

# Per Capita Consumption

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The NMFS calculation of per capita consumption is based on a “disappearance” model. The total U.S. supply of imports and landings is converted to edible weight, and decreases in supply such as exports and industrial uses are subtracted out. The remaining total is divided by the U.S. population to estimate per capita consumption. Data for the model are derived primarily from secondary sources and are subject to incomplete reporting; changes in source data or invalid model assumptions may each have a significant effect on the resulting calculation.

Estimated U.S. per capita consumption of fish and shellfish was 14.5 pounds (edible meat) in 2013. This total was essentially unchanged from the 14.4 pounds consumed in 2012. The small change is due to an increase in canned seafood consumption where a small reduction in canned tuna consumption was offset by a larger increase in canned salmon consumption. Domestic production of canned salmon was particularly high due to a large pink salmon harvest in 2013.

Per capita consumption of fresh and frozen products was 10.5 pounds, no change from 2012. Fresh and frozen finfish accounted for 5.6 pounds, while fresh and frozen shellfish consumption was 4.9 pounds per capita.

Consumption of canned fishery products was 3.7 pounds per capita in 2013, up 0.1 pounds from 2012. Cured fish accounted for 0.3 pound per capita, the same as in previous years.

In previous volumes of Fisheries of the United States, NOAA has reported the percent of edible seafood consumption that is made up of imports. This measure has been rising in recent years reflecting the increase in imported seafood. Using the same model assumptions the corresponding figure for 2013 would be 94 percent. However, NOAA Fisheries believes

that the existing model may overestimate this percentage. The calculation is made by converting all imports, exports, domestic landings, and domestic processing into a common standard, edible meat weight. Numerous conversion factors are used to get to this edible meat weight standard, and the accuracy and variability of these various factors is likely to effect the overall calculation. In addition, this figure may include a substantial amount of domestic catch that was exported for further processing and returned to the United States as an import in a processed form. Therefore, while seafood imports do appear to be rising, the exact figure is difficult to know precisely. NOAA Fisheries plans to investigate better ways to report consumption and indicate our dependence on imported seafood.

## PER CAPITA USE

Per capita use is based on the supply of fishery products, both edible and non-edible (industrial), on a round-weight equivalent basis without considering beginning or ending stocks, defense purchases, or exports. The per capita use of all edible and industrial fishery products in 2013 was 66.4 pounds, up 0.3 pounds compared with 2012.

## WORLD CONSUMPTION

The FAO calculation for apparent consumption is based on a disappearance model. The three year average considers, on a round weight equivalent basis, a country’s landings, imports, and exports. The 2009-2011 average data indicates that the U.S. ranks as the third largest consumer of seafood in the world after China and Japan.

Annual per capita consumption of seafood products represents the pounds of edible meat consumed from domestically-caught and imported fish and shellfish adjusted for exports, divided by the civilian resident population of the United States as of July 1 of each year.

## U.S. ANNUAL PER CAPITA CONSUMPTION OF COMMERCIAL FISH AND SHELLFISH, 1910-2013

Year	Civilian Resident Population July 1 (1)	Per capita consumption			
		Fresh and frozen (2)	Canned (3)	Cured (4)	Total
	Million persons	-----Pounds, edible meat-----			
1910	92.2	4.5	2.8	3.9	11.2
1920	106.5	6.3	3.2	2.3	11.8
1930	122.9	5.8	3.4	1.0	10.2
1940	132.1	5.7	4.6	0.7	11.0
1950	150.8	6.3	4.9	0.6	11.8
1960	178.1	5.7	4.0	0.6	10.3
1970	201.9	6.9	4.5	0.4	11.8
1980	225.6	7.9	4.3	0.3	12.5
1985	236.2	9.8	5.0	0.3	15.1
1990	247.8	9.6	5.1	0.3	15.0
1991	250.5	9.7	4.9	0.3	14.9
1992	253.5	9.9	4.6	0.3	14.8
1993	256.4	10.2	4.5	0.3	15.0
1994	259.2	10.4	4.5	0.3	15.2
1995	261.4	10.0	4.7	0.3	15.0
1996	264.0	10.0	4.5	0.3	14.8
1997	266.4	9.9	4.4	0.3	14.6
1998	269.1	10.2	4.4	0.3	14.9
1999	271.5	10.4	4.7	0.3	15.4
2000	280.9	10.2	4.7	0.3	15.2
2001	283.6	10.3	4.2	0.3	14.8
2002	287.1	11.0	4.3	0.3	15.6
2003 (5)	289.6	11.4	4.6	0.3	16.3
2004	292.4	11.8	4.5	0.3	*16.6
2005	295.3	11.6	4.3	0.3	16.2
2006	298.2	*12.3	3.9	0.3	16.5
2007	300.5	12.1	3.9	0.3	16.3
2008	302.9	11.8	3.9	0.3	16.0
2009	305.8	12.0	3.7	0.3	16.0
2010	308.4	11.6	3.9	0.3	15.8
2011	310.4	10.9	3.8	0.3	15.0
2012	312.7	10.5	3.6	0.3	14.4
<b>2013</b>	<b>314.9</b>	<b>10.5</b>	<b>3.7</b>	<b>0.3</b>	<b>14.5</b>

(1) Resident population is used for 1910 and 1920 and civilian resident population is used since 1930.

(2) Fresh and frozen fish consumption for 1910 and 1920 is estimated. Beginning in 1973, data include consumption of cultivated catfish.

(3) Canned fish consumption for 1920 is estimated. Beginning in 1921, it is based on production reports, packer stocks, and foreign trade statistics for individual years.

(4) Cured fish consumption for 1910 and 1920 is estimated.

(5) The use of beginning and ending inventories was discontinued as of 2003.

\*Record years: Fresh & Frozen -- 12.3, 2006; Canned--5.8, 1936; Cured--4.0, 1909.

U.S. ANNUAL PER CAPITA CONSUMPTION OF CANNED FISHERY PRODUCTS, 1985-2013

Year	Salmon	Sardines	Tuna	Shellfish	Other	Total
	----- Pounds -----					
1985	0.5	0.3	3.3	0.5	0.4	5.0
1986	0.5	0.3	3.6	0.5	0.5	5.4
1987	0.4	0.3	3.5	0.5	0.5	5.2
1988	0.3	0.3	3.6	0.4	0.3	4.9
1989	0.3	0.3	3.9	0.4	0.2	5.1
<b>1990</b>	<b>0.4</b>	<b>0.3</b>	<b>3.7</b>	<b>0.3</b>	<b>0.4</b>	<b>5.1</b>
1991	0.5	0.2	3.6	0.4	0.2	4.9
1992	0.5	0.2	3.5	0.3	0.1	4.6
1993	0.4	0.2	3.5	0.3	0.1	4.5
1994	0.4	0.2	3.3	0.3	0.3	4.5
1995	0.5	0.2	3.4	0.3	0.3	4.7
1996	0.5	0.2	3.2	0.3	0.3	4.5
1997	0.4	0.2	3.1	0.3	0.4	4.4
1998	0.3	0.2	3.4	0.3	0.2	4.4
1999	0.3	0.2	3.5	0.4	0.3	4.7
<b>2000</b>	<b>0.3</b>	<b>0.2</b>	<b>3.5</b>	<b>0.3</b>	<b>0.4</b>	<b>4.7</b>
2001	0.4	0.2	2.9	0.3	0.4	4.2
2002	0.5	0.1	3.1	0.3	0.3	4.3
2003	0.4	0.1	3.4	0.4	0.3	4.6
2004	0.3	0.1	3.3	0.4	0.4	4.5
2005	0.4	0.1	3.1	0.4	0.3	4.3
2006	0.2	0.2	2.9	0.4	0.2	3.9
2007	0.3	0.2	2.7	0.4	0.3	3.9
2008	0.1	0.2	2.8	0.4	0.4	3.9
2009	0.2	0.2	2.5	0.4	0.4	3.7
<b>2010</b>	<b>0.2</b>	<b>0.2</b>	<b>2.7</b>	<b>0.4</b>	<b>0.4</b>	<b>3.9</b>
2011	0.2	0.2	2.6	0.4	0.4	3.8
2012	0.2	0.2	2.4	0.4	0.4	3.6
<b>2013</b>	<b>0.4</b>	<b>0.2</b>	<b>2.3</b>	<b>0.4</b>	<b>0.4</b>	<b>3.7</b>

## U.S. ANNUAL PER CAPITA CONSUMPTION OF CERTAIN FISHERY ITEMS, 1985-2013

Year	Fillets and steaks (1)	Sticks and portions	Shrimp, all preparation
	----- Pounds (2) -----		
1985	3.2	1.8	2.0
1986	3.4	1.8	2.2
1987	3.6	1.7	2.4
1988	3.2	1.5	2.4
1989	3.1	1.5	2.3
<b>1990</b>	<b>3.1</b>	<b>1.5</b>	<b>2.2</b>
1991	3.0	1.2	2.4
1992	2.9	0.9	2.5
1993	2.9	1.0	2.5
1994	3.1	0.9	2.6
1995	2.9	1.2	2.5
1996	3.0	1.0	2.5
1997	3.0	1.0	2.7
1998	3.2	0.9	2.8
1999	3.2	1.0	3.0
<b>2000</b>	<b>3.6</b>	<b>0.9</b>	<b>3.2</b>
2001	3.7	0.8	3.4
2002	4.1	0.8	3.7
2003	4.3	0.7	4.0
2004	4.6	0.7	4.2
2005	5.0	0.9	4.1
2006	*5.2	0.9	*4.4
2007	5.0	0.9	4.1
2008	4.8	1.0	4.1
2009	4.6	0.7	4.1
<b>2010</b>	<b>5.0</b>	<b>0.9</b>	<b>4.0</b>
2011	5.0	0.9	4.2
2012	5.6	0.7	3.8
<b>2013</b>	<b>5.9</b>	<b>0.6</b>	<b>3.6</b>

(1) Data include groundfish and other species. Data do not include blocks, but fillets could be made into blocks from which sticks and portions could be produced.

(2) Product weight of fillets and steaks, sticks and portions; edible (meat) weight of shrimp.

\* Record year

## PER CAPITA CONSUMPTION OF FISH AND SHELLFISH FOR HUMAN FOOD, BY REGION AND COUNTRY, 2009- 2011 AVERAGE

Region and Country	Estimated live weight equivalent	
	Kilograms	Pounds
<b>North America:</b>		
Bermuda	40.9	90.2
Canada	22.5	49.6
Greenland	86.0	189.6
Saint Pierre & Miquelon	72.5	159.8
United States	21.7	47.8
<b>Caribbean:</b>		
Anguilla	49.6	109.3
Antigua and Barbuda	55.3	122.0
Aruba	43.3	95.6
Bahamas	28.7	63.3
Barbados	39.4	86.8
British Virgin Islands	29.3	64.5
Cayman Islands	15.4	33.9
Cuba	6.4	14.2
Dominica	26.9	59.3
Dominican Republic	10.0	22.1
Grenada	33.9	74.7
Guadeloupe	21.8	48.1
Haiti	4.6	10.1
Jamaica	24.7	54.5
Martinique	13.7	30.2
Montserrat	28.3	62.3
Netherland Antilles	26.6	58.5
Puerto Rico	0.5	1.1
Saint Kitts & Nevis	38.1	83.9
Saint Lucia	25.5	56.3
Saint Vincent	18.3	40.3
Trinidad & Tobago	21.2	46.8
Turks & Caicos	47.3	104.2
U.S. Virgin Islands	8.9	19.6
<b>Latin America:</b>		
Argentina	6.0	13.2
Belize	12.2	26.9
Bolivia	1.9	4.1
Brazil	9.3	20.5
Chile	14.5	32.0
Colombia	5.5	12.1
Costa Rica	11.2	24.7
Ecuador	8.2	18.2
El Salvador	6.6	14.6
Falkland Islands	35.9	79.2
French Guiana	17.7	39.0
Guatemala	1.5	3.2
Guyana	29.2	64.5
Honduras	2.7	6.1
Mexico	11.6	25.6
Nicaragua	5.3	11.6
Panama	13.6	30.0
Paraguay	3.8	8.3
Peru	22.4	49.3
Suriname	16.9	37.3
Uruguay	7.1	15.6
Venezuela	13.1	28.9
<b>Europe:</b>		
Albania	6.0	13.2
Armenia	3.1	6.8
Austria	13.8	30.5
Azerbaijan	2.2	4.8
Belarus	17.7	39.0
Belgium	25.5	56.2

Region and Country	Estimated live weight equivalent	
	Kilograms	Pounds
Bosnia-Herzegovina	6.0	13.2
Bulgaria	6.5	14.3
Croatia	18.9	41.8
Czech Republic	9.8	21.6
Denmark	23.1	51.0
Estonia	14.7	32.5
Faroe Island	85.4	188.4
Finland	34.9	76.9
France	34.8	76.6
Georgia	7.5	16.5
Germany	14.3	31.6
Greece	20.2	44.6
Hungary	5.3	11.7
Iceland	90.6	199.7
Ireland	22.6	49.8
Italy	25.6	56.3
Kazakhstan	4.6	10.2
Kyrgyzstan	2.1	4.7
Latvia	27.4	60.4
Lithuania	43.5	95.9
Luxembourg	28.6	63.1
Macedonia	5.6	12.4
Malta	31.0	68.3
Moldova	13.2	29.1
Montenegro	10.5	23.2
Netherlands	23.4	51.5
Norway	53.6	118.2
Poland	12.1	26.6
Portugal	57.1	126.0
Romania	6.3	13.8
Russian Federation	22.4	49.5
Serbia	5.4	12.0
Slovakia	7.8	17.3
Slovenia	10.7	23.6
Spain	42.8	94.3
Sweden	31.0	68.2
Switzerland	17.5	38.5
Tajikistan	0.4	0.9
Turkmenistan	3.6	8.0
Ukraine	14.6	32.1
United Kingdom	19.2	42.3
Uzbekistan	0.6	1.2
<b>Near East:</b>		
Afghanistan	0.1	0.2
Bahrain	13.9	30.5
Cyprus	22.2	48.8
Egypt	20.9	46.2
Iran	8.3	18.3
Iraq	2.9	6.3
Israel	22.2	49.0
Jordan	6.5	14.2
Kuwait	17.5	38.5
Lebanon	11.6	25.5
Libya	13.9	30.7
Oman	28.1	61.9
Qatar	24.4	53.8
Saudi Arabia	10.4	22.9
Sudan	1.7	3.8
Syria	3.0	6.6
Turkey	6.8	14.9
United Arab Emirates	24.8	54.7
Yemen	3.0	6.7

## PER CAPITA CONSUMPTION OF FISH AND SHELLFISH FOR HUMAN FOOD, BY REGION AND COUNTRY, 2009- 2011 AVERAGE

Region and Country	Estimated live weight equivalent	
	Kilograms	Pounds
<b>Far East:</b>		
Bangladesh	19.2	42.3
Bhutan	5.1	11.3
Brunei	26.5	58.4
Burma	51.3	113.2
Cambodia	37.1	81.8
China	32.8	72.2
China - Hong Kong	70.1	154.6
China - Macao	57.8	127.3
China - Taipei	31.0	68.4
India	5.5	12.1
Indonesia	27.2	60.0
Japan	53.0	116.9
Laos	18.7	41.3
Malaysia	58.8	129.6
Maldives	163.1	359.6
Mongolia	0.4	0.9
Nepal	2.0	4.4
North Korea	9.8	21.6
Pakistan	1.9	4.3
Philippines	34.7	76.4
Singapore	46.8	103.2
South Korea	59.4	130.9
Sri Lanka	24.0	52.9
Thailand	26.0	57.3
Timor-Leste	5.0	11.0
Viet Nam	34.0	74.9
<b>Africa:</b>		
Algeria	4.2	9.2
Angola	15.0	33.1
Benin	13.4	29.6
Botswana	3.4	7.6
Burkina Faso	5.4	12.0
Burundi	1.6	3.6
Cameroon	17.3	38.2
Cape Verde	12.3	27.1
Central African Republic	9.2	20.3
Chad	4.3	9.5
Comoros	26.1	57.6
Congo (Brazzaville)	5.6	12.4
Congo (Kinshasa)	23.0	50.8
Côte d'Ivoire	18.5	40.7
Djibouti	2.2	4.9
Equatorial Guinea	25.9	57.1
Eritrea	0.5	1.1
Ethiopia	0.2	0.5
Gabon	32.2	71.1
Gambia	28.2	62.2
Ghana	24.8	54.8
Guinea	10.3	22.8
Guinea-Bissau	1.2	2.7
Kenya	3.8	8.3
Lesotho	0.9	1.9
Liberia	4.1	9.0
Madagascar	5.7	12.6
Malawi	6.0	13.1
Mali	8.5	18.7
Mauritania	9.4	20.8
Mauritius	22.7	50.0
Morocco	12.8	28.3
Mozambique	7.5	16.6

Region and Country	Estimated live weight equivalent	
	Kilograms	Pounds
Namibia	11.9	26.3
Niger	2.1	4.6
Nigeria	15.5	34.1
Rwanda	2.9	6.5
Saint Helena	81.1	178.8
Sao Tome and Principe	27.2	60.0
Senegal	24.7	54.4
Seychelles	59.6	131.4
Sierra Leone	34.4	75.9
Somalia	3.1	6.8
South Africa	5.5	12.1
Swaziland	1.5	3.2
Tanzania	6.1	13.5
Togo	10.1	22.2
Tunisia	12.8	28.2
Uganda	13.4	29.6
Zambia	7.0	15.5
Zimbabwe	2.2	4.8
<b>Oceania:</b>		
American Samoa	5.1	11.3
Australia	26.1	57.6
Cook Islands	59.5	131.2
Fiji	34.2	75.5
French Polynesia	48.2	106.4
Kiribati	74.6	164.5
Marshall Islands	17.7	39.0
Micronesia	48.3	106.5
Nauru	20.7	45.6
New Caledonia	26.8	59.2
New Zealand	25.7	56.7
Palau	58.7	129.4
Papua New Guinea	17.2	37.9
Samoa	48.3	106.4
Solomon Islands	35.5	78.2
Tonga	31.7	70.0
Tuvalu	43.4	95.7
Vanuatu	33.5	73.8
Wallis & Futuna	57.4	126.6
<b>World</b>	<b>18.7</b>	<b>41.2</b>

Note: Data are preliminary and refer to per capita consumption of fish, crustaceans and mollusks.

Source: Food and Agriculture Organization of the United Nations (FAO)

# Per Capita Consumption

Per capita use of commercial fish and shellfish is based on the supply of fishery products, both edible and nonedible (industrial), on a round weight equivalent basis, without considering the beginning or ending stocks, defense purchases, or exports.

Per capita use figures are not comparable with per capita consumption data. Per capita consumption figures represent edible (for human use) meat weight consumption rather than round weight consumption. In addition, per capita consumption includes allowances for beginning and ending stocks and exports, whereas the use does not include such allowances.

Per capita use is derived by using total population including U.S. Armed Forces overseas. The per capita consumption is derived by using civilian resident population.

**U.S. ANNUAL PER CAPITA USE OF COMMERCIAL FISH AND SHELLFISH, 1965-2013 (1)**

Year	Total population including armed forces overseas July 1	U.S. supply	Per capita utilization		
			Commercial landings	Imports	Total
			----- Pounds -----		
	Million persons	Million pounds			
1965	194.3	10,535	24.6	29.6	54.2
1966	196.6	12,469	22.2	41.2	63.4
1967	198.7	13,991	20.4	50.0	70.4
1968	200.7	17,381	20.7	65.9	86.6
1969	202.7	11,847	21.4	37.0	58.4
1970	205.1	11,474	24.0	31.9	55.9
1971	207.7	11,804	24.1	32.7	56.8
1972	209.9	13,849	22.9	43.1	66.0
1973	211.9	10,378	22.9	26.1	49.0
1974	213.9	9,875	23.2	23.0	46.2
1975	216.0	10,164	22.6	24.5	47.1
1976	218.0	11,593	24.7	28.5	53.2
1977	220.2	10,652	23.9	24.4	48.3
1978	222.6	11,509	27.1	24.6	51.7
1979	225.1	11,831	27.9	24.7	52.6
1980	227.7	11,357	28.5	21.4	49.9
1981	230.0	11,353	26.0	23.4	49.4
1982	232.2	12,011	27.4	24.3	51.7
1983	234.3	12,352	27.5	25.2	52.7
1984	236.3	12,552	27.3	25.8	53.1
1985	238.5	15,150	26.2	37.3	63.5
1986	240.7	14,368	25.1	34.6	59.7
1987	242.8	15,744	28.4	36.4	64.8
1988	245.0	14,628	29.3	30.4	59.7
1989	247.3	15,485	34.2	28.4	62.6
1990	249.9	16,349	37.6	27.8	65.4
1991	252.7	16,363	37.5	27.3	64.8
1992	255.5	16,106	37.7	25.3	63.0
1993	258.2	20,334	40.6	38.2	78.8
1994	260.7	19,309	40.1	34.0	74.1
1995	263.0	16,484	37.2	25.5	62.7
1996	265.3	16,474	36.1	26.0	62.1
1997	268.2	17,132	36.7	27.2	63.9
1998	270.6	16,897	34.0	28.5	62.5
1999	272.9	17,378	34.2	29.5	63.7
2000	282.3	17,338	32.1	29.3	61.4
2001	285.0	18,118	33.3	30.3	63.6
2002	288.4	19,028	32.6	33.4	66.0
2003	291.0	19,849	32.7	35.5	68.2
2004	293.9	20,373	32.8	36.5	69.3
2005	296.9	20,529	32.4	36.7	69.1
2006	299.8	20,960	31.6	38.3	69.9
2007	302.0	20,484	30.6	37.3	67.9
2008	304.5	19,252	27.3	35.9	63.2
2009	307.4	18,900	26.1	35.4	61.5
2010	310.1	19,748	26.5	37.1	63.6
2011	312.0	21,106	31.6	36.1	67.7
2012	314.3	20,757	30.7	35.4	66.1
<b>2013</b>	<b>316.4</b>	<b>21,012</b>	<b>31.2</b>	<b>35.2</b>	<b>66.4</b>

(1) Data include U.S. commercial landings and imports of both edible and nonedible (industrial) fishery products on a round weight basis. "Total supply" is not adjusted for beginning and ending stocks, defense purchases, or exports.