOLA CORN OIL; MAZOLA OIL, NFS)	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
26157140	204896	Whiting, floured or breaded, fried W/ CANOLA OIL	15132	WHITING,MXD SP,RAW	1,086.45	907.20	88.00	94.89	.	94.89
28150610	0	Fish, batter-dipped or fish cake, with vegetable, potatoes (frozen meal)	15132N	(26100150) WHITING,MXD SP,RAW	224.80	6.30	100.00	3.18	12.00	3.62
26100110	0	Fish, NS as to type, cooked, NS as to cooking method	15133	WHITING,MXD SP,CKD,DRY HEAT	100.84	6.90	100.00	6.84	25.00	9.12
26100120	0	Fish, NS as to type, baked or broiled	15133	WHITING,MXD SP,CKD,DRY HEAT	972.08	62.60	100.00	6.44	25.00	8.59
26100120	200264	Fish, NS as to type, baked or broiled W/ BUTTER, NFS	15133	WHITING,MXD SP,CKD,DRY HEAT	972.08	62.60	100.00	6.44	25.00	8.59
26100120	200968	Fish, NS as to type, baked or broiled W/ VEGETABLE OIL, NFS (INCLUDE OIL, NFS)	15133	WHITING,MXD SP,CKD,DRY HEAT	970.95	62.60	100.00	6.45	25.00	8.60

Note: INGCODE with suffix P means the ingredient is a Soup with 7.5% Fish Assumption. A-101

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**APPENDIX B**  
**STATISTICAL METHODS**

## **Appendix B Statistical Methods**

This appendix describes the statistical methods used to generate point and interval estimates of daily average per capita fish consumption. Point estimates include the mean, 90th, 95th, and 99th percentiles. Mean estimates were generated using ratio estimation techniques. The variance of the mean was estimated using a Taylor series approximation of the deviation of estimates from their expected values. The Taylor series approximations were applied to ultimate clusters, which resulted in an overall estimate of the variance instead of estimating variance components due to sample–design stages. This appendix reports the statistical formulae for generating both the mean estimate and the estimate of the confidence interval about the mean. The estimation of potential bias in the mean estimate is also shown. Methods for generating percentile estimates and 90–percent bootstrap intervals about the percentile estimates are also detailed in this appendix.

### **Estimation of the Mean and Variance of the Mean**

All four CSFII surveys are multistage, stratified–cluster samples with primary sampling units (PSUs) sampled with replacement. Sample weights, which project the data from a sampled individual to the population, are based on the probability of an individual being sampled at each stage of the sampling design. As mentioned in Section 1 of this report, the sample weights associated with each individual reporting two days of consumption data were adjusted to correct for nonresponse bias. These adjusted sample weights, which are recorded in the CSFII data in the variable WT4\_2DAY record the number of individuals the sampled person represents in the population. For example, a sample weight valued as 22 projects the data from the individual with that sample weight to 22 individuals in the U.S. population.

The ultimate cluster is considered the aggregate of the sampled individuals within a PSU. The ultimate cluster method is supported by the survey design. It is also necessary for estimating the variance of the mean. Because the sample design contains multiple levels, such as stratum and PSU, specific information is necessary to partition the variance–of–the–mean estimate into components. That is, specification of the sample size and population size within each level of sampling is required. However, this information is not inherent in the CSFII data. Rather, CSFII surveys report an adjusted sample weight for each individual who reported two days of consumption data during the survey. As discussed in Section 1 of this report, these survey weights were adjusted to correct for nonresponse bias. Given that only the adjusted weight is available, and not the specific sample and population size in each phase, it was necessary to estimate the mean using ratio estimation techniques and the variance of the mean using the ultimate cluster methodology, which does not partition the variance into sample design components.

The mean, daily average per capita fish consumption for a given habitat type was estimated as the ratio of total fish for given habitat type consumed by the population or subpopulation, divided by the estimate of the total number of individuals in the population or subpopulation.

Let  $R_t$  designate the mean, daily average per capita fish consumption for the  $t^{\text{th}}$  habitat type. The values of the index “ $t$ ” are described in Section 2. Then  $R_t$  is estimated as

$$\hat{R}_t = \frac{\hat{Y}_t}{\hat{X}} .$$

To estimate the numerator,

$\hat{Y}_t$ , or the total daily average fish consumption for the  $t^{\text{th}}$  habitat type, let

$h$ =stratum	$h=1,2,3, \dots, 43$
$l$ =PSU within stratum	$l=1,2$
$j$ =individual	$j=1,2,3, \dots, n_{hi}$

and  $y_{thij}$  be the daily average “as prepared” (or “uncooked”) fish consumption, in grams, from the  $t^{\text{th}}$  habitat type by the  $j^{\text{th}}$  individual sampled from the  $l^{\text{th}}$  PSU in the  $h^{\text{th}}$  stratum. The survey weight for the  $j^{\text{th}}$  individual in the  $l^{\text{th}}$  PSU from the  $h^{\text{th}}$  stratum is designated  $w_{hij}$ .

To estimate

$$\hat{X},$$

the total number of individuals in the population or subpopulation, the variable  $x_{hij}$  is valued as 1 if the  $j^{\text{th}}$  person is in the  $l^{\text{th}}$  PSU in the  $h^{\text{th}}$  stratum. Otherwise,  $x_{hij}$  is valued as zero.

Then

$$\hat{Y}_t = \sum_{h=1}^{43} \sum_{l=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} y_{thij}$$

and

$$\hat{X} = \sum_{h=1}^{43} \sum_{l=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} x_{hij}.$$

To estimate the variance of the mean ( $V(R_t)$ ), first define the linearized variable,

$$\hat{Z}_{thij} ,$$

as

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t)}{\hat{X}} .$$

Thus, the value

$$\hat{Z}_{thij}$$

is the weighted difference between the daily average fish consumption for the  $j^{\text{th}}$  individual and the estimated mean, daily average per capita fish consumption for the population.

Then, as the first component of the cluster, the values of

$$\hat{Z}_{thij}$$

are summed across the  $n_{thi}$  sampled individuals in the  $i^{\text{th}}$  PSU from the  $h^{\text{th}}$  stratum. That is,

$$\hat{Z}_{thi} = \sum_{j=1}^{n_{thi}} \hat{Z}_{thij} .$$

This calculation was performed for each of the two PSUs sampled from a given stratum. The mean of the PSU weighted deviations for each stratum was then determined as

$$\bar{Z}_{th} = \frac{\hat{Z}_{th1} + \hat{Z}_{th2}}{2} .$$

The ultimate cluster variance of the mean was calculated as

$$V(\hat{R}_t) \approx V(\hat{Z}_t) = \sum_{h=1}^{43} 2[(\hat{Z}_{th1} - \bar{Z}_{th})^2 + (\hat{Z}_{th2} - \bar{Z}_{th})^2] .$$

A 90-percent confidence interval about the estimated mean, daily average per capita consumption of fish from the  $t^{\text{th}}$  habitat was estimated as

$$C.I._{90} = \hat{R}_t \pm 1.645 * (V(\hat{R}_t))^{1/2} .$$



## Estimation of the Variance of the Mean Using a Taylor Series Approximation Applied to Ultimate Clusters

To demonstrate that the variance of the mean was estimated using a Taylor Series approximation applied to ultimate clusters, define the function  $g(X,Y)$  as  $Y/X$ , where  $Y$  is the estimated total of the daily average consumption of fish by the population or subpopulation, and  $X$  is the estimated population or subpopulation. Notice that the function  $g(X,Y)$  is the estimator for the mean, daily average per capita fish consumption, as defined earlier. Let  $\mu_y$  and  $\mu_x$ , respectively, be the expected values of the variables  $Y$  and  $X$ . Then, the function  $F(X,Y)$  can be expanded in a Taylor series about these expected values such that

$$F(X, Y) = F(\mu_x, \mu_y) + \partial F_x(\mu_x, \mu_y)(X - \mu_x) + \partial F_y(\mu_x, \mu_y)(Y - \mu_y) + \text{higher order terms.}$$

$\partial F_x(\mu_x, \mu_y)$  is the first order partial derivative of  $F$  with respect to  $X$  evaluated at the expected value of  $X$ , and  $\partial F_y(\mu_x, \mu_y)$  is the first order partial derivative of  $F$  with respect to  $Y$  evaluated at the expected value of  $Y$ . If  $F(X,Y)$  is defined as  $E(g(X,Y))$ , then

$$E\left(\frac{\hat{Y}}{\hat{X}}\right) = \frac{\mu_y}{\mu_x}$$

since  $E(X - \mu_x) = 0$  and  $E(Y - \mu_y) = 0$ . Therefore, if the higher order terms of the series are considered negligible, the national mean estimator is unbiased.

Define the variance of the estimated mean as  $V(F(X,Y))$ . If  $F(X,Y)$  is defined as  $E(g(X,Y))$ , then

$$V(F(X, Y)) = E[F(X, Y) - F(\mu_x, \mu_y)]^2.$$

Thus, the variance of the mean can be calculated as

$$V(F(X, Y)) = (\partial F_x)^2 E(X - \mu_x)^2 + (\partial F_y)^2 E(Y - \mu_y)^2 + 2(\partial F_x)(\partial F_y) E(X - \mu_x)(Y - \mu_y),$$

which is equivalent to

$$V(F(X, Y)) = (\partial F_x)^2 V(X) + (\partial F_y)^2 V(Y) + 2(\partial F_x)(\partial F_y) \text{Cov}(X, Y).$$

Based on a method suggested by Woodruff (Woodruff 1971), which creates a synthetic variable from the variable portion of the Taylor series variance estimate, the Taylor series variance estimate can be approximated as

$$V(F(X, Y)) = V(Z_j),$$

where the synthetic variable is

$$Z_i = \partial F_x(X, Y)x_i + \partial F_y(X, Y)y_i .$$

If  $F(X, Y)$  is defined as  $E(g(X, Y))$ , which in this case is

$$E\left(\frac{\hat{Y}_t}{\hat{X}}\right) = \frac{\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} Y_{thij}}{\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}} ,$$

then  $Z_i$  becomes  $Z_{thij}$  in keeping with the sample design, and

$$Z_{thij} = \frac{-\left(\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} Y_{thij}\right) * w_{hij} X_{hij}}{\left(\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}\right)^2} + \frac{w_{hij} Y_{thij}}{\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}} .$$

After collecting like terms and substituting the estimators for the summations, the previous equation becomes

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t x_{hij})}{\hat{X}} .$$

Since  $X_{hij}$  is 1 if the  $j^{\text{th}}$  individual is in the sample, and 0 otherwise, the estimator for  $Z_{thij}$  can be expressed as

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t)}{\hat{X}} .$$

Notice that this expression of

$$\hat{Z}_{thij}$$

is the weighted difference between the daily average fish consumption for the  $j^{\text{th}}$  individual and the estimated mean, daily average per capita consumption for the population, as defined previously.

Estimates presented in this report were generated by coding the formulae in SAS, the statistical computing language. The linear approximation to the Taylor series estimate of the variance was used.

Using the synthetic variable Z when there is sampling with replacement at the first stage of the sample design, estimates the variance as defined as

$$\text{Var}(Z) = \sum_{h=1}^H n_h S^2_h$$

where

$$S^2_h = \sum_{i=1}^{n_h} [z_{hi} - \bar{z}_h]^2 / [n_h - 1]$$

with

$$z_{hi} = \sum_{j=1}^{m_{hi}} z_{hij}$$

and

$$\bar{z}_h = \sum_{i=1}^{n_h} z_{hi} / n_h .$$

Notice that if the value 2—for the two PSUs sampled from each stratum with replacement—is substituted for  $n_h$  in the previous four equations, then the estimator becomes the ultimate cluster estimator (Shah 1996).

### Estimator for the Variance of Mean Consumption

The estimator for the variance of mean consumption presented above calculates the variance of the estimated mean from ultimate cluster estimates using a synthetic variable. This section shows that the variance of the mean, calculated from ultimate cluster estimates using a synthetic variable, is equivalent to the estimator for the variance of the combined ratio estimator for a stratified, multistage, ultimate cluster sample with replacement.

The multistage, ultimate cluster variance estimator for the mean, designated  $V(\hat{R})$ , is

$$V(\hat{R}) \approx \sum_{h=1}^H \sum_{i=1}^{n_h} n_h \frac{(z_{hi} - \bar{z}_h)^2}{(n_h - 1)} \quad (1)$$

where  $h$  indexes strata and  $l$  indexes the PSUs within strata. In the case of the CSFII surveys, there are two PSUs per stratum.

The variable  $Z_{hi}$  designates the ultimate cluster. Therefore, the variance is estimated as a linear combination of the squared deviation of ultimate cluster values from the mean of the ultimate clusters. Ultimate cluster values are estimated as the sum of the synthetic variable  $Z_{hij}$  across units within the cluster. In the case of the CSFII surveys, the units within ultimate clusters are the individuals within a PSU. These individuals are indexed by  $j$ . Incorporating the definition of the synthetic variable resulting from the Taylor series linearization, the ultimate cluster can be expressed as

$$Z_{hi} = \frac{\sum_{j=1}^{m_{hi}} w_{hij}(y_{hij} - \hat{R}x_{hij})}{\sum_{h=1}^H \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij}x_{hij}} .$$

Substituting this definition of  $Z_{hi}$  into the first equation yields

$$\hat{V}(\hat{R}) = \sum_{h=1}^H n_h \sum_{i=1}^{n_h} \frac{1}{n_h - 1} \left[ \frac{\sum_{j=1}^{m_{hi}} w_{hij}(y_{hij} - \hat{R}x_{hij})}{\sum_{h=1}^H \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij}x_{hij}} - \frac{1}{n_h} \sum_{i=1}^{n_h} \frac{\sum_{j=1}^{m_{hi}} w_{hij}(y_{hij} - \hat{R}x_{hij})}{\sum_{h=1}^H \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij}x_{hij}} \right]^2 .$$

Define

$$\hat{X} = \sum_{h=1}^H \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij}x_{hij}$$

and

$$y_{hi} = \sum_{j=1}^{m_{hi}} w_{hij}y_{hij} \quad x_{hi} = \sum_{j=1}^{m_{hi}} w_{hij}x_{hij}$$

$$\bar{y}_h = \frac{\sum_{i=1}^{n_h} y_{hi}}{n_h} \quad \bar{x}_h = \frac{\sum_{i=1}^{n_h} x_{hi}}{n_h} .$$

Applying these definitions to the equation for  $V(R)$  and redistributing terms yields

$$\hat{V}(\hat{R}) = \sum_{h=1}^H \frac{n_h}{\hat{X}^2} \left[ \sum_{i=1}^{n_h} \frac{(y_{hi} - \bar{y}_h)^2}{n_h - 1} - \frac{2\hat{R} \sum_{i=1}^{n_h} (y_{hi} - \bar{y}_h)(x_{hi} - \bar{x}_h)}{n_h - 1} + \frac{\hat{R}^2 \sum_{i=1}^{n_h} (x_{hi} - \bar{x}_h)^2}{n_h - 1} \right]$$

Hence,

$$\hat{V}(\hat{R}) = \sum_{h=1}^H \frac{n_h}{\hat{X}^2} \left[ \hat{s}_{y_h}^2 - 2\hat{R}\hat{s}_{xy_h} + \hat{R}^2\hat{s}_{x_h}^2 \right] \quad (2)$$

In order to show equation (1), it is sufficient to show (2).

Since

$$(\hat{R} - R) = \frac{\hat{Y} - R\hat{X}}{\hat{X}}, \quad \text{where} \quad \hat{R} = \frac{\sum_{h=1}^H \hat{Y}}{\sum_{h=1}^H \hat{X}}$$

$$\begin{aligned} \text{then } V(\hat{R}) &= E(\hat{R} - R)^2 = \frac{1}{\hat{X}^2} E \left[ \sum_{h=1}^H \sum_{i=1}^{n_h} (y_{hi} - R x_{hi}) \right]^2 \\ &= \frac{1}{\hat{X}^2} E \left[ \sum_{h=1}^H \sum_{i=1}^{n_h} [(y_{hi} - \bar{y}_h) - R(x_{hi} - \bar{x}_h)] \right]^2. \end{aligned}$$

Because the strata are independent, the previous equation becomes

$$= \frac{1}{\hat{X}^2} \sum_{h=1}^H E \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{y}_h) - R \sum_{i=1}^{n_h} (x_{hi} - \bar{x}_h) \right]^2.$$

Expanding this equation yields

$$= \frac{1}{\hat{X}^2} \sum_{h=1}^H \left[ E \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{y}_h) \right]^2 - 2RE \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{y}_h)(x_{hi} - \bar{x}_h) \right] + R^2 E \left[ \sum_{i=1}^{n_h} (x_{hi} - \bar{x}_h) \right]^2 \right]$$

where

$$\begin{aligned}
& E \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{Y}_h) \right]^2 \\
&= \sum_{\text{sample} \in h} \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{Y}_h) \right]^2 P(\text{sample} \in h)
\end{aligned}$$

which can be rewritten as

$$= \sum_{\text{sample} \in h} \left[ \sum_{i=1}^{n_h} (y_{hi} - \bar{Y}_h)^2 + \sum_{i \neq i'}^{n_h} (y_{hi} - \bar{Y}_h)(y_{hi'} - \bar{Y}_h) \right] P(\text{sample} \in h).$$

Because the PSUs were sampled with replacement, the previous equation can be stated as

$$\begin{aligned}
&= \sum_{i=1}^{N_h} \frac{n_h}{N_h} [(y_{hi} - \bar{Y}_h)^2] + \sum_{i \neq i'}^{N_h} \frac{n_h}{N_h} [(y_{hi} - \bar{Y}_h)(y_{hi'} - \bar{Y}_h)] \\
&= n_h \left[ \sum_{i=1}^{N_h} \frac{(y_{hi} - \bar{Y}_h)^2}{N_h} + \sum_{i \neq i'}^{N_h} \frac{(y_{hi} - \bar{Y}_h)(y_{hi'} - \bar{Y}_h)}{N_h} \right].
\end{aligned}$$

Further, the PSUs sampled with replacement are independent, yielding

$$n_h \left[ \sum_{i=1}^{N_h} \frac{(y_{hi} - \bar{Y}_h)^2}{N_h} + 0 \right],$$

which can be expressed as

$$n_h s_{yh}^2.$$

Likewise,

$$E \left[ \sum_{i=1}^{n_h} (x_{hi} - \bar{X}_h) \right]^2 = n_h s_{xh}^2, \quad E \left[ \sum_{i=1}^{n_h} (x_{hi} - \bar{X}_h)(y_{hi} - \bar{Y}_h) \right] = n_h s_{xyh}.$$

Hence,

$$V(\hat{R}) = \frac{1}{\sum_{h=1}^H n_h} \left[ s_{y_h}^2 - 2R s_{xy_h}^2 + R^2 s_{x_h}^2 \right].$$

Thus, as an estimate of

$$V(\hat{R}),$$

substituting

$$s_{y_h}^2 \rightarrow \hat{s}_{y_h}^2, \quad s_{x_h}^2 \rightarrow \hat{s}_{x_h}^2, \quad s_{xy_h}^2 \rightarrow \hat{s}_{xy_h}^2,$$

yields

$$\hat{v}(\hat{R}) \rightarrow V(\hat{R}).$$

### Estimation of Potential Bias in the Mean Estimate

The ratio estimate of the mean was unbiased, provided that the higher order terms in the Taylor series expansion were considered negligible. To assess the validity of this assumption, a bias correction using a second order Taylor series expansion was performed and estimates were compared to the uncorrected estimates.

Again, if  $F(X,Y)$  is defined as  $E(g(X,Y))$ , then

$$E(g(x,y)) = \frac{\mu_y}{\mu_x} - \frac{COV(\hat{X}, \hat{Y})}{E(\hat{X})^2} + \frac{V(\hat{X})E(\hat{Y})}{E(\hat{X})^3}.$$

Thus, bias-corrected means were calculated as

$$\hat{R}_t + \frac{Cov(\hat{X}, \hat{Y})}{E(\hat{X})^2} - \frac{V(\hat{X})E(\hat{Y})}{E(\hat{X})^3}.$$

Both uncorrected and bias-corrected mean estimates from the combined USDA 1994, 1995, and 1996 CSFII are listed in Table B.1 and Table B.2. The bias correction was inconsequential for the estimates from the United States population. This was likely due to the large sample sizes. The bias-corrected mean estimates for “consumers only” differed slightly from the uncorrected mean estimates; however, the difference was in the second decimal place. Given that the consumption data were recalled, this difference in the second decimal place was

considered inconsequential. Therefore, uncorrected mean estimates were reported in the document.

### Percentile Estimates

Denote the  $p^{\text{th}}$  percentile of the distribution  $F$  as  $z_p$ . Define  $z_p$  as

$$z_p = \inf\{F(Y) \geq p\}.$$

The cumulative distribution,  $F(Y)$ , is estimated as

$$F(\hat{Y}) = \sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij}^* a_{hij}$$

with

$$w_{hij}^* = \frac{w_{hij}}{\sum_{h=1}^{43} \sum_{i=1}^2 \sum_{j=1}^{n_{hi}} w_{hij}} = \frac{w_{hij}}{\hat{X}}$$

and  $a_{hij} = 1$  if  $y_{hij} \leq y$ ; 0 otherwise.

Thus, the  $p^{\text{th}}$  percentile is estimated as

$$\hat{F}^{-1}(p), \quad 0 < p < 1.$$



**TABLE B.1. BIAS-CORRECTED AND UNCORRECTED ESTIMATES OF MEAN AS PREPARED FISH CONSUMPTION**

<b>Population</b>	<b>Fish Type</b>	<b>Habitat</b>	<b>Uncorrected Estimate (grams/person/day)</b>	<b>Bias-Corrected Estimate (grams/person/day)</b>	<b>Difference (grams/person/day)</b>
U.S.	Finfish	Freshwater/Estuarine	2.55	2.55	0.00
		Marine	6.57	6.57	0.00
		All	9.12	9.12	0.00
U.S.	Shellfish	Freshwater/Estuarine	2.03	2.03	0.00
		Marine	1.68	1.68	0.00
		All	3.70	3.70	0.00
U.S.	Finfish and Shellfish	Freshwater/Estuarine	4.58	4.58	0.00
		Marine	8.25	8.25	0.00
		All	12.83	12.83	0.00
Consumers Only	Finfish and Shellfish	Freshwater/Estuarine	56.27	56.27	0.00
		Marine	80.19	80.21	0.02
		All	92.02	92.02	0.00

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day reporting period.

Estimates are projected from the sample to the U.S. population (or population of consumers only) using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

**TABLE B.2. BIAS-CORRECTED AND UNCORRECTED ESTIMATES OF MEAN UNCOOKED FISH CONSUMPTION**

<b>Population</b>	<b>Fish Type</b>	<b>Habitat</b>	<b>Uncorrected Estimate (grams/person/day)</b>	<b>Bias-Corrected Estimate (grams/person/day)</b>	<b>Difference (grams/person/day)</b>
U.S.	Finfish	Freshwater/Estuarine	3.57	3.57	0.00
		Marine	9.02	9.01	0.01
		All	12.59	12.58	0.01
U.S.	Shellfish	Freshwater/Estuarine	2.73	2.73	0.00
		Marine	1.57	1.57	0.00
		All	4.29	4.30	0.01
U.S.	Finfish and Shellfish	Freshwater/Estuarine	6.30	6.30	0.00
		Marine	10.58	10.58	0.00
		All	16.88	16.88	0.00
Consumers Only	Finfish and Shellfish	Freshwater/Estuarine	77.55	77.55	0.00
		Marine	102.93	102.95	0.02
		All	121.33	121.33	0.00

(1) Source of data: 1994-1996, 1998 USDA Continuing Survey of Food Intakes by Individuals (CSFII).

(2) Estimates are based on 2-day averages.

(3) Consumers only = Individuals who consumed fish at least once during the 2-day reporting period.

Estimates are projected from the sample to the U.S. population (or population of consumers only) using 4-year combined survey weights.

(4) The fish component of foods containing fish was calculated using data from the recipe file of the USDA's Nutrient Data Base for Individual Food Intake Surveys.

Computationally,  $y_{hij}$  is arranged in ascending order across all values of the indices. The survey weights associated with the arranged  $y_{hij}$  are summed until the first instance when the value of  $p$  is exceeded.

### **Bootstrap Intervals for Percentile Estimates**

In addition to point estimates of the median and upper percentiles of the empirical distributions of daily average fish consumption, Sections 4 and 5 report 90–percent interval estimates for the 90th, 95th, and 99th percentiles. Reported interval estimates are nonparametric estimates resulting from bootstrapping techniques reported by Efron (Efron 1982).

The reported bootstrap intervals do not result from direct estimates of the standard deviation of the point estimate. Rather, the bootstrap estimates result from the percentile method, which estimates the lower and upper bounds for the interval estimate by the 100<sup>th</sup> percentile and 100(1–<sup>th</sup>) percentile estimates from the nonparametric distribution of the given point estimate. This distribution of the observed values of the given point estimate is determined from repeated resampling of the empirical data.

Resampling was conducted, with replacement, in accordance with the structure of the sampling data. In the case of all four CSFII surveys, resampling was conducted at the stratum\*PSU level. For each bootstrap sampling iteration, the  $n_{hij}$  daily average consumption values in a stratum\*PSU were resampled with replacement until the resample contained  $n_{hij}$  observations. The frequency of a given consumption value from the stratum\*PSU in the resample is determined by either a Poisson or binomial random number generator. If the number of observations remaining to be drawn for the resample at the  $k^{\text{th}}$  draw, where  $0 < k \leq n_{hij}$ , is greater than 50, and the ratio of the number of observations remaining to be drawn to the number of draws remaining is less than five, then the random number for the frequency the given observation appears in the resample results from a Poisson distribution. The mean of the Poisson distribution is the ratio of the number of observations remaining to be drawn to the number of draws remaining. If the number of observations remaining to be included in the resample is less than or equal to 50, the frequency for the given observation results from a binomial random number generator. The binomial distribution for the random generator has an  $n$  equal to the number of remaining draws and a  $p$  of one divided by the number of remaining draws. This method is an adaptation of a method provided by Ahrens and Dieter (Kennedy 1980).

As an illustration of the resampling algorithm, suppose there are 129 observations in a given stratum\*PSU. At the initiation of the bootstrap resampling, the ratio of the number of observations remaining to be drawn in the resample to the number of draws remaining is 1. Therefore, a number is generated from a Poisson random number generator with the mean of

1. The number from the random generator determines the number of times the value of the first observation from the original sample is included in the bootstrap resample. Further, suppose that after the 99th draw from the sample, 101 observations were included in the bootstrap resample. For the 100th draw, there are 28 (129–101) observations remaining to be included in the resample. After the 99th draw, there are 30 draws remaining to be conducted. Therefore, the frequency with which the 100th observation in the original sample will appear in the resample is determined from a binomial random generator with  $n=28$  and  $p=1/30$ .

One thousand resamples were drawn from each stratum\*PSU. For each complete set of strata\*PSUs, the given point estimate was calculated as described above. Therefore, if  $(x^*_1, x^*_2, x^*_3, \dots, x^*_{1000})$  represents the 1,000 bootstrap resamples, then let  $(p^*_1, p^*_2, p^*_3, \dots, p^*_{1000})$  represent the resulting estimates of the  $p^{\text{th}}$  percentile from the 1,000 resamples. The value of the 5th percentile of the empirical distribution of the given percentile estimate from the bootstrap resamples ( $p^*_{5\%}$ ) is the lower bound for the 90–percent bootstrap interval estimate. Likewise, the value of the 95th percentile from the distribution of bootstrap estimates ( $p^*_{95\%}$ ) is the upper bound estimate for the 90–percent interval estimate. The central point of the estimated 90–percent interval is not necessarily the reported value of the  $p^{\text{th}}$  percentile estimate; this is due to the asymmetry of the distribution of the percentile estimates.

**APPENDIX C**

**DATA CONVENTIONS**

**APPENDIX C-1. PERCENTAGE OF FISH IN 22 INGREDIENT CODES ..... C-1**

**APPENDIX C-2. USDA GUIDANCE AND EXAMPLES FOR THE CALCULATION OF P%  
AND GUI ..... C-2**

**APPENDIX C-1. PERCENTAGE OF FISH IN 22 INGREDIENT CODES**

Ingredient Code	Description	OPP/USDA % Fish
6027	Soup, Manhattan clam chowder, chunky, rts	31.09
6230	Soup, clam chowder, New Eng, prep W/milk	39.91
6256	Soup, Crm of shrimp, prep w/milk, com	3.06
6428	Soup, clam chowder, Manhattan, prep w/ H2O	31.09
6430	Soup, clam chowder, New Eng., prep w/h2O	40.51
6456	Soup, Crm of Shrimp, prep w/H2O, com	3.06
15002	Anchovy, European, cnd, oil, drnd	91.57
15014	Cisco, smoked	98.24
15018	Cod, Atlantic, Dried & salted	88.91
15027	Fish portions & stk, frx, rehtd, (fish sticks)	44.84
15041	Herring, Atlantic, pickled	78.20
15042	Herring, Atlantic, kippered	98.07
15077	Salmon, chinook, smoked	98.10
15080	Salmon, chum, cnd, drnd, w/bone	98.90
15084	Salmon, pink, cnd, 2/bone & liq	98.90
15087	Salmon, sockeye, cnd, drnd w/bone	98.90
15088	Sardine, atlantic, cnd, oil, drnd w/bone	99.24
15089	Sardine, pacific, cnd, tomato sau, drnd	77.33
15119	Tuna, lt, cnd, oil drnd	93.25
15121	Tuna, cnd, h2O, drnd	99.18
15126	Tuna, cnd, h2o drnd, white meat	99.18
15131	Whitefish, mxd sp, smoked	98.40

## APPENDIX C-2. USDA Guidance and Examples for the Calculation of P% and GUI

### Example 1: No moisture or fat change

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (GUI), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

			Recipe Yield	Moist. Change	Fat Change	Fat Code									
			(Ryld)	(M_chg)	(F_chg)	(F_Code)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Recipe Code	Ingredient Code	Ingredient description	Retn code	Recipe ingred amount	Ingred amount in 100 gms of recipe	Amount of moist. in 100 gms ingred	Amount of ingred moist. in 100 gms of recipe	Ingred moist. as percent of recipe total	Amount of moist. lost per ingred	Ingred amount in 100 gms of recipe adjusted for loss	Ingred amount as percent of prepared product	Ingred amount needed to prepare 100 gms of product			
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi-)	(Pgmi)	(P%)	(GUI)			
11513100	1077	Milk, whl, 3.3% fat	0	244.000	91.7293	87.990	80.7126	0.99908	0.0000	91.7293	0.91729	91.729			
11513100	14175	Choc flav bev mix	0	22.000	8.2707	0.900	0.0744	0.00092	0.0000	8.2707	0.08271	8.271			
<b>Recipe totals:</b>				266.00	100.000		80.7871	1.00000	0.0000	100.000	1.00000				

- Steps/Calculations:
- (1) Gmi = Values are from the 1994–96 CSFII Recipe Database
  - (2)  $Gmi_{100} = (Gmi / \sum(Gmi)) * 100$
  - (3) Mi\_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
  - (4)  $Mi = Gmi_{100} * (M_{100} / 100)$
  - (5)  $Mi\% = Mi / \sum(Mi)$
  - (6)  $Mi- = Mi\% * M\_chg$
  - (7)  $Pgmi = Gmi_{100} + (Mi-)$
  - (8)  $P\% = Pgmi / \sum(Pgmi)$
  - (9)  $Gui = (Gmi_{100} / Ryld) * 100$

**Example 2: A moisture loss and no fat change**

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (GU<sub>i</sub>), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

			<b>Recipe Yield</b>	<b>Moist. Change</b>	<b>Fat Change</b>	<b>Fat Code</b>							
			(Ryld)	(M_chg)	(F_chg)	(F_Code)							
11512500 Spanish-style hot chocolate drink			87.00	-13.0	0.0	0							
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Recipe Code</b>	<b>Ingredient Code</b>	<b>Ingredient description</b>	<b>Retn code</b>	<b>Recipe ingred amount</b>	<b>Ingred amount in 100 gms of recipe</b>	<b>Amount of moist. in 100 gm ingred</b>	<b>Amount of ingred moist. in 100 gms of recipe</b>	<b>Ingred moist. as percent of recipe total</b>	<b>Amount of moist. lost per ingred</b>	<b>Ingred amount in 100 gms of recipe adjusted for loss</b>	<b>Ingred amount as percent of prepared product</b>	<b>Ingred amount needed to prepare 100 gms of product</b>	
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi-)	(Pgmi)	(P%)	(GU <sub>i</sub> )	
11512500	1096	Milk, cnd, evap, whl	2151	756.000	47.8273	74.040	35.4113	0.44053	-5.7268	42.1005	0.48391	54.974	
11512500	2010	Cinnamon, ground	0	0.287	0.0182	9.520	0.0017	0.00002	-0.0003	0.0179	0.00021	0.021	
11512500	14429	Water, municipal	0	711.000	44.9804	99.900	44.9355	0.55901	-7.2671	37.7133	0.43349	51.702	
11512500	19081	Candies, swt choc	0	113.400	7.1741	0.500	0.0359	0.00045	-0.0058	7.1683	0.08239	8.246	
<b>Recipe totals:</b>				1580.69	100.0000		80.3844	1.00000	-13.000	87.0000	1.00000		

- Steps/Calculations:
- (1) Gmi = Values are from the 1994-96 CSFII Recipe Database
  - (2) Gmi\_100 = (Gmi/sum(Gmi)) \* 100
  - (3) Mi\_100 = Values are obtained from the 1994-96 CSFII Nutrient Database
  - (4) Mi = Gmi\_100 \* (M\_100/100)
  - (5) Mi% = Mi/sum(Mi)
  - (6) Mi- = Mi% \* M\_chg
  - (7) Pgmi = Gmi\_100 + (Mi-)
  - (8) P% = Pgmi/sum(Pgmi)
  - (9) Gui = (Gmi\_100/Ryld) \* 100



**Example 3: A moisture loss and a fat gain**

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (Gui), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

			<b>Recipe Yield</b>	<b>Moist. Change</b>	<b>Fat Change</b>	<b>Fat Code</b>							
			(Ryld)	(M_chg)	(F_chg)	(F_Code)							
56201520 Cornmeal mush, fried			36.00	-65.1	1.1	4615							
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Recipe Code</b>	<b>Ingredient Code</b>	<b>Ingredient description</b>	<b>Retn code</b>	<b>Recipe ingred amount</b>	<b>Ingred amount in 100 gms of recipe</b>	<b>Amount of moist. in 100 gms ingred</b>	<b>Amount of ingred moist. in 100 gms of recipe</b>	<b>Ingred moist. as percent of recipe total</b>	<b>Amount of moist. lost per ingred</b>	<b>Ingred amount in 100 gms of recipe adjusted for loss</b>	<b>Ingred amount as percent of prepared product</b>	<b>Ingred amount needed to prepare 100 gms of product</b>	
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi-)	(Pgmi)	(P%)	(Gui)	
56201520	2047	Salt, table	0	3.000	0.2755	0.200	0.0006	0.00001	-0.0004	0.2751	0.00764	0.765	
56201520	4615	fat_added	0	—	1.1000	0.000	0.0000	0.00000	0.0000	1.1000	0.03056	3.056	
56201520	14429	Water, municipal	0	948.000	87.0523	99.900	86.9653	0.98339	-64.0184	23.0339	0.63983	241.812	
56201520	20022	Cornmeal, degermed, enr, yel	305	138.000	12.6722	11.590	1.4687	0.01661	-1.0812	11.5910	0.32197	35.200	
<b>Recipe totals:</b>				1089.00	101.1000		88.4345	1.00000	-65.1000	36.0000	1.00000		

- Steps/Calculations:
- (1) Gmi = Values are from the 1994–96 CSFII Recipe Database
  - (2) Gmi\_100 = (Gmi/sum(Gmi)) \* 100
  - (3) Mi\_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
  - (4) Mi = Gmi\_100 \* (M\_100/100)
  - (5) Mi% = Mi/sum(Mi)
  - (6) Mi- = Mi% \* M\_chg
  - (7) Pgmi = Gmi\_100 + (Mi-)
  - (8) P% = Pgmi/sum(Pgmi)
  - (9) Gui = (Gmi\_100/Ryld) \* 100

**Example 4: No moisture or fat change but an ingredient with a moisture loss**

This situation requires calculating P% and GUI amounts for ingredients of ingredients in a foodcode recipe using a two stage process:

Stage I. Calculate the amount of each ingredient required to prepare 100 grams of the food (GUI) and the amount of each ingredient as a proportion of the prepared food within each individual recipe. [Comparable to examples 1+2]

Stage II. Where an ingredient has a recipe (e.g., the ingredient 53114200 in the recipe 53114150), merge it's ingredient information with the foodcode recipe ingredient information and calculate compound ingredient P% and Gui amounts.

<u>Stage I.</u>				Recipe Yield	Moist. Change	Fat Change	Fat Code									
				(Ryld)	(M_chg)	(F_chg)	(F_Code)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Recipe Code	Ingredient Code	Ingredient description	Retn code	Recipe ingred amount	Ingred amount in 100 gms of recipe	Amount of moist. in 100 gms ingred	Amount of ingred moist. in 100 gms of recipe	Ingred moist. as percent of recipe total	Amount of moist. lost per ingred	Ingred amount in 100 gms of recipe adjusted for loss	Ingred amount as percent of prepared product	Ingred amount needed to prepare 100 gms of product				
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi-)	(Pgmi)	(P%)	(GUI)				
Foodcode Recipe:		53114150 Cake, lemon, lowfat, NS as to icing		100.0		0.0		0.0		0						
Ingredient Recipe:		53114200 Cake, lemon, lowfat, without icing		80.00		-20.0		0.0		0						
Ingredient Recipe:		91305020 Icing, white		100.00		0.0		0.0		0						
Recipe Totals:				1248.00	100.0000		21.8474	1.00000	0.0000	100.0000	1.00000					
53114200	1123	Eggs, chick, whl, raw/frz	101	100.000	10.8217	75.330	8.1520	0.18657	-3.7314	7.0903	0.08863	13.527				
53114200	14429	Water, municipal	0	308.100	33.3416	99.900	33.3083	0.76231	-15.2463	18.0954	0.22619	41.677				
53114200	18142	Cake, yel, dry mix, pudd-type	301	515.970	55.8367	4.000	2.2335	0.05112	-1.0223	54.8144	0.68518	69.796				
Recipe Totals:				924.07	100.0000		43.6937	1.00000	-20.0000	80.0000	1.00000					
91305020	2047	Salt, table	0	1.500	0.2619	0.200	0.0005	0.00006	0.0000	0.2619	0.00262	0.262				
91305020	2050	Vanilla extract	0	4.333	0.7566	52.580	0.3978	0.04610	0.0000	0.7566	0.00757	0.757				
91305020	4610	Margarine, reg, stick, comp, 80% fat	0	75.125	13.1181	15.700	2.0595	0.23869	0.0000	13.1181	0.13118	13.118				
91305020	19336	Sugars, pdr	0	453.600	79.2061	0.300	0.2376	0.02754	0.0000	79.2061	0.79206	79.206				
91305020	11100000	Milk, nfs	0	38.125	6.6573	89.121	5.9330	0.68761	0.0000	6.6573	0.06657	6.657				
91305020	Recipe Totals:			572.68	100.0000		8.6285	1.00000	0.0000	100.0000	1.00000					

- Steps/Calculations:
- (1) Gmi = Values are from the 1994-96 CSFII Recipe Database
  - (2)  $Gmi_{100} = (Gmi / \sum(Gmi)) * 100$
  - (3)  $Mi_{100}$  = Values are obtained from the 1994-96 CSFII Nutrient Database
  - (4)  $Mi = Gmi_{100} * (M_{100} / 100)$
  - (5)  $Mi\% = Mi / \sum(Mi)$
  - (6)  $Mi- = Mi\% * M\_chg$

- (7)  $P_{gmi} = G_{mi\_100} + (M_i -)$
- (8)  $P\% = P_{gmi} / \text{sum}(P_{gmi})$
- (9)  $G_{ui} = (G_{mi\_100} / R_{yld}) * 100$

**Stage II.**

Foodcode recipe information						Ingredient recipe information in 100 grams of ingredient					(1)	(2)
Recipe code	Rec yld	Ingred. Code	Ingred Gmi_100	Ingred. P%	Ingred. GUi	Rec yld	Ingred. Code	Ingred Gmi_100	Ingred. P%	Ingred. GUi	Compound P%	Compound GUi
	(Ryld)		(Gmi_100)	(P%)	(GUi)	(I_Ryld)		(I_Gmi_100)	(I_P%)	(I_GUi)	(C_P%)	(C_GUi)
53114150	100.0	53114200	62.9808	0.62981	62.981	80.0	1123	10.8217	0.08863	13.527	0.05582	8.519
							14429	33.3416	0.22619	41.677	0.14246	26.249
							18142	55.8367	0.68518	69.796	0.43153	43.958
<b>Ingredient recipe subtotals:</b>											0.62981	78.726
		91305020	37.0192	0.37019	37.019	100.0	2047	0.2619	0.00262	0.262	0.00097	0.097
							2050	0.7566	0.00757	0.757	0.00280	0.280
							4610	13.1181	0.13118	13.118	0.04856	4.856
							19336	79.2061	0.79206	79.206	0.29321	29.322
							11100000	6.6573	0.06657	6.657	0.02465	2.464
<b>Ingredient recipe subtotals:</b>											0.37019	37.019
<b>Foodcode recipe totals:</b>											1.00000	115.745

Steps/Calculations: (1)  $C\_P\% = P\% * I\_P\%$   
 (2)  $C\_GUi = (G_{mi\_100} / R_{yld}) * (I\_Gmi\_100 / I\_Ryld) * 100$

**Example 5: A moisture loss and an ingredient with a moisture loss**

This situation requires calculating nested ingredient amounts in a two stage process:

Stage I. Calculate the amount of each ingredient required to prepare 100 grams of the food (GU<sub>i</sub>) and the amount of each ingredient as a proportion of the prepared food within each individual recipe. [Comparable to example 2]

Stage II. Where an ingredient has a recipe (e.g., the ingredient 53116000 in the recipe 13210160), merge it's ingredient information with the foodcode recipe ingredient information and calculate compound ingredient P% and GU<sub>i</sub> amounts.

**Stage I.**

				<b>Recipe Yield</b>	<b>Moist. Change</b>	<b>Fat Change</b>	<b>Fat Code</b>					
				(Ryld)	(M_chg)	(F_chg)	(F_Code)					
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				<b>Recipe ingred amount</b>	<b>Ingred amount in 100 gms of recipe</b>	<b>Amount of moist. in 100 gms ingred</b>	<b>Amount of ingred moist. in 100 gms of recipe</b>	<b>Ingred moist. as percent of recipe total</b>	<b>Amount of moist. lost per ingred</b>	<b>Ingred amount in 100 gms of recipe adjusted for loss</b>	<b>Ingred amount as percent of prepared product</b>	<b>Ingred amount needed to prepare 100 gms of product</b>
<b>Recipe Code</b>	<b>Ingredient Code</b>	<b>Ingredient description</b>	<b>Retn code</b>	(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi-)	(Pgmi)	(P%)	(GU <sub>i</sub> )
Foodcode Recipe:	13210160	Diplomat pudding, Puerto Rican sty		65.40	-34.6	0.0	0					
Ingredient Recipe:	53116000	Cake, pound, without icing		88.00	-12.0	0.0	0					
<b>Recipe totals:</b>				1582.84	100.000		59.7089	1.00000	-34.6000	65.4000	1.00000	
13210160	1077	Milk, whl, 3.3% fat	2152	488.000	30.8307	87.990	27.1279	0.45434	-15.7201	15.1107	0.23105	47.142
13210160	1123	Eggs, chick, whl, raw/frz	101	300.000	18.9533	75.330	14.2775	0.23912	-8.2735	10.6798	0.16330	28.981
13210160	2010	Cinnamon, ground	0	1.150	0.0727	9.520	0.0069	0.00012	-0.0040	0.0686	0.00105	0.111
13210160	2047	Salt, table	0	0.750	0.0474	0.200	0.0001	0.00000	-0.0001	0.0473	0.00072	0.072
13210160	9100	Fruit cocktail, cnd, hvy syrup	151	248.000	15.6681	80.400	12.5971	0.21098	-7.2998	8.3683	0.12796	23.957
13210160	9156	Lemon peel, raw	0	6.000	0.3791	81.600	0.3093	0.00518	-0.1792	0.1998	0.00306	0.580
13210160	14429	Water, municipal	0	4.937	0.3119	99.900	0.3116	0.00522	-0.1806	0.1313	0.00201	0.477
13210160	19335	Sugars, granulated	0	200.000	12.6355	0.000	0.0000	0.00000	0.0000	12.6355	0.19320	19.320
13210160	42222	Sweet liqueur, bkd 46-60 min	0	34.000	2.1480	46.200	0.9924	0.01662	-0.5751	1.5730	0.02405	3.284
13210160	53116000	Cake, pound, w/o icing	301	300.000	18.9533	21.558	4.0860	0.06843	-2.3677	16.5856	0.25360	28.981
<b>Recipe totals:</b>				1582.84	100.000		59.7089	1.00000	-34.6000	65.4000	1.00000	
53116000	1123	Eggs, chick, whl, raw/frz	101	150.000	25.2838	75.330	19.0463	0.61497	-7.3796	17.9041	0.20346	28.732
53116000	2047	Salt, table	0	1.002	0.1689	0.200	0.0003	0.00001	-0.0001	0.1688	0.00192	0.192
53116000	4610	Margarine, reg, stick, comp, 80% fat	0	84.600	14.2600	15.700	2.2388	0.07229	-0.8675	13.3926	0.15219	16.205
53116000	14429	Water, municipal	0	0.617	0.1040	99.900	0.1039	0.00335	-0.0403	0.0637	0.00072	0.118
53116000	18369	Baking pdr, double-acting, NaAlSO4	0	2.875	0.4846	5.000	0.0242	0.00078	-0.0094	0.4752	0.00540	0.551
53116000	19335	Sugars, granulated	0	150.000	25.2838	0.000	0.0000	0.00000	0.0000	25.2838	0.28732	28.732
53116000	20084	Wheat flr, white, cake, enr	301	163.500	27.5593	12.510	3.4477	0.11132	-1.3358	26.2235	0.29799	31.317
53116000	11100000	Milk, nfs	2152	40.672	6.8556	89.121	6.1098	0.19727	-2.3673	4.4883	0.05100	7.790
<b>Recipe totals:</b>				593.27	100.0000		30.9710	1.00000	-12.0000	88.0000	1.00000	

- Steps/Calculations:
- (1) Gmi = Values are from the 1994-96 CSFII Recipe Database
  - (2)  $Gmi_{100} = (Gmi / \sum(Gmi)) * 100$
  - (3) Mi\_100 = Values are obtained from the 1994-96 CSFII Nutrient Database
  - (4)  $Mi = Gmi_{100} * (M_{100}/100)$
  - (5)  $Mi\% = Mi / \sum(Mi)$

- (6)  $Mi- = Mi\% * M\_chg$
- (7)  $Pgmi = Gmi\_100 + (Mi-)$
- (8)  $P\% = Pgmi/sum(Pgmi)$
- (9)  $Gui = (Gmi\_100/Ryld) * 100$

**Stage II.**

Foodcode recipe information						Ingredient recipe information in 100 grams of ingredient					(1)	(2)	
Recipe code	Rec yld	Ingred. Code	Ingred Gm1_100	Ingred. P%	Ingred. GUi	Rec yld	Ingred. Code	Ingred Gm1_100	Ingred. P%	Ingred. GUi	Compound P%	Compound GUi	
	(Ryld)		(Gmi_100)	(P%)	(GUi)	(I_Ryld)		(I_Gmi_100)	(I_P%)	(I_GUi)	(C_P%)	(C_GUi)	
13210160	65.4	1077	30.8307	0.23105	47.142						0.23105	47.142	
		1123	18.9533	0.16330	28.981						0.16330	28.981	
		2010	0.0727	0.00105	0.111						0.00105	0.111	
		2047	0.0474	0.00072	0.072						0.00072	0.072	
		9100	15.6681	0.12796	23.957						0.12796	23.957	
		9156	0.3791	0.00306	0.580						0.00306	0.580	
		14429	0.3119	0.00201	0.477						0.00201	0.477	
		19335	12.6355	0.19320	19.320						0.19320	19.320	
		42222	2.1480	0.02405	3.284						0.02405	3.284	
											<b>Subtotals:</b>	0.74640	123.924
		53116000	18.9533	0.25360	28.981	88.0	1123	25.2838	0.20346	28.732	0.05160	8.327	
							2047	0.1689	0.00192	0.192	0.00049	0.056	
							4610	14.2600	0.15219	16.205	0.03860	4.696	
							14429	0.1040	0.00072	0.118	0.00018	0.034	
							18369	0.4846	0.00540	0.551	0.00137	0.160	
							19335	25.2838	0.28732	28.732	0.07286	8.327	
							20084	27.5593	0.29799	31.317	0.07557	9.076	
							11100000	6.8556	0.05100	7.790	0.01293	2.258	
											<b>Ingredient recipe subtotals:</b>	0.25360	32.934
											<b>Foodcode recipe totals:</b>	1.00000	156.858

Steps/Calculations: (1)  $C\_P\% = P\% * I\_P\%$   
 (2)  $C\_GUi = (Gmi\_100/Ryld) * (I\_Gmi\_100/I\_Ryld) * 100$

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