

1 ROSTER/CONTACT LIST

| Name | Position | Location | Phone Number | FAX Number | Email Address |
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| Glenda White | Accounts Payable | PSMFC | (503)595-3100 | (503)595-3232 | GWhite@psmfc.org |
| Renee Mott | Concur | PSMFC | (503)595-3100 | (503)595-3232 | RMott@psmfc.org |
| Matt Robertson | Payroll | PSMFC | (503)595-3100 | (503)595-3232 | MRobertson@psmfc.org |
| PSMFC, Other | | | | | |
| Patrick McDonald | Sablefish & Whiting Otoliths | Newport, OR | (541)867-0513 | | patrick.j.mcdonald@noaa.gov |
| NOAA/Other Fisheries | | | | | |
| E.J. Dick | NMFS Liaison Blue tag sable | Santa Cruz | (831)420-3944 | | Edward.Dick@noaa.gov |
| | Sablefish yellow tag contact | Sandpoint, WA | (206)526-4120 | | |
| CDFW | | | | | |
| Help Desk | CDFW IT problems | Sacramento | (916)445-5158 | | HelpDesk@wildlife.ca.gov |
| Carlos Mireles | Invertebrate ES | Santa Barbara | (805)568-1221 | | carlos.mireles@wildlife.ca.gov |
| Groundfish Coordination | GCU | | | | |
| Traci Larinto | Groundfish Coordinator | Los Alamitos | (562)342-7111 | | traci.larinto@wildlife.ca.gov |
| Caroline McKnight | Groundfish Supervisor | Monterey | (831)649-7192 | (831)649-2894 | caroline.mcknight@wildlife.ca.gov |

| | | | | | |
|----------------|-----------------------|------------|---------------|---------------|--|
| Erica Chess | PacFIN Coordinator | San Carlos | (650)631-6116 | (916)323-1431 | echess@psmfc.org |
| Brenda Erwin | Supervising Biologist | San Carlos | (650)631-6740 | (650)631-6794 | berwin@psmfc.org |
| Mike Fukushima | Supervising Biologist | Eureka | (707)441-5797 | (707)445-7883 | mfukushima@psmfc.org |

Units

| | | | | | |
|----------------------|----------------|-----------------|---------------|----------------|--|
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| | Fisheries Tech | Fort Bragg | (707)964-3696 | (707)964-3696 | kmidas@psmfc.org |
| Hannah McBeth | Fisheries Tech | San Carlos | (650)631-6756 | (650)631-6794 | hmcbeth@psmfc.org |
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Enforcement

| | | | | | |
|--------|-----|---------------|--|--|--|
| Vacant | Wdn | Crescent City | | | |
| | Lt | Eureka | | | |
| | Lt | Fort Bragg | | | |
| | Wdn | San Francisco | | | |
| | Lt | HMB | | | |
| | Lt. | Ventura | | | |

PSMFC Mission Statement

To promote the conservation, development, and management of Pacific Coast fishery resources through coordinated regional research, monitoring and utilization.

2 COMMERCIAL SAMPLING (GENERAL)

The primary goals of the sampling program are (1) to determine species composition (**this requires species weights**) of rockfish, flatfish and skate market categories, so that total landing of component species can be estimated and (2) to collect biological information such as length and age composition for use in stock assessments. To meet these goals, samples need to be collected of the heavily landed rockfish; flatfish and skate market categories containing a mixture of species; and of the market categories containing significant numbers of the species for which age and length compositions are needed. You must also collect samples for the gears making substantial landings at your port complex during each quarter (trawl, hook and line/longline, set net and trap).

When sampling, try to be at the buyer/processor facilities when fish are being off-loaded, so there is no doubt about which vessel's catch is sampled. At ports where the fish are immediately trucked, this will not always be possible. You may sample the fish at its destination, as long as the port of landing is within your port complex and you are certain of the vessel number, date landed, market category, and landing weight.

It is very important to be on good terms with the processor and his crew; neatness and courtesy pay dividends with the industry. Samplers need the processor's cooperation in obtaining samples, a place to work, scale to weigh fish, landing weights, and general information. Fish are processed rapidly so it is essential to work quickly to avoid slowing the processor's operations in any way. If possible, return the sampled fish to the bin from which they were taken. If the bin has been sent to the fillet line, return the sampled fish to the fillet line, or ask the processor where the fish should go. On a hot day, keep sampled fish iced and out of the sun. After you have returned the fish, make sure to re-ice it.

Authority to Sample

Fish and Game Code:

7711. (a) A person shall, upon request by an authorized agent or employee of the department, immediately relinquish, at no charge, fish or parts of fish caught or landed in California to the department for the purpose of collecting a biological sample.

(b) For purposes of this section, “person” means a person licensed pursuant to Section 7850 or a person licensed pursuant to Article 7 (commencing with Section 8030).

8043.2. (c) A commercial fisherman selling his or her own catch to the ultimate customer, upon request by an authorized agent or employee of the department, shall immediately make available all fish in possession of the fisherman for inspection and sampling by the agent or employee. Pursuant to Section 8226, the fisherman shall relinquish the head from any sampled salmon with a missing adipose fin.

Random Sampling and Sampling Scenarios

Always collect random samples. This is a two-fold statement:

1. When sampling a “bin” of fish, select fish from the bin randomly (arbitrarily). **To avoid bias**, a cluster should be selected from one side of a box or bin all the way to the bottom without looking at the fish being selected in the process.
2. Sample complete market categories. If a market category is sorted, the species/length composition is biased because species/fish of certain size have been removed.

The following scenarios provide examples of how to collect random samples when sorting has occurred. The *Field Guide* also provides some excellent examples (see A-3).

Scenario 1: Landing sampled, and THEN sorted into different market categories.

Situation: In this scenario, a sample is taken of a market category, then the dealer sorts species out of the market category and into a different market category afterwards.

Resolution: Discard the sample. The key here is: THE DATASHEET MUST MATCH THE LANDING RECEIPT. If it is one landing weight on the data sheet and two weights on the landing receipt, then you must throw out the sample. If it

is not split on the receipt, then the sample is valid.

The rationale is: you are collecting samples to determine the species composition of the market categories on the landing receipt.

Scenario 2: Landing is initially sorted, then is combined into one market category after sampling.

Situation: The fishermen initially sort the landing; the sampler takes samples of one or more of the sorts. Then the dealer combines the sorts and records the combined landing weight on the receipt.

Resolution: Discard the sample, because the sorted landing weights are not on the landing receipt. Again, THE DATASHEET MUST MATCH THE LANDING RECEIPT.

Scenario 3: The dealer sorts the fish into two separate bins, but calls each bin the same market category.

Situation: The dealer may not have a suitable market category to use (ie: small and large rockfish). The dealer sorts the fish but calls them the same market category on the Landing Receipt. There are two cases which need to be considered: 1) the dealer reports a single landing weight for both sort groups, or 2) the dealer reports separate weights. The prices may or may not differ.

Resolution 1: If the dealer reports a single combined landing weight for both sort groups, **and** you collected a cluster from each of the bins, you have a single sample with the single combined weight. But you need to write in the comments section that the dealer had originally sorted them into two bins. The reason for this is that we need to capture, as closely as possible, the conditions that are occurring in the market.

Resolution 2: If the dealer reports separate weights on the landing receipt, sample both groups as separate samples. **Every time there is a sort, we need to capture it, even if the sort is into the same market category.**

Scenario 4: Fish are removed from the bin before sampling occurs.

Situation: As the fish are being unloaded, buyers are picking out fish before sampling can occur. It is impossible for the sampler to obtain a sample before the buyers selects the fish.

Resolution: You cannot take a sample. By selecting certain fish, the species composition is altered and therefore biased.

Scenario 5: Size sorting occurred after sampling and separate size group weights are listed.

Situation: The fish (e.g. sablefish) were landed as ocean run, but the dealer sorts the fish after a sample was collected into size sorts.

Resolution: Your sample is valid, size sort on your sample is “OR”, add the weights of the size sort together to get the total sablefish landed weight, and write in the comments section that the dealer sorted the fish after you sampled. The reason is the fish were landed as ocean run and you were able to sample them and all sizes should be present in your two-cluster sample.

Identifying Fish

There are several tools that you can use to help with identifying fish. They include: your field guide, Miller & Lea, Petersons Field Guide to Pacific Coast Fishes, the Alaska Sea Grant Guides and web pages like fishbase.org.

Unusual Fish

Occasionally you will encounter a fish that is difficult to identify or that you believe to be rare. In such cases, offer to buy the fish from the processor (unless it's a whale shark or 500 lb swordfish) so that the fish can be examined more closely in the lab. The project will reimburse you for any purchases (you must have a receipt). If the fish is rare or unusual, get the date landed, names of the fisherman and boat, location and depth caught, gear used, and phone-numbers of relevant people to contact for further information.

Sampling Priorities

Sometimes only one market category will be available for sampling and no prioritization needs to be made. However, at other times, a vessel will land several market categories, or more than one vessel will land at the same time. Sampling one market category may mean a potential

sample from another category will be lost. Thus, tradeoffs need to be made to insure all the needed categories are sampled sufficiently each quarter. The field sampler is generally the best person to make these decisions. Below are general priorities for the sampler to follow.

General priority guidelines are as follows:

1st Priority: Unspecified/group market categories of rockfish, thornyheads, flatfish, and primary season sablefish.

2nd Priority: All other nominal species groundfish market categories (not listed as 1st or 3rd priority) and skates.

3rd Priority: Grenadiers, CA halibut, whiting (south of 40°10'), CA sheephead, spiny dogfish.

The Data Manager will send a Sampling Effort Report quarterly. This report will show what was sampled and what was missed. Occasionally, seasonal sampling requirements (e.g. sablefish fixed-gear primary season) will occur. These changes will be explained, as necessary. Your supervisor, Brenda Erwin, or Mike Fukushima, must approve all changes to the sampling requirements. If you are contacted by someone outside the GCU and asked to sample something special, please contact your supervisor to double-check it (e.g. a graduate student asks you to collect genetic samples of blue rockfish).

For a boat landing with more than one market category, attempt to sample from as many market categories as possible, without impeding unloading or processing operations. Additional market categories should not be sampled at the expense of gathering less than **two clusters** per category. The only exception is collecting samples of all of the size sorts of a market category (e.g. sablefish). You should still collect two clusters when time allows.

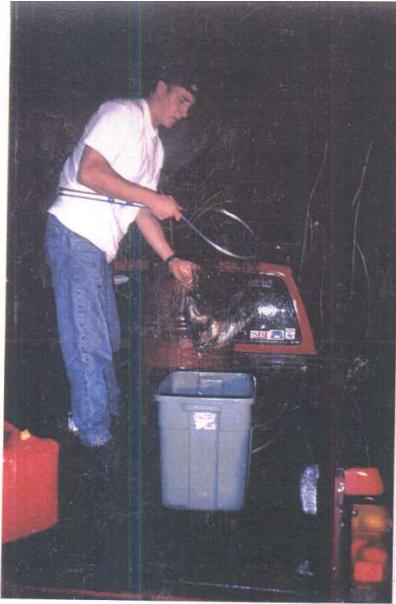
Nearshore Species Sampling

Sampling nearshore species can be problematic. In general, vessels fishing nearshore species are small and land small amounts of fish. The landings can contain live fish, dead fish, or a combination of the two. The fish may be sold directly to a market rather than a dealer. Often the fish are landed mixed, with no discernible market category. They are sorted by a market later

into market categories you could not have guessed when taking your sample.

Standard cluster samples should be collected (described in Chapter 3) when possible. Collect species composition and length samples as described in Chapter 3 (Completing the Sample section).

Extra care must be taken when sampling live fish. The fish can only be out of the water for a short time. You will need a dip net to scoop out the fish. Work as quickly as possible to get the fish back in the water. After gathering and weighing the cluster, separate and weigh each species to the nearest pound, and collect length information when time allows. This can be done one species at a time (see pictures below).



Unloading



Sorting into
Market Categories

Sorting Live and Dead



“Small” Cabezon

\$ 4.50/lb

Species: Cabezon

9 fish weighing 15 lbs

\$ 5.25/lb
Species: Kelp Greenling
1 fish weighing 3 lbs



Gopher Rockfish

\$ 2.50

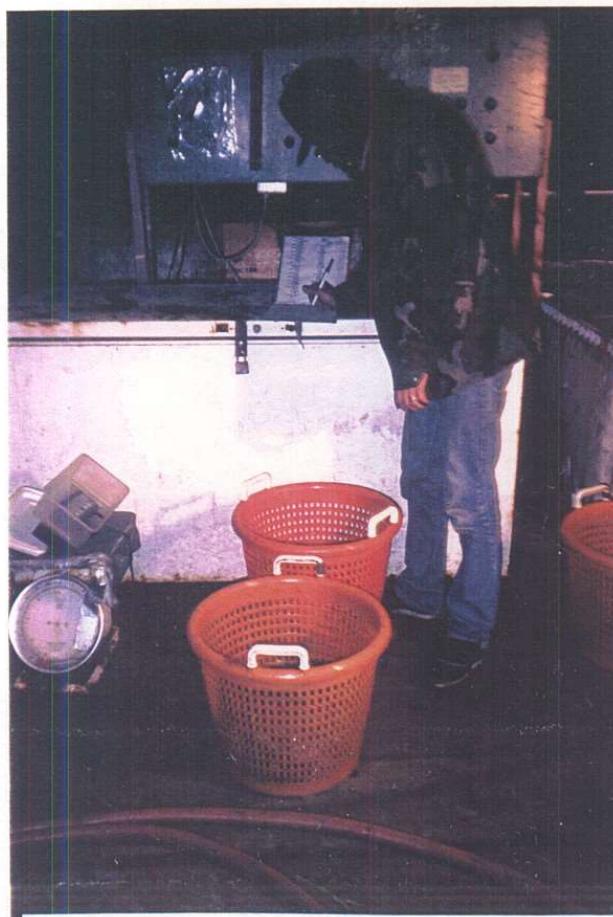
Species: Brown Rockfish
7 fish weighing 7 lbs
Species: Black-and-Yellow Rockfish
13 fish weighing 11 lbs
Species: Gopher Rockfish
2 fish weighing 2 lbs



Grass Rockfish

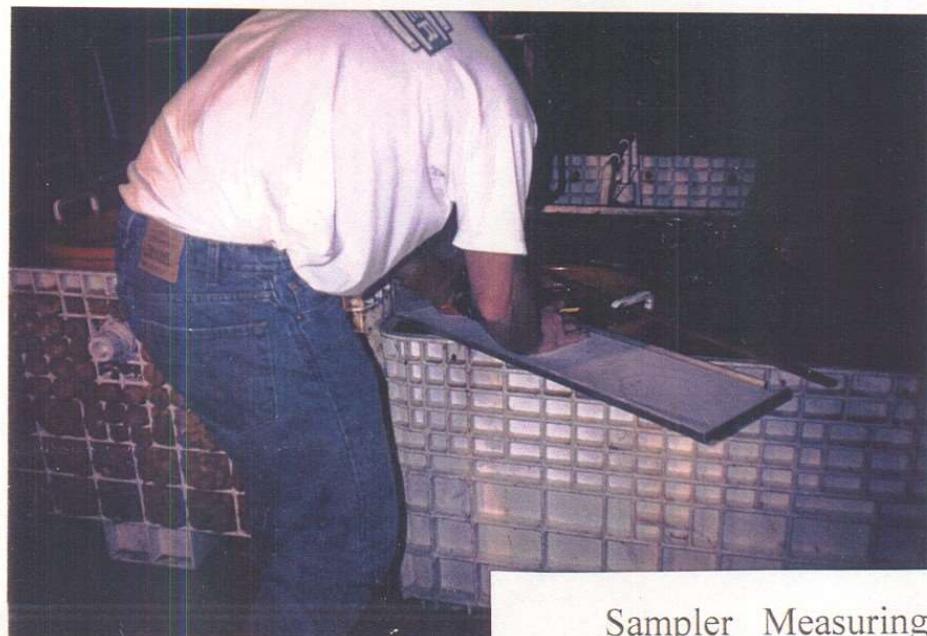
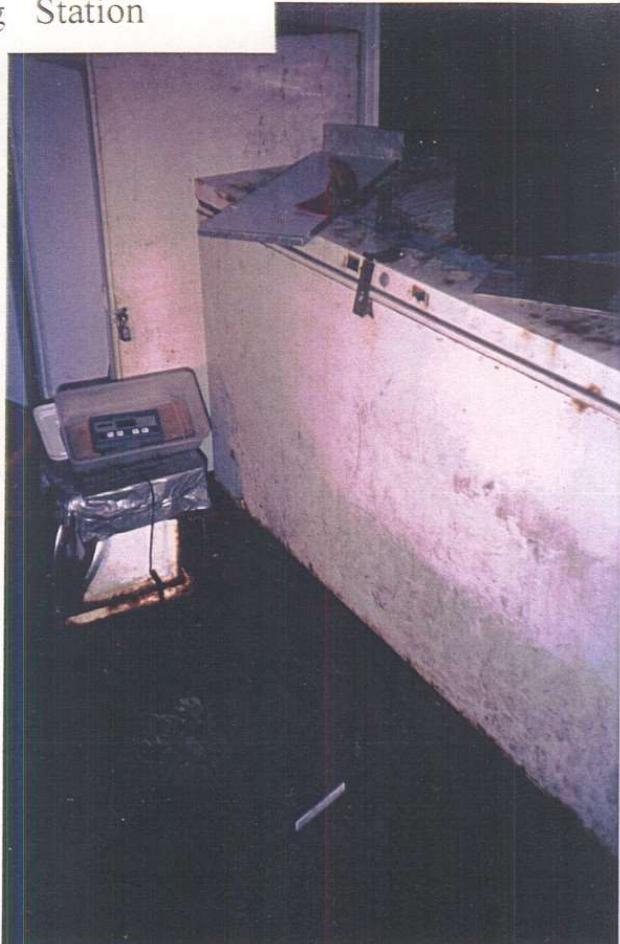
\$ 4.50/lb

Species: Grass Rockfish
5 fish weighing 7 lbs

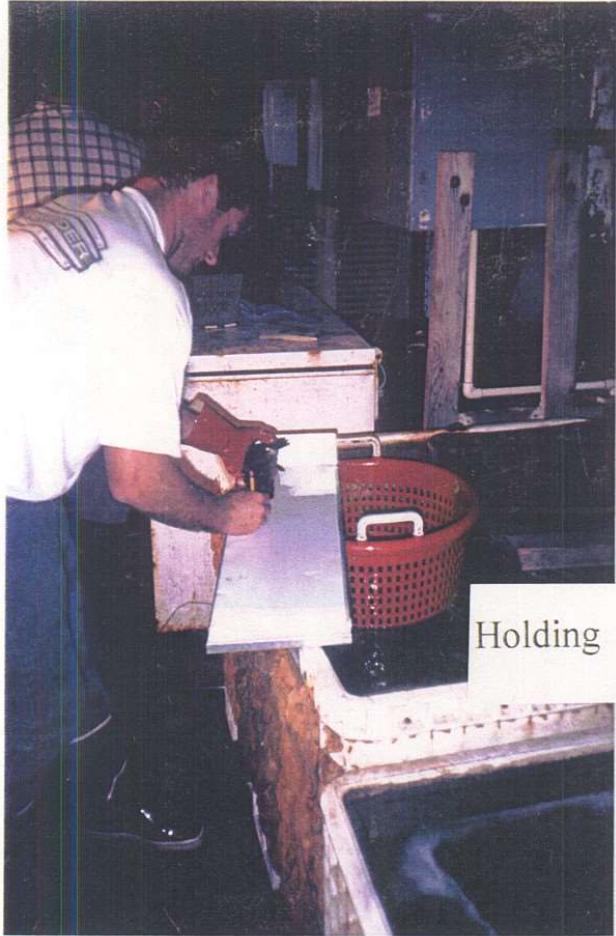


Weighing Market Categories

Weighing Station



Sampler Measuring Fish



Holding Sorted Categories
in Water



Sampler Weighing Species

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Otolith Collection

Dover sole: Both otoliths must be collected from all fish sampled.

Other flatfish: Collect otoliths whenever possible. (Excludes CA Halibut)

Rockfish: Collect otoliths whenever possible. (Excludes thornyheads)

Sablefish: Collect otoliths whenever possible.

Lingcod: Collect finrays whenever possible.

Otolith Storage

Uncleaned otoliths can be quite difficult if not impossible to age. Please **clean** with water (**NOT** alcohol) and wipe otoliths to remove any tissue before storage in envelopes. This step may be done in the field or back at the lab. **In the past it has been necessary to discard some samples due to inadequately cleaned otoliths.**

After otoliths are collected, cleaned, and dried, they should be stored in coin envelopes, except sablefish (Chapter 5) and Pacific whiting (Chapter 7). Each envelope should contain a pair of otoliths from a single specimen. The envelope **must** be labeled with sample information. Use the thermal label printer to print labels from the tablet. A rubber stamp is provided, if you don't have a printer, to imprint all the necessary data fields on the envelopes (see Forms section). Critical sample information includes: sample number, cluster number, port code, date, species code, fork length (mm), fish number, 1-digit sex code, and gonad maturity code (if it was collected). Do **not** record the status of the otolith, i.e. if only one otolith was collected or if the bone was broken, on either the coin envelope or the *otolith summary sheet*. Record information if the otoliths appear unusual.

First stamp the envelope(s) with the rubber stamp to imprint the data fields you will need to enter. Then use other rubber stamps to input fields, such as date and port code, or hand-write all of the necessary information. Next, place the corresponding pair of otoliths in the coin envelope.

Do not seal the envelope.

Order all of the envelopes from a sample numerically 1 through *n* for each cluster. Separate each cluster, and wrap with rubber band(s) at the top. Please be careful not to break the otoliths when binding the envelopes. If necessary, split a cluster in half, rather than wrapping the envelopes too tightly.

Send all rockfish and flatfish otoliths with a Commercial Otolith Summary Sheet to San Carlos, ATTN: Brenda Erwin or Erica Chess at the end of the month. For sablefish otolith instructions see page 5-7, and for Pacific whiting see page 7-4.

Data Sheets

The Forms section of the manual contains the *CALCOM Sampling Form* used in the sampling program. Please use this data sheet for all samples. Field data may be entered directly on the form or on length-frequency (measuring) boards and then transferred to data sheets. **Do not** record data directly onto the otolith envelope. This practice can cause data errors. If you have suggestions for modifications to the *CALCOM Sampling Form* contact the GCU.

Copies of completed forms should be sent to Belmont, ATTN: Daniel Schperberg, each month for error checking and permanent storage. Please keep the original in your office for one year and check with Daniel before you shred them. These forms contain confidential data; therefore they must be shredded before discarding.

Landing Receipt Information

One of the most critical pieces of information we need is the landed weight for the sampled category. The expansion of sample data requires that the **sampled market category** match the **market category on the landing receipt**. The landing weight should come from the landing receipt. Look for the landing receipt as soon as possible in eTix. If you are unsure of the protocol for accessing eTix, contact your supervisor for further assistance.

The MLDS is also a source for landing receipt. If you are unsure of the protocol for accessing MLDS, contact your supervisor for further assistance.

Market Categories

Another critical piece of information is the market category. **The market category is a three-digit numeric code.** It is very important for you to correctly identify the market category you are sampling. Do not assume or try to guess the market category. **Look at the landing receipt or ask the processor** which market category he is writing on the landing receipt. Sometimes the sampler is not able to find out the market category when the sample is collected. If the market categories listed on the landing receipt do not match the data sheet, you must discard the sample.

Data Entry

Try to enter the sample data into the computer on the same day the sample is taken. If problems arise, you will be able to make corrections while everything is still fresh in your mind. Entering many samples at month's end inevitably leads to errors and makes it difficult to meet the deadline for sending data to the Data Manager.

The data entry routines are discussed in the Computer Programs section of this manual.

Data Flow

The San Carlos California Department of Fish and Wildlife (CDFW) office is the clearinghouse for all sample data and otoliths (except sablefish and whiting otoliths). Sablefish and whiting otoliths must be sent to Patrick McDonald (Chapters 5 & 7). **Your sample data must be entered and sent to Brenda weekly.** Please send the following data to San Carlos, ATTN Brenda Erwin or Erica Chess:

- a. *Commercial otolith summary sheet*

- b. otoliths (rockfish and flatfish).

Copies of all forms are included in the Forms section of this manual.

Data Corrections

Directions for error checking and editing the sample data are in the Computer Programs chapter of this manual (chapter 11).

Sample data is reviewed for completeness and accuracy. Any errors or omissions identified will be forwarded to the port sampler for correction. All corrections must be made promptly, no later than the 12th. **Erica must be notified when the corrections are completed.**

Expansion Reports

Expansion reports contain data on species composition. Summaries by port complex, gear group, and quarter of all expanded sample data for the year will be provided annually upon request. Documentation of the expansion reports is located on the web page and in the CALCOM manual. If you cannot locate this documentation please contact the GCU.

Allocation of CALCOM Sample Numbers

Numbers are assigned according to port. Use these numbers (include leading zeros) for all samples, including elasmobranches, grenadiers and Pacific whiting.

On January first of every year, start with the first number in the series assigned to your port.

| <u>Port Code</u> | <u>Port</u> | <u>Number Series</u> |
|-------------------------|--------------------|-----------------------------|
| OSD | San Diego | 00001-00999 |
| OLA | Los Alamitos | 01000-01999 |
| SB | Santa Barbara | 02000-02999 |
| MRO | Morro Bay | 10000-19999 |
| MNT | Monterey | 20000-29999 |
| SF | San Francisco | 40000-49999 |
| BDG | Bodega Bay | 50000-59999 |
| BRG | Fort Bragg | 60000-69999 |
| ERK | Eureka | 70000-79999 |
| CRS | Crescent City | 80000-89999 |

Notes:

03000-09999 and 90000-99989 – Sample reserve numbers; Sample reserve numbers are not to be used without authorization from the GCU.

30000-39999 - Held for Half Moon Bay in case we need to split from SF again.

99990-99999 - Numbers reserved exclusively for testing

General Cluster Sampling Guidelines

| <u>Market Category</u> | <u>Cluster Weight Required</u> |
|--------------------------------------|---------------------------------------|
| 207 – Rex sole | 15 lbs ± 1 lb |
| 225 – 228 – Sanddabs, all | 15 lbs ± 1 lb |
| 678 – Longspine thornyheads | 15 lbs ± 1 lb |
| 262 – Thornyheads | 25 lbs ± 2 lbs |
| 270 – Splitnose | 25 lbs ± 2 lbs |
| 673 – Chameleon | 25 lbs ± 2 lbs |
| 674 – Aurora | 25 lbs ± 2 lbs |
| 960 – Group small | 25 lbs ± 2 lbs |
| 961 – Group rosefish | 25 lbs ± 2 lbs |
| 190 – Sablefish | 50 lbs ± 5 lbs |
| 198 – Grenadier | 50 lbs ± 5 lbs |
| 201, 230, 231 – Founder, all species | 50 lbs ± 5 lbs |
| 222 – CA Halibut | 50 lbs ± 5 lbs |
| 495 – Pacific Whiting | 50 lbs ± 5 lbs |
| 679 – Shortspine thornyheads | 50 lbs ± 5 lbs |
| 195 – Lingcod | 100 lbs ± 10 lbs |

All other rockfish market categories sample 50 lbs ± 5 lbs clusters.

All other flatfish market categories sample 25 lbs ± 2 lbs clusters.

Elasmobranches sample 30 fish.

Any landing < 50 lbs, sample the entire landing.

Directions for the Use of Commercial Otolith Summary Sheet

The otolith summary sheet and collected otoliths should be sent to Belmont, ATTN Daniel Schperberg, at the end of every month. The purpose of the summary sheet is to keep track of the otoliths collected and to aid in their distribution to the various agers. The information on the summary sheet includes the following information:

| <u>Sample#</u> | <u>Cluster#</u> | <u>Total Fish</u> | <u>Sample Date</u> | <u>Species</u> | <u>#Otoliths Aged</u> | <u>Comments</u> |
|----------------|-----------------|--|--------------------|---|---|--|
| | | total # of fish which had otoliths collected or attempted. | | species from which otoliths were collected. | # of otoliths to be aged from each species. | e.g. otoliths taken from fish #'s 1,3,4 only. Fish # 4 otolith crystallized. |

| <u>Sample#</u> | <u>Cluster#</u> | <u>Total Fish</u> | <u>Sample Date</u> | <u>Species</u> | <u>#Otoliths Aged</u> | <u>Comments</u> |
|----------------|-----------------|-------------------|--------------------|----------------|-----------------------|---|
| 99991 | 1 | 4 | 01/04/2014 | CLPR | 3 | otoliths taken from fish #'s 1,3,4 only. Fish # 4 otolith crystallized. |

It is important to indicate whether any otoliths were lost during collection. If otoliths were only partially collected for a species in a cluster, make note of it in the Comments section. List the numbers of the fish that had otoliths collected. If a species had all of the otoliths lost, do not list the species. **Please do not list species where otoliths were not collected.**

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Directions for the Use of the CALCOM Sampling Form

Please use one datasheet per sample. Use for all samples. Fill out all fields

FRONT PAGE

SAMPLER - write your full name.

PORT – write in the full name of your port.

DEALER - write the fish business you sampled the fish from.

BOAT NAME - write in the name of the boat; use **** if the boat does not have a name.

MARKET CATEGORY – write in the common name of the market category **not** the number.

DATE - write the date you **sampled** the fish.

SAMPLE NUMBER - a unique sample number is assigned to each market category sample within a sample boat trip. A range of sample numbers for each port has been assigned see page 2-17. The port sampler is responsible for **sequentially** assigning these numbers to the samples. If the assigned range is exceeded call the GCU for additional numbers.

CLUSTER - enter the number or clusters number. Each sampling unit (cluster) should be about 50 pounds plus or minus 5 pounds for all rockfish market categories except splitnose (270) and small rockfish (960) which should be 25 pounds plus or minus 2 pounds, and longspine thornyheads (678) which should be 15 pounds plus or minus 1 pound. **TWO clusters** should be taken of each market category. Please refer to page 2-18 for specific cluster weight requirements.

PORT - see three-letter codes provided on the data sheet or see Chapter 15 of the manual.

BOAT NUMBER - CDFW identification number for each boat. The, one to five-digit, number is located on the pilothouse of the boat or can be found in CFIS if the name of the boat is known. However, it is better to record the boat number while taking the sample. Do not confuse this with the Coast Guard Documentation number. If you cannot find the number, ask the captain.

DATE - Note order ---> month - day - year (MMDDYYYY); the date you **sampled** the fish.

GEAR - ask the captain which kind of gear was used. See codes provided on the data sheet or Chapter 15.

MARKET CATEGORY - each market category has a CDFW bio-statistical 3-digit number. You must record on the sample form the same market category number as used on the landing receipt by the buyer. Ask the buyer for the name of the market category you are sampling. See codes provided on the data sheet or Chapter 15.

LANDING WEIGHT - enter only the landing weight for the market category you are sampling. This information must correspond to the landing receipt weight so ask the buyer what the landing weight was for the market category in your sample.

LANDING RECEIPT # 1 – found in the top right corner of the landing receipt. It consists of

one letter and six numeric digits.

LANDING RECEIPT # 2 – if the market category is split onto multiple receipts, enter the second receipt # here.

LANDING RECEIPT # 3 – if the market category is split onto multiple receipts, enter the third receipt # here.

OTOLITHS (all ageing structures collected) – Y/N.

LIVE – Y/N.

OBSERVED – Y/N. Was there an observer onboard the vessel during the trip?

IFQ – Y/N. Individual Fishing Quota for trawlers and longline vessels that have leased quota pounds.

DRESSED – Y/N/W. W= wings

SIZE – OR – ocean run; XXS, XS, S, M, L, XL, XXL (not just for sablefish, please use for any market category with a size sort)

COMMENTS – For brief notes to clarify a sample only, not a place for you to write a novella or your thesis statement. Example: LIVE. DEAD ON 30987

BACK PAGE

SAMPLE NUMBER - same as on the front page.

CLUSTER – enter the cluster number.

CLUSTER WT - the total weight of the cluster.

SPECIES - CALCOM (mnemonic) species code. See Codes section

WT - the total weight of each species in the cluster rounded to the closest **whole** pound.

FISH - the total number of fish in each species.

SPP. NAME - the common species name. It is important you fill out this information in case you do not know the CALCOM species code or you write down the wrong species code.

FISH # (No.) - the number of the fish you are collecting data for. Numbering sequentially across all species, DO NOT restart numbers with different species.

SEX (Sx.) – 1, 2, 9. 1-male, 2-female, 9 unknown/not examined.

GONAD CONDITION/MATURITY (M) - please note the gonad maturation codes on the front of the sample datasheet. There are a total of **six codes for females and three codes for males**. It is very important that you use the codes for females in your sampling data. See page 3-7 for expanded explanations on the maturity codes. Do not collect maturity for flatfish or Thornyheads.

LENGTH – All lengths collected in millimeters, dressed sablefish are measured for dorsal length, skates for disc width, and dogfish for total length. Everything else should be measured as fork length

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3 ROCKFISH SAMPLING PROCEDURES

The Cooperative Rockfish Survey began in 1977 as a joint fisheries monitoring program with the California Department of Fish & Game and the National Marine Fisheries Service. Our primary objective is to gather species composition data for multi-species landings and to collect biological information, such as length and age composition, for stock assessments.

A primary consideration before sampling a bin of fish is the condition in which the fish are to be sold (whole, filleted, etc). Typically, a sampler will not be allowed to cut fish that are sold whole. Generally, most of the group market categories (e.g. 975) caught by trawl are filleted. Gill net caught fish are sold whole or filleted depending on fish condition and market demand. Hook and line caught fish are usually sold whole. Check with the buyer if you have any doubts about the fish to be sampled. **Even if you cannot cut the fish, you should still take a sample for species composition and length.** If you are very short on time, you may take a species composition only sample. A species composition sample requires accurate species weights. You must separate the species into individual bins and weigh each bin. For more information see the “Completing the Sample” section on page 3-2.

Variation in species, length and age composition within a market category is considerably higher between landings than between clusters of the same landing. If more than one landing is made in a day, attempt to sample as many vessels as is practical. Also, sampling priority should be given to group market categories (e.g. 974, 975, etc.).

A unique sample number is assigned to each market category sample. A Cooperative Rockfish Survey (CRS) sample consists of either two 15 lb. clusters, two 25 lb. clusters, two 50 lb. clusters, or a single cluster sample of the entire landing. See page 2-18 for a specific list.

Never take different cluster weights for samples of size sorts.

It is important to keep the cluster weights as close as possible to 15 (longspine only), 25 or 50

pounds. However, this will not always be possible, especially in the cases of gill net and line gears. If a boat lands 50 pounds or more of one market category, you take one or two 50 lb. \pm 5 lbs. clusters. If the market category is less than 50 lbs., sample the entire landing of the market category.

EXAMPLES:

1. If a boat lands 68 pounds of one market category, take one 50 lb. cluster or sample the entire landing. It is always ok to sample the entire landing if the landed weight is less than or equal to 100 lbs.
2. If a boat lands 168 pounds of one market category take two 50 lb. clusters (DO NOT take cluster weights of more than 50 lbs. \pm 5 lbs unless sampling lingcod).
3. If a boat lands 22 pounds of one market category, sample the entire market category, and your cluster weight will equal 22 lbs.
4. If a boat lands a market category and the market category consists of **one fish**, take a sample.
5. Do not take a one fish sample if there is more than one fish available for the market category.

It is equally important to take a random sample. **To avoid bias**, a cluster should be selected from one side of a box or bin all the way to the bottom without looking at the fish being selected in the process.

Except for small landings of 1,000 lbs. or less, select clusters separated in time from the beginning and the end of unloading. The rationale is that the catch is stratified in the hold, depending on fishing depth, location and net type changes. This does not imply that samplers should take clusters whenever they notice a change in species composition of a category, but merely should be aware of possible catch stratification.

Completing the Sample

After gathering and weighing the sample or cluster, separate and weigh **each species** to the nearest pound. This can be done on one species at a time. Record species, species weight, sex, gonad condition (see page 3-7, if sex information is obtained then gonad/maturity codes must be

used, except for Thornyheads – DO NOT collect maturity for thornyhead species), and fork length (mm) (see page 12-6) data from **all** species. Record all the previously mentioned biological data and collect **both** otoliths from all species as time permits. If time permits, collect individual fish weights (but they must be to the hundredths decimal place).

New Blue Rockfish Species

Identification of the Two Blue Rockfish Species

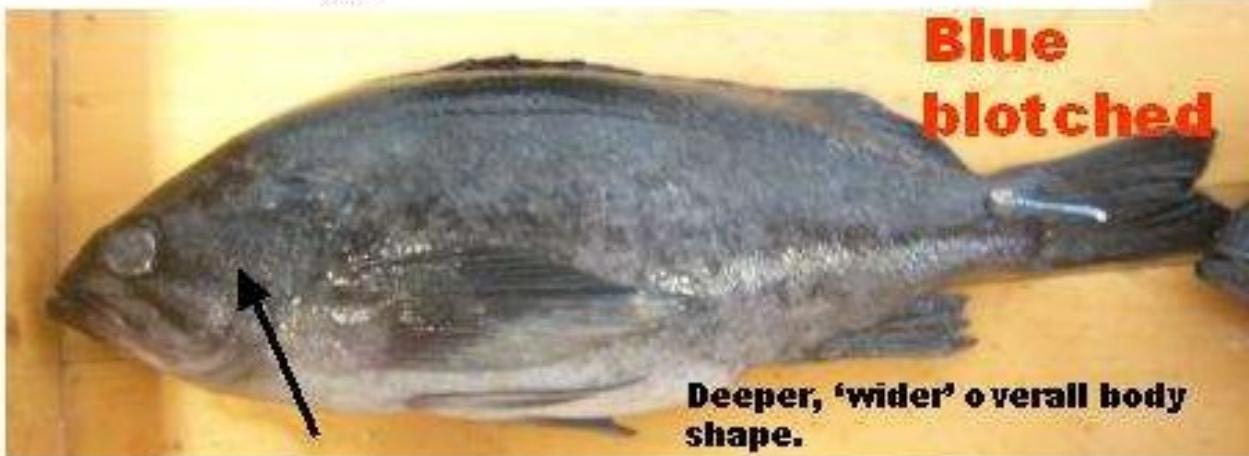
Genetic analysis has confirmed the existence of two species of blue rockfish. Furthermore, we now know how to tell them apart with a high level of reliability. Both species occur throughout California and the data strongly suggests that they co-occur. Attached is a picture of the two species and some of the characteristics to help identify them. Starting in January 2016 we will be identifying the Deacon rockfish (*S. diaconus*) separate from blue rockfish (*S. mystinus*).

Originally we called them Blue Blotched and Blue Sided. Blue blotched has been determined to be the lectotype.

General Characteristics:

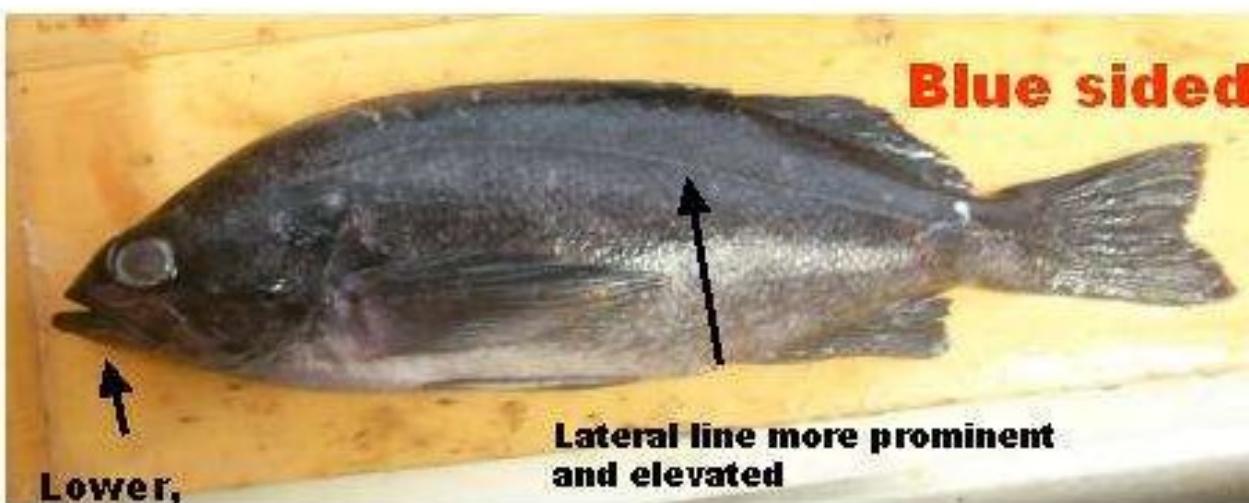
- True blue (Blue Blotched): strong cheek bars, sides of body not uniformly blue (blotched with whitish areas), lateral line weak, slightly rounder head. BLUR
- Deacon (Blue Sided): weak cheek bars, solid blue sides with little or no mottling, prominent lateral line, mandible extends slightly further forward, slight symphyseal nob, slightly flatter head. DRCK

Two categories of blue rockfish



More prominent third facial stripe posterior to eye

Greater degree of mottling in coloration



New Rougheye Rockfish Species

Identification of the Two Rougheye Rockfish Species

In 2005, genetic analysis confirmed the existence of two species of rougheye rockfish, and in 2008, Orr and Hawkins formally verified the two species as rougheye and blackspotted rockfish. Both species occur in northern California and the data strongly suggests that they co-occur. North Pacific Fisheries Management Council (NPFMC) SAFE documents indicate significant difficulty in identification between the two species. Do the best you can to identify the species. The species code for blackspotted rockfish is BSPR.

General Characteristics:

- Rougheye (*Sebastodes aleutianus*): pale, often has dark mottling on the body in diffuse bands, and does not have distinct dark spots on the spinous dorsal fin. REYE
- Blackspotted (*Sebastodes melanostictus*): darker overall and spotting is nearly always present on the spinous dorsal fin, longer dorsal fin spines, longer gill rakers, and a narrower body depth at the anal-fin origin. BSPR

Picture Comparison of Rougheye and Blackspotted Rockfish Species

Rougheye Rockfish *Sebastodes aleutianus*

Spinous dorsal fin without spots,
sometimes with blotches
Body lighter overall
Dorsal spine 1 short

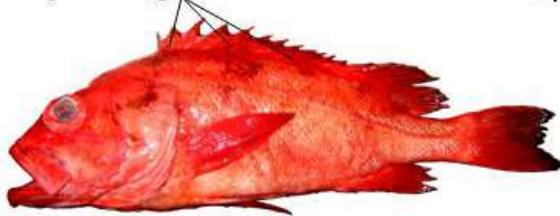
Short 1st dorsal spine
Spots & blotches absent



Short 1st dorsal spine
(1.5 – 3.0 times into orbit)



Blotches associated w/
body mottling



Distribution
Range: Bering Sea, eastern Aleutian Is.,
to northern CA
Depth: 45-440 m, more common shallower

Blackspotted Rockfish *Sebastodes melanostictus*

Black spots in spinous dorsal fin,
often few and faint
Body darker overall
Dorsal spine 1 long

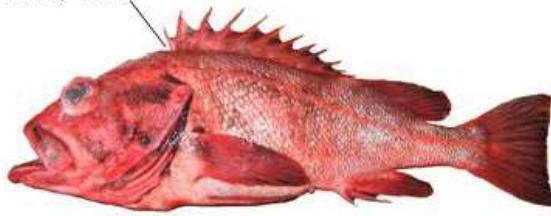
Long 1st dorsal spine
Spots present



Long 1st dorsal spine
(1.0-1.8 times into orbit)



Spots few, faint



Distribution
Range: Japan, Bering Sea, Aleutian Is.,
to southern CA
Depth: 84-490 m, more common deeper

Gonadal Maturity Stages of Rockfish

(not Thornyheads)

GROSS EXAMINATION

FEMALES

Code Description

1. Immature: small, elongate, pale flesh colored, cross-section round, no black spots in tissue.
2. Early yolk: ovaries slightly swollen and round in cross section, yellow-orange color developing (sometimes white).
3. Late yolk: ovaries large, firm, bright uniform yellow-orange color, ovary outer membrane thin and delicate, eggs separate easily.
4. Eyed embryos/larvae: ovaries very large, full, thin walled and delicate, embryos/larvae free, eyes black pigmented.
5. Spent: ovaries limp, large and mostly empty, dark red-brown blood vessels visible.
6. Recovering/reorganizing: ovaries small volume, limp, but more firm, reduced redness, color brown to flesh, possible residual eggs/larvae present.

9. Unknown

MALES

Code Description

1. Immature: thin, ribbon-like, clear breaks easily.
2. Early maturity: larger, triangular cross section, some white color. Milt does not flow readily.
3. Late maturity: large, white, creamy, milt flows when cut.

9. Unknown

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4 FLATFISH SAMPLING PROCEDURES

See page 2-17 for sample number allocations. **Do Not** collect flatfish maturity.

Flatfish Sample Size

Flatfish sample sizes will vary depending on the size of the flatfish being sampled (take two cluster samples whenever possible):

1. Arrowtooth flounder, CA halibut and starry flounder: cluster weight is the entire landing or at least 50 lbs. \pm 5 lbs.
2. Sand dabs and Rex Sole: cluster weight is the entire landing or at least 15 lbs. \pm 1 lb.
3. Remaining flatfish: cluster weight is the entire landing or at least 25 lbs. \pm 2 lbs, regardless of size sorts, i.e. large petrale cluster weights should be 25 lbs. and medium/small petrale cluster weights should be 25 lbs.

Never take different cluster weights for samples of size sorts.

It is important to keep the cluster weights as close as possible to 15 (see above), 25 or 50 pounds.

Send all flatfish otoliths and datasheets to Belmont at the end of the month with the rockfish samples.

You must collect sex data. If you are not allowed to cut the fish, sex can be determined by holding the fish up to the light (candling). The *Field Guide* has examples of this.

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5 SABLEFISH SAMPLING PROGRAM

California Introduction & Reference

Sampling Design

- Ideal samples will consist of two clusters, weighing 50 LB (+/- 5 LB), from a single sort group. Never take three clusters.
- Sample all sort groups within a landing.

Fishery- and Gear-specific Sampling

- Do not sample landings transported from other port complexes.
- Do not sample sort groups that may consist of both ocean run and other sort groups.

Data Collection Procedures

- Never take more than two clusters.
- Length should be in millimeters.
- If data are missing leave the field blank.

Recording Data on Sampling Forms

- For sample number allocations, see page 2-17.
- Use the *CALCOM datasheet*. See directions on page 2-21.
- Try to collect data that is as specific as possible to the sort group being sampled.
- Use the Comments section to note the weight group (WG) and list the other sample #s for the other size sorts sampled. E.G. SM, WG=1-2 lbs, MD ON 70111, LG ON 70112

Preparing Data for Transfer

- Send all trays, quarterly, directly to Patrick McDonald (see page 5-8). Do **not** send data sheets.

Data Entry

- Key sablefish samples into CALCOM.

Tagged Sablefish - Summary

Blue Tagged Sablefish

- Reward is \$50 and a hat. Allow 1 month for hat and 2 months for check delivery.
- Fish must be retrieved whole (or reward is \$5 or a hat).
- Give the dealer/fisherman a receipt from the receipt book provided (keep duplicate).
- Collect following information: location (as specific as possible), gear, date of capture, depth of capture, who and where to send reward.
- Bring fish back to lab for thorough processing.

Yellow Tagged Sablefish

- Reward is \$5 or a hat.
- Fish do not have to be whole to receive a reward.
- Collect same information as blue-tagged fish.

White Tagged Sablefish

- Reward is a hat.
- Collect following information: location (latitude and longitude if possible), date of capture, depth of capture, who and where to send reward.

SABLEFISH SAMPLING PROGRAM

Introduction

The sablefish sampling program in California is a collaborative effort between PSMFC, NOAA Fisheries, and the California Department of Fish and Wildlife. In 2008, our project assumed primary responsibility for sablefish sampling and data maintenance.

This chapter describes general procedures port samplers will use to sample sablefish. Follow the procedures described below as closely as possible. Port specific conditions may influence sampling access; however, samplers must always use consistent and random sampling techniques.

Fishery- and Gear-specific Sampling

The commercial fishery for sablefish off the California coast consists of trawl and fixed gear (primarily longline and pot) vessels operating in limited entry and open access sectors. Additionally, a “Primary Season” fishery (endorsed, limited entry fixed gear only) for sablefish is held once a year from April - October.

For the trawl fishery and year-round, set-gear fishery, port samplers should sample **two landings per port/month stratum**. During the Primary season fishery, port samplers should sample **one landing per port/week stratum**. Whenever possible, all biological data (length, sex, and otoliths) should be collected from each specimen included in a sample; however, when this is not possible, the sampler should strive to obtain at least length and sex information. A sample should be collected from each sort group contained within a boat-trip landing.

If a single sort group contains both dressed and whole fish (i.e., two different “Conditions”), do not collect a sample from it. Additionally, if a landing is made at a different port (i.e., processing facility or dealer), then shipped to a port you happen to be sampling at, do not collect a sample from it.

Sampling Procedures

As a general rule, a “sablefish sample” consists of two clusters (50 lbs. +/- 5 lbs). When possible, the clusters should be taken from different parts of the landing, e.g. from different strap

boxes or totes. The specimens selected for each cluster should be taken from one corner of a tote, starting at the top and working to the bottom, trying not to account consciously for sizes of fish selected.

Collect samples from all sort groups in a landing. If a sort group is less than 50 pounds, select the entire sort group as a sample. If a sort group is between 50 and 100 pounds, collect one 50 pound cluster as a sample. Each sample from a sort group is a discrete sample and should be assigned its own sample number. Sablefish sort groups are based on size attributes of the landed fish, e.g., small, medium, large, "ocean-run" (unsorted), etc. Live versus dead conditions are not considered sort groups.

If the fish are landed whole, measure fork length in millimeters, record sex, and take otoliths from all specimens included in the cluster. If the fish are landed dressed, measure dorsal length (from the insertion of the dorsal fin to the fork in the tail) in millimeters and record sex for all fish.

Recording Data on Sampling Forms

Record data on the CALCOM Datasheet. It is important to note that whenever possible, recorded data should be applicable to the sort group being sampled and not the entire landing of sablefish (all sort groups combined).

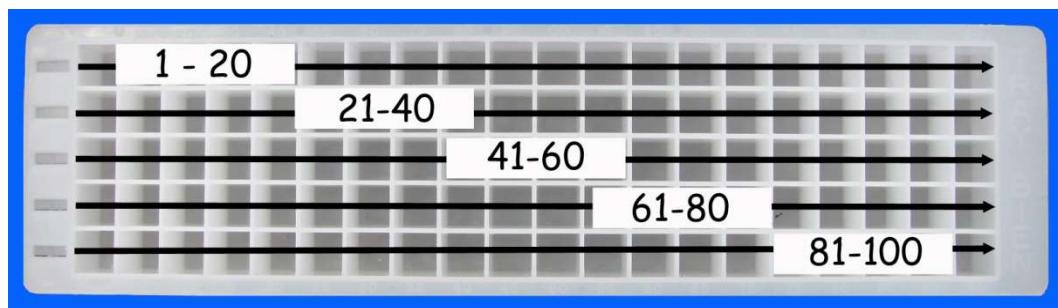
Preparing Data for Transfer

Data should be recorded legibly on the sampling forms. Data must be entered by the 1st of the month and datasheets sent to Belmont. Thoroughly clean otoliths prior to storage in the containers (Tray Biens). Because sablefish otoliths are very fragile, use great care removing, cleaning, and storing the ageing structures.

Currently, plastic trays (Tray Biens) are used for storing otoliths. In the past, there have been problems associated with the Tray Biens, both in terms of storing the otoliths in an identifiable format and securely sealing the trays. The trays are difficult to close tightly; however, if careful attention is given to the process, the two pieces do "snap together" correctly (although, there can be a considerable "learning curve"). It is **very important** to follow precisely the following

guidelines for storing otoliths in the Tray Biens: (1) only store complete samples in a Tray Bien, i.e., do not split a sample or cluster between two tray biens. If a sample cannot be stored, **in its entirety**, in a single Tray Bien, use a second Tray Bien; (2) in cases when a single sample contains more than 100 specimens (this scenario will be unlikely, given the current sampling design), use a second Tray Bien for the “overflow” specimens; (3) if there are more than 20 specimens in a cluster and a row becomes “filled up,” go to the next row to store the remaining specimens; (4) specimens within a single sample should be stored sequentially without space between clusters; (5) If a sample has two clusters, designate the end of cluster one and the start of cluster two with a black line above the last specimen of cluster one, between the last bone of cluster one and the first bone of cluster two, and below the first bone of cluster two; and (6) if otoliths are not collected for a particular specimen from a cluster, leave the corresponding tray “cell” empty and note this in the “Comments” section on the Landing Data Form.

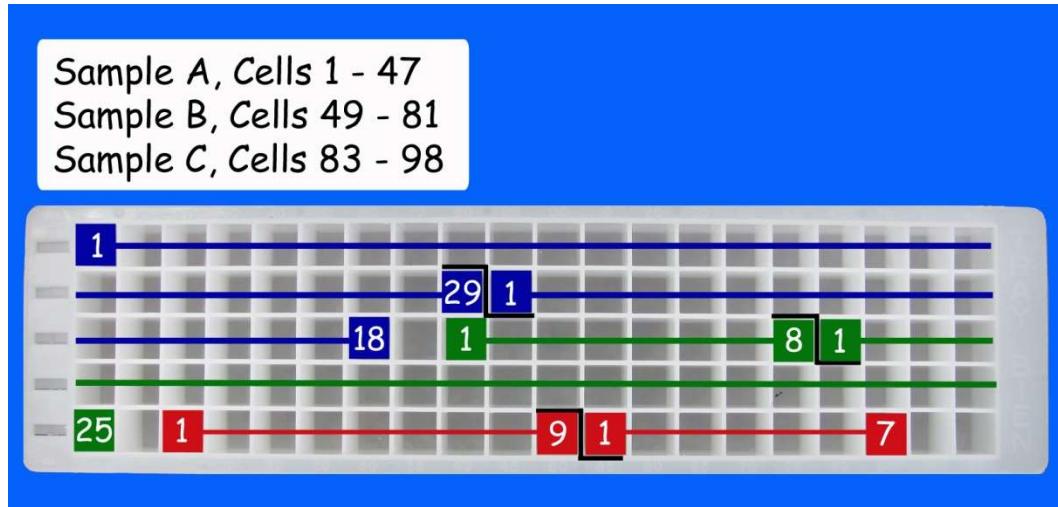
The following example illustrates the manner in which samples should be stored in Tray Biens. Each tray has 100 cells arranged in a matrix of 5 rows and 20 columns. Disregard the numbering system used on the Tray Bien, rather imagine that each tray is numbered from 1 to 100 starting with the upper left cell and counting left to right and down (e.g., exactly as you read).



The first sample (A) includes two clusters. The first cluster (A1) contains 29 specimens and the second cluster (A2) contains 18 specimens. The second sample (B) includes two clusters. The first cluster (B1) contains 8 specimens and the second cluster (B2) contains 25 specimens. The third sample (C) includes two clusters. The first cluster (C1) contains 9 specimens and the second cluster (C2) contains 7 specimens. Following the guidelines (1-6) above, all three samples may be stored in a single Tray Bien..

The entire first two rows (cells 1-40) and the first 7 cells of the third row (cells 41-47) correspond with sample A.. Cell 48 is empty between samples A and B. Sample B starts in cell 49. The rest of the third row, the entire fourth row and the first cell of the fifth row correspond

to sample B (cells 49 – 81). Cell number 82 is empty between samples B and C. Sample C starts in cell number 83 and ends in cell number 98. The format below completes storage for samples A, B, and C.



After placing otoliths in the Tray Biens using the format described above, close the tray securely and record the following information on the cover: date, Sample # (State), and cell ranges for each cluster. Use a black sharpie to designate the end of a cluster and the start of the next cluster within a sample. The designating mark consists of a single line above the cell containing the last specimen of the first cluster, a single line between the clusters, and a single line below the first cell of the second cluster. (see example below).



If two Tray Biens are needed for a single sample, tape them together, one on top of another. Please use labeling tape and a permanent marker on the Tray Biens to ensure that the recorded information does not become illegible during transit.

Send the completed Tray Biens in a single shipment once a quarter to Patrick McDonald (see contact list) at the Hatfield Marine Science Center. Do not send data sheets with the tray biens. It is **very important** that the shipments are packaged securely, so they can be easily processed on arrival at the ageing laboratory.

New Tray Biens will be sent to you when you request them from the GCU; please use these Tray Biens for the Sablefish Sampling Program only. Please contact the GCU when you notice your supply of Tray Biens is getting low.

Processing Updated Data

As mentioned previously, whenever possible, samples should be complete with all necessary data included. However, in some cases, particular data (possibly fish ticket information) will not be made available until after the sample needs to be shipped to Belmont. That is, when necessary, samples can be sent to Belmont with missing information on the sampling forms. When the data become available, send the updated information to Belmont. You may either photocopy the original sampling forms and highlight the updates, or send a note with the updated data. If possible, call or e-mail Daniel Schperberg (see Addresses below) to inform him that updated information is forthcoming.

Additional Information

Tagging Studies on Sablefish

Tagging studies on sablefish have been conducted in previous years. Tag returns, along with pertinent data regarding the tagged fish, are very important to these studies. When tagged fish are observed during sampling visits to processing facilities and dealers, samplers should make every effort to obtain the tags, along with associated catch information, and return them to the appropriate research groups. Information relevant to processing collected tags is presented in Appendix C.

Addresses for Personnel Involved in Sablefish Sampling Program

NMFS Ageing Lab

Patrick McDonald
Hatfield Marine Science Center
2032 SE OSU Drive
Newport, OR 97365

phone: (541)867-0513
email: patrick.j.mcdonald@noaa.gov

CDFW / PSMFC

Brenda Erwin
CDFW
1123 Industrial Road #300
San Carlos, CA 94070

Erwin:
phone: (650)631-6740
e-mail: berwin@psmfc.org

References

- Crone, P. R. 1995. Sampling design and statistical considerations for the commercial groundfish fishery of Oregon. Canadian Journal of Fisheries and Aquatic Sciences 52:716-732.
- Sen, A. R. 1986. Methodological problems in sampling commercial rockfish landings. U.S. National Marine Fisheries Service Fishery Bulletin 84:409-421.

Appendix A

Blue Tags

A commercial fisher or processor/dealer is entitled to \$50.00 and a hat for whole, intact blue-tagged fish. If a blue tag is turned in from a fish that has been mutilated, such that the otoliths, sex, and length cannot be obtained, then the reward is \$5.00 or a hat. In cases when the tag is not associated with an actual fish (e.g., found on the docks or the floor of a processing facility), the individual is still entitled to a reward (\$5.00 or a hat). The following tag-recovery procedures are applicable only to blue-tagged fish.

Materials Provided to Samplers

Ethanol

Large clear vials

Small painted vials

Posters

Plastic weigh boats

Receipt book

Sample forms

Tag recovery envelopes

Labels

Instructions

When you pick up the fish:

- (1) Give the fisher or dealer a receipt. Keep the duplicate of the receipt.
- (2) Get the recovery information from the fisher: location, gear, date of capture, depth of capture, who and where to send the reward to.
- (3) Depending on a number of things, the fisher will usually get their hat within a month and the check within two months of receiving the tag information from the port.

Processing of the fish:

- (1) Write the tag number on one label and place on a small painted vial.

- (2) Carefully, remove the otoliths (please try to get both), clean them and place them in 50% ethanol in the painted vial.
- (3) Get a forklength measurement, determine the sex, and weigh the fish. Record this information on the data sheet and the tag recovery envelope.
- (4) Remove the tag from the fish and place it in the envelope.

Shipping the sample:

- (1) Mail the data sheet and tag envelope as soon as possible to:

D. Pearson
NOAA/NMFS/SWFSC
110 Shaffer Rd
Santa Cruz, CA 95060
phone: (831)420-3944

Yellow Tags

A commercial fisher or processor/dealer is entitled to \$5.00 or a hat for a yellow-tagged fish. If a yellow tag is turned in, please collect the appropriate information (location, gear, date of capture, depth of capture, name and address of party that will receive the reward, etc.), place the tag in the tag envelope, and mail the packet to the following address.

NOAA/NMFS/NWFSC
7600 Sand Point Way N.E.
Seattle, WA 98115
phone: (206)526-4120

Canadian Yellow Tags

Reward given for the whole fish with the appropriate information (tag number, the tag itself, depth, gear, vessel, fork length, date caught, weight, sex, name and address of person who found the fish). Contact:

Rob Kronlund
Dept. of Fisheries and Oceans
Pacific Biological Station
3190 Hammond Bay Road
Nanaimo, BC V9T6N7
Phone: (250) 756-7108
Email: Allen.Kronlund@dfo-mpo.gc.ca

White Tags

A commercial fisher or processor/dealer is entitled to a hat for a white-tagged fish (spaghetti tags with black notation). If a white tag is turned in, please collect the appropriate information (location (latitude and longitude if possible), date, and depth of capture; name and address of party that will receive the reward; etc.), place the tag in a tag envelope, and mail the "packet" to the following address.

Susan Sogard
NOAA/NMFS/SWFSC
110 Shaffer Rd
Santa Cruz, CA 95060
Phone: (831) 420-3932

6 LINGCOD SAMPLING INSTRUCTIONS

Introduction

Lingcod sampling started in 1993 and focused on trawl caught fish, and in 2003, we broadened the scope of lingcod sampling to include all landings. Use the CALCOM Sampling Form (See directions on page 2-21) and sample numbers. Samplers will key lingcod samples, as they do rockfish, into CALCOM.

Trip Sampling

A sample consists of up to two 100 lb. clusters. Sample the entire landing when the landing weight is less than 100 lbs.

Cluster Sampling

For each cluster, the sample number, cluster number, and cluster weight must be recorded. Each lingcod in the cluster should be sexed and measured for fork length (mm), and this data recorded. If at all possible, maturity should be collected, but if the processor will not allow cutting of the fish, sample sex and length of the available clusters.

Maturity Data

Lingcod gonads can be examined when the opportunity to cut the fish exists (e.g. when fish are to be filleted). The gonads should be evaluated according to the criteria listed in the *Field Guide* (see E-7). Gonad maturity should be recorded with the fin ray (e.g. "Maturity 2"). Gonad maturity should also be recorded on the CALCOM Sampling Form.

GROSS EXAMINATION

| <u>FEMALES</u> | | <u>MALES</u> | |
|----------------|---|--------------|--|
| <u>Code</u> | <u>Description</u> | <u>Code</u> | <u>Description</u> |
| 1. | Immature: small, 1.5 – 3.0 cm. | 1. | Immature: thin, ribbon-like. |
| 2. | Maturing: eggs visible and opaque. | 2. | Transitional: moderate sized, firm, compact. |
| 3. | Mature: ovaries swollen with large pale sticky egg mass. | 3. | Ripe: moderate to large, white, creamy, milt flows when cut. |
| 4. | Spent: thick walled ovaries empty. | | |
| 5. | Transitional: thick walled ovaries firming and progressing to thinner-walled condition. | | |

Lingcod Sampling Procedures Summary.

1. Samples contain 1 to 2 randomly sampled clusters of equal weight (100 lbs./cluster).
2. Maturity should be collected whenever possible, and lengths/sex should always be recorded.
3. Sample datasheets should be sent monthly to **San Carlos**.

7 OTHER SPECIES SAMPLING INSTRUCTIONS

Shark and Skate Sampling Procedures

Elasmobranches have never been adequately sampled in California and although they are a minor component of the fishery, in the past there have been small fisheries which developed quickly. With fisheries regulations in a constant state of flux, it is important that we be able to monitor any fishery which develops. Port samplers are encouraged to let their supervisors know of any unusual changes they observe in the landings and to be liberal with the use of comments on the data sheets.

Enter data into CALCOM. Do NOT collect age structures. A sample consists of one cluster of 30 fish or up to 30 pairs if landed as wings. Use the CALCOM Sampling Form. If skates are landed as wings, put W in the Dressed box. Sort Skates to species and collect species weights (wings too).

Species of Interest:

- For the time being we wish to limit sampling to the following: spiny dogfish and all species of skates. We are specifically excluding other species of sharks, bat rays, and torpedo rays.
- We believe that typically only five species of skates are likely to be encountered: big skate, longnose skate, California skate, starry skate, and sandpaper skate. The last three species are smaller than the first two and will probably not be common in the landings.

Length type:

- Whole skates will be measured as Disc width/length (measuring the distance between the wing tips). Skates landed as wings will not be measured for length but species weights must be collected. Spiny Dogfish will be measured as Total length.

Species Identification:

We feel that this will be the single biggest problem we have to deal with. In particular, skates landed as wings may turn out to be impossible to deal with completely. Port samplers should do their best to identify the skates and use the comments section to indicate any uncertainty. Use the attached guide in conjunction with a fish identification book to id the skates. Feel free to contact us with other ideas about how to identify them. It is possible that

an occasional rare species will be encountered. If it is possible, try to purchase it and we will reimburse you. The specimen can be frozen and sent on to Don Pearson at the Santa Cruz Laboratory.

Header Data:

- Sample #s: Use your CALCOM Sample Numbers (see page 2-17).
- Fill out the rest of the header data as you would for other samples.
- If a sample is for wings, put W in the Dressed box.

Summary Data:

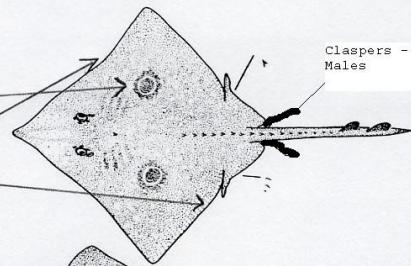
- Use the species codes on the attached list. If you cannot identify a skate to species, but can tell that multiple species are present, identify each different species as SKT1, SKT2 ... etc.
- # of Fish is the count of each fish except: count each wing in a landing of skate wings.
- Obtain a weight of each species.

Individual Fish Data:

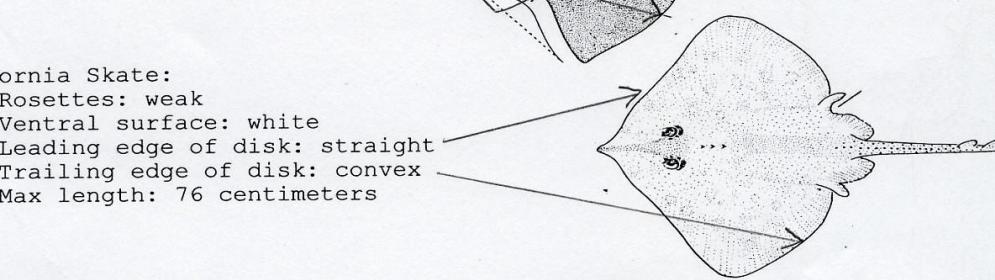
- Do not measure skate wings.
- Measure spiny dogfish as TOTAL length.
- Measure whole skates as Disk width/length.
- We do not collect age structures or maturity.
- Sex: Males=1, Females=2, Unknown=9 (shouldn't be needed)
- Males for all elasmobranchs can be identified by the claspers found near the vent (see attached key)

If possible, take pictures of some of the skates. When taking pictures, photograph both ventral and dorsal surfaces and make sure the fish has been rinsed off.

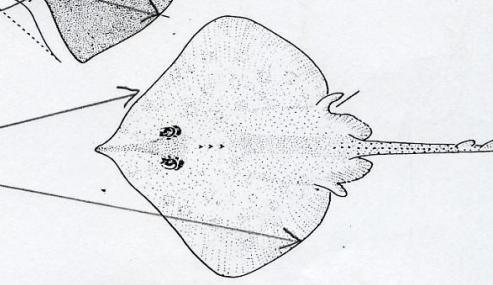
Big Skate:
Rosettes: prominent
Ventral surface: white
Leading edge of disk: straight
Trailing edge of disk: straight
Max length: 2.4 meters



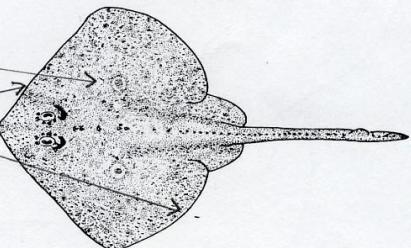
Longnose Skate:
Rosettes: weak
Ventral Surface: grayish
Leading edge of disk: concave
Trailing edge of disk: convex
Max length 1.4: meters



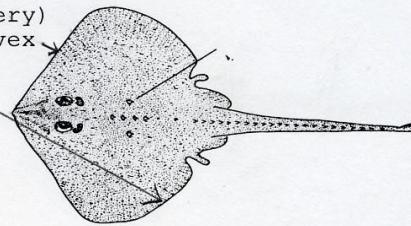
California Skate:
Rosettes: weak
Ventral surface: white
Leading edge of disk: straight
Trailing edge of disk: convex
Max length: 76 centimeters



Starry Skate:
Rosettes: moderate
Ventral surface: white
Dorsal surface with some prickles
Leading edge of disk: straight
Trailing edge of disk: convex
Max length: 76 centimeters



Sandpaper Skate:
Rosettes: weak
Ventral surface: white
Dorsal surface very rough (sandpapery)
Leading edge of disk: slightly convex
Trailing edge of disk: convex
Max length: 56 centimeters



Pacific Whiting Sampling Procedures

Port samplers in Crescent City and Eureka will collect Pacific Whiting for the Cooperative Survey. Use your CALCOM Sample Numbers (see page 2-17). Samples consist of two 50 lbs ± 5 lb clusters per sample, fork length in millimeters, weigh each fish to the nearest tenth of a pound, and enter the data into CALCOM. Collect age structures when you can, spreading it out through the season, because we are limited to 100 structures per port. Use the CALCOM datasheet. Send the data sheets to Belmont at the end of the month with the rockfish samples (instructions on page 2-15).

After otoliths are collected, cleaned, and dried, they should be stored dry in vials. Each vial should contain a pair of otoliths from a single specimen. The vial must be labeled with sample information – Sample number, cluster number, and fish number.

At the end of the season mail all otoliths to:

Patrick McDonald
Hatfield Marine Science Center
2032 S. OSU Drive
Newport, OR 97365

phone: (541)867-0513
email: patrick.j.mcdonald@noaa.gov

8 QUOTA SPECIES MANAGEMENT

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Southern Sub-Group Species

| | AREA GROUPS | | |
|---|---|---|---|
| | Nearshore | Shelf | Slope |
| | Shallow | | |
| Report these by the AREA GROUP Minor – Rockfish Groups | Black-and-Yellow Rockfish China Rockfish Gopher Rockfish Grass Rockfish Kelp Rockfish Olive Rockfish | Bronzespotted Rockfish Chameleon Rockfish Dwarf-Red Rockfish Flag Rockfish Freckled Rockfish Greenblotched Rockfish Greenspotted Rockfish Greenstriped Rockfish Halfbanded Rockfish Honeycomb Rockfish Mexican Rockfish Pink Rockfish Pinkrose Rockfish Pygmy Rockfish Redbanded Rockfish Redstripe Rockfish Rosethorn Rockfish Rosy Rockfish Silvergrey Rockfish Speckled Rockfish Squarespot Rockfish Starry Rockfish Stripetail Rockfish Swordspine Rockfish Tiger Rockfish Vermilion Rockfish Yelloweye Rockfish Yellowtail Rockfish | Aurora Rockfish Bank Rockfish Pacific Ocean Perch Sharpchin Rockfish Yellowmouth Rockfish |
| | Brown Rockfish Calico Rockfish Copper Rockfish Quillback Rockfish Treefish | | Rougheye/Blackspotted Blackspotted Rockfish Rougheye Rockfish |
| Report these species separately | Black Rockfish Blue Rockfish CA Scorpion Fish | Bocaccio Canary Rockfish Chilipepper Cowcod Shortbelly Rockfish Widow Rockfish | Blackgill Rockfish Shortraker Rockfish Splitnose Rockfish Darkblotched Rockfish |

Northern Sub-Group Species

| | AREA GROUPS | | |
|---|--|---|---|
| | Near-Shore | Shelf | Slope |
| | Shallow | | |
| Report these by the AREA GROUP Minor – Rockfish Groups | <p>Black-and-Yellow Rockfish China Rockfish Gopher Rockfish Grass Rockfish Olive Rockfish CA Scorpion Fish</p> <p>Deep</p> <p>Brown Rockfish Calico Rockfish Copper Rockfish Quillback Rockfish Treefish</p> | <p>Bocaccio Bronzespotted Rockfish Chameleon Rockfish Cowcod Dwarf-Red Rockfish Flag Rockfish Freckled Rockfish Greenblotched Rockfish Greenspotted Rockfish Greenstriped Rockfish Halfbanded Rockfish Honeycomb Rockfish Mexican Rockfish Pink Rockfish Pinkrose Rockfish Pygmy Rockfish Redbanded Rockfish Redstripe Rockfish Rosethorn Rockfish Rosy Rockfish Silvergrey Rockfish Speckled Rockfish Squarespot Rockfish Starry Rockfish Stripetail Rockfish Swordspine Rockfish Tiger Rockfish Vermilion Rockfish Yelloweye Rockfish</p> | <p>Aurora Rockfish Bank Rockfish Blackgill Rockfish Darkblotched Rockfish Pacific Ocean Perch Sharpchin Rockfish Yellowmouth Rockfish</p> <p>Rougheye/Blackspotted</p> <p>Blackspotted Rockfish Rougheye Rockfish</p> |
| Report these species separately | Black Rockfish Blue Rockfish | <p>Bocaccio Canary Rockfish Chilipepper Shortbelly Rockfish Widow Rockfish Yellowtail Rockfish</p> | <p>Shortraker Rockfish Splitnose Rockfish</p> |

9 EDITING PROCEDURES FOR CALIFORNIA LANDING RECEIPTS

Overview

Landing receipts are official, confidential government documents relating to the sale of commercially caught fish. They are records of business, fisher, boat, species (market category), pounds landed, and price per pound for each catch brought to market. A landing receipt should be filled out for every fish or market category landed commercially, whether they are sold or retained for personal use.

CDFW uses 17 different landing receipt books, for example C, V, O, and X. The letter starts the 6-digit number pre-printed on the top right of each receipt, (i.e. X123456). The type of book used by the processor will depend on which species are landed frequently in that particular port. Editing procedures are the same for all books.

Receipts are multi-copy, i.e. quadruplicate. The top copy, called green or white, is sent to the local CDFW port office. The yellow copy goes to the fisher, while the goldenrod and pink copies are retained by the fish business/processor. Occasionally the port office will receive a copy other than the green copy; if not a replacement for a lost green copy, it should be shredded.

Processing Landing Receipts

Processors are required to send receipts to their local port office on the 1st and 16th of every month, usually via Postage Paid (BRM) envelopes. CDFW provides Postage Paid envelopes as a courtesy to the processors for their receipts.

There should be Postage Paid envelopes readily available in the port office. However, if supplies are low, Postage Paid envelopes can be obtained from Joann Eres of the Los Alamitos CDFW office. She will require a previous envelope and total number of envelopes to order. Be sure to place the order well before running out and order sufficient numbers, as printing may take some time. You should not be asked for an Index and PCA for billing, as Joann has that information.

All landing receipts must be date stamped when received (even if it has been date stamped at a different office), edited, and then sent to the Marine Fisheries Statistical Unit (MFSU) in Los Alamitos within five (5) days of being received in the port office. Whenever possible, CDFW staff should be date stamping all landing receipts. The date stamp should be placed in the Note Pad section in the bottom right corner as long as it is not obscured by fish business notes. If no room is sufficiently available, then the date stamp should be placed on the back of the receipt in a clear, clean area. Receipts are then edited for quality control and uniformity. Instructions on editing follow this section.

When editing is finished, receipts are mailed to the MFSU at the Los Alamitos Office. Please do not use Long Beach Postage Paid envelopes.

The address is: Dealer Receipts
 California Department of Fish & Wildlife
 4665 Lampson Ave., Suite C,
 Los Alamitos, CA 90720

Occasionally receipts will be mailed to a port office other than the port of first landing. These receipts should be date stamped and then must be forwarded to the proper office for editing. If this situation continues, the processor should be provided with the correct envelopes. Until remedied, continue to send wayward receipts to the proper port complex office. **DO NOT EDIT** receipts that belong to a different port complex unless your supervisor requested it. See page 15-10 for the Port Complex/Port Code break down. Please use regular postage not the postage paid envelopes. Salmon receipts (Salmon Tally sheets) **must** be forwarded to the Santa Rosa office as soon as they are received.

The address is: Salmon Receipts
 California Department of Fish & Wildlife
 5355 Skylane Blvd, Suite B
 Santa Rosa, CA 95403

Editing Procedures

We are responsible for all fields on the landing receipt. When the landing receipt leaves our hands, it is in its final version and ready for CFIS entry.

The landing receipt is divided into two distinct sections: The header information and the species information. The header information contains date of landing, fisher name and L number, port of landing, block number, vessel name and CDFW number, and fish processor name and license number. There is also a place for limited entry groundfish and herring fishery permit numbers. The species information contains which species (market category) caught, the pounds of each, price per pound, total amounts, condition code, and gear code. All of this will be detailed below. The receipt is then signed by both fisherman and processor. See page 9-5 for a sample landing receipt.

| | |
|-------------------------------|--|
| Date: | Date of landing in MM/DD/YY format. |
| Fisher's Name: | Last name first, with the first 3 letters in boxes. The F.I. box is for the first initial of the fisher's first name. |
| I.D. number: | CDFW issued commercial fishing license number, also known as L number. The L is provided already on the form. |
| Port: | Port of first landing. This is a 3-digit code where fish were first brought on land. |
| Location: | Usually a 3-digit block number where most of the fishing was done. There are 4-digit codes, but the MSU is discouraging their use as they cover a larger area than the more precise 3-digit codes. |
| Vessel Name: | Name of vessel, with first 3 letters in boxes. These names should be registered with CDFW. |
| Vessel Number: | 5-digit CDFW issued vessel permit number. It must match the vessel name registered with CDFW. It also can contain up to 4 leading zeroes. |
| Fish Business Name: | Name of fish business/processor licensed by CDFW. |
| Fish Business License Number: | 5-digit CDFW issued license number. |
| Primary Gear Used: | 2-digit code designating how fish were caught. There is also a space to write in additional gear codes if more than one gear type was used (see Gear below). |

| | |
|---------------|--|
| Species: | Also known as market categories. These are either pre-printed on the landing receipt or written in on lines provided at the bottom of the receipt. There are a number of older receipt books in circulation that have discontinued market categories. The MSU has made an effort to cross out offending market categories on these books, but some processors use them anyway. Processors should politely be made aware that such categories are no longer valid and should not be used in the future. |
| Pounds: | Landed weight of the market categories. All books except X books have a decimal point for recording tenths of pounds. |
| Price: | Price per pound for landed market categories. |
| Amount: | Pounds X Price per pound. (Ex. 3 lbs of Black Rockfish multiplied by \$2.00 paid per pound equals \$6.00 total.) |
| Condition: | 2-digit code describing condition of fish as sold. (Ex. Live or gutted and gilled). |
| Gear: | Designates what species was caught by which gear type. |
| Total Pounds: | Sum of all pounds landed. |
| Total Amount: | Sum of all monetary totals. |

Making Edits

All edits are to be made in GREEN felt-tip pen. Brenda will supply new ones if needed. Code lists are available in Chapter 15.

To make an edit where the value is in error, draw a line through the error. If on the header, write correct information next to the edit. If a header field is left blank, fill in correct value in boxes or lines provided.

10 EDITING PROCEDURES FOR COASTWIDE TRAWL LOGS

Overview

The coastwide trawl logbook was developed by the Pacific Fishery Management Council, the states of Washington, Oregon, and California, and the National Marine Fisheries Service. Trawl logs are official, confidential government documents relating to trawl fishing. A log sheet must be filled out for each trip.

Trawl logs are multi-copy, i.e. duplicate. The top copy, called white, must be maintained on the vessel for a period of time. The yellow copy is sent to the local CDFW port office. Occasionally the port office will receive a white copy; if not a replacement for a lost yellow copy, it should be returned to the vessel.

Non-Groundfish Trawl Logs

Please key all CA Halibut trawl logs. Process them as you would Groundfish Trawl Logs.

Shrimp/prawn Logs: If the log has groundfish on it, make a copy of it (send the original to the invertebrate group in Santa Barbara), edit the copy and key it into PSMFC Trawl Log Book Application (App).

Processing Trawl logs

Trawl vessel operators are required to send logs to their local port office on the 10th of every month, usually via Postage Paid (BRM) envelopes. CDFW provides Postage Paid envelopes as a courtesy to the trawl vessel operators for their logs.

All trawl logs must be date stamped when received, edited, keyed into the App and then sent to Brenda Erwin in the Belmont office. The date stamp should be placed in the Comments section on the bottom of the log as long as it is not obscured by fishing notes. If no room is sufficiently

available, then the date stamp should be placed on the back of the log in a clear, clean area. Logs are then edited for quality control and uniformity.

Editing Procedures

We are responsible for all fields on the trawl log. The better we edit the log, the easier time we will have when we key the log into the App.

The trawl log is divided into three distinct sections: the header information, tow information, and the species information. The header information contains Sheet number, vessel name, Federal documentation number, crew size (including Captain), check boxes for observer and EFP, departure information (date, time, & port), return information (date, time, & port), and buyer. The “To Be Completed by Agency” section is also included as header information for documenting landing receipt numbers. Please make sure to enter all landing receipts associated with the trawl trip. The tow information contains tow date, set & up time, set & up latitude/longitude, average depth of catch, net type, and target strategy. The species information contains which species were caught, the estimated pounds retained each tow of each species, and whether retained or discarded. All of this will be detailed below. The log is then signed by the Captain. See page 10-9 for a sample Trawl log.

All edits are to be made in RED felt-tip pen. Brenda will supply new ones if needed. Code lists are available on pages 10-7 - 10-8.

To make an edit where the value is in error, encircle the error. Then write the correct information next to the edit. If fields are left blank, fill in correct values in the boxes or lines provided.

Only one trip per log sheet is allowable in order to avoid any data entry confusion. The App requires a unique Log Sheet number. If two or more trips are recorded on the same log, make photocopies of the log sheet before you edit. Edit each photocopy as its own log. Delete the extra trips by circling the section to be deleted with a red pen. Make sure your edits on the photocopies are in red. Make sure to edit the Log Sheet number as well; add an “A” to the Log Sheet number

for the first trip, “B” to the Log Sheet number for the second trip, “C” to the Log Sheet number for the third trip, etc.

i

Examples of editing are shown on pages 10-9 – 10-11

Header data

VESSEL DOC # - Make sure it is the Federal 6-digit or DMV CF #. Do not write CF on the log if the vessel has a 6-digit Federal documentation number. These numbers can be found on pages 14-3 for limited entry vessels, and pages 10-12 - 10-14 for open access vessels

DEPARTURE/RETURN DATE & TIME - Do not correct return date to match the landing receipt unless the return date is left blank. Make sure time is in 24-hour clock (e.g. 11:00 PM = 2300).

PORt - Port fields should be converted to the three-digit CDFW port code (pages 15-8 through 15-10).

1. If the Port of Origin is north of CA, use port code 100.
2. You must code both the Departure Port and the Return Port.
3. If both ports are the same use a > symbol to group the ports, then write the code.

FISH RECEIVING TICKET NO. – The landing receipt(s) that matches the log. A listing of landing receipt data can be obtained from the QSM database, CFIS, or from Brenda. Make sure you fill in the landing receipt number in the box at the bottom of the page. If multiple landing receipts were filled out for the log, write each landing receipt number in one of the boxes.

Tow data

TOW DATE - Make sure MONTH and DAY are listed for each tow. DO NOT number the tows.

TOW TIME - Code time using the 24-hour clock. Please check to make sure the vessel operator did not use both regular time and 24-hour clock. Do not calculate tow duration. If time is not noted for a tow, try to estimate the time based on the tows that occurred before and after that tow. Do not delete the tow if you are unable to estimate the time.

LATITUDE/LONGITUDE - Each tow should be assigned catch origin in Latitude/Longitude. If LORAN is used instead of Latitude/Longitude, you must convert this to Latitude/Longitude (use LORAN.EXE). If a vessel is still using LORAN, please let them know the following: *the U.S. Coast Guard, in accordance with the DHS Appropriations Act, terminated the transmission of all U.S. LORAN-C signals on 8 February 2010. On 1 August 2010 the U.S. transmission of the Russian American signal was terminated, and on 3 August 2010 all Canadian signals were shut down by the USCG and the CCG. (wikipedia.org)*

Enforcement may have to get involved if they continue to use LORAN because they are falsifying information on a legal document.

AVERAGE DEPTH - Each tow should be assigned an average depth in fathoms. There should only be one depth listed in this field. If there is more than one, take the average or pick the one that looks like it is the average. DO NOT Assign tow depth to the nearest 10 fathom increment.

NET TYPE - Net type should be coded for all tows. Options for net type are listed below.

- D. Danish or Scottish seine
- F. Selective Flatfish Trawl
- L. Large footrope Trawl (slope- > 8" footrope)
- M. Pelagic (mid-water) trawl
- S. Small footrope trawl (shelf - < 8" footrope)

TARGET STRATEGIES - It is not necessary to complete this field if blank. However, make sure the PacFIN code, listed in the front of the trawl logbook (see page 10-17 – 10-18), is used when the column is filled out. If a species estimated pounds are mistakenly listed there, delete, and then rewrite the species estimated pounds in an appropriate column.

Species data

SPECIES CODING - All market categories should be coded with the PacFIN codes listed in the front of the trawl logbook (see page 10-7 – 10-8). These are different from the species codes used for sample data sheets.

Each species must have its own column. If multiple species codes are in the same column, delete and code any additional species in the remaining right-hand columns, making sure the pounds for the species are listed in the correct tow with the appropriate PacFIN code listed at the top of the column. If you run out of additional columns, attach a sheet of paper to the right hand side continuing the rows and columns across the page.

If rockfish species are separated out in columns, but are not listed with specified PacFIN codes add the pounds to the appropriate group rockfish column. If the species do have PacFIN codes, do not lump them into to a group rockfish column. If two numbers are seen for the weight of a single species for one tow OR initials S, M, L are next to the weights – add the numbers together and write the appropriate pounds in the correct column. If the log specifies LGRK or SMRK, they should be recorded as the appropriate group rockfish and the pounds for LGRK or SMRK added together. DO NOT DELETE ANY SPECIES WITH POUNDS.

OTHER WEIRD STUFF YOU MAY SEE - If the tow was exploratory or had gear problems such that they do not catch any fish, delete ALL the data for that TOW (refer to sample edited log). However, if the tow did not have gear problems and just did not catch fish do not delete the tow.

Data Entry

Port samplers are responsible for trawl log data entry into PSMFC Trawl Log Book Application (App) (2016). Logs should be keyed as they are received rather than stored to be keyed at a later date. Due dates for data entry are April 30th for first quarter, July 31st for second quarter, October 31st for third quarter, and January 31st for fourth quarter. Instructions are in the Computer

Programs chapter (page 11-21). Mail all logs to Brenda in Belmont after they have been keyed.

Open Access Trawl Vessel List

| Vessel Name | F&G # | Doc # | Vessel Name | F&G # | Doc # |
|--------------------|------------------|--------------|--------------------|------------------|--------------|
| ALAMO | 7255 | 579951 | SATURNIA | 1784 | 238169 |
| ALOHA | 18733 | 520984 | SEA BIRD | 12744 | CF8918SU |
| BELLA MARIE | 2305 | 265181 | SEA DRAGON | 70243 | CF7241UH |
| BLUE DRAGON | 39897 | 937061 | SEA HAWK | 43959 | 945865 |
| C | 612 | 257103 | SEAQUEST | 1223 | 1106032 |
| CAPTAIN PETER | 20930 | 1040738 | SECOND CHANCE | 1119 | CF6909CB |
| CECELLA | 10292 | 262180 | SECOND WIND | 37484 | 653734 |
| DYNAMIK | 38742 | 676931 | SIX BROS | 8956 | 294437 |
| GOLDEN EAGLE | 39430 | 946881 | SKIFF | 41782 | CF4419NR |
| JENEFER T | 2635 | 265630 | SKIPJACK | 38646 | 623393 |
| JOHN PETER | 18361 | 560023 | TERN | 21077 | 540648 |
| JOHN START | 37838 | 949114 | THANH HA | 35663 | CF2379BL |
| JOHNNY L | 1290 | 257691 | THANH TUNG | 27016 | 570916 |
| JOYCE | 48343 | 670785 | VICTORIA | 178 | 249834 |
| KATALINA PHAN | 70379 | 258794 | WASHINGTON | 51260 | CF2204ST |
| KAY D | 10616 | 263972 | | | |
| KIM THANH | 21484 | 541282 | | | |
| KRISTEN GAIL | 42904 | 548485 | | | |
| LADY EAGLE | 9812 | 255083 | | | |
| LIBRA | 30674 | 500657 | | | |
| LINDA NOELLE | 35525 | 627808 | | | |
| LUCY L | 9744 | 256659 | | | |
| MARY K | 8314 | 251864 | | | |
| MISS JACINDA | 31827 | 587046 | | | |
| MISS STACEY | 44918 | 504307 | | | |
| NEW HAZARD | 2454 | 251017 | | | |
| PALM | 34686 | 612104 | | | |
| PIEFACE | 1139 | 268210 | | | |
| PROLIFIK | 42801 | 978303 | | | |
| SAIGON | 13549 | 261319 | | | |
| SANDY BEA | 54376 | 1078115 | | | |

Trawl Log Codes

(DO NOT USE THESE FOR SAMPLE SPECIES CODES)

Target Strategies

| <u>Code</u> | <u>Strategy</u> |
|-------------|--|
| NSM | nearshore mix |
| DWD | deepwater Dover (Dover not entire DTS) |
| DTS | Dover sole/thornyhead/sablefish |
| THHD | thornyheads (mixed) |
| BRSH | bottom rockfish-shelf |
| BRSL | bottom rockfish-slope |

Species codes may also be entered as target strategies.

Individual Species Codes

| <u>Code</u> | <u>Common Name</u> |
|--------------------|--------------------|
| DTS COMPLEX | |

| | |
|-----------------|-----------------------|
| DOVR | Dover sole |
| SABL | Sablefish |
| LSPN | Longspine thornyhead |
| SSPN | Shortspine thornyhead |
| FLATFISH | |
| ARTH | Arrowtooth flounder |
| BSOL | Butter sole |
| CFSO | Curlfin sole (turbot) |
| CHLB | CA halibut |
| EGLS | English sole |
| PTRL | Petrale sole |
| REX | Rex sole |
| RSOL | Rock sole |
| SDAB | Sanddab |
| SSOL | Sand sole |
| STRY | Starry flounder |
| UFLT | Other flatfish |
| UTRB | Unspecified turbot |
| ROCKFISH | |
| ARRA | Aurora |
| BANK | Bank |
| BCAC | Bocaccio |
| BLCK | Black |
| BLGL | Blackgill |
| BLUR | Blue |
| BRWN | Brown |
| BYEL | Black & yellow |

Individual Species Codes cont.

| <u>Code</u> | <u>Common Name</u> |
|--------------------|---------------------|
| DTS COMPLEX | |
| CHNA | China |
| CLPR | Chilipepper |
| CNRY | Canary |
| COPP | Copper |
| CWCD | Cowcod |
| DBRK | Darkblotched |
| FLAG | Flag |
| GPHR | Gopher |
| GRAS | Grass |
| GSPT | Greenspotted |
| GSRK | Greenstriped |
| KLPR | Kelp |
| OLVE | Olive |
| POP | Pacific Ocean perch |
| QLBK | Quillback |
| RDBD | Redbanded |
| RSTN | Rosethorn |
| ROSY | Rosy |
| SBLY | Shortbelly rockfish |
| SNOS | Splitnose |
| STRK | Stripetail |
| TREE | Treefish |
| USHR | Rockfish, Nearshore |
| USLF | Rockfish, Shelf |
| USLP | Rockfish, Slope |
| URCK | Rockfish |
| VRML | Vermilion |
| WDOW | Widow |
| YEYE | Yelloweye |
| YTRK | Yellowtail |
| ROUNDFISH | |
| LCOD | Lingcod |
| PCOD | Pacific cod |
| PWHT | Pacific whiting |

MISCELLANEOUS

Individual Species Codes cont.

| <u>Code</u> | <u>Strategy</u> |
|-------------|-----------------|
| CBZN | Cabezon |

| | |
|------|--------------------------|
| DSRK | Spiny Dogfish |
| GSTG | Green sturgeon |
| GRDR | Unspecified grenadier |
| JMCK | Jack mackerel |
| KLPG | Kelp greenling |
| SCOR | Scorpionfish |
| MSC2 | Unspecified Trawl fish |
| PMCK | Pacific mackerel |
| LSRK | Leopard shark |
| SSRK | Soupfin shark |
| TSRK | Thresher shark |
| UMCK | Unspecified mackerel |
| USKT | All skates & rays |
| USRK | Other shark |
| USTG | Unspecified sturgeon |
| WBAS | White seabass |
| WCRK | White croaker (kingfish) |
| WEEL | Wolf eel |
| WSTG | White sturgeon |

INVERTABRATES

| | |
|------|-----------------|
| DCRB | Dungeness crab |
| OCTP | Octopus |
| RPRW | Ridgeback prawn |
| SPRW | Spotted prawn |
| OSRM | All shrimp |
| USCU | Sea Cucumber |

**Any other species not listed and rarely seen
on trawl logs use MSC2**

ORIGINVessel Name SCOOTERFISHFederal Document No. 43924Crew Size (including Captain) 3

Departure: Date MAY 10 03
 Month 05 Day 13 Year 03

Return: Date 2030
 Month local - 24-hour Time 2030
 Day local - 24-hour

Port BEDOKHUS
 Port CRESSENT CITY

Buyer(s)

| DATE mo/day | TIME local 24-hour clock | LATITUDE | | LONGITUDE | | Average depth of each (fathoms) | NET TYPE | Target Strategy | Estimated pounds retained each tow - enter 4-letter code from species code list provided | | | | | | |
|----------------|-----------------------------------|----------|---------|-----------|---------|--|-------------|--------------------|--|-------|-------|-------|------|-------|-----|
| | | Degrees | Minutes | Degrees | Minutes | | | | Dover | B.COD | T.DOT | P.TR | S.MY | S.EEL | |
| 10 | set 0500 AM | 41 | 48.10 | 124 | 32.95 | 300 | B | DTS | 100 | 200 | 300 | | | | |
| | up 5:00 PM | 41 | 59.87 | 124 | 40.1 | 330 | | | | 400 | 400 | | | | |
| 10 | set 1800 | 41 | 00.17 | 124 | 39.68 | 315 | B | DTS | 100 | 1600 | 400 | 400 | | | |
| | up 2400 | 42 | 12.5 | 124 | 42.17 | 320 | B | DTS | | | 200 | | | | |
| 11 | set 0100 | 42 | 18.22 | 124 | 43.98 | 310 | B | DTS | | | | short | | | |
| | up 0100 | 42 | 06.99 | 124 | 40.09 | | | | | | | | | | |
| 11 | set 0700 | 41 | 40.62 | 124 | 26.06 | 60 | B | RETR | | | | | | | |
| | up 1200 | 41 | 38.36 | 124 | 26.02 | 60 | | | | | | 100 | 50 | 170 | |
| 11 | set 1300 | 41 | 37.03 | 124 | 25.49 | 70 | B | RETR | | | | | | | |
| | up 1800 | 41 | 47.03 | 124 | 18.09 | | | | | | | 200 | 70 | 180 | |
| 11 | set 1900 | 41 | 47.03 | 124 | 20.10 | 60 | B | RETR | | | | | | | |
| 12 | up 0100 | 41 | 35.36 | 124 | 26.02 | 60 | B | RETR | | | | | 300 | 50 | 190 |
| 12 | set 0400 | 14 | 380 | 27 | 560 | 30 | B | NRM | | | | | | | |
| 12 | up 0800 | 14 | 440 | 27 | 540 | | | | | | | | | | |
| 12 | set 0830 | 41 | 43.5 | 124 | 16.5 | 30 | B | NRM | | | | | | | |
| 12 | up 1130 | 41 | 36. | 124 | 14.00 | | | | | | | | 40 | 20 | 20 |
| 12 | set 1230 | 41 | 35.5 | 124 | 14.00 | 40 | B | NRM | | | | | | | |
| 12 | up 1430 | 41 | 44.35 | 124 | 16.75 | | | | | | | | 40 | 30 | 10 |

REMARKS:

TO BE COMPLETED BY AGENCY

VESSEL

FISH RECEIVING TICKET NO.

| | |
|------|--|
| PORT | |
| | |
| | |
| | |

Signed: Buffal / Jan

Nº 43496

Fig. 10-1

| | | | | | | | | | | |
|-------------------------------|---------------------|-------------|------------|------------------|-------|---------------|------------------|------------------|----------------------------|---------------------------------|
| Vessel Name | <u>SCOOTER FISH</u> | <u>COPY</u> | Departure: | Date <u>1005</u> | /0 | 03 | Time <u>0/00</u> | local - 24-hour | Port <u>BROOKINS - 100</u> | |
| Federal Document No. | <u>4324189</u> | | Return: | Date <u>05</u> | Month | Day <u>13</u> | Year <u>03</u> | Time <u>2030</u> | local - 24-hour | Port <u>CRESCENT CITY - 201</u> |
| Crew Size (including Captain) | <u>3</u> | | | | | | | | | |

Buyer(s)

| DATE mo/day | TIME local 24-hour clock | LATITUDE | | | LONGITUDE | | | Average depth (fathoms) | NET TYPE | Target Strategy | Dover <u>S&P</u> | Estimated pounds retained each tow - enter 4-letter code from species code list provided | | | | |
|----------------|-----------------------------------|-----------|-----------|-----------|------------|--------------|---------|-------------------------------|-------------|--------------------|-------------------------|--|---------|--------|---------|---------|
| | | Degrees | Minutes | Degrees | Minutes | Degrees | Minutes | | | | | 13.COD | 14.TOTS | 15.COD | 16.PETR | 17.PETR |
| 5/10 | set 0500am | 4/ | 48.10 | 724 | 32.95 | | | | | | | | | | | |
| | up <u>1600</u> | 4/ | 59.87 | 724 | 40.1 | | | | | | | | | | | |
| 5/10 | set 1800 | <u>42</u> | 00.17 | 724 | 39.68 | | | | | | | | | | | |
| | up 2400 | 42 | 12.5 | 724 | 42.17 | | | | | | | | | | | |
| 11 | set 0100 | 42 | 18.22 | 724 | 43.98 | | | | | | | | | | | |
| | up | 42 | 06.99 | 724 | 40.09 | | | | | | | | | | | |
| 5/11 | set 0700 | 4/ | 40.62 | 724 | 26.06 | | | | | | | | | | | |
| | up 1700 | 4/ | 38.36 | 724 | 26.02 | | | | | | | | | | | |
| 5/11 | set 1300 | 4/ | 37.03 | 724 | 25.99 | | | | | | | | | | | |
| | up 1800 | 4/ | 47.03 | 724 | 18.09 | | | | | | | | | | | |
| 5/11 | set 1900 | 4/ | 47.03 | 724 | 20.10 | | | | | | | | | | | |
| | up 0100 | 4/ | 35.36 | 724 | 26.02 | | | | | | | | | | | |
| 5/11 | set 0400 | <u>41</u> | <u>43</u> | <u>05</u> | <u>124</u> | <u>16.05</u> | | | | | | | | | | |
| | up 0800 | 4/ | 36.0 | 724 | 14.40 | | | | | | | | | | | |
| 5/12 | set 0830 | 4/ | 43.5 | 724 | 16.5 | | | | | | | | | | | |
| | up 1130 | 4/ | 36. | 724 | 14.00 | | | | | | | | | | | |
| 5/12 | set 1230 | 4/ | 35.5 | 724 | 14.00 | | | | | | | | | | | |
| | up 1430 | 4/ | 44.35 | 724 | 16.75 | | | | | | | | | | | |

REMARKS:

TO BE COMPLETED BY AGENCY
VESSEL FISH RECEIVING TICKET NO.
PORT

Signed: Boyle Jr.

Nº 43496

Fig. 10-2

GUIDE TO CHANGES

Vessel Name SCOOTERFISH Vessel ID# 53224189
 DAY Starts AT DOCKS AND HRS AT 100 HRS. Federal Document No. 3 Crew Size (including Captain) 3 MASS INCLUE MINT TIME

IF THE RETURN DATE IS MISSING PLEASE MATCH DATE TO THE DAY RECEIVED (TICKET), OTHERWISE DON'T EDIT
 Departure: Date 1/15 / 03 Month Day Year
 Return: Date 1/15 / 03 Month Day Year
 local - 24-hour Time 0/00 local - 24-hour Time 2030

CHECK COORDINATES, TOW Month DURATION AND TOW LENGTH e.g. 1800-2400 hrs = 6 hours.

41°0.17'N 124°39.68'W + 42°12.5'N 124°42.17'W = APP. 72 miles!
 BUYERS
 72 miles in 6 hours is NOT POSSIBLE!

| DATE mo/day | TIME local clock | LATITUDE | LONGITUDE | NET TYPE | Target Strategy | DOVER SABLE SPAN PTRL | | | | | | |
|----------------|------------------------|-----------|------------|-------------|--------------------|-------------------------|-------|--------|------------|------|------|------|
| | | | | | | Average depth (fathoms) | Dover | B. Cod | Short Rock | Eggs | Petr | Stry |
| 5/10 | set 0500 AM | 41°48'10" | 124°32.95' | 300 | B | 335 | DTG | 1100 | 2400 m | 200 | | |
| | up 0700 | 41°59'08" | 124°40.1' | 300 | | | | | 300 | 200 | | |
| | set 1800 | 42°00'17" | 124°39.68' | 300 | B | 335 | DTG | 1200 | 200 | 200 | | |
| 5/10 | up 2400 | 42°02.5' | 124°42.17' | 300 | | | | | 1600 | 1600 | | |
| | set 0100 | 42°08.22' | 124°43.98' | 300 | B | 310 | DTG | | | | | |
| 11 | up | 42°06.99' | 124°40.09' | 300 | B | 310 | DTG | | | | | |
| 5/11 | set 0700 | 41°40.62' | 124°26.06' | 60 | B | 370 | PTRL | | | | | |
| | up 1200 | 41°38.36' | 124°26.02' | 60 | | | | | | | | |
| 5/11 | set 1300 | 41°37.03' | 124°25.49' | 70 | B | 370 | PTRL | | | | | |
| | up 1800 | 41°47.03' | 124°18.09' | 70 | | | | | | | | |
| 5/11 | set 1900 | 41°47.03' | 124°20.10' | 60 | B | 370 | PTRL | | | | | |
| | up 0100 | 41°35.74' | 124°26.02' | 60 | | | | | | | | |
| 5/12 | set 0400 | 41°38.05' | 124°16.05' | 30 | B | 340 | PTRL | | | | | |
| | up 0800 | 41°34.00' | 124°12.40' | 30 | | | | | | | | |
| 5/12 | set 0830 | 41°43.5' | 124°16.5' | 30 | B | 340 | PTRL | | | | | |
| | up 1130 | 41°36.0' | 124°14.00' | 30 | | | | | | | | |
| 5/12 | set 1230 | 41°35.5' | 124°14.00' | 40 | B | 340 | PTRL | | | | | |
| | up 1430 | 41°44.35' | 124°16.75' | 40 | | | | | | | | |

CONVERT LORAN COORDINATES TO LAT/ LONG. COORDINATES.

REMARKS:
 TOW DATE IS DETERMINED BY THE SET TIME.
 NO. 43496

Signed:

VESSEL FISH RECEIVING TICKET NO. X123456

PORT

TO BE COMPLETED BY AGENCY

FISH RECEIVING TICKET NO.

PORT

Fig. 10-3

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11 COMPUTER PROGRAMS

CALCOM

For more detailed documentation please refer to the CALCOM Documentation *portman.doc* document. This document contains the complete documentation of the CALCOM database and support programs. Request a copy from Brenda if you do not have this document.

Port Sample Data Entry

General Tips:

Moving through the fields: Use the mouse to click on the field or use the tab button on your keyboard to tab through the data entry fields. The enter button will not move you through the data entry fields. Using the enter key may cause unexpected results.

Use CAPS LOCK when entering data.

Browser: Internet Explorer 7 or greater is preferred.

Help: There is a Help link on each page.

Your Browsers BACK button is your friend. If you get to an error page, you can use the BACK button to go back to the previous page and correct any mistakes. You can use the BACK button before you click any pages save button and the data will not save.

Do not use the BACK button after you have saved Sample Data. This corrupts the data in the table and you will have to reenter the sample.

To Begin:

You must be connected to the Internet. Open your Internet browser and enter the address: <http://calcom.psmfc.org> and then press enter. The Homepage/Login screen will load (Fig. 11-1). Enter your username and password after the page has **completely loaded** and click on the login button.

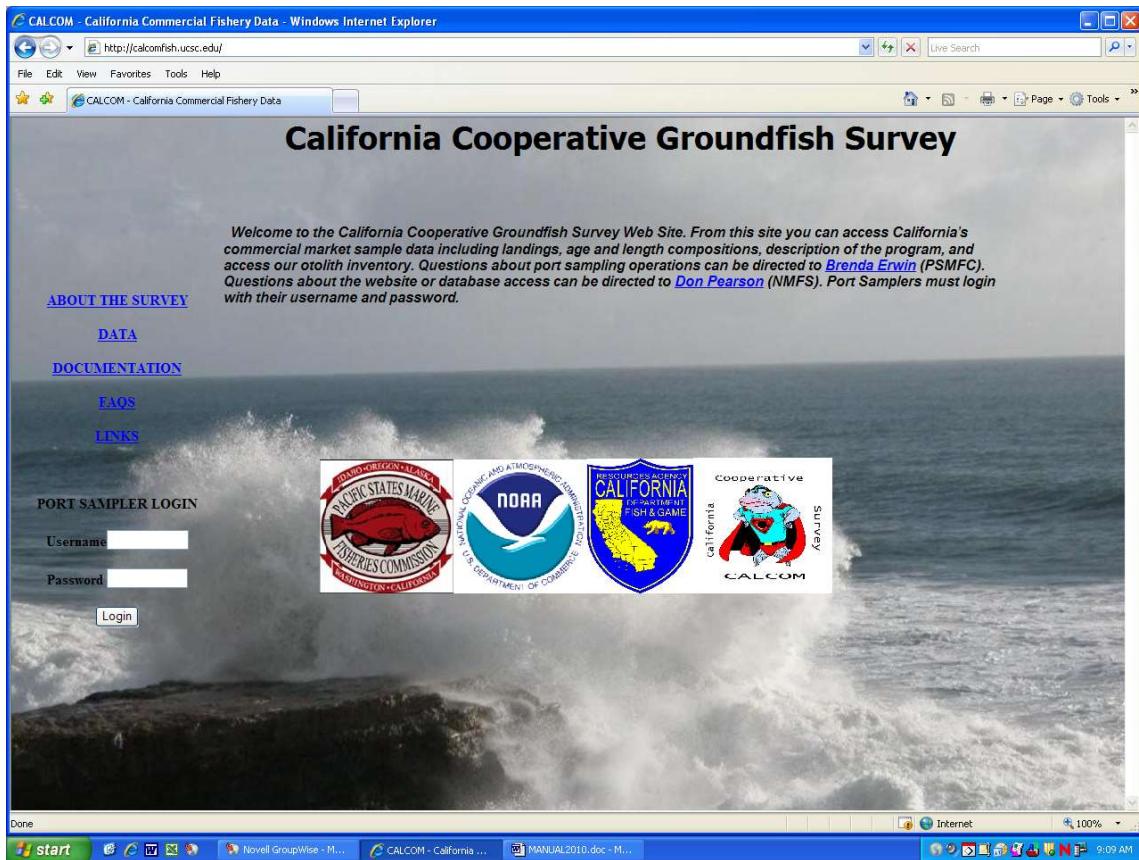


Fig. 11-1

After you click on the login button the Port Sampler Page (Fig. 11-2) will load. Click on [SAMPLE DATA ENTRY](#)

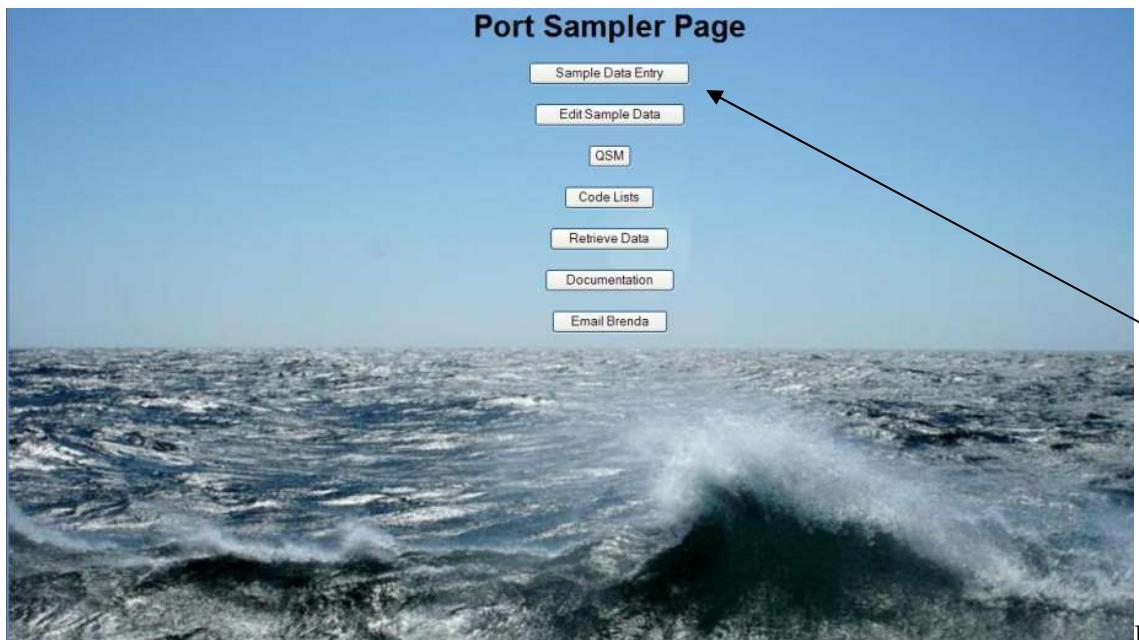
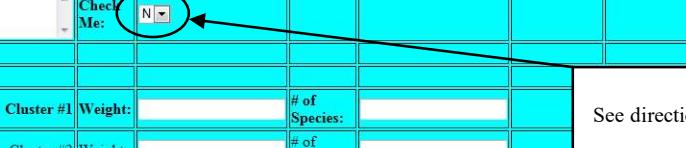


Fig. 11-2

I. The Sample Header Data Entry Form will load (Fig. 11-3).

| Port Sample Data Entry | | | | | |
|--|--|--|---|--|--|
| Page Help | Sample List | Code List | Website Help | | |
| Header Data Entry | | | | | |
| Sampler: <input type="text"/> | Port: <input type="button" value="▼"/> | Boat#: <input type="text"/> | Land Date (mm/dd/yyyy): <input type="text"/> | | |
| Gear: <input type="button" value="▼"/> | Mark Cat: <input type="text"/> | Land Wgt: <input type="text"/> | | | |
| Rcpt#1: <input type="text"/> | Rcpt#2: <input type="text"/> | Rcpt#3: <input type="text"/> | | | |
| Otoliths: <input checked="" type="checkbox"/> N | Live: <input checked="" type="checkbox"/> N | Observed: <input checked="" type="checkbox"/> N | EFP Trip: <input checked="" type="checkbox"/> No | | |
| IFQ Trip: <input checked="" type="checkbox"/> N | Dressed: <input checked="" type="checkbox"/> N | Size: <input type="button" value="OCEAN RUN"/> | | | |
| Comments: <input type="text"/> | Check Me: <input checked="" type="checkbox"/> N | | | | |
| CLUSTER DATA | | | | | |
| Cluster #1 | Weight: <input type="text"/> | # of Species: <input type="text"/> | | | |
| Cluster #2 | Weight: <input type="text"/> | # of Species: <input type="text"/> | | | |
| Submit and Enter Cluster Data | | | | | |
|  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: 10px;">See directions on page 11-4;</div> | | | | | |

[Return To Port Sampler Homepage](#)

Fig. 11-3

The required fields are in bold print.

1. Click on the Sampler field.
2. **Type your last name in all CAPITAL LETTERS.** If you do not want to type your full last name, you can shorten it but it has to be obvious as to whom the sampler is and **you must be consistent.** E.g. Mike Fukushima can enter Fuku for his name but he must always enter it that way. **Do not use your initials. Do not use your first name.**
3. Tab to or click on the next field and type in the sample number, then tab to or click on the next field (Port).
4. The Port field has a list of acceptable values.
 - a. Use your mouse to click the Down Button and scroll until you get to the correct port;
or

- b. Type the first character of the port code, continue doing this until you see your port code in the field.
5. Tab to or click on the next field (Boat #). Type in the CDFW boat number.
6. Tab to or click on the next field (Date). The format for the field is mm/dd/yyyy (yes, you must enter the slashes = 01/29/2014).
7. Tab to or click on the next field (Gear). The Gear field has a list of acceptable values.
 - a. Use your mouse to click the Down Button and scroll until you get to the correct gear; or
 - b. Type the first character of the gear code, continue doing this until you see your gear code in the field.
8. Tab to or click on the next field (Market Category). Type in the 3-digit number.
9. Tab to or click on the next field (Landing Weight). Type in the landing weight for the market category you sampled.
10. Tab to or click on the next field (Ticket #). Type in the landing receipt number.
11. Use your mouse for the next fields to select the appropriate answer (otoliths, live, observed, EFP, IFQ, and/or dressed).
 - a. Otoliths (Y/N) refers to age structures collected, either otoliths or fin rays.
 - b. Live is a True or False (Y/N) condition.
 - c. Observed – (Y/N) was there an observer onboard the vessel (either WCGOP or IFQ)
 - d. EFP – (Y/N) Experimental Fish Permit, if the vessel was fishing an EFP select Y.
 - e. IFQ – (Y/N) Limited entry trawlers and sablefish longliners leasing IFQ pounds select Y.
 - g. Dressed (Y/N) refers to J-cut sablefish.
11. If you have size sorts for any species, enter it in the Size field. e.g. XS, S, M, L, XL. Ocean Run (OR) is selected when the fish are not sorted.
12. If you have comments click in the comments box and type them in.
13. DO NOT CLICK THE “Check me” box unless there is a problem or question with the sample. If you check this box you MUST write a comment in the “Comments” box, see Fig 11-3.
14. Tab to or click on the Cluster #1 – Count of Species field and type in the number of species (**not number of fish**) for cluster #1
15. Tab to or click on the next field (Cluster Weight) and type the total cluster weight for cluster #1 to the nearest **WHOLE POUND** (<.5 round down).
16. If you have a second cluster enter the information in the next two fields as you did for step 14

and step 15.

17. Click on the Save & Enter Cluster Data Button (Fig. 11-3).

II. The Cluster screen will load (Fig. 11-4).

CLUSTER ENTRY

AFTER SUBMITTING THIS PAGE, THE DATA CANNOT BE EDITED

| | | | |
|--|----------------------|----------------------|----------------------|
| Cluster #1 | Species Code | Species Weight | Fish Count |
| Species 1 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Species 2 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Species 3 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Total: entered weights must = | 50 lbs. | | |
| Cluster #2 | Species Code | Species Weight | Fish Count |
| Species 1 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Species 2 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Total: entered weights must = | 50 lbs. | | |
| <input type="button" value="Save and Add Fish"/> | | | |

Fig. 11-4

If you have more than one species in your cluster you will have to enter them separately on this page. If you have two clusters, the second cluster will appear on this same screen and you will need to fill out these fields before you click on the Save and Add Fish button.

1. Enter the Species Code (this is a four letter code), Species Weight, and the Fish Count for the appropriate cluster and species. Repeat this step for all species and clusters.
 - a. Be very careful with data entry of CLUSTER/SPECIES data. **This data is NOT editable after you click the Save and Add Fish button.**
2. Click on the Save and Add Fish Button.

III. The Individual Fish Data Entry screen will load (Fig. 11-5).

FISH DATA ENTRY

DO NOT USE THE BACK BUTTON FROM THIS PAGE

| Cluster #1 | | | |
|--------------------|----------|--------|--------|
| Species 1: CLPR | | | |
| Sex | Maturity | Length | Weight |
| Fish 1 | 9 | 9 | |
| Fish 2 | 9 | 9 | |
| Fish 3 | 9 | 9 | |
| Fish 4 | 9 | 9 | |
| Fish 5 | 9 | 9 | |
| Fish 6 | 9 | 9 | |
| Fish 7 | 9 | 9 | |
| Fish 8 | 9 | 9 | |
| Fish 9 | 9 | 9 | |
| Fish 10 | 9 | 9 | |

Species Wt.: 24 lbs.

| Species 2: BCAC | | | |
|--------------------|--|--|--|
|--------------------|--|--|--|

Fig. 11-5

1. Enter Sex, Maturity, and Length.
2. If you have individual fish weight, enter that information in the weight field.
3. All species and clusters will be on this page. Make sure to fill out all the individual fish information before you click the Save Fish button.

Be careful about taking too long. The pages have a 15 minute time out. So if you take more than 15 minutes to key in your sample it will not save properly and you will have to rekey it.

4. Click the Save Fish button.

The Port Sampler page will load

Port Sample Data Editing

After keying your sample data, before you click the Submit or Save Data button, you should quickly review your data entry. Keep in mind you only have 15 minutes per page. You must verify your data is complete and correct before sending your datasheets to the GCU.

1. If you are not already logged in, go to the CALCOM web page at
[http://calcomfish.ucsc.edu/ \(128.114.3.187\)](http://calcomfish.ucsc.edu/)
2. Log on with you *username* and *password*
3. From the Port Samplers Page click the Edit Sample Data button.
4. “Click” on Sample List
5. Review your sample header data

The screenshot shows the 'Edit Sample Home Page'. At the top, there are three buttons: 'Page Help', 'Sample List' (which has a black arrow pointing to it from step 5), and 'Code List'. Below these are three input fields with labels: 'Sample# to Edit Fish Data', 'Sample# to Edit Header Data' (which has a black arrow pointing to it from step 6), and 'Sample# to Delete'. Each input field is followed by a 'Submit' button. At the bottom left is a link 'Return to Home Page'.

Fig. 11-6

6. If you find any header data errors, enter the Sample # you want to edit into the box labeled **Sample# to Edit Header Data**. Then click the submit button.

Edit Header Data Page

| | | | |
|-----------|-------------|-----------|--------------|
| Page Help | Sample List | Code List | Website Help |
|-----------|-------------|-----------|--------------|

Sampler: **Check Me:** **N**

Port: **MOS:** **Boat#:** **Landing Date:**

Gear: **LGL:** **Market Category:** **Landing Wgt:**

Receipt1: **Receipt2:** **Receipt3:**

Otoliths: **N** **Live:** **Y** **Observed:** **N**

Dressed: **N** **Size:** **OCEAN RUN:**

Comments:

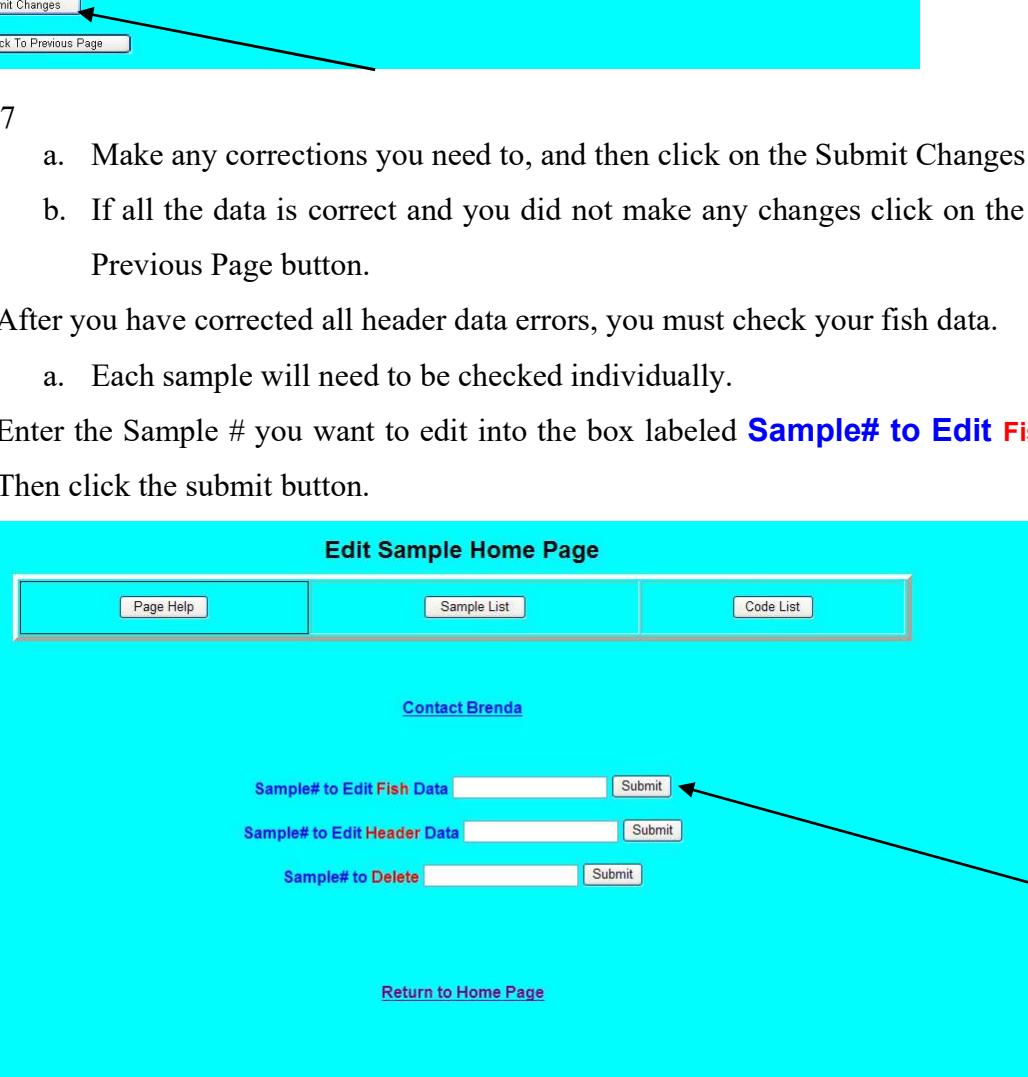


Fig. 11-7

- a. Make any corrections you need to, and then click on the Submit Changes button.
- b. If all the data is correct and you did not make any changes click on the Back To Previous Page button.
7. After you have corrected all header data errors, you must check your fish data.
 - a. Each sample will need to be checked individually.
8. Enter the Sample # you want to edit into the box labeled **Sample# to Edit Fish Data**. Then click the submit button.

Edit Sample Home Page

| | | |
|-----------|-------------|-----------|
| Page Help | Sample List | Code List |
|-----------|-------------|-----------|

[Contact Brenda](#)

Sample# to Edit Fish Data:

Sample# to Edit Header Data:

Sample# to Delete:

[Return to Home Page](#)

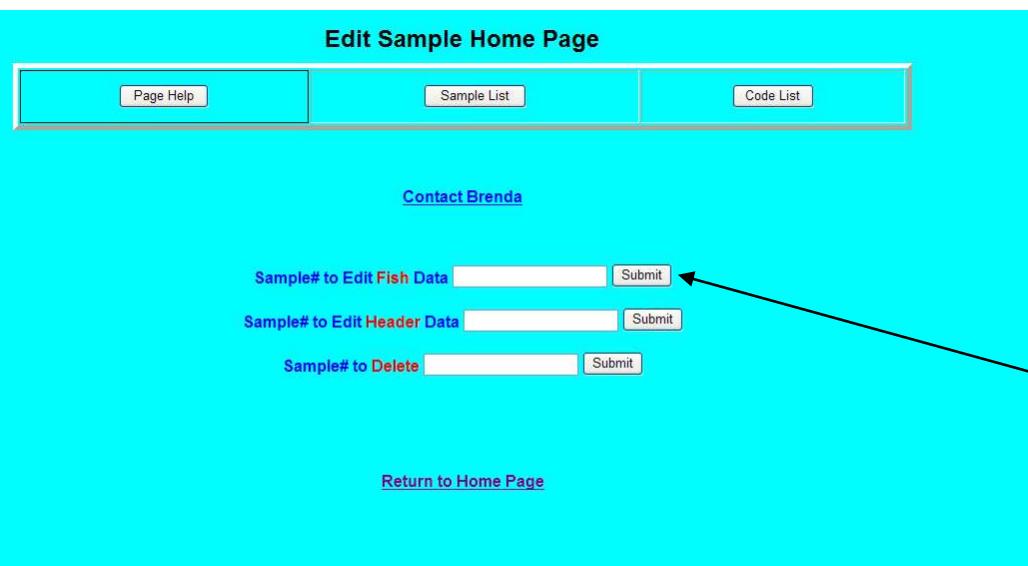


Fig. 11-8

| EDIT FISH PAGE | | | | | | | | | | |
|----------------|----------|---------|---------|-----|----------|---------|--------|-----|----------------------|--|
| sample_no | clust_no | fish_no | species | sex | maturity | flength | weight | age | | |
| 20090 | 1 | 1 | SSPN | 9 | 9 | 348 | | | EDIT | |
| 20090 | 1 | 2 | SSPN | 9 | 9 | 332 | | | EDIT | |
| 20090 | 1 | 3 | SSPN | 9 | 9 | 341 | | | EDIT | |
| 20090 | 1 | 4 | SSPN | 9 | 9 | 360 | | | EDIT | |
| 20090 | 1 | 5 | SSPN | 9 | 9 | 477 | | | EDIT | |
| 20090 | 1 | 6 | SSPN | 9 | 9 | 382 | | | EDIT | |
| 20090 | 1 | 7 | SSPN | 9 | 9 | 304 | | | EDIT | |
| 20090 | 1 | 8 | SSPN | 9 | 9 | 365 | | | EDIT | |
| 20090 | 1 | 9 | SSPN | 9 | 9 | 470 | | | EDIT | |
| 20090 | 1 | 10 | SSPN | 9 | 9 | 474 | | | EDIT | |
| 20090 | 1 | 11 | SSPN | 9 | 9 | 575 | | | EDIT | |

[Return To Edit Home Page](#)
[Return To Sampler Home Page](#)

Fig. 11-9

Edit Fish Record Page

| | |
|--|-------|
| Sample# | 20090 |
| Cluster# | 1 |
| Fish# | 1 |
| Species | SSPN |
| Sex | 9 |
| Maturity | 9 |
| Flength | 348 |
| Weight | |
| <input type="button" value="Update Record"/> | |

[Exit Without Updating](#)

Fig. 11-10

- b. After you correct the individual fish data click the Update Record button.
- i. this button takes you back to the Edit Fish Page where you can select

- another fish to edit
- ii. if you decide not to edit the fish, click Exit Without Updating and it will take you back to the Edit Sample Home Page.
9. Any sample with incorrect cluster information must be deleted and re-entered.
- a. To delete the sample go to the Edit Sample Home Page and enter the Sample # you want to delete into the box labeled **Sample# to Delete**. Then click the submit button.

Data Retrieval

From the Port Sampler Page (Fig. 11-2), click on Retrieve Data. A new window will pop up with several options. There are two options for querying: Landing Data and Biological Data.

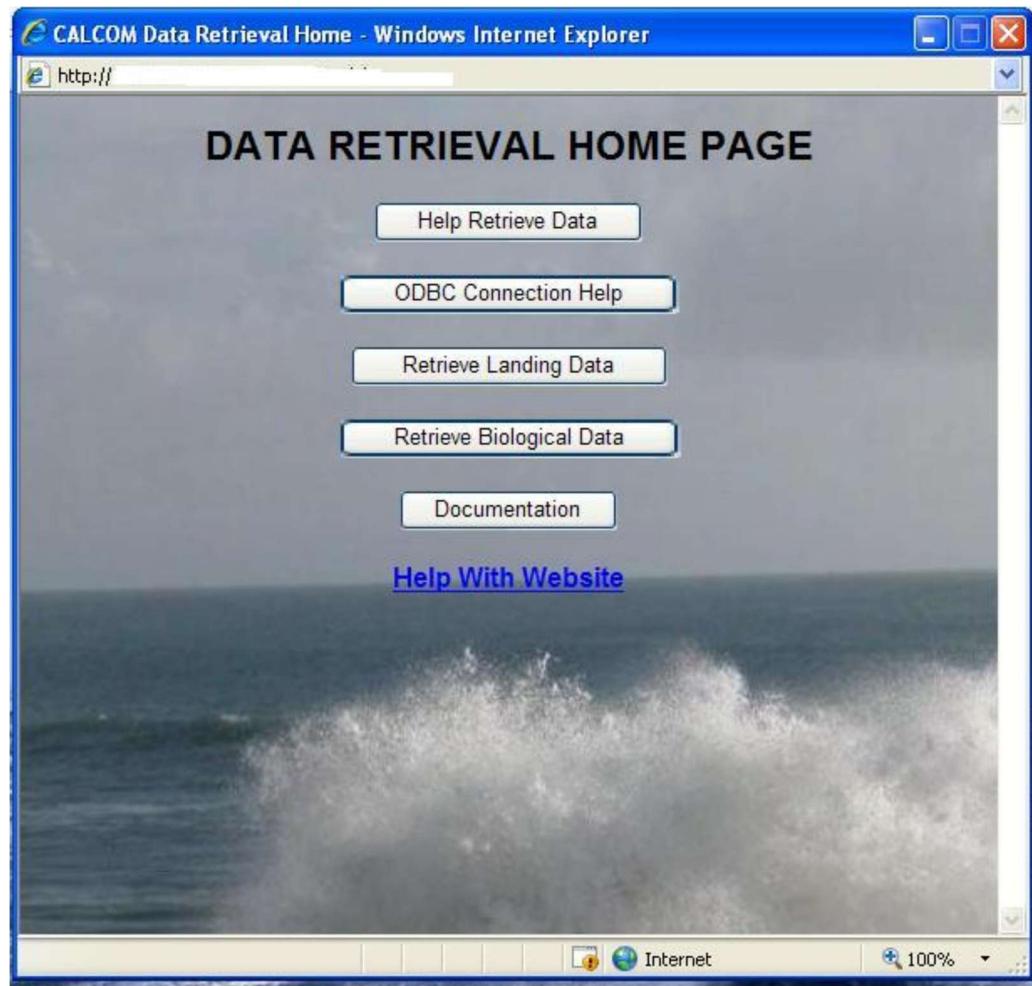


Fig. 11-11

Retrieve Landing Data

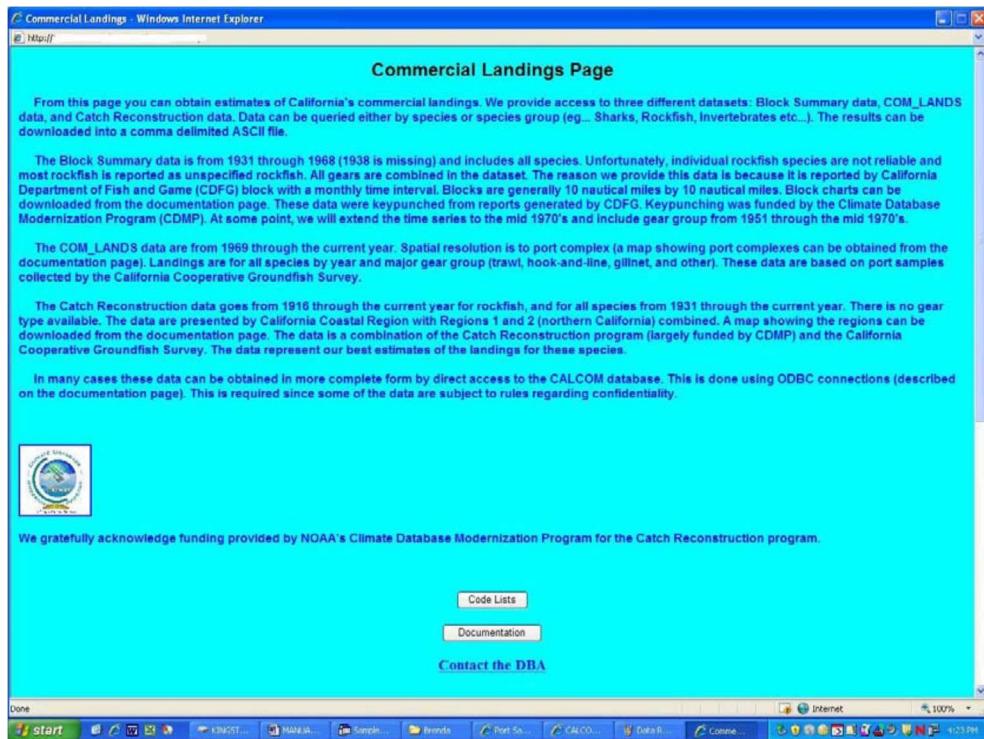


Fig. 11-12a

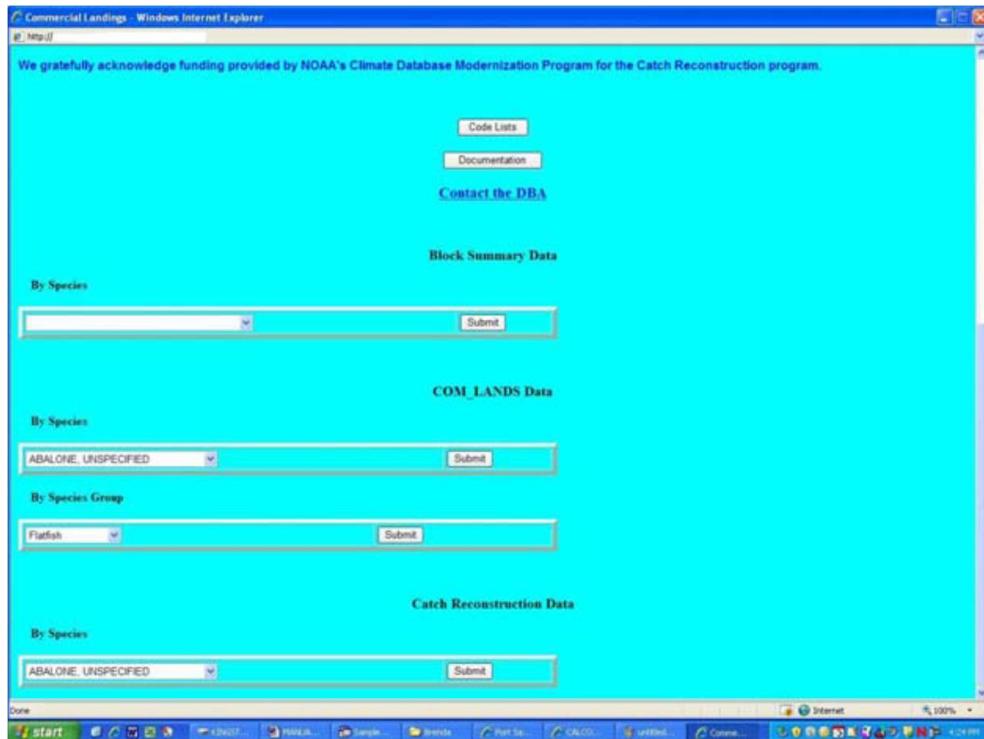


Fig. 11-12b

Select the species or species group you are interested in and click on the Submit button. You can download the data by clicking on download data file.

Retrieve Biological Data

From this page you can view our inventory of otoliths and obtain expanded age and length compositions from the commercial landings. All results can be downloaded to comma delimited ASCII files.

The otolith inventory data is pretty self explanatory. The data is queried by species and the results are counts of the number of otoliths we have by year and source (commercial or recreational). We are willing to loan otoliths subject to some restrictions. To obtain more information about borrowing otoliths contact Brenda Ervin.

The age and length expansion data is from the CALCOM database. Port sample data are "expanded" by applying landing receipts to port samples. The exact process is described in the documentation. Not all species can be expanded for all strata since either the fish have not been aged or the sample size is too small to provide meaningful results. The output data sets include: year, species, gear group, port complex, live/non-live, sex, forklength (or age), and frequency. Not included in the output are market category and source which are summed across.

[Code Lists](#)

[Documentation](#)

[Contact the DBA](#)

Otolith Inventory

ARROWTOOTH FLOUNDER

Expansions

Age

ABALONE, UNSPECIFIED

Length

Fig. 11-13

Select the species you are interested in and click on the Submit button. You can download the data by clicking on download data file.

Code List

From the Port Sampler Page or the Data Retrieval pages, click on Code List.

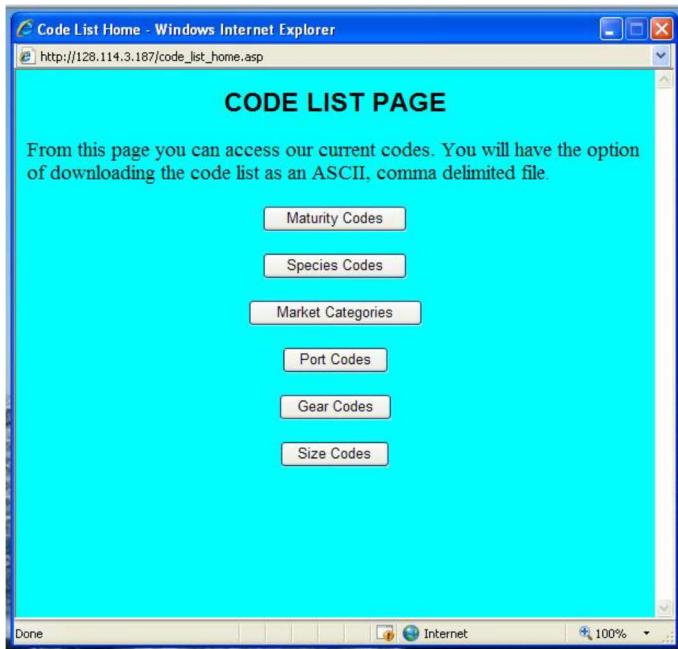


Fig. 11-14

On Line Documentation

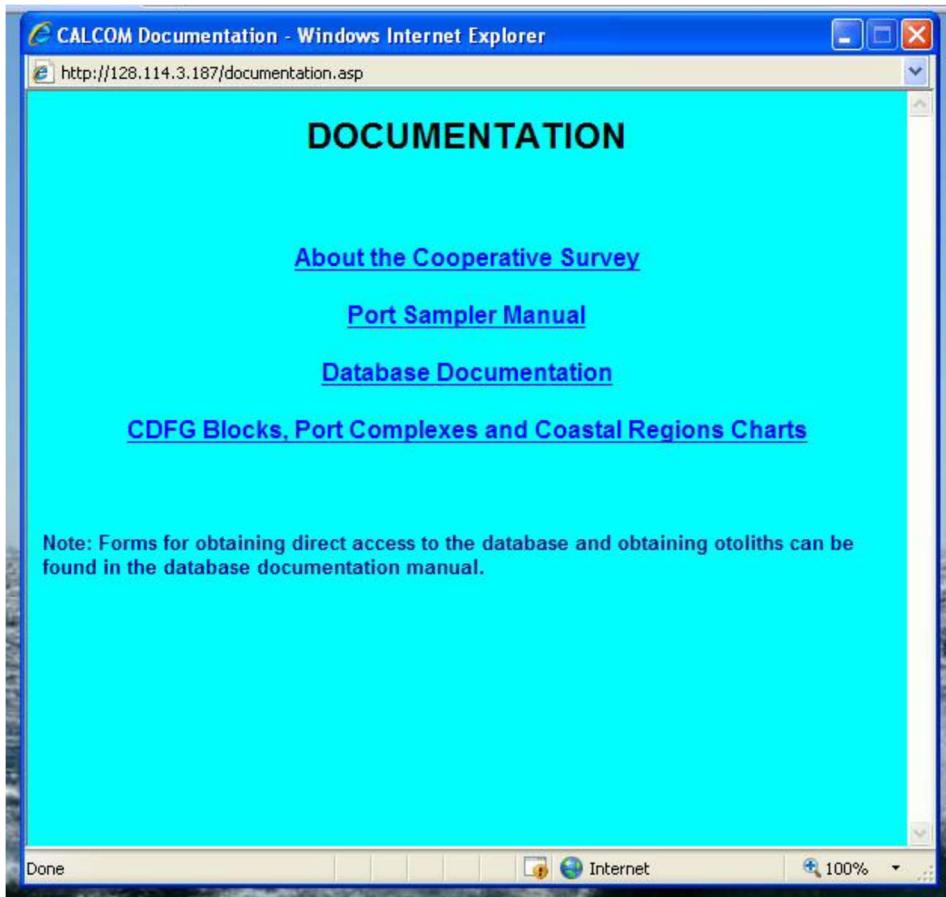


Fig. 11-15

Trawl Log Data Entry

[Trawl Log Entry Form](#)

Go to PSMFC Trawl Logbook Data Entry Instructions.PDF

12 GLOSSARY

Gear Definitions:

| | |
|------------------------|---|
| Bottom Trawl: | A funnel or cone-shaped net towed through the water by a fishing vessel. The otter boards (doors) and footrope of the net are in contact with the seabed . Any trawl not meeting the regulations for midwater trawl is considered a bottom trawl; often referred to as Draggers. |
| Cod-end: | The terminal, closed end of a trawl net. |
| Danish/Scottish Seine: | A cone-shaped net with long weighted warps (tow cables). The warps are hauled-in, herding the fish toward the cod-end of the net. This gear type is also considered a bottom trawl. DNT (35) |
| Fish Trap/Pot: | A portable, enclosed device constructed to attract and impound fishes. It may have one or more openings, "gates", and one or more lines attached to surface buoys. FPT (21) |
| Fixed Gear: | Anchored non-trawl gear, includes longline, pot/trap, set gill net, and stationary hook and line gear. |
| | Fixed gear must be marked at the surface, individually as required, with a pole, flag, light, radar reflector, or a buoy, clearly identifying the owner. |
| Hook & Line: | One or more hooks (or lures) attached to one or more hand held lines, poles, or rods and reels. HKL (1) |
| Jig/Bait: | A pole or rod and reel used with live-bait or artificial bait. Albacore only. JIG (6) |
| Large footrope Trawl: | A bottom trawl net with a footrope diameter larger than 8 inches |

and not larger than 19 inches, including any rollers, bobbins, or other material encircling or tied along the length of footrope. GFL (49)

| | |
|---------------------------|--|
| Mesh Size: | The opening between opposing knots. Minimum mesh size means the smallest distance allowed between the inside of one knot to the inside of the opposing knot, regardless of twine size. |
| Midwater Trawl: | A funnel or cone-shaped net towed through the water by a fishing vessel. The otter boards (doors) and the footrope of the net always remains above the seabed. MDT (54) |
| Mooching: | A line(s) with one or more hooks (or lures) fished from a vessel which is NOT underway. The vessel and lines drift with the tide and currents to encounter schools of fish. Salmon Only. (4) |
| Non-Trawl Gear: | Includes all legal commercial groundfish gear other than trawl gear. |
| Pair Trawl: | A funnel or cone-shaped net towed or drawn through the water by two fishing vessels on parallel courses. This gear is also considered a bottom trawl when it is fished on-bottom. |
| Selective Flatfish Trawl: | A small footrope bottom trawl very low rise net with a cutback headrope design and no top panel that allows them to effectively catch bottom-tending fishes while avoiding species that are either distributed off-bottom or tend to rise when disturbed. FTS (47) |
| Set Gill Net: | A rectangular net that is hung flat between a float line and weighted leadline. It is suspended vertically in the water column and anchored on both ends of the net to the ocean floor. GLN (66) |
| Set Longline: | A fishing line with many hooks that is anchored to the bottom on each end and is not free to drift with the tide or current. LGL (5) |
| Small footrope Trawl: | A bottom trawl net with a footrope diameter of 8 inches or less, |

including any rollers, bobbins, or other material encircling or tied along the length of footrope. GFS (48)

Troll (Groundfish): A line(s) with one or more hooks (or lures) towed behind a vessel underway and making way. BTR (8)

Vertical Hook & Line: A fishing line which is anchored to the bottom and attached to a vessel or a buoy at the surface so as to fish vertically; often referred to as **Portuguese Longline**. VHL (3)

Sampling Terms:

Cluster: A subsample which is either 100 pounds (lingcod), 50 ± 5 pounds, 25 ± 2 pounds (for market categories of flatfish, small reds, and rosefish), or 15 ± 1 pounds (for longspine thornyheads, and very small flatfish only).

Dressed Condition: There are two main types of processing "J-cut" and "Western-cut". When the condition "Dressed" is reported for a market category, the round weight is listed on the landing receipt.

INPFC Areas: The International North Pacific Fisheries Commission statistical areas which were based upon consideration of stock distribution and historical catch statistics.

Conception - CA.-Mexico border to $36^{\circ}00'N$ latitude

Monterey - $36^{\circ}00'N$ to $40^{\circ}30'N$

Eureka - $40^{\circ}30'N$ to $43^{\circ}00'N$

J-Cut: A way to process/market a fish. The head is cut from the fish, the pectoral girdle is excised, and the entrails are removed from that opening (the belly of the fish is not cut). Fish that are J-cut are said to be "dressed" condition. This is also known as Japanese-cut. Commonly used on sablefish. The conversion factor for "dressed" sablefish is 1.6

| | |
|------------------|--|
| Landing Receipt: | A form required by CDFW, which records information such as: date, vessel ID, fisherman, dealer, landed market categories, landing weight, and price paid. This form is filled out by the dealer, and is also called a "tag", "pink ticket", and "fish receipt". |
| Landing Weight: | The total weight of the market category sampled. This information should be taken directly from the landing receipt. |
| Market Category: | A sorted landing of species, or a group of species usually landed together, with a discrete price. The market category is dynamic in that the species composition can vary per landing, depending on the market and the dealer. The same species, from the same landing, can be sold as different market categories depending on size, condition, and market demand. Not all species have a unique market category, and nine market categories are designated for groups of species. |
| | A CDFW three-digit code is assigned to a market category. When sampling, it is important to get the code from the landing receipt, or from the dealer. |
| Ocean Run: | When the market category is not separated/sorted into weight groups, it is said to be "ocean run". |
| Otoliths: | The pair of ear bones used to determine the age of fish. We collect otoliths from all rockfish, sablefish and flatfish. |
| Port Complex: | The port groupings, not necessarily a single port, established by the California Cooperative Groundfish Sampling program. E.G. the Monterey port complex is made up of the ports Monterey, Moss Landing, and Santa Cruz. |
| Sample: | A sample should consist of 2 clusters (exceptions can be found in the manual) of either 50 ± 5 pounds, 25 ± 2 pounds (for market categories of most flatfish, thornyheads, small reds, and rosefish |

only), or 15 ± 1 pounds (for small flatfish and longspine thornyheads). Sampled fish **must** be from a single market category.

Species Weight: The total weight of each species in the cluster, round to the closest **whole** pound.

Species Code: A unique CDFW four letter code assigned to individual species. Each fish should have one, and only one species code. A list of species codes can be found in Chapter 15 of the manual.

Western-Cut: A way to process/market a fish. The head is cut from the fish, the pectoral girdle is not cut, the belly of the fish is cut, and the entrails are removed. Western-Cut fish are considered in "dressed" condition.

Forms Definitions:

Datasheet: The form used to record sample data in the field. Different types include: CALCOM Sampling Form and CALCOM Elasmobranches Sampling Form.

Otolith Summary Sheet: A log of each otolith collected and mailed out each month. This form should always accompany the otoliths.

Sampler's Monthly
Port Summary Sheet: A form to summarize sampling and port activity. Not currently used but may be brought back.

Miscellaneous:

Nominal: In name only. Nominal Market Category: e.g. splitnose rockfish market category (270) is nominally splitnose but the species composition is often a mix of splitnose and aurora rockfish species.

| | |
|----------------------|--|
| DTS Complex (Trawl): | The DTS complex consists of Dover sole, two species of thornyheads (longspine and shortspine), and sablefish. These four species are usually caught and landed together, and therefore are managed as a complex. |
| Thornyheads: | This common name typically applies to two species, the shortspine and longspine. Other common names are used interchangeably for both species: channel rockfish, hard heads, and idiot fish. |
| Sablefish: | These common names are interchangeable: sablefish and black cod. |
| Chuckleheads: | Synonymous for several different kinds of rockfish. |
| Total Length: | The measurement from the tip of the longest jaw or end of snout, whichever is terminal (with mouth closed), to the tip of the longest caudal fin, with the caudal fins pinched together . |
| Fork Length: | The measurement from the tip of the snout to the fork in the tail fin (vs. total length). |
| Dorsal Length: | The measurement from the insertion of the dorsal fin to the fork in the tail fin. |
| Standard Length: | The measurement from the tip of the snout to the end of the meaty portion of the body (insertion of the tail). |
| Disc Length: | The greatest distance between the lateral tips of the pectoral fins in Rajiformes. |
| F/V: | Fishing vessel. |
| IFQ: | Individual Fishing Quota. |

13 FORMS

Masters & Examples

CALCOM Data Sheets

Otolith Summary Sheet

Otolith Coin Envelope

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14 CA. LIMITED ENTRY GROUNDFISH PERMIT LISTS

Longline Permits

| Vessel Name | F&G # | Permit # | Vessel Name | F&G # Permit # |
|----------------|-------|----------------------|-----------------|------------------------|
| ACE | | 7393 GF0367 | JANAE | 5779 GF0549 |
| ALEX KEVIN D. | | 18299 GF0674 | JES AN | 5792 GF0348/ 391 |
| ALICIA M | | 71439 GF0788 | JESSE MAE | 13143 GF0807 |
| AMERICAN DREAM | | 1114 GF0628 | JONATHAN -N- | 38260 GF0895 |
| ANDIAMO | | 71369 GF0422 | KAREN JEANNE | 71239 GF0291 |
| ANDREA | | 41874 GF0462 | KAYLA B | 33849 GF0736 |
| AQUA LEO | | 70594 GF0207 | KELTIE | 43399 GF0082/ 229/ 857 |
| BELLA BLEU | | 6810 GF0296 | KIMI II | 26753 GF0069 |
| BLACKHAWK | | 35743 GF0107/169/283 | LETHAL WEAPON | 41800 GF0873 |
| BLUE SKY | | 39547 GF0569 | LILLIE M | 29748 GF0247 |
| CARMELA | | 3295 GF0128 | LITTLE J | 27074 GF0603 |
| CELTIC AIRE | | 34856 GF0843 | MAALAEA | 32608 GF0338 |
| CHINA DOLL | | 14444 GF0346 | MABUBA MIA | 6841 GF0278 |
| DORADO | | 7328 GF0388 | MAGDALENA | 7589 GF0578 |
| DOUBLE PORTION | | 70828 GF0772 | MAJESTIK | 35880 GF0015/223/468 |
| EAGLE III | | 32750 GF0421/750/437 | MARTHA JANE | 49885 GF0171 |
| EAGLE JR | | 39324 GF0532 | MICHELE ANN | 41344 GF0203 |
| ELEANNA I | | 42122 GF0964 | MISS CONCEPTION | 71120 GF0542 |
| ELIZABETH H | | 70613 GF0730 | MISS SAYOKO | 70893 GF0536 |
| ESTHER LOUISE | | 22360 GF0005 | MORAY | 12141 GF0331 |
| FISHON | | 49882 GF0377 | MY NICOLETT | 6766 GF0842 |
| FLORINDA | | 49882 GF0549 | NICOLO | 2843 GF0041 |
| FOUR DAUGHTERS | | 37382 GF0928 | OCEAN PRINCESS | 71472 GF0914 |
| GEMINI | | 53152 GF0536 | OUTER BANKS | 43377 GF0819 |
| GIULIANA ADELA | | 1094 GF0832 | PACIFIC RIVAL | 70204 GF0401/676 |
| GIUSY | | 2330 GF0006 | PALO | 27309 GF0056 |
| GOLDEN EAGLE | | 20215 GF0252 | PISCES | 42618 GF0508 |
| HIGH HOPES | | 40156 GF0199/818 | PROVISION | 70781 GF0633 |
| HOLY BULL | | 47909 GF0677 | ROCK STEADY | 71292 GF0933 |
| ISLA ROSE | | 70838 GF0961 | RUTH ANNE II | 70347 GF0377 |

| | | | |
|-----------------|------------------|-----------------|--------------|
| SEA HARVEST | 70928 GF0497 | SURVIVAL TOO | 41562 GF0853 |
| SEA HARVEST V | 7396 GF0625 | T.K.O. | 40724 GF0632 |
| SEA HARVEST VI | 70216 GF0275 | TARA DAWN | 28019 GF0059 |
| SEA SPIRIT | 7247 GF0836 | TAURUS | 39579 GF0522 |
| SEA VALLEY II | 35838 GF0020/461 | TEMPO | 25882 GF0923 |
| SIERRA MAR | 71078 GF0966 | TERRI'S GALE | 38849 GF0400 |
| SKIFF (no name) | 6054 GF0718 | TERRON | 763 GF0214 |
| SKIFF (no name) | 6754 GF0963 | ULTRA PACIFIC | 70855 GF0195 |
| SMEAGOL | 29548 GF0881 | VALERIE | 40839 GF0507 |
| SOUND ADVENTURE | 4610 GF0021 | VERNA JEAN | 32585 GF0242 |
| SPELLBOUND | 40360 GF0326 | VINCENZO PRIMO | 2923 GF0095 |
| SPIRIT I | 21704 GF0380 | VIRGINIA MAE | 30345 GF0380 |
| ST. NICHOLAS | 2855 GF0832 | WEST WIND | 2844 GF0232 |
| STILLWATER | 41450 GF0363/673 | WESCOTT | 43706 GF0961 |
| STRATOS | 70506 GF960 | WESTERN WARRIOR | 36071 GF0632 |
| SUNSHINE | 31384 GF0550 | | |

Count =92

Trawl Permits

| Vessel Name | Doc# | F&G# Permit# | Vessel Name | Doc# | F&G# Permit# |
|--------------------|-------------|-------------------------|--------------------|-------------|-------------------------|
| ALEX | 580568 | 22119 GF0084 | MISS KELLEY II | 650768 | 37279 GF0307 |
| ALYSSA ANN | 976374 | 42546 GF0039 | MISS PACIFIC | 621170 | 7419 GF0593 |
| ANNA MARIE | 573944 | 41724 GF0662 | MISS SARAH | 921578 | 40337 GF0220 |
| B. J. THOMAS | 578678 | 31139 GF0219 | MISTASEA | 550112 | 43583 GF0268 |
| BLUE PACIFIC | 292183 | 13964 GF0472 | MORIAH LEE | 531323 | 20026 GF0185 |
| BRITA MICHELLE | CF5857SV | 70515 GF0705 | MR. MORGAN | 594919 | 41134 GF0333 |
| BUCK & ANN | 591368 | 43395 GF0580 | MS. JULIE | 909150 | 42520 GF0803 |
| CAPT. JOHN | 299710 | 38498 GF0370 | NIKKI J | 932627 | 40496 GF0068 |
| CLEONE | 241028 | 5428 GF0393 | NOAH'S ARK | 1037785 | 4211 GF0053 |
| COAST PRIDE | 553830 | 23536 GF0146 | PACIFIC CONQUEST | 640718 | 37359 GF0487 |
| COHO | 622773 | 70523 GF0126 | PACIFIC HOOKER | 589114 | 70521 GF0956 |
| DONNA J | 615126 | 34339 GF0012 | PIONEER | 603897 | 40244 GF0706 |
| FISHWISH | 655151 | 37519 GF0261 | POLLUX | 943815 | 41307 GF0427 |
| GERRY B | 666855 | 38266 GF0112 | PRINCESS | 550686 | 22804 GF0110 |
| GOOD NEWS | 626266 | 35546 GF0315 | SAN GIOVANNI | 244706 | 6337 GF0707 |
| HELEN RUTH | 250246 | 7969 GF0070 | SEA PRINCESS | 630024 | 35839 GF0126 |
| IRENES WAY | 556020 | 24953 GF0072 | SOUTH BAY | 610567 | 42516 GF0008 |
| JOY ANN | 536665 | 44012 GF0196 | SOUTHEAST | 694038 | 70353 GF0023 |
| KAYA C | 580792 | 30135 GF0435 | TABITHA | 615774 | 53834 GF0066 |
| MADELINE | 639209 | 36476 GF0328 | TARA DAWN | 578389 | 28019 GF0059 |
| MALESA | 556020 | 24953 GF0072 | TIMMY BOY | 516428 | 70624 GF0714 |
| MANDY J | 538580 | 33000 GF0543 | TRIPLE STAR | 611559 | 34113 GF0208 |
| MARIE KATHLEEN | 503182 | 30979 GF0064 | VERNA JEAN | 600823 | 32585 GF0242 |
| MICHELE ANN | 569611 | 41344 GF0216 | VERONA | 205318 | 7246 GF0227 |
| MISS HAILEE | 524780 | 19364 GF0303 | WARRIOR II | 539091 | 32487 GF0265 |
| MISS JESSIE | 655114 | 37554 GF0083 | WESTERN SEAS | 516880 | 18102 GF0622 |

Count = 52

Trap/Pot Permits

| Vessel Name | F&G #Permit # |
|--------------------|--------------------------|
| BELLA BLEU | 6810 GF0341 |
| FIERCE LEADER | 6807 GF0899/942 |
| GEMINI | 53152 GF0811/150 |
| JES AN | 5792 GF0286 |
| MICHELE ANN | 41344 GF0216/905 |
| MAJESTIK | 35880 GF0223 |
| MISS SAYOKO | 70893 GF0150/811 |
| SEA HARVEST VI | 70216 GF0065 |
| SEA VALLEY II | 35838 GF0335 |
| SKIPJACK | 15701 GF0607 |
| STILLWATER | 41450 GF0673 |
| VICTORY | 27132 GF0310 |
| WINTER HAWK | 36460 GF0516 |

Count = 12

Sablefish Endorsement Permits

| Vessel Name | F&G # | Permit # | Tier | Vessel Name | F&G # | Permit # | Tier |
|--------------------|------------------|-----------------|-------------|--------------------|------------------|-----------------|-------------|
| ACE | 7393 | GF0367 | SB3 | KIMI II | 26753 | GF0069 | SB2 |
| ACE | 7393 | GF0909 | SB3 | LILLIE M | 29748 | GF0247 | SB3 |
| ALEX KEVIN D. | 18299 | GF0674 | SB3 | LITTLE J | 27074 | GF0611 | SB3 |
| AQUA LEO | 70594 | GF0207 | SB3 | MAJESTIK | 35880 | GF0223 | SB1 |
| BELLA BLEU | 6810 | GF0341 | SB3 | MAJESTIK | 35880 | GF0468 | SB1 |
| BLACKHAWK | 35743 | GF0107 | SB1 | MAJESTIK | 35880 | GF0015 | SB2 |
| BLACKHAWK | 35743 | GF0169 | SB1 | MICHELE ANN | 41344 | GF0216 | SB1 |
| BLACKHAWK | 35743 | GF0283 | SB3 | MICHELE ANN | 41344 | GF0905 | SB1 |
| CELTIC AIRE | 34856 | GF0843 | SB3 | MICHELE ANN | 41344 | GF0787 | SB2 |
| CHINA DOLL | 14444 | GF0346 | SB3 | MISS SAYOKO | 70893 | GF0811 | SB2 |
| DORADO | 7328 | GF0388 | SB3 | MISS SAYOKO | 70893 | GF0150 | SB3 |
| DOUBLE PORTION | 70828 | GF0772 | SB3 | MISS SAYOKO | 70893 | GF0536 | SB3 |
| EAGLE III | 32750 | GF0437 | SB2 | MORAY | 12141 | GF0331 | SB3 |
| EAGLE III | 32750 | GF0421 | SB3 | PACIFIC RIVAL | 70204 | GF0401 | SB3 |
| EAGLE III | 32750 | GF0750 | SB3 | PACIFIC RIVAL | 70204 | GF0676 | SB3 |
| EAGLE JR | 39324 | GF0532 | SB3 | SEA HARVEST V | 7396 | GF0625 | SB3 |
| FIERCE LEADER | 6807 | GF0899 | SB1 | SEA HARVEST VI | 70216 | GF0065 | SB3 |
| FIERCE LEADER | 6807 | GF0942 | SB1 | SEA HARVEST VI | 70216 | GF0275 | SB3 |
| FISHON | 34482 | GF0296 | SB3 | SEA VALLEY II | 35838 | GF0335 | SB1 |
| FLORINDA | 49882 | GF0377 | SB3 | SEA VALLEY II | 35838 | GF0461 | SB2 |
| FOUR DAUGHTERS | 37382 | GF0928 | SB3 | SEA VALLEY II | 35838 | GF0020 | SB3 |
| HIGH HOPES | 40156 | GF0199 | SB3 | SKIPJACK | 15701 | GF0607 | SB3 |
| HIGH HOPES | 40156 | GF0818 | SB3 | SMEAGOL | 29548 | GF0881 | SB3 |
| HOLY BULL | 47909 | GF0677 | SB3 | SOUND ADVENTURE | 4610 | GF0021 | SB3 |
| JES AN | 5792 | GF0391 | SB1 | Revised 04/15 | | | |
| JES AN | 5792 | GF0286 | SB2 | | | | |
| JES AN | 5792 | GF0348 | SB2 | | | | |
| KAREN JEANNE | 71239 | GF0291 | SB3 | | | | |
| KAYLA B | 33849 | GF0736 | SB3 | | | | |
| KELTIE | 43399 | GF0082 | SB1 | | | | |
| KELTIE | 43399 | GF0229 | SB1 | | | | |
| KELTIE | 43399 | GF0857 | SB2 | | | | |

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15 CODES

Condition Codes for Landing Receipts

Code Definition

- 2 Dressed Head Off – E.G. CA halibut, sablefish and frozen salmon: head and guts removed.
- 3 Head and Tail Off – E.G. thresher, bonito, angel sharks, and swordfish: head, tail, guts, fins removed.
- 5 Dressed Head On – E.G. CA halibut, salmon: guts removed with head and tail on.
- 6 Live – Fish or invertebrates landed in a live condition.

It is NOT necessary to use a Condition Code if the fish is landed in a round condition.

Use Codes for Landing Receipts

Code Definition

- 1 Human Food (canned)
- 2 Bait – Usually dead, most probably frozen.
- 3 Human Food (not canned)
- 4 Seized Load of Fish – used by enforcement only.
- 5 Personal Consumption – Species taken for personal use.
- 6 Reduction – This is fish meal or fertilizer.
- 7 Research – Species used for research purposes only.
- 8 Animal Food
- 9 Curio – Species used for decorative purposes.
- 10 Seized Landing Receipt – used by enforcement only.

If no use is indicated on the landing receipt, the Use Code will default to Human Food (not canned).

California Department of Fish and Wildlife Gear Codes.

| CDFW code | calcom_code | description | gear_grp |
|-----------|-------------|---------------------------|----------|
| 0 | UN1 | UNKNOWN | UNK |
| 1 | HKL | HOOK AND LINE | HKL |
| 2 | HKO | MISC LINE | HKL |
| 3 | VHL | VERTICAL HKL | HKL |
| 4 | HKM | MOOCHING,SALMON | HKL |
| 5 | LGL | LONG LINE, SET | HKL |
| 6 | JIG | JIG, ALBACORE | HKL |
| 7 | HKT | TROLL,ALBACORE | HKL |
| 8 | BTR | TROLL, (GROUNDFISH) | HKL |
| 9 | TRL | TROLL, SALMON | HKL |
| 10 | MC1 | MISCELLANEOUS | UNK |
| 11 | DVG | SPEAR | OTH |
| 12 | OTH | SPEAR/HARPOON | OTH |
| 13 | RAK | RAKES | OTH |
| 14 | DVA | DIVING,ABALONE | OTH |
| 15 | DVU | DIVING,URCHIN | OTH |
| 16 | ONT | CAST NET | OTH |
| 17 | KLP | KELP BARGE | OTH |
| 18 | DVK | DIVING | OTH |
| 19 | ODG | DREDGE | OTH |
| 20 | ENT | ENTRAPPING | FPT |
| 21 | FPT | FISH TRAP | FPT |
| 22 | PRW | PRAWN TRAP | FPT |
| 23 | NTS | SHRIMP NET | OTH |
| 24 | OPT | FYKE NET | OTH |
| 25 | MC2 | TRAPS, SEATTLE TYPE SABLE | FPT |
| 26 | CPT | CRAB TRAP, HOOP NET | FPT |
| 27 | CLP | CRAB AND LOBSTER POT | FPT |
| 35 | DNT | DANISH/SCOTTISH SEINE | TWL |

| CDFW code | calcom_code | description | gear_grp |
|-----------|-------------|--------------------------|----------|
| 40 | DPN | DIP NET, SCOOP OR BRAIL | OTH |
| 41 | DPA | DIP NET, A FRAME | OTH |
| 42 | PMP | FISH PUMP | OTH |
| 47 | FTS | SELECTIVE TRAWL | GFS |
| 48 | GFS | TRAWL - < 8" IN DIAMETER | TWL |
| 49 | GFL | TRAWL - > 8" IN DIAMETER | TWL |
| 51 | RLT | ROLLER TRAWL | TWL |
| 52 | TLP | PARANZELLA | TWL |
| 53 | PRT | PAIR TRAWL | TWL |
| 54 | MDT | MIDWATER TRAWL | MDT |
| 55 | BMT | BEAM TRAWL | TWL |
| 56 | GFT | GROUND FISH TRAWL | TWL |
| 57 | TLB | BALLOON TRAWL | TWL |
| 58 | SST | SINGLE RIGGED | TWL |
| 59 | DSG | DOUBLE RIGGED | TWL |
| 60 | STN | ENTANGLING NETS | NET |
| 61 | TML | TRAMMEL NET | NET |
| 65 | DGN | GILL NET, DRIFT | NET |
| 66 | GLN | GILL NET, SET | NET |
| 70 | SE1 | ENCIRCLING NETS | OTH |
| 71 | SEP | PURSE SEINE | OTH |
| 73 | SED | DRUM PURSE SEINE | OTH |
| 74 | SEL | LAMPARA, BAIT | OTH |
| 75 | SE2 | LAMPARA | OTH |
| 78 | SEB | BEACH SEINE | OTH |
| 90 | MC3 | HAND TAKE | OTH |
| 91 | PMH | HAND PUMP | OTH |
| 95 | MC4 | RAFT HERRING ROE ON KELP | OTH |

California Department of Fish and Wildlife Market Category Codes - Listed in alphabetical order

| market_category | description |
|-----------------|-----------------------|
| | FLATFISH |
| 201 | Flounder, arrowtooth |
| 231 | Flounder, starry |
| 230 | Flounder, unspecified |
| 222 | Halibut, California |
| 221 | Halibut, Pacific |
| 220 | Halibut, unspecified |
| 225 | Sanddab |
| 226 | Sanddab, longfin |
| 227 | Sanddab, Pacific |
| 228 | Sanddab, speckled |
| 202 | Sole, bigmouth |
| 208 | Sole, butter |
| 237 | Sole, C-O |
| 211 | Sole, Dover |
| 206 | Sole, English |
| 204 | Sole, fantail |
| 209 | Sole, petrale |
| 207 | Sole, rex |
| 203 | Sole, rock |
| 205 | Sole, sand |
| 210 | Sole, slender |
| 212 | Sole, tongue |
| 200 | Sole, unspecified |
| 240 | Turbot |
| 235 | Turbot, curlfin |
| 236 | Turbot, diamond |

| market_category | description |
|-----------------|-------------------------------|
| 238 | Turbot, hornyhead |
| 239 | Turbot, spotted |
| | ROCKFISH |
| 976 | Deep Nearshore Rockfish |
| 973 | Nearshore Rockfish |
| 674 | Rockfish, aurora |
| 663 | Rockfish, bank |
| 252 | Rockfish, black |
| 251 | Rockfish, black-and-yellow |
| 667 | Rockfish, blackgill |
| 665 | Rockfish, blue |
| 253 | Rockfish, bocaccio |
| 662 | Rockfish, bronzespotted |
| 267 | Rockfish, brown |
| 671 | Rockfish, calico |
| 247 | Rockfish, canary |
| 673 | Rockfish, chameleon |
| 254 | Rockfish, chilipepper |
| 258 | Rockfish, China |
| 655 | Rockfish, copper |
| 246 | Rockfish, copper (whitebelly) |
| 245 | Rockfish, cowcod |
| 257 | Rockfish, darkblotched |
| 657 | Rockfish, flag |
| 263 | Rockfish, gopher |
| 652 | Rockfish, grass |
| 661 | Rockfish, greenblotched |

| market_category | description |
|------------------------|--------------------------------|
| 255 | Rockfish, greenspotted |
| 654 | Rockfish, greenstriped |
| 972 | Rockfish, group black/blue |
| 956 | Rockfish, group bocaccio/chili |
| 957 | Rockfish, group bolina |
| 971 | Rockfish, group canary/vermili |
| 958 | Rockfish, group deepwater reds |
| 962 | Rockfish, group gopher |
| 959 | Rockfish, group red |
| 961 | Rockfish, group rosefish |
| 960 | Rockfish, group small |
| 660 | Rockfish, honeycomb |
| 659 | Rockfish, kelp |
| 998 | Rockfish, Live-well mix |
| 676 | Rockfish, Mexican |
| 651 | Rockfish, olive |
| 271 | Rockfish, Pacific ocean perch |
| 653 | Rockfish, pink |
| 264 | Rockfish, pinkrose |
| 970 | Rockfish, quillback |
| 675 | Rockfish, redbanded |
| 664 | Rockfish, rosethorn |
| 268 | Rockfish, rosy |
| 672 | Rockfish, shortbelly |
| 669 | Rockfish, speckled |
| 270 | Rockfish, splitnose |
| 666 | Rockfish, squarespot |
| 256 | Rockfish, starry |

| market_category | description |
|------------------------|--------------------------|
| 668 | Rockfish, stripetail |
| 670 | Rockfish, swordspine |
| 658 | Rockfish, treefish |
| 250 | Rockfish, unspecified |
| 249 | Rockfish, vermillion |
| 269 | Rockfish, widow |
| 265 | Rockfish, yelloweye |
| 259 | Rockfish, yellowtail |
| 260 | Scorpionfish, California |
| 974 | Shelf Rockfish |
| 975 | Slope Rockfish |
| | ROUNDFISH |
| 261 | Cabezon |
| 197 | Cod, Pacific |
| 290 | Greenling, kelp |
| 289 | Greenling, Rock |
| 198 | Grenadiers |
| 195 | Lingcod |
| 191 | Louvar |
| 190 | Sablefish |
| 272 | Sculpin, staghorn |
| 273 | Sculpin, yellowchin |
| 196 | Tomcod, Pacific |
| 495 | Whiting, Pacific (Hake) |
| | SHARKS/SKATES |
| 97 | Shark, bigeye thresher |
| 154 | Shark, brown smoothhound |
| 179 | Shark, grey smoothhound |

| market_category | description |
|------------------------|-------------------------|
| 153 | Shark, leopard |
| 165 | Shark, Pacific angel |
| 98 | Shark, pelagic thresher |
| 159 | Shark, soupfin |
| 152 | Shark, spiny dogfish |
| 155 | Shark, thresher |
| 150 | Shark, unspecified |
| 176 | Skate, big |

| market_category | description |
|------------------------|------------------------|
| 177 | Skate, California |
| 147 | Skate, longnose |
| 178 | Skate, thornback |
| 175 | Skate, unspecified |
| | THORNYHEADS |
| 678 | Thornyhead, longspine |
| 679 | Thornyhead, shortspine |
| 262 | Thornyheads |

California Department of Fish and Wildlife Rockfish Species Codes - Listed in alphabetical order.

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|------------------|-------------|
| | ROCKFISH | |
| 2305 | AURORA | ARRA |
| 2368 | BANK | BANK |
| 2327 | BLACK | BLCK |
| 2310 | BLACK AND YELLOW | BYEL |
| | BLACKSPOTTED | BSPR |
| 2328 | BLACKGILL | BLGL |
| 2330 | BLUE | BLUR |
| 2334 | BOCACCIO | BCAC |
| 2319 | BRONZESPOTTED | BRNZ |
| 2304 | BROWN | BRWN |
| 2313 | CALICO | CLCO |
| 2335 | CANARY | CNRY |
| 2365 | CHAMELEON | CMEL |
| 2320 | CHILIPEPPER | CLPR |
| 2331 | CHINA | CHNA |
| 2308 | COPPER | COPP |
| 2324 | COWCOD | CWCD |
| 2312 | DARKBLOTTCHED | DBRK |
| | DEACON | DRCK |
| 2341 | FLAG | FLAG |
| 2362 | FRECKLED | FRCK |
| 2307 | GOPHER | GPHR |
| 2337 | GRASS | GRAS |
| 2363 | GREENBLOTTCHED | GBLC |
| 2309 | GREENSPOTTED | GSPT |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|---------------------|-------------|
| 2315 | GREENSTRIPED | GSRK |
| 2343 | HALF BANDED | HBRK |
| 2346 | HONEYCOMB | HNYC |
| 2303 | KELP | KLPR |
| 2325 | MEXICAN | MXRF |
| 2344 | OLIVE | OLVE |
| 2302 | PACIFIC OCEAN PERCH | POP |
| 2317 | PINK | PNKR |
| 2361 | PINKROSE | PRRK |
| 2348 | PYGMY | PGMY |
| 2326 | QUILLBACK | QLBK |
| 2364 | REDBANDED | RDBD |
| 2336 | REDSTRIPE | REDS |
| 2398 | ROCKFISH | URCK |
| 2321 | ROSETHORN | RSTN |
| 2339 | ROSY | ROSY |
| 2301 | ROUGHEYE | REYE |
| 2349 | SHARPCHIN | SHRP |
| 2323 | SHORTBELLY | SBLY |
| 2367 | SHORTRAKER | SRKR |
| 2306 | SILVERGRAY | SLGR |
| 2333 | SPECKLED | SPKL |
| 2314 | SPLITNOSE | SNOS |
| 2322 | SQUARESPOT | SQRS |
| 2311 | STARRY | STAR |
| 2342 | STRIPETAIL | STRK |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|---------------------------|-------------|
| 2338 | SWORDSPINE | SWSP |
| 2350 | THORNYHEAD | THDS |
| 2352 | THORNYHEAD, LONGSPINE | LSPN |
| 2351 | THORNYHEAD, SHORTSPINE | SSPN |
| 2332 | TIGER | TIGR |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|-------------|-------------|
| 2345 | TREEFISH | TREE |
| 2329 | VERMILION | VRML |
| 2316 | WIDOW | WDOW |
| 2340 | YELLOWEYE | YEYE |
| 2369 | YELLOWMOUTH | YMTH |
| 2318 | YELLOWTAIL | YTRK |

California Department of Fish and Wildlife Flatfish & Other Species - Species Codes

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|------------------------|-------------|
| | FLATFISH | |
| 3000 | FLATFISH, UNSPECIFIED | UFLT |
| 3101 | FLOUNDER, ARROWTOOTH | ARTH |
| 3121 | FLOUNDER, STARRY | STRY |
| 3005 | HALIBUT, CALIFORNIA | CHLB |
| 3105 | HALIBUT, PACIFIC | PHLB |
| 3003 | SANDDAB, LONGFIN | LDAB |
| 3015 | SANDDAB, PACIFIC | PDAB |
| 3002 | SANDDAB, SPECKLED | SSDB |
| | SANDDAB, UNSPECIFIED | UDAB |
| | SOLE, BIGMOUTH | BMOL |
| 3107 | SOLE, BUTTER | BSOL |
| 3123 | SOLE, CURLFIN (turbot) | CSOL |
| 3110 | SOLE, DOVER | DOVR |
| 3102 | SOLE, DEEPSEA | DSOL |
| 3120 | SOLE, ENGLISH | EGLS |
| 3006 | SOLE, FANTAIL | FNTS |
| 3111 | SOLE, FLATHEAD | FSOL |
| 3103 | SOLE, PETRALE | PTRL |
| 3104 | SOLE, REX | REX |
| 3108 | SOLE, ROCK | RSOL |
| 3126 | SOLE, SAND | SSOL |
| 3109 | SOLE, SLENDER | SLNS |
| 3122 | TURBOT, C-O | CTRB |
| 3106 | TURBOT, DIAMOND | DTRB |
| 3125 | TURBOT, HORNYHEAD | HTRB |
| | TURBOT, SPOTTED | STRB |
| 2999 | TURBOT, UNSPECIFIED | UTRB |
| | OTHER SPECIES | |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|---------------------------|-------------|
| 2004 | BASS, KELP | OBAS |
| 2410 | CABEZON | CBZN |
| 2353 | CALIFORNIA SCORPIONFISH | SCOR |
| 1301 | COD, PACIFIC | PCOD |
| 2509 | CROAKER, WHITE | WCRK |
| 2757 | GIANT KELPFISH | KFSH |
| 2661 | GREENLING, KELP | KLPG |
| 2663 | GREENLING, ROCK | RCKG |
| | GRENADIER, GIANT | GGRD |
| | GRENADIER, PACIFIC | GREN |
| 9998 | GRENADIER, UNSPECIFIED | GRDR |
| 1303 | WHITING, PACIFIC (HAKE) | PWHT |
| 2664 | LINGCOD | LCOD |
| 2610 | OCEAN WHITEFISH | OWFS |
| 240 | RAY, BAT | BTRY |
| 2668 | SABLEFISH | SABL |
| 2445 | SCULPIN | SCLP |
| 2407 | SCULPIN, PACIFIC STAGHORN | SCLP |
| | SHARK, BROWN CAT | CSRK |
| 140 | SHARK, LEOPARD | LSRK |
| 134 | SHARK, SOUPFIN | SSRK |
| | SHARK, SPINEY DOGFISH | DSRK |
| 2633 | SHEEPHEAD, CALIFORNIA | SHPD |
| 220 | SKATE, UNSPECIFIED | USKT |
| 222 | SKATE, BIG | BSKT |
| 223 | SKATE, CALIFORNIA | CSKT |
| | SKATE, LONGNOSE | LSKT |
| | SKATE, ROUGHTAIL | RTSK |
| | SKATE, SANDPAPER | SPSK |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|---------------|-------------|
| | SKATE, STARRY | SSKT |

| CDFW_CODE | DESCRIPTION | CALCOM_CODE |
|-----------|------------------|-------------|
| 1621 | SPOTTED CUSK EEL | CEEL |

California Department of Fish and Wildlife Port Codes - Listed in code order

| CDFW_CODE | CALCOM_CODE | DESCRIPTION | PORT_COMPLEX |
|-----------|-------------|-----------------|--------------|
| 200 | ERK | EUREKA AREA | ERK |
| 201 | CRS | CRESCENT CITY | CRS |
| 202 | ODN | REQUA | CRS |
| 203 | ODN | SMITH RIVER | CRS |
| 204 | OHB | ORICK | ERK |
| 209 | OHB | CRANNELL | ERK |
| 210 | ODN | KLAMATH | CRS |
| 211 | ALB | ALBION | BRG |
| 212 | ERK | ARCATA | ERK |
| 213 | ARE | POINT ARENA | BRG |
| 215 | OHB | SHELTER COVE | ERK |
| 217 | FLN | FIELDS LANDING | ERK |
| 219 | OHB | HUMBOLDT | ERK |
| 220 | ERK | EUREKA | ERK |
| 221 | OHB | FORTUNA | ERK |
| 222 | OMD | ELK | BRG |
| 223 | BRG | FORT BRAGG | BRG |
| 224 | OHB | LOLETA | ERK |
| 226 | OMD | CASPAR | BRG |
| 227 | OMD | LITTLE RIVER | BRG |
| 230 | OHB | GARBERVILLE | ERK |
| 231 | TRN | TRINIDAD | ERK |
| 233 | OMD | WESTPORT | BRG |
| 235 | OHB | MOONSTONE BEACH | ERK |
| 236 | ERK | BAYSIDE | ERK |
| 237 | OHB | WEOTT | ERK |
| 246 | OHB | KING SALMON | ERK |
| 262 | OSF | VACAVILLE | OSF |

| CDFW_CODE | CALCOM_CODE | DESCRIPTION | PORT_COMPLEX |
|-----------|-------------|-----------------|--------------|
| 295 | BRG | FORT BRAGG AREA | BRG |
| 300 | OSF | SACRAMENTO AREA | OSF |
| 304 | OSF | DANVILLE | OSF |
| 306 | OSF | PLACERVILLE | OSF |
| 322 | OSF | FREEPORT | OSF |
| 323 | OSF | BRENTWOOD | OSF |
| 324 | OSF | BETHEL ISLAND | OSF |
| 330 | OSF | SACRAMENTO | OSF |
| 341 | OSF | BENICIA | OSF |
| 343 | OSF | COURTLAND | OSF |
| 345 | OSF | PITTSBURG | OSF |
| 346 | OSF | LOCKE | OSF |
| 348 | OSF | MARTINEZ | OSF |
| 351 | OSF | RIO VISTA | OSF |
| 352 | OSF | STOCKTON | OSF |
| 356 | OSF | ANTIOCH | OSF |
| 357 | OSF | CROCKETT | OSF |
| 400 | OSF | SF AREA | OSF |
| 401 | OSF | FREMONT | OSF |
| 402 | OSF | ALAMO | OSF |
| 404 | OSM | FOREST KNOLLS | OSF |
| 405 | OBD | ST. HELENA | BDG |
| 409 | OSF | FOSTER CITY | OSF |
| 411 | OSF | LOS ALTOS | OSF |
| 412 | OSF | GLEN COVE | OSF |
| 413 | OSF | LIVERMORE | OSF |
| 415 | OBD | NICASIO | BDG |
| 417 | OSF | NEWARK | OSF |

| | | | |
|-----|-----|---------------|-----|
| 419 | OBD | SONOMA | BDG |
| 423 | OSM | MUIR BEACH | OSF |
| 424 | OBD | TIMBER COVE | BDG |
| 425 | OSF | EMERYVILLE | OSF |
| 427 | OMD | ANCHOR BAY | BRG |
| 429 | OSF | NAPA | OSF |
| 430 | OSF | SAN LEANDRO | OSF |
| 431 | OSF | MILL VALLEY | OSF |
| 432 | OSF | LAFAYETTE | OSF |
| 434 | OSF | MOUNTAIN VIEW | OSF |
| 437 | OBD | DRAKES BAY | BDG |
| 439 | OSF | PACIFICA | OSF |
| 440 | SF | SAN FRANCISCO | OSF |
| 441 | OBD | DILLON BEACH | BDG |
| 442 | OSF | REDWOOD CITY | OSF |
| 445 | OSF | MARTINS BEACH | OSF |
| 446 | OSF | CAMPBELL | OSF |
| 447 | OBD | STEWARTS PT. | BDG |
| 448 | OSF | DALY CITY | OSF |
| 449 | OSF | ALVISO | OSF |
| 450 | OSF | PINOLE | OSF |
| 451 | OSF | RODEO | OSF |
| 452 | PRN | PRINCETON | OSF |
| 453 | OSM | VALLEJO | OSF |
| 454 | OSF | SAN JOSE | OSF |
| 455 | OSM | CHINA CAMP | OSF |
| 457 | OBD | NOVATO | BDG |
| 458 | OSF | PEDRO VALLEY | OSF |
| 459 | OBD | PETALUMA | BDG |
| 462 | OBD | MARSHALL | BDG |
| 463 | OSF | MCNEARS POINT | OSF |
| 464 | OSF | OAKLAND | OSF |
| 465 | OSF | SAN MATEO | OSF |
| 466 | OSM | SAN QUENTIN | OSF |
| 468 | OSM | SAN RAFAEL | OSF |
| 469 | SLT | SAUSALITO | OSF |

| | | | |
|-----|-----|---------------------|-----|
| 470 | OSF | SOUTH SAN FRANCISCO | OSF |
| 471 | ALM | ALAMEDA | OSF |
| 472 | BKL | BERKELEY | OSF |
| 473 | BDG | BODEGA BAY | BDG |
| 474 | OBD | INVERNESS | BDG |
| 475 | OBD | SANTA ROSA | BDG |
| 476 | RYS | POINT REYES | BDG |
| 477 | TML | TOMALES BAY | BDG |
| 478 | RCH | RICHMOND | OSF |
| 479 | OSF | PIGEON PT | OSF |
| 487 | OSM | BOLINAS | OSF |
| 488 | OBD | MARCONI | BDG |
| 489 | OBD | JENNER | BDG |
| 490 | OBD | HAMLET | BDG |
| 492 | OBD | SEBASTOPOL | BDG |
| 511 | OCM | BIG SUR | MNT |
| 512 | OSL | SAN MIGUEL | MRO |
| 513 | OSL | PASO ROBLES | MRO |
| 515 | BCR | BIG CREEK | MNT |
| 516 | MCR | MILL CREEK | MNT |
| 517 | OCM | WILLOW CREEK | MNT |
| 550 | MNT | MONTEREY | MNT |
| 552 | OCM | GILROY | MNT |
| 584 | OCM | OTHER MONTEREY | MNT |
| 587 | OCM | PACIFIC GROVE | MNT |
| 588 | OCM | SEASIDE | MNT |
| 589 | OCM | CARMEL | MNT |
| 590 | OCM | SALINAS | MNT |
| 592 | MOS | MOSS LANDING | MNT |
| 593 | CRZ | SANTA CRUZ | MNT |
| 598 | OCM | MARINA | MNT |
| 600 | OSB | SANTA BARBARA AREA | OSB |
| 602 | AVL | AVILA | MRO |
| 603 | OSL | CAYUCOS | MRO |
| 604 | OSB | GAVIOTA | OSB |
| 605 | HNM | PORT HUENEME | OSB |

| | | | |
|-----|-----|------------------|-----|
| 606 | MRO | MORRO BAY | MRO |
| 607 | OSL | OCEANO | MRO |
| 608 | OXN | OXNARD | OSB |
| 609 | OSL | SAN LUIS OBISPO | MRO |
| 610 | OSL | PISMO BEACH | MRO |
| 611 | SB | SANTA BARBARA | OSB |
| 612 | OSL | SANTA MARIA | MRO |
| 613 | VEN | VENTURA | OSB |
| 614 | OSB | GOLETA | OSB |
| 615 | SIM | SAN SIMEON | MRO |
| 618 | OSB | GUADALUPE | OSB |
| 619 | OSL | CONCEPTION | MRO |
| 729 | OLA | MALIBU | OLA |
| 733 | OLA | CATALINA | OLA |
| 739 | OLA | SUNSET BEACH | OLA |
| 741 | OLA | AVALON | OLA |
| 742 | OLA | REDONDO BEACH | OLA |
| 743 | LGB | LONG BEACH | OLA |
| 744 | OLA | LOS ANGELES | OLA |
| 745 | TRM | TERMINAL ISLAND | OLA |
| 746 | WLM | WILMINGTON | OLA |
| 747 | OLA | SANTA MONICA | OLA |
| 748 | NWB | NEWPORT BEACH | OLA |
| 750 | OLA | WEST LA | OLA |
| 756 | OLA | HERMOSA BEACH | OLA |
| 757 | OLA | PT DUME | OLA |
| 760 | OLA | SEAL BEACH | OLA |
| 762 | OLA | MANHATTEN BEACH | OLA |
| 763 | OLA | ALHAMBRA | OLA |
| 764 | OLA | BALBOA | OLA |
| 767 | DNA | DANA POINT | OLA |
| 768 | OLA | HUNTINGTON BEACH | OLA |
| 770 | SP | SAN PEDRO | OLA |
| 776 | OLA | PLAYA DEL REY | OLA |
| 777 | OSD | IMPERIAL BEACH | OSD |
| 790 | OLA | IRVINE | OLA |

| | | | |
|-----|-----|----------------|-----|
| 800 | OSD | SAN DIEGO AREA | OSD |
| 801 | OSB | THOUSAND OAKS | OSB |
| 803 | OSD | MISSION BAY | OSD |
| 805 | OSD | SAN YSIDRO | OSD |
| 859 | SD | SAN DIEGO | OSD |
| 860 | OSD | POINT LOMA | OSD |
| 861 | OSB | NEWHALL | OSB |
| 862 | OSD | SAN MARCOS | OSD |
| 864 | OSD | BONITA | OSD |
| 867 | OSD | LEUCADIA | OSD |
| 868 | OSD | IMPERIAL BEACH | OSD |
| 869 | OSD | MISSION BAY | OSD |
| 870 | OSD | SAN YSIDRO | OSD |
| 879 | OSD | EL CAJON | OSD |
| 880 | SD | SAN DIEGO | OSD |
| 881 | OSD | POINT LOMA | OSD |
| 882 | OSD | NATIONAL CITY | OSD |
| 883 | OCN | OCEANSIDE | OSD |
| 884 | OSD | CORONADO | OSD |
| 886 | OSD | MISSION BEACH | OSD |
| 888 | OSD | LA JOLLA | OSD |
| 889 | OSD | CHULA VISTA | OSD |
| 890 | OSD | DEL MAR | OSD |
| 891 | OSD | CARLSBAD | OSD |
| 893 | OSD | CARDIFF | OSD |
| 895 | OSD | SOLANA BEACH | OSD |
| 899 | OSD | ESCONDIDO | OSD |

California Department of Fish and Wildlife Port Codes Grouped by Port Complex

| Code # Port Name | Code # Port Name | Code # Port Name |
|-------------------------|---------------------------|------------------------------|
| Eureka Area | San Francisco Area | Los Angeles Area |
| 201 Crescent City | 452 Princeton/HMB | 729 Malibu |
| 210 Klamath | 440 San Francisco | 747 Santa Monica |
| 204 Orick | 469 Sausalito | 776 Marina Del Rey |
| 231 Trinidad | 464 Oakland | 756 Hermosa Beach |
| 212 Arcata Bay | 471 Alameda | 742 Redondo Beach |
| 220 Eureka | 449 Alviso | 770 San Pedro |
| 219 Humboldt Bay | 341 Benicia | 746 Wilmington |
| 246 King Salmon | 472 Berkeley | 744 Los Angeles |
| 217 Fields Landing | 455 China Camp | 745 Terminal Island |
| 215 Shelter Cove | 357 Crockett | 743 Long Beach |
| Fort Bragg Area | 425 Emeryville | 733 Catalina Island |
| 233 Westport | 409 Foster City | 741 Avalon |
| 223 Fort Bragg | 401 Fremont | 760 Seal Beach |
| 227 Little River | 412 Glen Cove | 768 Huntington Beach |
| 211 Albion | 348 Martinez | 748 Newport Beach |
| 222 Elk | 417 Newark | 764 Balboa |
| 213 Point Arena | 439 Pacifica | 767 Dana Point |
| 427 Anchor Bay | 459 Petaluma | Sacramento Delta Area |
| Bodega Bay Area | 450 Pinole | 252 Cottonwood |
| 424 Timber Cove | 442 Redwood City | 324 Bethel Island |
| 473 Bodega Bay | 478 Richmond | 351 Rio Vista |
| 441 Dillon Beach | 451 Rodeo | 343 Courtland |
| 477 Tomales Bay | 430 San Leandro | 330 Sacramento |
| 488 Marconi Cove | 468 San Rafael | 322 Freeport |
| 462 Marshall | 470 S. San Francisco | 346 Locke |
| 474 Inverness | 453 Vallejo | 363 Clarksburg |
| 476 Point Reyes | Santa Barbara Area | 366 Knights Landing |
| 437 Drakes Bay | 618 Guadalupe Beach | 352 Stockton |
| 487 Bolinas | 621 Surf Beach | Inland Waters |
| Monterey Area | 604 Gaviota Beach | 391 Mono Lake |
| 593 Santa Cruz | 614 Goleta Beach | 652 Lake Isabella |
| 592 Moss Landing | 611 Santa Barbara | |
| 550 Monterey | 635 Carpenteria | |
| 515 Big Creek | 613 Ventura | |
| 516 Mill Creek | 608 Oxnard/Chan. Isl. | |
| 517 Willow Creek | 605 Port Hueneme | |
| Morro Bay Area | San Diego Area | |
| 615 San Simeon | 883 Oceanside | |
| 606 Morro Bay | 888 La Jolla | |
| 602 Avila/PSL | 869 Mission Bay | |
| | 881 Point Loma | |
| | 880 San Diego | |
| | 882 National City | |
| | 889 Chula Vista | |
| | 884 Coronado | |
| | 868 Imperial Beach | |
| | 870 San Ysidro | |

16 SUPPLIES LIST

| <u>Items</u> | <u>Source/Notes</u> |
|--|--|
| 3 gray bins (holds ~50lb fish) | rubber bands (oto trays, coin envelopes) |
| scale (simple dial, 150lb x 1lb) | |
| gloves | Advanced Handling Systems |
| scalpel with replacement blades | Amazon |
| forceps | VWR (ask Brenda 1 st) |
| blade sharpener (compact) | VWR |
| rubber boots | Kitchen supply store |
| overalls/bib or apron | Ask Brenda |
| ice cube trays (for otoliths - mini cube size) | TAP Plastics - will cut 1/8" PVC sheet to size |
| covers for ice cube trays | Bookstore |
| Field Guide - Petersen's, Pacific fish | Costco/ or Hardware store |
| back support belt | Sears, other specialty tool store, etc. |
| small saw for bocaccio heads | local dept. stores, or Morty the Knife Man |
| knife | |
| clipboard (long size) | Costco or CVS |
| plastic bags, heavy duty, for fish transport. | Ogden Surveying Equipment 1-800-350-6277 |
| disposable camera | by the riem \$27.39 |
| waterproof paper | GCU or rubber stamp/office supply store |
| stamp for coin envelopes - sample info | GCU or office supply store |
| - 6 digit number stamp..... | Supplied by Unit |
| date stamp | Supplied by Unit |
| stamp pad & ink | Grocery store - generic work best |
| sandwich bags (for lingcod samples) | Hardware store |
| hanging hand scale (to measure single fish). | NMFS – Santa Cruz |
| (0-41/2lbs, OHAUS) | Supplied by unit |
| Blue tag sablefish supplies | Marine/fisherman supply, hardware or dept. store |
| red & greemaker pens for editing | GCU |
| rain gear (jacket with hood) | Home-made Meter sticks - office supply; wood or |
| coin envelopes | PVC sheets for flat surface; assorted tools; stain & |
| measuring board | finishing. |
| corrosion block spray (scale maintenance). | Marine/boating supply or Hardware store |
| fish pick | Marine/fisherman supply or make one with a piece of |
| scrubbing brush | wood & a nail |
| lingcod scissors | Drug store/hardware - with handle best |
| measuring tape in metric (fabric) | GCU |
| Bulletin 157 (Miller & Lea) | Crafts/Fabric store |
| Bulletin 104 (Julian Phillips) | Supplied by Unit |
| data sheet binders | Supplied by Unit |
| any plastic container such as tupperware | |
| rubber band container (for field use) | |

Supplied by Unit
Supplied by Unit
Supplied by Unit
Supplied by Unit

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