

ALASKA DEPARTMENT OF FISH AND GAME  
CODED WIRE TAG SAMPLING PROGRAM

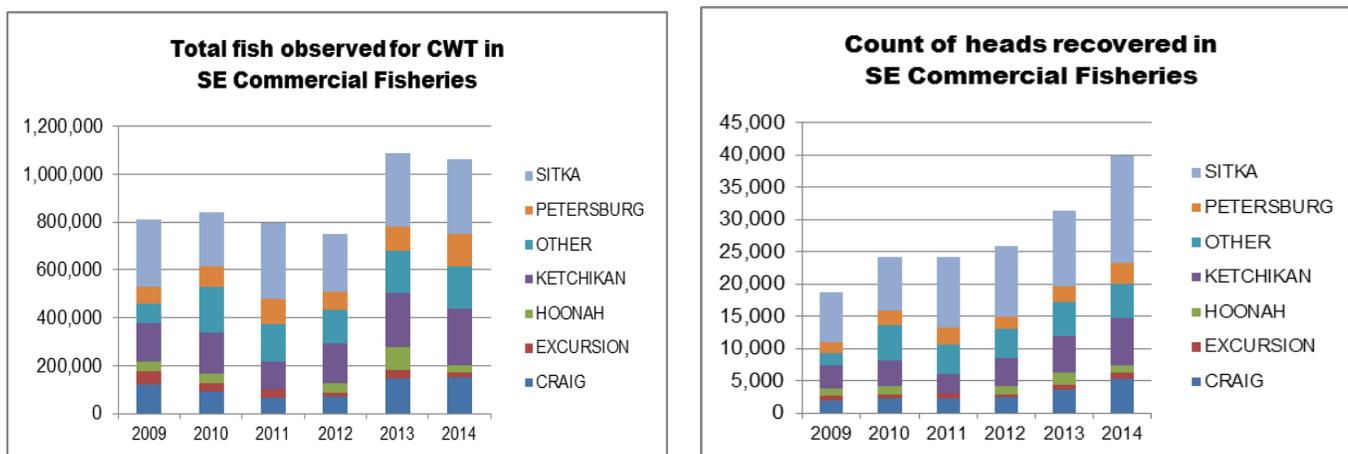
SAMPLING INSTRUCTIONS  
COMMERCIAL FISHERIES

2015  
SOUTHEAST ALASKA

**Introduction**

Coded wire tags (CWTs) recovered from properly designed and conducted studies can provide scientists, fishery managers, and hatchery operators with data for evaluating and managing all salmon stocks. CWT recovery data are used in season to estimate the contribution of Alaskan hatchery stocks to Southeast fisheries.

The graphs below represent numbers of fish observed for CWT and the number of heads recovered for the past 6 years.



The reliability of this technique as a useful tool depends on the adequacy of each study's design as well as successful implementation of the study's design criteria. Many variables can affect the success of a study between the time it is designed, when fish are marked and released, when adults are recovered, and when data are reported and evaluated. If the objectives of a study are to be achieved, certain design criteria must be met. Several of these criteria are:

1. The number of fish marked with CWTs and released will be large enough to produce a population of adults from which an adequate sample can be taken.
2. The planned sampling rate will be achieved over time and area, producing a statistically adequate sample so that inferences about the population in general can be made with a certain degree of precision.
3. Data from the sampling program will be reported accurately within a time frame that meets a project's objectives.

## CWT Sampling Objectives

Southeast Alaska's CWT Sampling Project is part of a coastwide program to recover CWTs from commercially caught salmon. An agreement among Pacific Coast States and Canada assures scientists and managers that at least 20% of commercially caught Chinook and coho salmon will be sampled for the presence of CWTs.

The sampler's role of randomly sampling the fisheries for Chinook and coho salmon bearing CWTs (externally identified by a missing adipose fin) is extremely important. The sampler is a vital link in acquiring information for use by fishery managers. This information will ultimately impact the fishermen you are interviewing. The success of any tag study depends on your conscientious efforts directed at sampling troll and net fisheries and reporting the data you collect completely and accurately.

## Hatchery Contributions and Implications to US/Canada Chinook Quota

Heads from all commercial sampling sources are usually processed in the same week that they are received at the Tag Lab. The number of salmon sampled is updated in the database as sampling form information is entered into the computer. Codes are entered directly into the database as tags are read. Catch estimates, sampling statistics, and tag code data are merged daily with release data to generate inseason hatchery contribution estimates. This is generally achieved within several days of catch and sampling. In SE, CWT data are used to assist managers with their inseason management decisions.

Expansion factors, calculated for each unique stratum (species/harvest/gear/time-period/area), are reported for each individual random recovery. Dependent on project objectives and sampling design, this basic stratification scheme may be modified. Expansion Factor is defined as:

$$\text{Expansion Factor} = \frac{\# \text{ fish caught}}{\# \text{ fish sampled}} \times \text{Adjustment Factor for Lost Heads} \times \text{Adjustment Factor for Lost Tags}$$

Contribution estimates for each individual tag recovered in a stratum are also calculated. Contribution is defined as:

$$\text{Contribution} = \text{Expansion Factor} \times \text{Tag Ratio (\# released / \# tagged per code)}$$

Contribution estimates for each recovery are summarized, aggregated, and reported in many standard reports and are available through online data retrieval. Alaskan hatchery contribution of Chinook salmon to commercial and sport fisheries is used as the basis for implementing the "add-on" provision of the US/Canada Pacific Salmon Treaty. The hatchery add-on is calculated by subtracting pre-treaty hatchery harvest (5,000 Chinook) and a risk adjustment factor (for potential overestimate of the total hatchery contribution due to sampling variability) from the total Alaskan hatchery contribution to Southeast Alaska's commercial and recreational fisheries. The resultant value is the number of Chinook that can be added to the all gear negotiated base catch ceiling. The hatchery add-on for Chinook salmon has ranged from 18,700 to 62,700, since 1990. Alaska is able to take inseason advantage of the add-on provision of the Treaty because we are able to process samples and tags within a few days of being caught.

## General Instructions

1. The supervisor in charge of your survey site will make specific work assignments, scheduling, changes in procedures, etc. Any questions, suggestions, problems, or requests for assistance should be directed to that person. Any changes in assignments or scheduling will only be made through one of these people. Supervisors and survey site assignments are (all telephone numbers have a 907 area code):

<u>Supervisor</u>	<u>Location</u>	<u>Telephone</u>	<u>Survey Sites of Supervision</u>
Anne Reynolds	Juneau	465-2444	Regional Port Sampling Supervisor
Anne Reynolds	Juneau	465-2444	Hoonah, Yakutat, Excursion
Brandi Adams	Juneau	465-4274	Juneau
Anna Buettner	Ketchikan	225-9677	Ketchikan, Craig
Rhea Ehresmann	Sitka	747-1150	Pelican, Port Alexander, Sitka
Jeff Moran	Metlakatla	886-3474	Metlakatla
Jeff Rice	Petersburg	772-5227	Petersburg, Wrangell

2. To ensure the continued cooperation of cold storage or cannery operators, professional work habits must be exhibited at all times by sampling personnel. You represent the Department of Fish and Game and should conduct yourself in a professional manner.
3. Questions or complaints regarding department policy or regulation should be directed to a department management biologist. Questions about the CWT sampling program should be referred to your supervisor or Detlef Buettner in Juneau (465-3496). Never discuss your personal opinions about department policy or management decisions with fishermen.
4. Refer any problems that may arise with processors, management, or fishermen to your supervisor.
5. Catch information, including numbers of fish caught, name of place fished, and day caught is confidential information. **Do Not Discuss** an individual fisher's catch information with other individuals. The number of fish processed by a processor and the number of fish bought by a tender is also confidential. The success of the program as a whole depends on the degree of cooperation you receive from the fishermen you interview. A sure way to lose your credibility and jeopardize our good working relationships with fishermen and processors is to discuss the confidential information you collect.

## General Sampling Instructions

1. Become acquainted with cold storage personnel, the manager, the foreman, and the fish grader. Explain what you are looking for and when you will be around their facility. Be sure to explain the program to new processors and remind them to set aside heads with our cinch straps, ATA cinch straps, and/or flagging attached. Your success will depend on the cooperative working relationship you create with processors.
2. Where you stand to observe, measure fish, and talk to fishermen will depend on the facility's setup. Be as unobtrusive as possible. Your activities should not disrupt normal processor operations.
3. There are two primary types of samples: random and select.

**RANDOM** samples: for our purposes, random samples are taken from landings that have an equal opportunity to be inspected for the presence and/or absence of adipose clipped fish. Tags recovered from this type of sample provide us with the most valuable data. Data recovered from the portion of the catch that has been sampled are used to make inferences about that part of the catch population that has not been sampled. Tags recovered from random sampling programs are used to estimate the contribution of tagged fish (and those unmarked fish that are represented by a tag code) to sampled fisheries. Fish from mixed districts for net gear should only be sampled if time allows. Information on specific sampling of seine caught Chinook can be found under number 12 on page 6.

Species code 411 should not be recorded for any random troll samples, even if it is a terminal fishery that is allowing Chinook  $\leq 28$  inches to be retained. These fish should be recorded as Chinook, 410 because they are legal and being sold as Chinook, unlike the seine Chinook.

If it is an actual sublegal Chinook landed by a troller, it should not be recorded on the random sampling form but a separate select sample should be created and the fish will then be recorded as a 411.

Effective 2012, Chinook (jacks and legals) for all gillnet areas will be recorded as 410 (not 411) from this point forward.

**SELECT** samples: are those heads or whole fish that are voluntarily given to you by a processor or a fisher, or sampled by you from fish landed but not sold. These heads would not have been recovered in your random sampling activities. These recoveries cannot be used to make inferences about a larger population, but the data they represent may be useful to some managers or researchers. Fish that are not sold and not reflected on a fish ticket should be recorded as select and not included in a random sample. **At no time should random sampling duties be abandoned to collect and handle select recoveries.**

4. **Determine if any adipose clipped fish were separated out from the catch you are sampling.** Data from the portion of the catch sampled can be used to make inferences about the unsampled catch only if tags remain randomly distributed throughout the catch. Ask the fisher if they have removed any adipose clipped fish from their catch and delivered them to someone else, e.g., to another Alaska Department of Fish and Game (ADF&G) office. If they have, this vessel should be

excluded from your random sample. If the fisher has separated out the fish missing adipose fins, you **must** sample the entire catch (or exclude the entire catch). The same basic rules apply to tenders. **It is especially important that you ask tender operators if any adipose clipped fish were separated from the catch and delivered to another location.**

5. **Do not deviate from established random sampling procedures.** Your supervisor should provide you with guidelines for random selection of vessels or tenders, which must be carefully followed. In particular, if a fisher volunteers their vessel for sampling, perhaps because they have carefully flagged missing adipose Chinook salmon, the sampling of this vessel should be **recorded as a random sample only if that vessel would have been selected for sampling in your normal selection process.** The adipose clipped fish should be recorded as a select sample, if the volunteered vessel would not be randomly selected for sampling.
6. Record data from each vessel sampled on a CWT Sampling Form. If a vessel did not have any marked, landed fish, record "zero" for # AD-CLIPS SEEN and record the number of fish observed for TOTAL # FISH CHECKED FOR AD-CLIPS. "Zero" adipose clips is a valid and meaningful observation.
7. Do not record recoveries from random and select samples on the same form.
8. Time spent counting fish and looking for missing adipose fins is wasted if you do not record HARVEST TYPE, GEAR TYPE, DATE SOLD, AREA INFORMATION, TOTAL # FISH CHECKED FOR AD-CLIPS, and # AD-CLIPS SEEN.
9. Each head sent to Juneau must be identified by a cinch strap provided by the Tag Lab and must be accompanied by a completed sampling form. This is true for heads recovered from both random and select samples. **Heads not identified by a cinch strap or not listed on a sampling form will not be processed.**
10. Trollers fishing more than one experimental or terminal area, or in more than one type of fishery, are required to mark or otherwise separate their catch by experimental/terminal area and/or HARVEST TYPE. Only sample mixed HARVEST TYPE or mixed experimental/terminal area deliveries if the catch from each unique fishery has been marked or kept separate as required. **You will need to complete a separate sampling form for each HARVEST TYPE and for each experimental/terminal area.** Processors must also generate a separate fish ticket for each HARVEST TYPE delivered.
11. **You must personally observe a delivery and determine which fish are adipose clipped, in order for a sample to be random.** Many processors are very interested in the sampling program and are extremely helpful. However, your sampling responsibility must never be shared with or delegated to processors. Use a tally counter to keep track of the numbers and species type of the fish being sampled. Do not use fish ticket numbers as a count for the TOTAL # FISH CHECKED FOR AD-CLIPS. Heads from adipose clipped fish recovered in your absence by processors should be listed on a select sampling session or form.

12. Instructions for sampling seine caught Chinook are essentially the same as for sampling any other fish.

First - ONLY select and sample Chinook, regardless of size, that have been sold and the processor is going to sort, weigh, and process. Do not select and sample fish that will not be purchased and reflected on the fish ticket, e.g. Medium size Chinook >21 in and <28 in legal measurement.

Second - as you look at Chinook to determine if the adipose fin is missing, keep a separate count of Chinook greater than 28" and Chinook less than 21" total length. These two size classes are essentially treated as two distinct species of fish. These counts and any adipose clips found should be recorded as either code:

- 410 = CHIN  $\geq$  28" (711mm) TOTAL LENGTH or,
- 411 = JACK  $\leq$  21" (533mm) TOTAL LENGTH

**NOTE: Chinook >21 in and <28 in should not be included in counts during random sampling as these fish can NOT be sold, except under EO usually at terminal fishery sites. They should then be included with your jack counts for that particular area.**

Legal lengths are **total** (tip of snout to tip of tail) lengths. Legal lengths are used to determine whether or not a Chinook salmon is code 410 or 411. Mid-eye to fork lengths are the lengths to be recorded onto the sampling form. Chinook with legal lengths between >21 in and <28 in should not be recorded on the sampling form as they cannot be sold, unless, as mentioned above, the specific fishery has an EO issued allowing the retention and sale of this size category, which should be sampled and recorded as "Jacks". (See Figure 3)

The confusion in how to sample and record seine caught Chinook comes from the regulations governing the harvest and sale of Chinook by the seine fleet that specifies three size classes of Chinook. Remember, your role is as a sampler, not an enforcement officer. The measurement, by regulation, is total length (snout to tip of tail), and the three size classes are:

- Large (>28in or 711mm total length) Chinook which may be retained and sold only during "Retention Periods". During non-retention, the large Chinook should be released at sea by the fishing vessels.
- Medium (>21in or 533mm and <28in or 711mm total length) Chinook which may be retained, but not sold unless, as mentioned above, the specific fishery has an EO issued allowing the retention and sale of this size category, in which case these should be sampled and recorded as (411) Jacks.
- Small (<21in or 533mm total length) Chinook which may be retained and sold as small Chinook. These are recorded as (411) Jacks.

Your job is to select and sample only Chinook from fish being purchased, regardless of size. Chinook in the medium category should **NOT** be checked. They cannot be sold and therefore, would have to be recorded onto a separate select form. The only Chinook that should be recorded onto the random forms are the small and large Chinook only during retention periods. If you observe large Chinook being sold and weights recorded on fish tickets during non-retention openings, notify your supervisor.

## Specific Instructions for Random Samples

Note: Specific data items listed on the sampling form will be identified in these instructions by the use of all capital letters.

1. Sampling must be performed in the following two step manner, in order to ensure that a reliable estimate of the number of marked and unmarked fish is attained:

First - **select the fish you are going to sample, count it**  
Second - **determine if the adipose fin is absent**

If the fish you selected to sample is laying so you can't get a good look at the adipose fin area, you must turn the fish and/or use your hand to feel for the fin. Count those fish that you have selected to sample. Once fish are selected, you must then determine if the selected fish have or do not have adipose fins. Remember you are selecting fish to sample, counting them and then looking for the presence or absence of adipose fins. You are not simply looking for adipose fins.

2. At least one sampling form (**Figure 1**) must be completed for each vessel sampled. A sampling form must be **completed even if no marked fish were observed in a sampled landing**. "Zero" for # AD-CLIPS SEEN is a valid and meaningful observation.

**Note:** In the 2015 early spring troll fisheries, fishermen may fish in more than one experimental and/or terminal area during fishery openings. Fishermen are required to mark or otherwise separate their catches if moving between experimental areas or if participating in more than one HARVEST TYPE (fishery) before selling fish. If a fisher has separated their catch (all fish caught, not just adipose clipped fish) by area or HARVEST TYPE as required, you can sample that vessel but you must fill out a separate sampling form for each distinct HARVEST TYPE or experimental/terminal area. Processors are required to complete a separate fish ticket for each harvest type and area fished. If you are unsure about what type of fishery you are sampling, ask your supervisor.

3. The following data items should be recorded by you on the sampling form before you begin to sample a vessel's catch. These items should not require interviewing the fisher.

## General Sample Information Section

- **SAMPLE NUMBER:** this number will be assigned sequentially by survey site by the supervisor. This six digit number is made up of the assigned two digit survey site code followed by a four digit sequentially assigned number. This number identifies each unique sampling form in the CWT database.
- **PAGE \_\_\_ OF \_\_\_ PAGES:** additional pages will be required if more than 15 heads are recovered from a single vessel. Page numbers are specific to each individual sample; e.g., a sample with 17 heads will have page 2 of 2 with the same sample number assigned to both sheets. Number of fish sampled and clips observed should be recorded on all pages when multiple pages are used for one sample.

- **HARVEST TYPE:** circle one. Refer to **Figure 2** for definitions: HARVEST TYPE DEFINITIONS.

It is important that you know the HARVEST TYPE of the catch you are sampling. Ask your supervisor if you are unsure. The HARVEST TYPE recorded on the sampling form must be the same as the HARVEST TYPE recorded on the fish ticket. Samplers will be told by their supervisor what HARVEST TYPE to use for specific sampled fisheries, e.g., various troll fisheries in early summer 2015. **Remember when a fisher separates catch by HARVEST TYPE and/or experimental/terminal area, complete a separate sampling form.**

- **SURVEY SITE:** name of survey site or community where the processor you are sampling is located. Commercial survey sites in Southeast and survey site codes are:

Craig (07)	Ketchikan (06)	Sitka (03)
Elfin Cove (02)	Metlakatla (09)	Wrangell (12)
Excursion Inlet(10)	Pelican (01)	Yakutat (14)
Hoonah (11)	Petersburg (05)	
Juneau (04)	Port Alexander (08)	

- **SAMPLE TYPE:** circle one. Refer to General Sampling Instructions on page 4 for distinction between these two sample types. Random and select recoveries cannot be listed on the same sampling form.
- **SAMPLER:** your last name.
- **DATE FIRST CAUGHT:** if known this is the first day (or only day) fish were caught. If not known this is the first day of the opening for this fishery. For tender deliveries this is usually the first day of the opening for this fishery. However, some tenders pick up fish the first day, return to town, unload the catch, and then return to the fishing grounds to pick up the catch from the closure. This is especially true of the gillnet and seine fisheries. This can only be determined by asking the tender skipper or the fish ticket personnel at the individual processors. If fish were caught in multiple fisheries, or in the same fishery but caught during multiple openings, then the date should be the first day of the earliest opening.
- **DATE LAST CAUGHT:** if known this is the last day (or only day) fish were caught. If not known this is the last day of the opening for this fishery. For tender deliveries this is the last day of the opening for this fishery. If fish were caught in multiple fisheries, or in the same fishery but caught during multiple openings, then the date should be the last day of the most recent opening.
- **DATE SOLD (LANDED):** this date should be the same as the "date landed" on the fish ticket for this delivery. **Exception: when sampling a tender delivery, DATE SOLD should be the last date that the tender bought fish.** (Some tender operators switch the date on their fish ticket stamping machines at midnight and are still unloading fish from vessels that fished the previous day. Samplers should try to determine whether or not fish were purchased beyond midnight so that the date sold is accurately reported on the sampling form).
- **DATE SAMPLED:** date fish were sampled by you.
- **SAMPLE TIME** (use is optional): Record the time in military time (e.g., 0730, 2045) (**begin**) you started to sample this vessel or tender and the time (**end**) you stopped sampling.

## Catcher Information Section

- **PROCESSOR:** name of processor that purchased the fish. If the original processor contracted the processing out to another processor, the original purchaser should be listed as PROCESSOR. Use standardized names provided by the Tag Lab. For example, use Phillips (not ECP), Sea Level (not SLS), Wrangell Seafoods (not WSI), and Coastal (not CCS).
  - **ADFG #:** We will send letters reporting catch and release information for each adipose clipped salmon recovered from an individual fishermen's sampled catch at the end of the season. These letters provide feedback to fishermen and generate good public relations for Alaska's fisheries programs. Our only means of identifying the fishermen and their address is through their ADFG #. It is your responsibility to record the ADFG # for every sampled individual fisher delivery or tender. Be certain that the ADFG number recorded onto the form is the same as that on the vessel. A separate sampling form should be filled out for each person's fish when more than one vessel's fish are being delivered on one vessel, if possible. ADFG vessel registration numbers can be obtained from the side of the vessel, the fisher's gear card or a stamped fish ticket. If you sample individual deliveries sold to a tender and provide the ADFG # on the form, a letter will be sent to the individual fisher. If tender sales are not sampled until the tender delivers fish to the processor, you will not be able to identify which adipose clipped fish were caught by individual fishermen and, therefore, cannot be reported to individual fishermen.
  - **VESSEL or OWNER'S NAME:** record the name of the vessel being sampled exactly as it appears on the vessel. This can also be obtained from the fish ticket. In the case of an unnamed skiff, write down the owner's name if known and circle "OWNER'S NAME". If more than one vessel's fish are mixed together, write MIXED under vessel name and list individual vessel names in the comments section. DO NOT list any ADFG#.
  - **TENDER?:** If vessel is a tender, check here. Record tender name and ADFG# above.
  - **MULTIPLE TENDERS?:** If more than one tender delivery is combined, check here and also check the tender box. Record all tender names in the comments section.
  - **GEAR TYPE:** circle one or more. TENDER is not a gear. When sampling a tender delivery, circle the gear(s) of the vessels that sold fish to the tender.
4. **You must first choose a fish to inspect, and then look to see if the adipose fin is absent.** Turn the fish over if the fin is not visible. When you observe a marked fish, pull it aside and set it in a spot the grader and you have agreed upon. Fish with partially regenerated adipose fins or poor quality marks should be set aside and treated as if coded wire tagged.
  5. **Count, as sampled, each fish you choose to inspect.** Included in that count will be both unclipped and adipose clipped fish. Count only those fish you are sure either have or do not have an adipose fin. If you did not get a good look at the fin do not count that fish. In the appropriate space by species, record the TOTAL # FISH CHECKED FOR AD-CLIPS. Ask the grader for assistance if you are unsure of the species identification of a fish. If you are interrupted, record only those fish you have actually inspected even though this will be less than the total number of fish in the delivery. Only those fish which are sold and reflected on a fish ticket should be included in a

random sample. Fish that are retained by fishermen for personal use should not be included in the random sample, even if there are adipose clipped fish. These fish should be recorded on a select sample and pertinent comments listed in the comment section. **Keep track of the numbers and species of fish being sampled by tally counter. Do not use fish ticket numbers as a count for the TOTAL # FISH CHECKED FOR AD-CLIPS.**

6. During a break in unloading:

- Insert a pre-numbered cinch strap through the mouth and out the operculum (gill plate). Insert these so that the number can be read when the head is frozen. A series of cinch straps have been assigned to you by your supervisor. Use these cinch straps in numerical order. Cinch-up the strap and record its imprinted number under HEAD NUMBER\* on the sampling form.

**\*Note: All cinch numbers consist of 6 digits. If you are using a cinch strap with only five digits or numbers, simply insert a leading zero for the first digit.**

- If the processor does not allow you to cut off the head of adipose clipped fish yourself, tie a short piece of flagging\* through the mouth and out the operculum on the side of the head opposite the cinch strap. This will readily identify tagged fish to processors who will remove the head later.

**\*Note: The purpose of the flagging is to help recover CWT heads; if the processor is losing heads you may need to use more or brighter flagging (the Tag Lab will provide flagging if you need it).**

- If a cinch strap is missing from the sequence assigned to you, list that number on the sampling form on which it should have appeared. The number along with the word "Void" should be written in the comments section of the sampling form. This should also be done if you accidentally cinch a fish which has an adipose fin. Remove and discard the cinch and write the number and VOID in the comment section. Reuse of cinches will result in duplication of the head number and may require data corrections or discards to be made by lab staff.

- **If the processor plans to sell fish (including adipose clipped fish) to a whole fish market you must complete a sampling form anyway.** Assign HEAD NUMBERS to all adipose clipped fish and make a note adjacent to HEAD NUMBER or in the COMMENTS section that a head or all heads could not be recovered because the fish were "sold to a whole fish market." Contact the Tag Lab for "phantom head number" assignments if this continues to occur.

- If an adipose clipped fish is seen but not recovered during the random sampling process, a cinch number must be assigned and recorded on the form. Attach the corresponding cinch to the sampling form. The clipped fish was observed and would have been part of the random sample. This missed or "lost head" is important in expansion calculations and needs to be identified.

**Sampling Information Section** Please record the counts on all pages of each sampling form for samples with multiple sheets.

- **TOTAL # FISH CHECKED FOR AD-CLIPS:** count and record each fish, by species code, you choose to inspect. Included in that count will be both unclipped and adipose clipped fish. Count only those fish you are sure either have or do not have an adipose fin. If you did not get a good look at the fin do not count that fish. Remember, this sampling form is only for recording CWT sampling information. The number of fish observed for another project should not be recorded here. Do not use fish ticket numbers as a count for the Total # Fish Checked for Ad-Clips.
  - **# AD-CLIPS SEEN:** record by species code the number of fish counted that are missing adipose fins. A sampling form must be completed even if no marked fish were observed in the sampled landing. "Zero" for # AD-CLIPS SEEN is a valid and meaningful observation.
  - **WERE ALL CHECKED?:** circle yes or no for each species checked. It is vital that you count only those fish you are sure have or do not have an adipose fin. It is not critical or often possible to sample the entire landing. If you circle yes then you are stating that you observed (checked) every single fish of that species landed by that vessel.
7. At a convenient time, ask the skipper/fisher for the following information and record it on the sampling form:

**Area Information Section**

- **AREA INFORMATION (DISTRICT-SUBDISTRICT):** circle the DISTRICT(s) and record the SUBDISTRICT(s) where the fish in this delivery were caught. Refer to the attached LIST OF COMMON "PLACES FISHED" or area maps. The sample is nearly useless without area information. **It is important that the district the fisher lists on the fish ticket is one of the districts listed here.**

Remember that if the fisher has separated the catch (not just the adipose clipped fish) by distinct areas and/or fisheries, complete a separate sampling form for each if the fish are being recorded on separate fish tickets which is required during terminal and experimental troll fisheries.

- **NAME OF PLACE FISHED:** record the name of the nearest headland or places fished.

**If you are sampling a tender, list the DISTRICT(s), SUBDISTRICT(s), and NAME(s) OF PLACE(s) FISHED where fish were caught, not the location where the tender is anchored.**

- **WATER TYPE:** were fish caught in saltwater or freshwater? Circle one.
- **ANADROMOUS STREAM # (freshwater-only):** if these fish were sampled/recovered in freshwater, please enter the Anadromous Stream Catalog number listed in the latest edition of the "Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes" published by the Department's Sport Fish Division. This will be at least a ten digit number but could have as many as thirty-eight digits. Please call your local Sport Fish Division office or the Tag Lab for assistance if a catalog is unavailable. Be as descriptive as possible when you record the NAME OF PLACE FISHED.

8. Be sure **ALL** data items are filled in on the sampling form.
9. Remember that the information you are recording on this form is **confidential**. Do not destroy the cooperative relationship we have with fishermen by discussing an individual's sample/catch information with anyone.

### **Head Recovery Information Section**

- **HEAD NUMBER:** Insert a pre-numbered cinch strap through the mouth and out the operculum (gill plate). Insert these so that the number can be read when the head is frozen. A series of cinch straps have been assigned to you by your supervisor. Use these cinch straps in numerical order. Cinch-up the strap and record its imprinted number under **HEAD NUMBER\*** on the sampling form.

**\*Note: If you are using a cinch strap with only five digits or numbers simply insert a leading zero for the first digit.**

- **SPECIES CODE :** Record species code of each adipose clipped fish using the following codes:  
410 = **CHIN** - king or Chinook salmon including seine caught over 28 in\*  
411 = **JACK** - seine caught Chinook salmon under 21 in\*  
420 = **SOCK** - sockeye or red salmon  
430 = **COHO** - coho or silver salmon  
440 = **PINK** - pink or humpback salmon  
450 = **CHUM**- chum or dog salmon  
540 = **STHD** – troll caught steelhead trout

\*Note: legal lengths are **total** (tip of snout to tip of tail) lengths. Legal lengths are used to determine whether or not a Chinook salmon is code 410 or 411. Mid-eye to fork lengths are the lengths to be recorded onto the sampling form. Chinook with legal lengths between >21 in and <28 in should NEVER be recorded on the sampling form unless, as mentioned above, the specific fishery has an EO issued allowing the retention and sale of this size category, which should be sampled as “Jacks” (See **Figure 3**)

- **LENGTH:** measure the length of adipose clipped fish on the measuring board provided. Length is measured from mid-eye to the fork-of-tail (see Figure 3) and is measured to the nearest 5 mm. Record the LENGTH on the sampling form.
- **ATA NUMBER:** If an adipose clipped fish is identified by an Alaska Trollers Association log book program tag, record this number under ATA NUMBER on the sampling form. If these fish were selected by you to sample, they are random samples. Fish with ATA cinch straps must still be assigned an ADF&G CWT cinch strap.
- **CLIP:** note the quality of the adipose clip using the following codes:  
1 - OK (fish must be observed)  
2 - Questionable - partially regenerated or poor quality clip (fish must be observed)  
3 - Unknown (use for select samples where the fish is not observed by the sampler)

- **FLESH:** Please record flesh color for Chinook and for Coho. If the flesh color can easily be determined, record this information using the codes:

R - Red flesh  
W - White flesh

If the flesh color cannot be determined at this time, it can be recorded when the head is retrieved.

### **Comments Section**

- **COMMENTS:** record any comments you may have about the sample or its irregularities in the comments section of the sampling form or on the back of the sampling form. Please indicate that we should "see back of the sampling form" if you write notes on the back.

Sometimes fish at a processor or dock may be destined for sale at another processor or catcher-seller. If fish are transported or sampled at a site different from the original purchaser, note that site in the comments.

Make a note regarding fish of questionable dispensation (sale destination).

- **FPD Trip#:** We do not require this entry but are including it for the convenience of the Survey Site Supervisors. Please check with them because they may have some guidelines for filling out this section.

10. If the processor allows you to cut off heads of adipose clipped salmon, do so. Cut off the entire head, and place each head in an individual plastic bag. (Be certain that the fish have been weighed and the weight recorded by the processors prior to removing ANY heads). Return adipose clipped fish (with head removed) to the processor at an agreed place and time.

If the processor does not allow you to cut off the head of adipose clipped salmon, return adipose clipped fish to the grader so that they can be graded and weighed. Remind processors to cut off the entire head of adipose clipped fish and to save the heads for you to collect later.

11. Continue to select fish to sample, determine if adipose fins are absent, count fish observed, and set adipose clipped fish aside.

## **Specific Instructions for Reporting Select Samples**

Heads voluntarily turned into you by commercial or sport fishermen or by processors are considered to be select samples. These are recoveries that would not be collected as part of your normal random sampling activities.

Select or voluntary recoveries are always your lowest priority. Never abandon random sampling duties to collect or handle select recoveries. Do not actively solicit collection of these select or voluntary heads from fishermen or processors unless directed otherwise.

These select heads or whole fish should be processed similarly to those heads recovered in your random sampling activity with a few variations. You should try to obtain as much information as possible about the fish including: catch location, length, date caught or sold, gear, harvest type, etc.

**Random and select recoveries cannot be listed on the same sampling form. If you are random sampling a load of coho salmon and the skipper gives you a single adipose clipped Chinook salmon, the Chinook salmon must be listed on a separate form and recorded as a select sample.**

Only instructions that differ from those given for random samples will be given here.

1. Fill out a sampling form for all select samples. **Select and random samples may not be listed on the same form.**
2. Insert a pre-numbered cinch strap through the mouth and out the operculum. Use in numerical sequence and record the number under **HEAD NUMBER**; use the same series of cinch straps as are used for random samples.
3. **SAMPLE TYPE:** circle select.
4. A distinct form is available for recoveries from sport fishermen. If you do not have one of these forms and a sport fisher gives you a head, write in "**Sport**" as HARVEST TYPE and record a complete mailing address and on the sampling form. If we have a complete mailing address we will send a letter to sport fishermen, listing catch and release information, for each adipose clipped fish turned into the Department.
5. If possible, measure and record the **LENGTH** to the nearest 5 mm. If the fisher provides you with length information, record it and indicate the type of measurement taken if not mid-eye to fork-of-tail (e.g., total length).
6. **CLIP:** if the whole fish is not seen, code the CLIP as 3 (unknown).
7. Do not complete the section of the sampling form titled SAMPLING INFORMATION. The TOTAL # FISH CHECKED FOR AD-CLIPS and # AD-CLIPS SEEN are not applicable to select samples.

## Head Recovery

Some processors allow department samplers to remove the heads from adipose clipped salmon, others will not. If processors in your area do not allow you to remove the heads from adipose clipped fish, attach both a cinch strap and flagging to the tagged fish for the processors. In order to reduce the number of heads inadvertently lost by the processor, periodically remind processors to look for these tagged fish. Ask them to set the heads aside in an egg basket or bucket.

1. Heads should be periodically collected and:
  - Put each head in an individual plastic bag as you cut heads off salmon or after you have finished sampling a delivery and have collected heads from the processing line. Tie the top of the bag in a knot or securely wrap entire bag around the head.
  - Attach corresponding cinches to the sampling form of any adipose clipped fish observed but not recovered during the random sampling process. Record the number on the sampling form.
  - Record FLESH color of Chinook salmon on sampling form if not done previously.
  - Heads should be put aside, out of the processors' way and in a place (in a freezer if possible) prearranged with the processor.
2. At the end of each day, check sampling forms.
  - Be sure that **all** data items have been completed.
  - Be sure **all** heads recovered are accounted for on the sampling forms for that day.
  - Be sure that **all** heads listed on sampling forms were retrieved, bagged, and are in a freezer.
3. Place sampling forms in a plastic bag and place in the freezer or give to your supervisor at their direction.
4. If a processor will not relinquish a tagged head to you because the fish is being sold to the "whole fish market", you must complete a sampling form anyway. Assign HEAD NUMBERS to all adipose clipped fish and indicate in the COMMENTS section that this head or all heads could not be recovered because the fish were "sold to a whole fish market." If the processor will not give you the whole head but will give you part of the head, collect the front part of the head (make a cut from 3/4 inch behind the eyes to the hinge of the jaw). Advise your supervisor or Detlef Buettner (465-3496) about this problem. Even if all heads are unrecoverable, a sampling form must be completed and HEAD NUMBERS assigned and recorded for all adipose clipped fish observed in the sample.

## Head Pickup and Shipment

1. Sampling forms and heads will be picked up by the supervisor or their designee at the end of each day or statistical week.
2. As heads are boxed for shipment to Juneau, the supervisor will check heads off on the "  " column on the sampling form.
3. Sampling forms will be assigned sample numbers, edited as needed, and copied if desired. This six digit number is made up of the assigned two digit survey site code followed by a four digit sequentially assigned number beginning with 0001. (e.g., sample numbers assigned in Ketchikan will be 060001, 060002, ..., 060152; sample numbers assigned in Sitka will start with 030001.) This number identifies each unique sampling form in the CWT database. Remember to give the same sample number to multiple page samples (samples with more than fifteen heads). Account for all heads. Tag Lab staff will tell each supervisor specifically which sample number series to use.
4. Supervisors will complete a HEAD SHIPMENT SUMMARY FORM and include it with the head shipment. Instructions for completion of that form will be sent to each supervisor.
5. Heads should be placed in large garbage bags before packing them in boxes for shipment. Heads need not be shipped in waxed or "wet lock" boxes if they are individually wrapped in plastic head bags and placed into garbage bags inside boxes..
6. It is no longer necessary to box different species heads separately. You will be requested by your supervisor to do so if the need arises. Note anything out of the ordinary on the box with the data enclosed (such as otolith samples enclosed for Thermal Mark Lab).
7. Please put all data (**original** sampling forms and HEAD SHIPMENT SUMMARY FORM) together in one box. Indicate which box in your shipment contains the data, circle 'YES Data Enclosed' on the corresponding box label. We will not process heads, which are not accompanied by the original sampling forms.
8. Use the 'CWT Head Shipment' labels to number the boxes so we can be sure the air carrier gives us the complete shipment. If you number them 1 of 5, 2 of 5, etc. we can be sure the airlines gives us your complete shipment. It is also helpful to call or email the lab with the AWB number, number of boxes and estimated time of arrival into Juneau if you have access to a phone or computer.
9. Attach KEEP FROZEN/ADDRESS labels to one or two sides of your boxes.
10. Heads and data from all samplers in a survey site will be sent to the Tag Lab on Sunday or Monday following the close of **each** statistical week. Always ship heads to us each week. If a shipment is going to be delayed, call (907) 465-3483 and inform Detlef Buettner of the problem. **Heads from priority fisheries should be shipped ASAP. Clearly identify their priority status.**
11. Survey Sites serviced directly by Alaska Airlines should send their heads and data to us on that carrier.

Survey Sites in northern Southeast Alaska (Hoonah, Excursion Inlet, Pelican, etc.) should send their heads to the Tag Lab on the first regularly scheduled commuter flight to Juneau on Monday morning. Remember that most of the commuter airlines do not have freezers in Juneau. Do not send heads on commuter flights scheduled to arrive in Juneau after 4:30 PM on weekdays or on weekends.

12. Heads recovered from commercial sampling programs should be sent Air Freight, freight collect to:

Alaska Department of Fish and Game  
CF Division, Mark, Tag and Age Lab  
P.O. Box 115526  
Juneau, Alaska 99811-5526

CALL UPON ARRIVAL IN JUNEAU  
(907) 465-3483

Please use the shipping labels provided for your convenience.

Remember to call if you have questions or if you need additional supplies.

Thanks for your hard work and cooperation. Have a good season.



## Figure 2

### HARVEST CODE DEFINITIONS

- 11 - Traditional Fisheries:** Commercial harvest in traditional and customary common property fisheries managed by the State.
- 12 - Terminal Area:** Commercial harvest taken in a defined hatchery Terminal Harvest area by common property fisheries under State management.
- 13 – Spring Troll Fishery:** Commercial harvest in designated experimental fishing areas by common property fisheries under State management.
- 14 - Experimental Gear:** Commercial harvest by common property fisheries using experimental gear as specified under State management provisions.
- 17 - M-I-C:** Commercial harvest by residents of the Metlakatla Indian Community fishing in federally established reserve waters adjacent to Annette Island.
- 18 - Confiscated:** Fish harvested illegally using commercial gear and confiscated by State or federal fish and wildlife enforcement agencies.
- 21 - PNP Fish:** Hatchery managed cost recovery harvest of salmon with sale proceeds going to private hatchery operators.
- 22 - PNP Carcasses:** Sale of hatchery broodstock carcasses with proceeds going to private hatchery operators.
- 41 - Test Run Assesment:** Harvest by commercial gear in test fisheries conducted by the State for purposes of run strength assessment.
- 42 - Test Special Study:** Harvest by commercial gear in test fisheries conducted by the State for studies other than run strength assessment.

**FIGURE 3**

**SALMON MEASUREMENTS**

