

**ALASKA DEPARTMENT OF FISH AND GAME
CODED WIRE TAG SAMPLING PROGRAM
DETAILED SAMPLING INSTRUCTIONS
COMMERCIAL FISHERIES SAMPLING**

**2016
COOK INLET / ARCTIC, YUKON, KUSKOKWIM REGIONS**

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 inseason to estimate the contribution of Alaskan hatchery stocks to Southeast fisheries.

The Upper Cook Inlet (UCI) sampling program was designed to help assess the status of Kenai River coho salmon stocks, to assess the success of a Cook Inlet (CI) urban stocking program and to evaluate contribution to sampled commercial and sport fisheries of both projects.

The reliability of this technique as a useful tool depends on the adequacy of the 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 adequately within a time frame that meets a project's objectives.

CWT Sampling Objectives

The sampler's role of randomly sampling the fisheries for Chinook 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 commercial fisheries and reporting the data you collect completely and accurately.

Hatchery Contributions

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 and postseason hatchery contribution estimates. In SE, these estimates are generated within several days of catch and sampling.

CWT data are used to assist managers with their inseason management decisions. Catch for Cook Inlet fisheries is transferred to the Tag Lab's database postseason at which time contribution estimates are calculated and become available on the Tag Lab's online reports. Stock specific reports are written by Cook Inlet project leaders and published as Field Data Series Reports annually. These data, coupled with the results of other sampling programs, will help project leaders evaluate the success of their projects and the status of tagged wild Kenai River coho salmon stocks.

Expansion factors, calculated for each unique stratum (species/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:

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

Postseason contribution estimates for each Cook Inlet recovery are summarized, aggregated, and reported in many standard reports and are available through online data retrieval.

General Instructions

Note: Some instructions listed may be more relevant to sampling troll fisheries in SE than to sampling net fisheries in other areas of the state (e.g., General Sampling Instructions #4 and #5), but were left in this version so that if similar circumstances arise you will know what to do.

1. The project leader in charge of your particular sampling program and your supervisor have ultimate responsibility for the conduct of each program. Accordingly they are the final authority for sampling instructions. Specific work assignments, scheduling, changes in procedures, etc. will be made by the supervisor in charge of your survey site. 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.
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, project leader or Detlef Buettner (Tag Lab, 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 or to the project leader.

5. Catch information, including numbers of fish caught, catch location, 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 the processors, the buying station 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 production line workers. If you are not permitted to remove heads of adipose clipped fish yourself, remind processors to set aside heads with our cinch straps and/or flagging tape attached. Your success will depend on the cooperative working relationship you create with the 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.

SELECT samples: are those heads or whole fish that are voluntarily given to you by a processor or a fisher. 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 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 fraction 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 or delivery 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.** The project leader or supervisor will provide you with guidelines for random selection of vessels, tenders, deliveries or fish which must be carefully followed. In particular, if a fisher volunteers their vessel for sampling, perhaps because they have carefully flagged missing adipose salmon, the sampling of this vessel should be **recorded as a random sample only if that vessel or fish would be 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 scanned 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, PROCESSOR (original purchaser), 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. Unless instructed otherwise by your supervisor, do not sample tenders or individual vessels delivering catch intermixed from more than one HARVEST TYPE unless the catch from each HARVEST TYPE has been marked or kept separate. If you are sure that you can distinguish catch from each HARVEST TYPE, the tender or vessel can be sampled but you will have to complete a separate sampling form for each HARVEST TYPE. Processors must also generate a separate fish ticket for each HARVEST TYPE delivered.
11. Many processors are very interested in the sampling program and are extremely helpful. **You must personally scan a delivery and determine which fish are adipose clipped, in order for a sample to be random. Your sampling responsibility must never be shared with or delegated to processors. Keep track of the numbers and species type of the fish being sampled by tally counter. 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 select sampling forms.

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 fish you are going to inspect, 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/delivery 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.
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 sample form in the CWT database.
- **PAGE ___ OF ___ PAGES:** additional pages will be required if more than 15 heads are recovered from a single vessel/delivery. 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 FOR 2014 CODED WIRE TAG SAMPLING. 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.
- **SURVEY SITE:** name of survey site or community where the processor you are sampling is located. Commercial survey sites and survey site codes are:

Anchorage (28)	Kenai (22)	Seward (20)
Emmonak (CK)	Homer (18)	Nikiski (DG)
Kasilof (DD)	Ninilchik (DE)	

- **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 or crewleader's 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 port, unload the catch, and then return to the fishing grounds to pick up the catch from the closure. 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 latest 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 or buying station 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 discover 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. If you are sampling a buying station operated by a PROCESSOR, list the PROCESSOR name not the BUYING STATION location here. (e.g., you are sampling fish at Snug Harbor BUYING STATION on Fishermans Road; Snug Harbor is the PROCESSOR and Fishermans is the BUYING STATION.) Use standardized names provided by the Tag Lab.
- **BUYING STATION:** if you are sampling at a BUYING STATION, write in its location; otherwise leave blank. BUYING STATIONS are fish collection sites usually operated by major processors, usually located near setnet fishery sites and purchase fish delivered to them by setnet fishermen. (See example given under PROCESSOR.)
- **ADFG #:** We will send letters reporting catch and release information for each adipose clipped salmon recovered from individual fishermen 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. If you sample individual deliveries sold to a tender or buying station 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. 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, 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: 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 indicate on the appropriate line in the column headed NOTES (about this head) 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. For Upper Cook Inlet fisheries, 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.**
 - **NAME OF PLACE FISHED:** record the name of the nearest headland, place fished, or general set net site location. (e.g. Central District Drift, Salamatof Beach, Yukon River District Y1, etc.)
If you are sampling a tender or a buying station, 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 or where the buying station is located.
 - **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
 - 411= **JACK** - king or Chinook salmon only; check with your supervisor for length criteria prior to selection and entry as a JACK
 - 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** - steelhead trout
- **LENGTH:** measure the length of adipose clipped fish. 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.

***Note: Project objectives for the Upper Cook Inlet Urban Stocking and Kenai River projects do not require that length measurements be taken.**
- **NOTES (about this head):** use this space to indicate anything unusual about this particular fish. For instance, indicate that the head was lost or that the fish was sold to the whole fish market. More generalized comments about the sample should be written in the COMMENTS section.
- **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:** Chinook salmon only. 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.

- Processor information is important to managers. 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).

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 observe, determine if adipose fins are absent, count fish scanned, 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.

When allocating your time, 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 a fisher 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 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) on the appropriate line in the column headed NOTES (about this head).
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 will 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 still complete a sampling form. Assign HEAD NUMBERS to all adipose clipped fish and indicate on the appropriate line in the column headed NOTES (about this head) or in the COMMENTS section that this head or all heads could not be recovered because the fish were "sold to a whole fish market." Obtain these phantom numbers from the Tag Lab. 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, project leader or Detlef Buettner in Juneau 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 or after the close of each "opener".
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 for Kenai coho will be 220001, 220002 ,..., 220152; sample numbers assigned for Ninilchik coho will start with DE0001.) 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. Project leaders or 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. Use the 'CWT Head Shipment' labels to number the boxes so we can be sure the air carrier gives us the complete shipment.
7. Put the data in one box and circle YES Data Enclosed? on the corresponding box label.
8. Attach KEEP FROZEN/ADDRESS labels to one or two sides of your boxes.
9. 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.**
10. Survey sites serviced directly by Alaska Airlines should send their heads and data to the Tag Lab on that carrier. Other survey sites like Soldotna should send their shipments on a regularly scheduled flight to Anchorage which connects with an Alaska Airlines flight to Juneau.

11. 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.

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

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

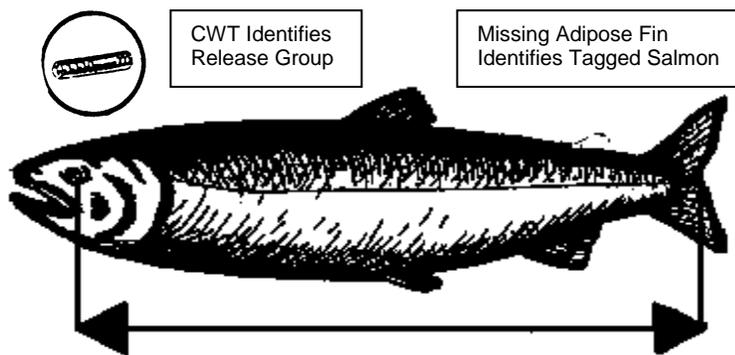
FIGURE 2

HARVEST CODE DEFINITIONS FOR 2014 CODED WIRE TAG SAMPLING

- 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 - Experimental Area:** 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 Strength:** Harvest by commercial gear in test fisheries conducted by the State for purposes of run strength assessment.
- 42 - Test Special:** Harvest by commercial gear in test fisheries conducted by the State for studies other than run strength assessment.

FIGURE 3

SALMON MEASUREMENT



Mid-eye to Fork