

**PAPERWORK REDUCTION ACT
DOC/NOAA/NMFS SURVEY CLEARANCE FORM
Economic Surveys for U.S. Commercial Fisheries
OMB CONTROL NUMBER 0648-0369**

This form should be used if you are submitting a collection of information for approval under the NOAA customer survey clearance assigned OMB control number 0648-0369. E-mail this form, full Supporting Statement (including Part B), the collection instrument, and any additional documentation to:

Rita.Curtis@noaa.gov

If the collection does not satisfy the requirements of the program clearance, you should follow the regular PRA clearance procedures described in 5 CFR 1320.

NOAA Subagency _____

Title (Please be specific) _____

Burden Hour Estimates

Number of respondents _____

Total Burden Hours _____

Hours per response _____

Cumulative Burden Hours
under Program Clearance _____

Agency Contact (*person who can best answer questions about the content of the submission*)

Name _____

Phone _____

Certification: The collection of information requested by this submission meets the requirement of the OMB approval for OMB Control Number 0648-0369.

Signature of Program Official

Date

Signature of NOAA Paperwork Clearance Officer

Date

OIRA

Date

Washington-Oregon-California Coastal Purse Seine Survey Responses to Supplemental Questions for PRA Clearance OMB Review of Individual Instruments

National Oceanic and Atmospheric Administration (NOAA) will submit each individual instrument for Office of Management and Budget (OMB) review. Office of Information and Regulatory Affairs (OIRA) will inform the agency when each instrument is cleared, after which the agency may use OMB Control No.: 0648-0369. The information provided along with each instrument must address the following items:

1. The potential respondent universe and any sampling or other respondent selection method to be used and the expected response rate.

Potential Respondent Universe

To obtain representative sample means and variances characterizing cost-earnings data for the US west-coast purse seine vessels participating in the coastal pelagic species (CPS) fisheries -- northern anchovy, Pacific mackerel, Pacific sardine, and/or market squid), we intend to survey **all** Washington-Oregon-California coastal purse seine vessels with sardine landings in 2006. This includes vessels fishing off California in the limited entry program under the CPS Fishery Management Plan (FMP) and State permitted vessels fishing off Washington and Oregon. This potential respondent universe includes a total of 107 owner/operators, which is a very manageable size for this survey.

Sampling and Other Respondent Selection Methods

We have elected to survey this entire universe because Pacific Fishery Management Council (PFMC) has established a sardine harvest guideline (HG) for the US west coasts of Washington, Oregon, and California. We plan to include all vessels authorized to participate because the new coast-wide HG is not area based, all permitted vessels have access to the HG. For this same reason, we propose not to stratify this universe in our sampling procedures. Responses can be stratified later for evaluation by a number of categorizing methods (e.g. season, vessel length, net tonnage, horsepower, etc.).

Expected Response Rate

Our expected response rate is 80%, based on fleet support for this project. We have developed a close cooperation with, and involvement of, the CPS fishing industry in this data collection. Industry members have demonstrated willingness and expressed an eagerness to participate in the survey, which should greatly enhance the response rate. Also encouraging in this regard, is industry's willingness to participate in a 2003 cost-earnings survey of the US west-coast purse seine fleet. This survey was experiencing a 100% response rate before it had to be terminated prematurely due to ill health of the contractor conducting the survey. So, based on our rapport with the CPS industry and previous survey experience we are very confident of attaining an 80% response rate.

To ensure reaching this desired response rate, we will re-contact owner/operators following our initial mailer with reminder letters, and phone calls to schedule personal or telephone interviews with nonresponders. Further, the two major purse seine owners and processing organizations (The California Wetfish Producers Association and The Purse Seine Vessel Owners Association) are supporting this survey and will write supporting letters to the fleet; therefore we expect a high level of cooperation and responses.

2. Data collection procedures, including the statistical methodology for stratification and sample selection, the estimation procedure, the degree of accuracy needed for the intended purpose, expected dates of survey implementation, and any unusual problems requiring specialized sampling procedures.

Stratification and Sample Selection

Because we plan to survey the entire fleet of west coast sardine purse seiners (107 vessels), no sampling stratification will be required until after survey results have been collected. All vessel owner/operators will be mailed a questionnaire which has been reviewed with suggested edits and approved by the two organizations representing the fleet.

Contact information for all FMP limited entry (LE) vessels have been obtained based on the PFMC 2007 Safe Document, Table 3, CPS LE permit list and provided by Washington and Oregon by vessel name and Coast Guard documentation numbers.

Desired Degree of Accuracy and Response Rate

Most applications of data collected by this survey will seek to extrapolate survey responses to the population of vessels which participate in the federal LE fishery off California and to the vessels which are permitted for and participate in State LE programs off Washington and Oregon. As a result, the survey design focuses on obtaining a representative sample of the vessels which participate in the sardine fishery coast-wide HG. Of the 107 vessels for 2006, there are 61 permits for California, 29 in Oregon, 7 active and 10 inactive for Washington.

The desired degree of accuracy, and corresponding desired response rate, depends upon the application for which the data are being used. A basic application of the survey data will be the inference of population mean values from the observed sample mean values. Table 1 provides the number of responses (and corresponding response rate) needed to get a response sample mean within 10%, 15%, and 25% of the population mean at the 95% confidence level (see (1) below). In this calculation, revenues associated with West Coast landings (which are known) are used as a proxy for revenues from other sources and for expenditures (which are not known and are the focus of this survey).

**Table 1
Response Rates Needed for Accuracy Levels**

| CPS Fleet | N Population | n 95% | n 90% | n 85% | Response Rate @ 95% | Response Rate @ 90% | Response Rate @ 85% |
|-----------|--------------|-------|-------|-------|---------------------|---------------------|---------------------|
| | 107 | 80 | 73 | 66 | 75% | 68% | 62% |

The expected response rate of 80% (86 vessels) for the sardine fleet exceeds the response rates required for providing a sample mean within 15% of the true population mean at the rates shown in Table 1. Exceeding these minimum acceptable response rates is desirable for two reasons. First, data from this survey will be used to develop a variety of economic models covering applications such as fleet efficiency and fishery participation. In these applications, error will arise not only from the accuracy of data used for model development, but also from model specification and estimation. Since it is not possible to completely avoid specification and estimation error in model development, there is good reason to desire a higher response rate and higher degree of accuracy in the data collection process. Second, future applications of the data may require further disaggregating the population into smaller groups. Identification of all such future disaggregated data needs is not possible at the present time. A higher response rate and higher degree of accuracy in the current data collection process will facilitate such future population disaggregation.

Calculation of Degree of Precision Required

Relative precision: the sample size determination formula that we used specifies that our sample mean will be within 15% of the true population mean 95% of the time (corrected for finite population):

Where
$$n = N / (1 + N (\epsilon\mu / zS)^2) \quad (1)$$

And

- n = sample size
- N = population size
- μ = mean CPS exvessel landings for 2006
- S = population standard deviation
- z = student t value for 95% confidence level (1.96)
- ϵ = desired coefficient of variation for the sample mean (0.15)

From the PacFIN Management Database we calculated values for the population parameters based on total exvessel landings during 2006:

- N = 107 (including inactive vessels)
- μ = 1037.7 mt
- S = 1,389.6

Given these parameters, and solving (1) for overall sample size, yields n = 80 vessels representing 75% of the fleet. We used this formula to estimate other sample sizes shown in Table 1.

Expected Dates of Survey Implementation

Initiate mailer Oct 1-15, 2007. Note: NMFS would like to have the survey completed by early 2008, so that we can conduct a mandated review of a management action by June 2008.

Unusual Problems Requiring Specialized Sampling Procedures

None anticipated/identified

3. The methods used to maximize response rates and address non-response. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses.

Methods Used to Maximize Response Rates

First, we have worked to shorten and keep the survey instrument short, straightforward, and uncomplicated. We have worked with industry to achieve these goals and have their support. Second, we will have extensive follow up. We will send out notices to the fleet advising them that the survey is soon to be mailed. We will send out the surveys about one week later with an expected return date. Surveys will be resent to nonresponders one month after the expected return date. This will be followed by phone calls asking for return of the survey, or to take the survey via phone, FAX, email, or personal interview.

Addressing Nonresponse

We anticipate a response rate of at least 80% because of fleet support for this project. The fleet is expected to support the project because the CPS fisheries involved are under PFMC conservation and management, and vessel owners/operators have an intense interest in the formulation of the sardine harvest guidelines and allocations of the harvest guideline.

Our strategy to reduce the nonresponse rate includes sending advance notification and appointment scheduling for each nonresponse vessel owner/operator by mail, FAX, or when possible e-mail. The recipients will be assured that all data will be used and that the data are confidential with only summarized results reported. We intend to use call back and call scheduling using each of the advance notice media to additionally reduce reluctant and nonresponse survey recipients. All nonresponders will receive a follow-up letters using techniques developed by Dillman¹ to increase survey response rates, as well as, phone calls. They can respond by mail, FAX, email, telephone, or personal interview.

If we fail to attain our target sample size, we will evaluate unit nonresponse to determine the most appropriate treatment for improving nonresponse and nonresponse bias. Mean values of respondents will be compared to known or historical data available for nonresponse units and determine whether means are significantly different. If they are not significantly different, re-weighting respondent data will not be employed. If means are different, we will consider adjustment and re-weighting of respondent data to reflect their distribution in the fishing population (population-based weighting...cell-based) or on known characteristics of respondents and non-respondents (sample-based weighting) or on response probability as predicted by the appropriate model (model-based weighting).

¹ Don Dillman, *Mail and Internet Surveys: The Tailored Design Method*, John Wiley (2000).

Adequacy of Accuracy and Reliability of the Information Collected:

Reported landings and revenue will be compared to PacFIN and coast guard databases for cross check, plus industry contacts will review data from any outliers.

National Marine Fisheries Service (NMFS) needs to measure the economic performance of west coast commercial fisheries in order to meet legal and regulatory requirements, support fisheries management decision-making, and undertake economic research. Currently available cost earnings data is very limited and does not meet these needs. The Southwest Fisheries Science Center's Cost Earnings Program will collect the additional data that is needed to construct key economic performance measures such as profitability, capacity utilization, efficiency, productivity, and economic impacts. The data gathered and performance measures constructed will be used to address a wide range of issues.

While the data will be used to comply with legal and regulatory requirements, these requirements do not specify a level of data accuracy. Minimum target response sizes for the population are based on the objective of having a sample mean within 15% of the population mean at the 95% confidence level. It is believed that this provides a sufficient level of precision for inference of population means from sample means. As explained in the response to question 2, even greater precision is highly desirable for other anticipated applications of the data.

4. How the survey instrument was developed, including the steps taken to validate the questionnaire design.

This survey was developed in conjunction with CPS fishing industry leaders. The survey instrument was prepared in cooperation with coastal purse seine vessel owner/operators through the Southern California Commercial Fishing Association (SCCFA), an advocacy organization to which many purse seine vessel owners/operators belonged. The questionnaire was also circulated among board members of California Wetfish Producers Association (CWPA) (all active CPS fishermen). Feedback from industry has resulted in improvements to the content and structure of the questionnaire, specifically: more precise measures of a vessel's value; the different types of gear (nets) used; the different categories of labor on the vessel and the labor remuneration system; identifying the major target species; and identifying the fixed and variable cost elements. Our sampling framework has been developed, refined, simplified, and expanded to include the whole coastwide fleet. Sample mean values and variances for the cost-earnings data elements will be computed and used to generate fleet wide estimates of changes in net benefits and private profits, and corresponding confidence intervals, associated with proposed regulatory actions.

5. The reporting and use of the results of the survey.

The data from this survey will be used in a project/policy valuation approach to conduct welfare (cost-benefit analysis) and financial analyses of fishery conservation and management actions proposed for the west coast CPS fisheries. The immediate use will be to conduct a Regulatory Impact Review, and Regulatory Flexibility Analysis of management options for directly allocating the coastwide harvest guideline for Pacific sardine. Results will be presented categorically based on total landings, port, and vessel size as arithmetic means. We will examine additional stratification options and possibly weighting factors after the survey instruments are collected.

A number of management and resource issues are expected to arise in west coast CPS fisheries over the next few years with potentially significant economic impacts on the operations of vessels participating in the California, Oregon, and Washington sardine fisheries:

- Formal review of the Pacific sardine allocation formula in 2008;
- Refinements to the harvest control rules for *P. sardine* and *P. mackerel*;
- Dedicated access privileges for CPS fisheries;
- Performance monitoring of the CPS fisheries;
- Coastwide (Canada, U.S., Mexico) management of *P. sardine* fishery

Since the same vessels target tunas (yellowfin, albacore, bluefin) which are subject to domestic management under the PFMC's Highly Migratory Species (HMS) FMP, these data will also be used to evaluate the welfare and financial impacts of management actions proposed by the PFMC for HMS. Sample means and variances for the cost-earnings data elements will be computed and used to generate fleet wide estimates of changes in net benefits and private profits, and their corresponding confidence intervals, associated with proposed regulatory actions. These statistics will also be used in a Monte Carlo simulation to generate the probability distribution of possible outcomes in various risk analyses.

6. Contact information for agency coordinator and principle investigator.

Dr. Sam Herrick
NMFS SWFSC
8604 La Jolla Shores Dr.
La Jolla, CA 92037-1508
Sam.Herrick@noaa.gov
858.546.7111

7. Estimated burden and number of respondents.

Reviewing the survey, collecting requested data, and any in-person interviews is expected to take one and one half hours per respondent. With the expected 86 responses, the survey is expected to impose a total of 129 burden hours on the Washington-Oregon-California coastal purse seine fleet.

Coastal Purse Seine Vessel Cost-Earnings Survey

Dear CPS Fisherman,

To gauge economic impacts of proposed regulations, federal fishery managers must have accurate baseline economic information for the coastal purse seine fishery. Without this information, an accurate assessment of the potential economic impacts of fishery conservation and management cannot be made, making it difficult for fishery managers to best protect the economic interests of fishery participants.

This survey is designed to provide economic information about the coastal purse seine fishery to evaluate the harvest guideline allocation mechanism for Pacific sardine, which is established under the Pacific fishery Management Council's, Fishery Management Plan for Coastal Pelagic Species.

It is very important that you understand that this is a voluntary survey. Any information submitted to NMFS by any person in response to this survey shall be considered confidential and shall not be disclosed except: (1) to federal employees and Pacific Fishery Management Council employees who are responsible for fishery management plan development and monitoring; (2) state employees pursuant to an agreement within the Secretary of Commerce that prevents the disclosure of this information; or (3) when required by court order. Public reporting burden for completing this form is estimated to average 1.5 hours. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

Please use the enclosed self addressed and stamped envelop and return this survey by **November 30, 2007** to:

Dr. Doyle Hanan
Hanan & Associates, Inc.
PO Box 8914
Rancho Santa Fe, CA 92067
Voice: (858)832-1159
Fax: (858)756-9268
Email: drhanan@cox.net

Send comments regarding this survey or burden estimate to:

Dr. Samuel F. Herrick, Jr.
Southwest Fisheries Science Center
8604 La Jolla Shores Drive
La Jolla, California 92037-1508
Email: Sam.Herrick@noaa.gov

Thank you for your participation.

Coastal Purse Seine Vessel Cost-Earnings Survey Form

HIGHLY CONFIDENTIAL

CONTACT INFORMATION FOR PERSON FILLING OUT THIS SURVEY

Name _____ Email _____

Date (Mo/Day/Yr) _____/_____/_____ Telephone (____) _____

Mailing Address: Street/PO Box _____

City _____ State _____ Zip Code _____

VESSEL OWNERSHIP AND CHARACTERISTICS

Please verify the following information on record about your vessel's characteristics. If the information on the record is correct, please place a check mark in the Corrections column. If the information is incorrect or there is no information on record, please provide the correct information in the Corrections column.

| Item | Information on Record | Corrections |
|-------------------------|-----------------------|-------------|
| Owner's Name | | |
| Owner's Address | | |
| USCG Vessel ID | | |
| State Vessel ID | | |
| Home Port | | |
| Length (feet) | | |
| Width (feet) | | |
| Depth (feet) | | |
| Fuel Capacity (gallons) | | |
| Engine Make and Model | | |
| Year Built | | |
| Type of refrigeration | | |

VALUE OF VESSEL, GEAR, AND FISHING PERMITS FOR 2006 (or 2005 if you did not fish 2006, please give year) For each of the following items please provide the appropriate value in the right column.

| | | |
|-----------|---|----|
| 2. | Vessel Value: | |
| a. | Insured/Replacement value | \$ |
| b. | Market value (including permits) | \$ |
| c. | Deck Gear Market Value | \$ |
| 3. | Please List Fishing Permits and Value of Permits | |
| a. | | \$ |
| b. | | \$ |
| c. | | \$ |

| | | |
|---|---|----------|
| 4. | Gear | |
| a. | Net 1 Type (for example <u>anchovy</u>): _____ | |
| | Replacement value | \$ |
| b. | Net 2 Type: _____ | |
| | Replacement value | \$ |
| c. | Net 3 Type: _____ | |
| | Replacement value | \$ |
| d. | Net 4 Type: _____ | |
| | Replacement value | \$ |
| <u>ANNUAL FIXED COSTS</u> | | |
| These are costs that will not vary with fishing activity. Please provide expenditures for the most recent year. | | |
| 5. | Vessel depreciation and amortization | \$ |
| 6. | Vessel interest payments | \$ |
| 7. | Insurance payments | \$ |
| 8. | Business Expenses (total professional services, office expenses, supplies, salaries, license, registration, permit fees, etc.) | \$ |
| 9. | Mooring/Slip fees | \$ |
| 10. | Drydock and vessel/gear Maintenance | \$ |
| 11. | Other (please describe): | \$ |
| OWNER/OPERATOR | | |
| Please provide the appropriate response in the right column. | | |
| 12. | Your position with this vessel: | |
| a. | Owner | Yes / No |
| b. | Captain | Yes / No |
| c. | Other (please describe): | |
| e. | Years fishing | Yrs. |
| f. | Years owned and/or captained this vessel | Yrs. |

| | | Sardine | Other Wetfish | Squid | Tuna |
|------------|---|----------|---------------|----------|----------|
| 13. | Hired captain? (circle): | Yes / No | Yes / No | Yes / No | Yes / No |
| | If yes, percent of time: | % | % | % | % |
| 14. | Total crew per trip | | | | |
| 15. | If you fished Southern California: | | | | |
| a. | Total number of trips/year | | | | |
| b. | Average days at sea/trip | | | | |
| c. | Days actually fishing/trip | | | | |
| d. | Average number of sets/day | | | | |
| e. | Maximum sets/day fished | | | | |
| f. | Total Landings (pounds) | | | | |
| g. | Total Exvessel Revenue | \$ | \$ | \$ | \$ |
| 16. | If you fished Northern California: | | | | |
| a. | Total number of trips/year | | | | |
| b. | Average days at sea/trip | | | | |
| c. | Days actually fishing/trip | | | | |
| d. | Average number of sets/day | | | | |
| e. | Maximum sets/day fished | | | | |
| f. | Total Landings (pounds) | | | | |
| g. | Total Exvessel Revenue | \$ | \$ | \$ | \$ |
| 17. | If you fished Oregon: | | | | |
| a. | Total number of trips/year | | | | |
| b. | Average days at sea/trip | | | | |
| c. | Days actually fishing/trip | | | | |
| d. | Average number of sets/day | | | | |
| e. | Maximum sets/day fished | | | | |
| f. | Total Landings (pounds) | | | | |
| g. | Total Exvessel Revenue | \$ | \$ | \$ | \$ |

| 18. | If you fished Washington: | Sardine | Other Wetfish | Squid | Tuna |
|------------|---|----------------|----------------------|--------------|-------------|
| a. | Total number of trips/year | | | | |
| b. | Average days at sea/trip | | | | |
| c. | Days actually fishing/trip | | | | |
| d. | Average number of sets/day | | | | |
| e. | Maximum sets/day fished | | | | |
| f. | Total Landings (pounds) | | | | |
| g. | Total Exvessel Revenue | \$ | \$ | \$ | \$ |
| 19. | Annual Fuel | | | | |
| a. | Average Fuel/Oil (gal/trip) | | | | |
| b. | Total fuel/oil costs/year | \$ | \$ | \$ | \$ |
| 20. | Annual Labor | | | | |
| a. | Total labor costs | \$ | \$ | \$ | \$ |
| b. | Hired captain costs | \$ | \$ | \$ | \$ |
| 21. | Fishing Share (% of catch/revenue) received by: | | | | |
| a. | Vessel (owner) | | | | |
| b. | Captain | | | | |
| c. | Crew members | | | | |
| d. | Engineer | | | | |
| 22. | If someone (including you) did not receive a fishing share, what arrangement was used? | | | | |
| 23. | Annual Food costs | \$ | \$ | \$ | \$ |
| 24. | Fishing gear and equipment | | | | |
| a. | Replacement costs | \$ | \$ | \$ | \$ |
| b. | Annual Maintenance | \$ | \$ | \$ | \$ |
| 25. | Light boat costs | | | | |
| a. | Share (% of catch) | | | | |
| b. | Annual Cost | \$ | \$ | \$ | \$ |
| 26. | Other Variable Costs: Please describe: | \$ | \$ | \$ | \$ |