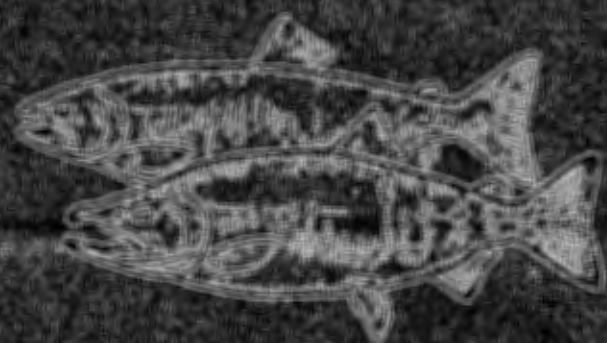
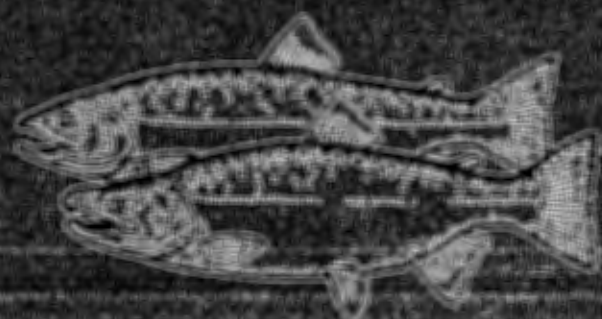
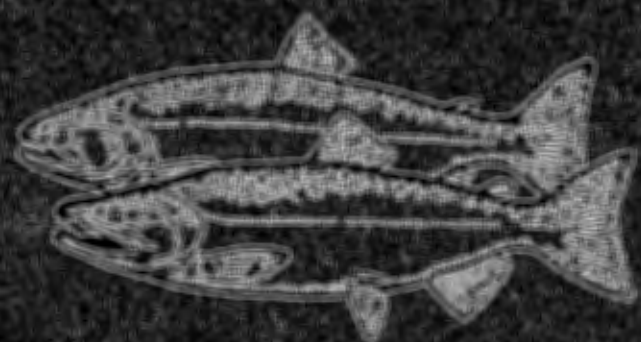


COASTAL SALMON SPAWNING SURVEY

PROCEDURES MANUAL

1999



OCEAN SALMON MANAGEMENT PROGRAM

OREGON DEPARTMENT OF FISH AND WILDLIFE

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## OCEAN SALMON MANAGEMENT STREAM INVENTORY PROJECT

The Ocean Salmon Management Stream Inventory Project is the branch of the Oregon Department of Fish and Wildlife with the primary task of monitoring the status of naturally produced coastal salmon stocks. Stock status is monitored through spawning fish surveys conducted throughout coastal watersheds. Spawning fish surveys are conducted in conjunction with coastal district biologists located in seven different fish management districts. Data generated by the Ocean Salmon Management Stream Inventory Project is used by ocean and freshwater fishery managers in the Department and other agencies in the management of Oregon's salmon resource.

### Project Objectives

Three species of salmon are monitored through spawning surveys. Primary objectives of this monitoring for each of these species are as follows:

#### Coho Salmon

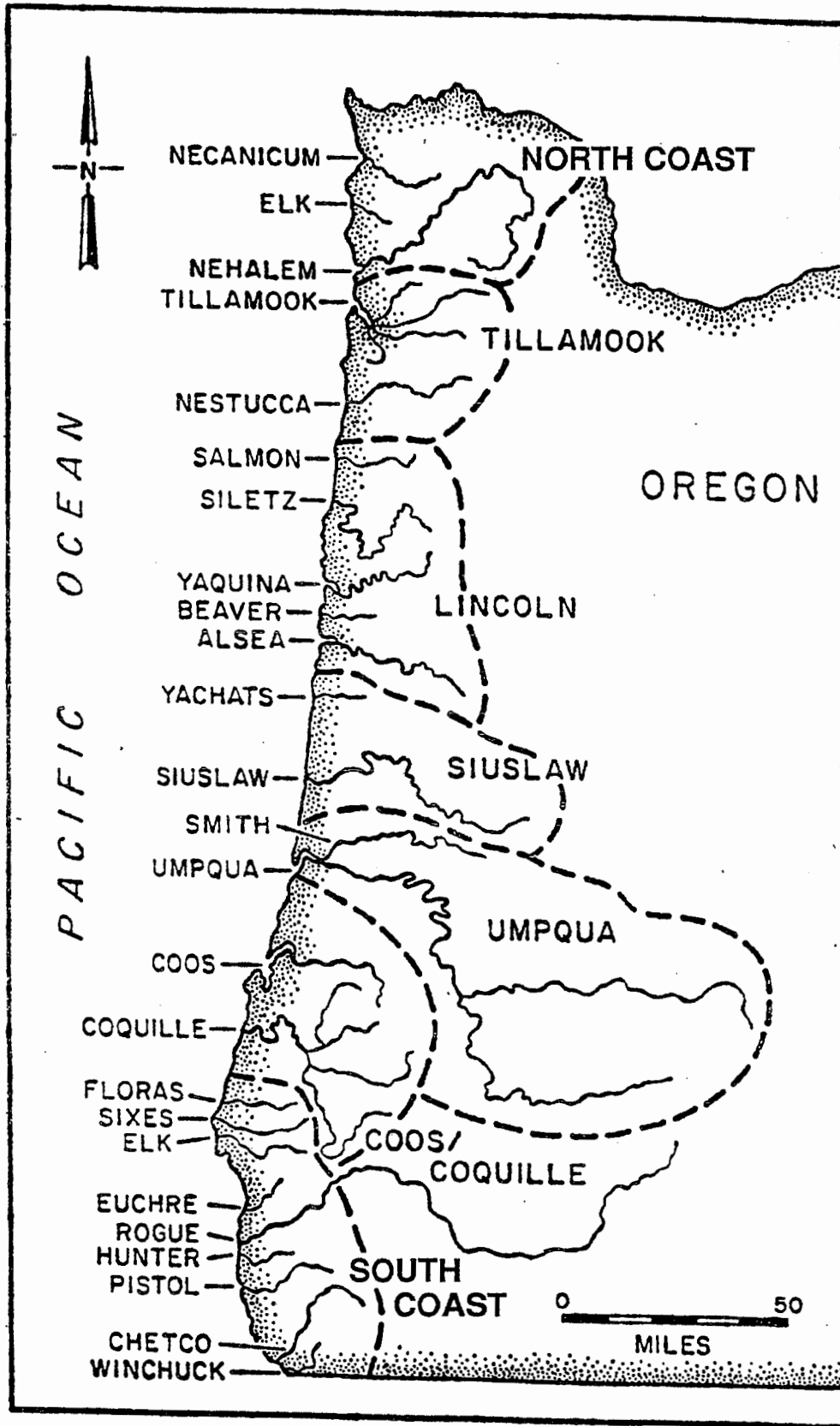
1. Estimate population size of Oregon Coastal Natural coho spawners.
2. Formulation of OPI ocean fishery regulations.
3. Historical trends in spawning escapement.
4. Evaluation of straying by hatchery fish.
5. Evaluation of enhancement projects and stream habitat restoration planning.
6. Evaluation of compliance with the ODFW Wild Fish Policy.
7. Monitoring Threatened and Endangered (T & E) stocks.

#### Chinook Salmon

1. Escapement indicator stock for Pacific Salmon (U.S.-Canada) Treaty monitoring.
2. Formulation of ocean fishery regulation-south coast stocks.
3. Historical trends in spawning escapement.
4. Life history analysis.
5. Evaluation of enhancement projects and stream habitat restoration planning.
6. Evaluation of compliance with the ODFW Wild Fish Policy.

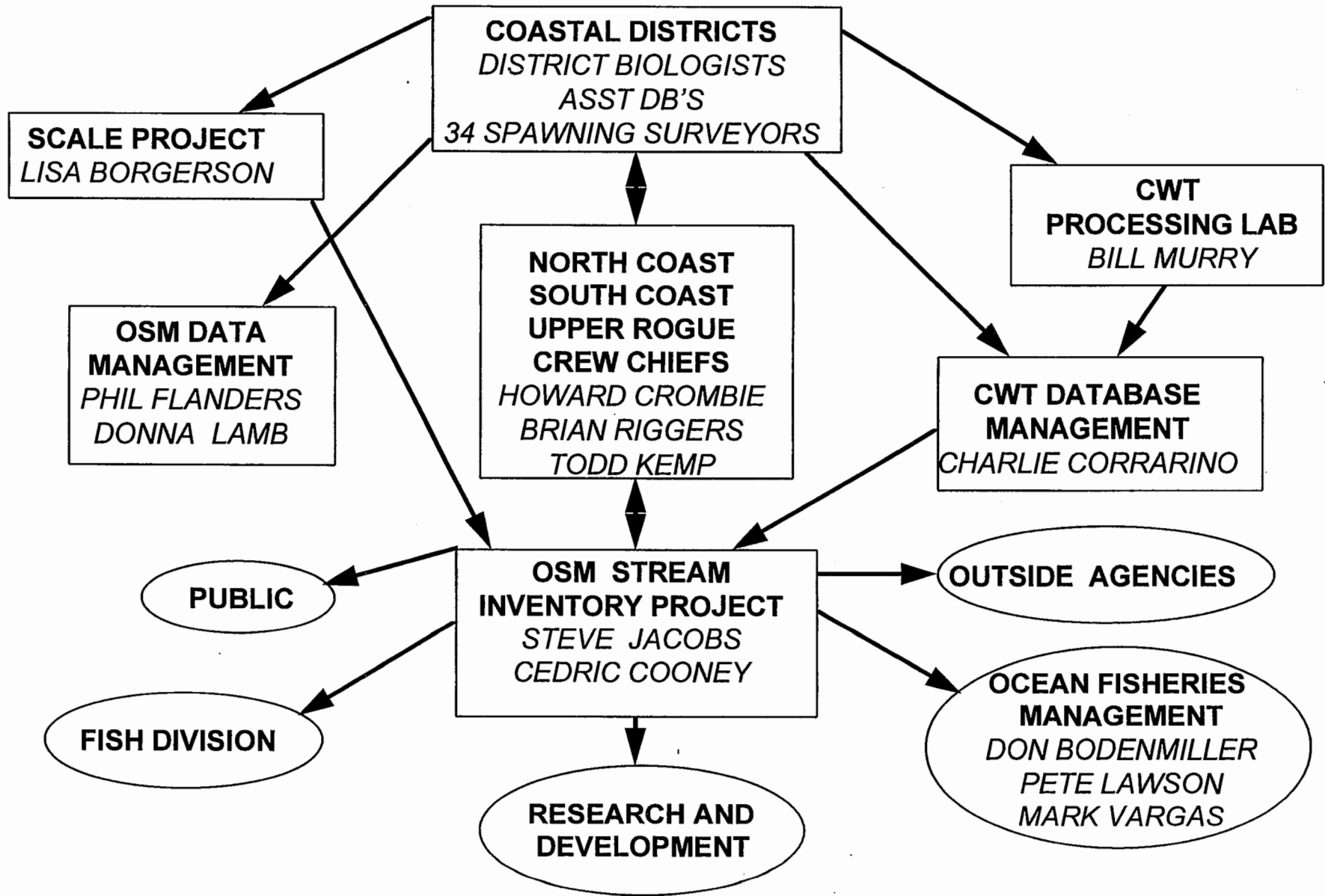
#### Chum Salmon

1. Historical trends in spawning escapement-Tillamook District only.
2. Evaluation of compliance with the ODFW Wild Fish Policy.
3. Monitoring T & E stocks.



Map of the Oregon coast showing major river basins and locations of fishery management districts where spawning surveys are conducted.

# COASTAL SALMON SPAWNING SURVEY INFORMATION FLOW



## SALMON SPAWNING SURVEYOR ID LIST

<u>DISTRICT</u>	<u>ID NUMBER</u>	<u>SURVEYOR</u>
NORTH COAST	10	Walt Weber
	11	Joe Sheahan
	12	Chris Vandenberg
	13	Matt Hunter
	14	Shaun Green
	15	Matt Rowe
	16	Kelli Grover
	19	Private Industry Surveyors
TILLAMOOK	04	Howard Crombie
	20	Rick Klumph
	21	Keith Braun
	22	Mark McCollister
	23	Tom Neil
	24	Julie Scheurer
	25	Steve Mallas
	26	Steve Mrazik
	28	Salmonid Habitat Research Crew
CORVALLIS	06	Brian Cannon
	07	Scott Titzler
	08	Sam Moyer
	09	Rod Thompson
LINCOLN	30	Bob Buckman
	31	Randy Reeve
	32	John Spangler
	33	Stacey Shapleigh
	34	Darren Craig
	37	Tony Stein
	39	Private Industry Surveyor
SIUSLAW	40	Will Biedler
	41	George Westfall
	42	Shawn Rapp
	43	John Meriwether
	48	Volunteer Surveyors

**SALMON SPAWNING SURVEYOR ID LIST (continued)**

<u>DISTRICT</u>	<u>ID NUMBER</u>	<u>SURVEYOR</u>
UMPQUA	50	Dave Loomis
	51	Dave Liscia
	52	Steve Sjogren
	53	Lynn Quellette
	54	Jason Clevenger
	55	Jason Shappart
	56	Steve Starchvich
	58	All Volunteer Surveyors
COOS/COQUILLE	05	Brian Riggers
	60	Paul Reimers
	61	Reese Bender
	62	Dave Plawman
	63	Richard Wiggins
	64	Kris Tempel
	65	Andrew Jensen
	66	Lisa Sommerfield
	67	Jim Muck
	68	Randy Smith
	69	Private Industry Surveyors
SOUTH COAST	70	Russ Stauff
	71	Todd Confer / Robert Bradley
	72	Broodstock Crew
	73	Gary Susac
	74	Holly Witt
	75	Jason Mowdy
	76	Chetco Crew
	77	All Volunteers
BLM	80	All Surveyors
UPPER ROGUE	03	Todd Kemp
	81	April Van Datta
	82	Peggy Savage
	83	Scott Cotter
	84	Kyle Young
	85	David Slama
FOREST SERVICE	87	Forest Service Employees
COLUMBIA RIVER	88	All CRM Personnel
SALMON RIVER	90	All Surveyors



## **SUPPLY LIST FOR SPAWNING FISH SURVEYORS**

### **Forms:**

1. 1996 Salmon Spawning Survey Form.
2. Spawning Survey Location Description Form.
3. Fin mark Recovery Form with Snout ID Tabs.
4. Coho Salmon Spawning Survey Evaluation Form.

### **Equipment:**

1. Chest waders, with belt (recommended with felt soles or corkers).
2. Polarized sunglasses.
3. Raincoat.
4. Hat
5. Orange field vest.
6. Pencils.
7. Spawning Fish Survey Field Notebook.
8. Measuring tape (in millimeters).
9. Forceps for scale collection.
10. Scale envelopes.
11. Knife with sheath.
12. Snout / Finmark I. D. Labels
13. Snout bags.
14. Hand-held tally counter.
15. Wading staff with gaff (optional).
16. Signs for marking boundaries of surveys.
17. Whistle
18. C. B. Radio (as needed)
19. Life Jacket (For River Surveys, as needed).

## EXAMPLES OF SURVEY DESCRIPTION

ID	SEG	BASIN	SUBBASIN	SURVEY	LOCATION	DESCRIPTION
26243.00	2	NECANICUM RIVER	MAIN STEM	UPPER NECANICUM	T5N R9W 1	SURVEY FROM THE SUNSET HIGHWAY (ROUTE 26) BRIDGE AT THE SADDLE MOUNTAIN PARK ROAD INTERSECTION UPSTREAM 1.5 MILES. END THE SURVEY AT THE BRIDGE ON NORTH MUNCE ROAD, WHICH IS THE FIRST BRIDGE ENCOUNTERED FROM THE STARTING POINT.
25719.00	2	KILCHIS RIVER	MAIN STEM	COAL CREEK	T01S R09W	FROM THE KILCHIS R RD TURN RIGHT ON CURL RD. CONTINUE APPROX. 0.4 MILES TO A FORK IN THE ROAD. TAKE THE RIGHT FORK UP TO A SMALL PRIVATE BRIDGE. SURVEY FROM THE BRIDGE UPSTREAM 0.5 MILE TO THE SMALL TRIBUTARY ON RIGHT (SIGN ON ALDER ON RIGHT).
25046.00	2	YAQUINA RIVER	MAIN STEM AND BAY	UPPER YAQUINA RIVER	T10S R8W	FROM OLD LOGGING BRIDGE SITE 0.8 ROAD MILES ABOVE NASHVILLE UPSTREAM 2 MILES TO 15 FOOT FALLS.
24136.00	2	SIUSLAW RIVER	LAKE CREEK	WEST FK. INDIAN CREEK	T16S R10W	THE SURVEY STARTS AT USFS ROAD 5134 BRIDGE AND EXTENDS 1.0 MILE UPSTREAM TO PYLE CREEK WHICH ENTERS FROM THE RIGHT.
22624.00	2	UMPQUA RIVER	MAIN STEM AND BAY	DEAN CREEK	T22S R11W	FROM HWY 138, TAKE DEAN CR RD 2.8 MILES TO A LOCKED GATE AT A BRIDGE OVER DEAN CR. PARK AND WALK UP THE ROAD 0.2 MILES. ACCESS DEAN CR ACROSS THE CLEARING NEXT TO THE CREEK (SIGN ON WILLOW ON LEFT ACROSS FROM SMALL TRIB ON RIGHT - PART OF AN ABANDONED BUILDING MAY BE VISIBLE ON THE RIGHT). SURVEY FROM HERE UPSTREAM 1.1 MILES (SIGN ON FIR ON RIGHT). EXIT VIA ABANDONED ROAD ON LEFT. RE-MEASURED - 1994.
21755.00	2	COQUILLE RIVER	MIDDLE FORK	ROCK CREEK (LOWER-A)	T30S R11W	START SURVEY AT RED BARN ON BRYANT PLACE AND CONTINUE UPSTREAM 0.5 MILES TO BRIDGE. RETURN BY ROAD.
21542.00	2	SIXES RIVER	MAIN STEM	DRY CREEK(UPPER)	T32S R14W	SURVEY STARTS AT LOG BRIDGE (1.7 MILES ABOVE MOUTH) AND CONTINUES UP STREAM 1.7 MILES TO WHERE CANYON WALLS NARROW AND MAKE FURTHER PASSAGE IMPOSSIBLE. YELLOW METAL RECTANGULAR MARKER ON TREE ON RIGHT BANK MARKS END OF SURVEY.
21542.00	1	SIXES RIVER	MAIN STEM	DRY CREEK(LOWER)	T32S R14W	FROM MOUTH OF DRY CREEK UPSTREAM 1.7 MILES TO LOG BRIDGE CROSSING CREEK (WESTBROOK BRIDGE).
20679.00	1	ROGUE RIVER	APPLEGATE RIVER	SLATE CREEK (APPLEGATE)		SURVEY FROM THE MOUTH OF SLATE CR UPSTREAM 1.0 MILES.

## EXAMPLES OF SURVEY DESCRIPTION

ID	SEG	BASIN	SUBBASIN	SURVEY	LOCATION	DESCRIPTION
25985.00	2	NEHALEM RIVER	MAIN STEM	W HUMBUG CR	T05N R08W	FROM SEASIDE, TAKE HWY 26 EAST TO MILE POINT 15.45 AND TURN LEFT AND DRIVE 50 METERS TO A CAVENHAM GATE (KEY AVAILABLE FROM DB WALT WEBER). FROM THE GATE DRIVE 0.7 MILES AND PULL OVER AT A CEMENT BRIDGE CROSSING WEST HUMBUG CR. ACCESS THE CREEK AND WALK DOWNSTREAM 0.33 MILES TO THE BASE OF A 5 FT BEDROCK WATERFALL (END OF STANDARD SURVEY - SIGN ON ALDER ON LEFT). SURVEY UPSTREAM 0.52 MILES TO A TRIB ON THE LEFT (SIGN ON ALDER ON THE LEFT). EXIT VIA SURVEY.
25688.00	2	WILSON RIVER	NORTH FORK	WILSON R, W FK OF N FK	T01N R07W	FROM TILLAMOOK, TAKE HWY 6 AND GO EAST TO JONES CR CAMPGROUND (MILEPOINT 22.6). TURN LEFT INTO THE CAMPGROUND AND GO STRAIGHT 0.3 MILES TO A JUNCTION. TURN RIGHT TOWARD DIAMOND HILL CAMPGROUND AND GO 1.3 MILES TO A JUNCTION.. TURN LEFT AND GO 0.3 MILES TO A JUNCTION. TURN RIGHT AND GO 0.4 MILES TO A JUNCTION. TURN RIGHT AND GO 1.0 MILES TO A JUNCTION. TURN LEFT AND GO 1.1 MILES TO A BRIDGE CROSSING THE WF OF THE NF ON THE RIGHT (SIGN ON BRIDGE). SURVEY FROM HERE UPSTREAM 0.94 MILES TO THE CONFLUENCE WITH THE N. FK OF THE W. FK. (SIGN ON ALDER ON LEFT ). EXIT VIA ROAD TO THE LEFT.
24764.00	1	ALSEA RIVER	FIVE RIVERS	COUGAR CR	T15S R10W	FROM HWY 34, TURN ON FIVE RIVERS ROAD TO E BUCK CREEK ROAD. TURN RIGHT ON E BUCK CREEK ROAD (STAY RIGHT AFTER BRIDGE) AND GO 0.1 MILES TO FIRST DRIVEWAY ON THE RIGHT (PARK HERE AT BILL WEIDEMANNS HOUSE - 154 E. BUCK CR RD). ACCESS COUGAR CREEK AND WALK DOWN TO THE MOUTH (SIGN ON SMALL TREE ON LEFT AND SIGN ON ALDER ON LEFT NEAR MOUTH). SURVEY UPSTREAM 1.0 MILES (SIGNS ON ALDERS ON BOTH BANKS). EXIT VIA SURVEY TO CULVERT.
24160.20	2	SIUSLAW RIVER	LAKE CREEK	DEADWOOD CR, W FK	T16S R09W	FROM DEADWOOD, DRIVE 4.1 MILES UP DEADWOOD CR RD TO WEST FORK RD ON THE LEFT. TAKE WEST FORK RD 2.3 MILES TO A BRIDGE OVER W FK DEADWOOD WITH ALEXANDER RD JUST PAST THE BRIDGE. TAKE ALEXANDER RD 0.6 MILES TO THE WILLS HOUSE (IT MAY REQUIRE A 4 WHEEL DRIVE TO GO BEYOND THE WILLS HOUSE). CONTINUE UP THE ROAD 0.2 MILES TO A TURNOFF ON THE RIGHT DOWN TO A BRIGE OVER THE W FK (SIGN ON AN ALDER ON THE LEFT ABOVE THE BRIDGE AND MAY ONLY BE VISIBLE FROM THE BRIDGE). SURVEY FROM THE BRIDGE UPSTREAM 1.1 MILES JUST PAST A ROAD WHICH CROSSES THROUGH THE CREEK (SIGN ON ALDER ON RIGHT). EXIT VIA THE ROAD.



FIELD SURVEY FORM

FRONT

BASIN **Kilchis** WEATHER **Clear**  
 SUBBASIN **MAINSTEM** FLOW **MOU**  
 SURVEY **Clear Cr** VIS. **2**  
 DATE **11/15/90** TEMP. **45°F**

SPECIES	LIVE			DEAD		
	A	J	M	F	J	U
<b>CH</b>	<b>III</b>	<b>II</b>		<b>I</b>		<b>II</b>
<b>FOI</b>						
<b>CHUM</b>	<b>III</b>					

REDDS **III II**

(USE REVERSE SIDE FOR COMMENTS)

BACK

**CH - spawning**  
**SNOUT - Female 980 mm**  
**916 5101 RV-AD clip**

---

**Coho - holding**

---

**Chum - spawning**

# 1996 SALMON SPAWNING SURVEY FORM



Survey Number: 25641.00    Segment Number: 1

Influence Code: CH: \_\_\_\_ CO: \_\_\_\_ CU: \_\_\_\_

District: 2 TILLAMOOK  
 Basin: 08 WILSON RIVER  
 Subbasin: 2 LITTLE NORTH FORK  
 Survey: L. N. FK. WILSON R ( 0.5 miles)

Target Species and Survey Type  
 STANDARD - CHINOOK  
 STANDARD - CHUM  
 SUPPLEMENTAL - COHO

Location: PROCEED ON HWY 6, ABOUT 5 MILES TO THE GUIDE SHOP. PARK AT THE LARGE GRAVEL LOT JUST PAST THE GUIDE SHOP AND CROSS THE WILSON TO THE MOUTH OF THE LITTLE NORTH FORK (SIGN ON ALDER ON LEFT). SURVEY FROM THE MOUTH UPSTREAM 0.5 MILES (SIGNS ON TWO SMALL ALDERS ON THE LEFT). EXIT VIA ROAD ON RIGHT.

DATE mm/dd	Sur- veyor I.D.	CHINOOK						COHO						CHUM				S T L H D	R E D D S	W H T R	F L O W	V I S	TARGET SPECIES ACTIVITY CODE			COMMENTS																															
		LIVE		DEAD				LIVE		DEAD				LIVE		DEAD							CH	CO	CU	1	2																														
		Adult	Jack	Male	Female	Jack	Unk.	Adult	Jack	Male	Female	Jack	Unk.	Adult	Male	Female	Unk.																																								

# SPAWNING SALMON SURVEY FORM

This data form is used to record counts and activities of spawning salmon and other associated aspects of the survey.

---

## Header

**NOTE:** Target Species, Influence, and/or Survey Type may be pre-printed for established survey areas. All fields in the header will need to be filled in for new or established survey areas.

## DISTRICT

Fisheries District:

- 1 - North Coast
- 2 - Tillamook
- 3 - Lincoln
- 4 - Siuslaw
- 5 - Umpqua
- 6 - Coos/Coquille/Tenmile
- 7 - Lower Rogue/South Coast
- 8 - Upper Rogue
- 20 - Columbia River Management
- 21 - Lower Willamette

## TARGET SPECIES

Species Which is the Focus of the Survey:

- 1 - Fall Chinook
- 2 - Coho
- 3 - Chum
- 4 - Other (Steelhead, Spring Chinook, etc.)

## SURVEY TYPE

Pertains to TARGET SPECIES:

- 1 - Standard index survey
- 2 - Supplemental survey
- 3 - Spot check
- 4 - Random (coho only)
- 5 - Lake (coho only, Tenmile, Siltcoos and Tahkenitch Lakes)
- 6 - Volunteer
- 7 - (NWHF) National Wildlife Heritage Foundation

## INFLUENCE (Listed Below in Priority Order)

Pertains to TARGET SPECIES. Only ONE INFLUENCE per survey is assigned. If more than one influence applies, assign only the *highest priority influence*.

- **WILD (Priority I, Highest Priority):** No fed or unfed hatchery salmon released within 10 miles of survey segment within the last 3 years (1994-96) for coho or 5 prior years (1991-95) for chinook. All chum surveys are classified as *wild*. *Influence Code 1.*

- **FED FISH (Priority II):** Fed hatchery salmon (smolts or pre-smolts) released within 10 miles of survey segment within the last 3 years (1994-96) for coho or during the 5 prior years (1991-95) for chinook. *Influence Code 2.*

- **BROOD STOCK (Priority III):** Adults of target species removed within 10 miles of survey segment during year when survey is conducted. *Influence Code 4.*

- **UNFED FISH (Priority IV, Lowest Priority):** Unfed hatchery salmon (fry) released within 10 miles of survey segment during the 2 prior years (1994-95) for coho or during the 5 prior years (1991-95) for chinook. *Influence Code 3.*

## LOCATION CODES

**BASIN** -- Use 2 digit code

**SUBBASIN** -- Use 1 or 2 digit code; whichever applies

**SURVEY** -- Use 7 digit code for all survey types (e.g. 12345.67)

**SEGMENT** -- Use 1 digit code

---

## Body

### DATE

Date of the survey

Enter the month and day the survey took place (e.g. 01/22).

### SURVEYOR ID

Surveyor ID number

Used to identify the person conducting the survey. If a survey is divided between more than one surveyor, the surveyor filling out the survey form should use his/her ID number.



## CHINOOK

### LIVE

**Adult** - Number of live adults  
**Jack** - Number of live jacks

### DEAD

**Male** - Number of dead males  
**Female** - Number of dead females  
**Jack** - Number of dead jack  
**Unk** - Number of dead unknown sex

A chinook jack is defined as a male measuring 510 mm (20 inches) or less in MEPS length or 600 mm (24 inches) or less in fork length.

MEPS length is the "mid-eye to posterior scale" (caudal peduncle) measurement.

## COHO

### LIVE

**Adult** - Number of live adults  
**Jack** - Number of live jacks

### DEAD

**Male** - Number of dead males  
**Female** - Number of dead females  
**Jack** - Number of dead jacks  
**Unk** - Number of dead unknown sex

A coho jack is defined as a male measuring 430 mm (17 inches) or less in MEPS length, or 500 mm (20 inches) or less in fork length.

## CHUM

### LIVE

**Adult** - Number of live adults

### DEAD

**Male** - Number of dead males  
**Female** - Number of dead females  
**Unk** - Number of dead unknown sex

## STLHD

Number of steelhead, dead and alive

## **REDDS**

Number of spawning redds observed (optional information)

A redd may be identified by a hollow in the gravel and the adjacent downstream mound of excavated gravel. The gravel from a recently dug redd will usually appear lighter colored and less uniformly oriented than the undisturbed gravel. Care should be taken not to confuse redds with general stream scouring or scouring associated with wood, rootwads, or larger rocks.

## **WTHR**

Describe the weather as:

- C - Clear
- O - Overcast
- F - Foggy
- R - Rain
- S - Snow
- P - Partly Cloudy

## **FLOW**

Describe the stream flow as:

- L - Low
- M - Moderate
- H - High
- F - Flooding

## **VISIBILITY**

Describe stream visibility as:

- 1 - Can see bottom of riffles and pools
- 2 - Can see bottom of riffles
- 3 - Cannot see bottom of riffles or pools

## **FISH ACTIVITY**

Activity of the *Live* Fish in the Survey

- 13 Most fish spawned out
- 14 Most fish holding in pools (prior to spawning)
- 15 Most fish migrating through survey area
- 16 Most fish actively spawning (as demonstrated by courtship behavior, excavation of redds, competition for mates, and guarding of redds)

## **COMMENTS**

Use comment codes from the following list. There is room for two comments per survey. Prioritize comments on the Salmon Spawning Survey Form according to the priority of the categories listed below. If further comments would be useful, record the date and comment code on the reverse side of the Spawning Survey Evaluation Form.

### **COMMENT CODES**

#### **Marks and Tags (Priority I, Highest Priority)**

*\* This category must be represented in the comment section when appropriate \**

- 50 Adipose (CWT) fish observed
- 51 Adipose (CWT) fish observed, snout recovered
- 52 Live tagged fish observed
- 53 Dead tagged fish observed
- 54 Dead tagged fish observed, tag recovered
- 55 Fin clipped (other than adipose fin) fish observed

#### **Area Surveyed (Priority II, Mid Priority)**

- 01 Includes tributary to index
- 02 Holes not surveyed
- 03 Survey boundary description change
- 63 Partial count

#### **Factors Affecting Fish Abundance (Priority II, Mid Priority)**

- 40 Poaching
- 41 Predation / Scavenging
- 42 Stream low
- 43 Stream dry
- 44 Instream habitat improvement in or near index section
- 45 Habitat damage in or near survey section
- 46 Blockage below survey area

## **COMMENTS (continued)**

### **Viewing Conditions (Priority II, Mid Priority)**

- 20 Dark (pertains to the light source, not the water clarity)
- 21 Dark in pools (pertains to water quality, often tannins)
- 22 High glare
- 23 Partly frozen
- 24 Not surveyable (stream too high and/or turbid, counts will be disqualified)

### **Survey Timing (pertains to TARGET SPECIES) (Priority III, Lowest Priority)**

NOTE: These codes are used in cases where the stream segment is not surveyed over the course of the spawning season (typically due to extreme stream flows). They are an indication of whether the surveyor feels the peak run was sampled or the survey was ended too early or too late. These codes need only be used when two or more surveys during the season are separated by more than ten days.

- 10 Peak survey
- 11 Survey too early--before peak
- 12 Survey too late--after peak

### **Stream Conditions within the Survey Area (Priority III, Lowest Priority)**

- 31 Impassable log jam
- 32 Passable log jam
- 33 Impassable beaver dam
- 34 Passable beaver dam
- 35 Impassable culvert
- 36 Evidence of scouring of stream bed
- 37 Severe stream bank erosion
- 38 Passable culvert

### **Miscellaneous (Priority III, Lowest Priority)**

- 60 Most carcasses washed out
- 61 Heavy silt deposition in stream bed.
- 62 Count in holes estimated
- 64 Exposed redds due to low flow
- 65 Redds obliterated due to high flow
- 66 Actual number probably substantially higher than observed
- 67 No new spawning fish observed



# COHO SALMON SPAWNING SURVEY EVALUATION FORM

<b>SURVEY #</b>		<b>SEGMENT #</b>		<b>SURVEY NAME</b>	
-----------------	--	------------------	--	--------------------	--

<b>ID # OF SURVEYOR COMPLETING FORM</b>	
---	--

**PROBLEMS WITH SURVEYING THIS STREAM SEGMENT:**

---



---



---



---

**BARRIERS TO UPSTREAM MIGRATION:**

APPROX. LOCATION (0.1 MILE)	NATURE OF BARRIER	DID IT BECOME PASSABLE? WHEN (DATE)?	WERE SALMON OBSERVED UPSTREAM FROM IT

**ESTIMATES OF SPAWNING GRAVEL QUANTITY:**

SURVEYOR ID	DATE	SPAWNING GRAVEL (M <sup>2</sup> )

**DISTRIBUTION OF SPAWNING GRAVEL (% OF TOTAL):**

DOWN- STREAM BOUNDARY	LOCATION WITHIN SURVEY SEGMENT				UP- STREAM BOUNDARY
	START TO 1/4	1/4 TO 1/2	1/2 TO 3/4	3/4 TO END	

**DISTRIBUTION OF SPAWNING FISH (% OF TOTAL):**

DOWN- STREAM BOUNDARY	LOCATION WITHIN SURVEY SEGMENT				UP- STREAM BOUNDARY
	START TO 1/4	1/4 TO 1/2	1/2 TO 3/4	3/4 TO END	

DISTRIBUTION BASED ON:    FISH    REDDS    (CIRCLE ONE)

**GENERAL COMMENTS AND ADDITIONAL CODED COMMENTS (USE REVERSE SIDE):**

**INSTRUCTIONS FOR COMPLETING  
COHO SALMON SPAWNING SURVEY EVALUATION FORM**

This form is used to evaluate the spawning habitat for coho salmon in a given survey segment. It is also used to note any factors that may influence our ability to obtain accurate estimates of spawner abundance in the survey segment. One form is to be completed for each coho survey segment at or near the end of the spawning season. This form should be completed by the surveyor who most often conducted the survey that is being evaluated. Use input from other surveyors as needed,

**SURVEY #**

Enter 7 digit survey identification code (e.g. 12345.67).

**SEGMENT #**

Enter 1 digit segment identification code

**SURVEY NAME**

Enter name of survey (e.g. Salmon Creek).

**SURVEYOR ID**

Enter the 2 digit surveyor identification code of the surveyor who is completing the form.

**PROBLEMS WITH SURVEYING THIS STREAM SEGMENT**

List any major problems that prevented the survey from being made or caused the survey to be difficult (road conditions, extended high stream flows and/or turbidity, problems with access through private land, etc.). Identify any factors related to the condition of the survey segment that may have hindered your ability to make accurate counts of salmon (water clarity, structure in the stream channel, viewing conditions, etc.).

**BARRIERS TO UPSTREAM MIGRATION**

List up to three potential barriers to upstream migration occurring within the survey segment during the course of the spawning season. Barriers are best identified by the presence of salmon immediately downstream from an obstacle but not upstream of the obstacle. Record the approximate location of the barrier from the survey starting point (nearest 0.1 miles from the start), nature of the barrier (i.e. beaver dam, culvert, log jam, waterfall, etc.), and the date when the barrier became passable (date when fish were first observed upstream from the barrier or when high flows removed the barrier). If you feel the barrier prevented fish passage for the

## **BARRIERS TO UPSTREAM MIGRATION (continued)**

entire season, note as such. Wait until the first freshet (high water) has occurred before identifying barriers. If the endpoint of the survey is a barrier, mention that too.

## **ESTIMATES OF SPAWNING GRAVEL QUANTITY**

Record three estimates of the quantity of coho salmon spawning gravel in the survey segment (See page 21 for method of gravel measurement). Measurements should be spaced throughout the survey season and should begin after the first freshet (high water event) has occurred. It should be possible to estimate the quantity of spawning gravel while doing the survey without spending a lot of extra time. If hand tally counters are available, they may be helpful.

## **DISTRIBUTION OF SPAWNING GRAVEL**

Record the distribution of spawning gravel among the four quarters of the survey segment to the nearest 5% of the total. Base distribution on all three estimates of spawning gravel quantity.

## **DISTRIBUTION OF SPAWNING FISH**

Record the distribution of spawning coho salmon among the four quarters of the survey segment to the nearest 5% of the total. If no fish are observed, use redds. Base the estimate on the distribution of all spawners observed over the spawning season.

## **GENERAL COMMENTS**

Use the reverse side of the form to record observations that will help you complete this form. List any comments that may help us in interpreting your responses, and list any other noteworthy features of the survey segment. Some possible questions to consider include: What are your impressions of the habitat? Did the habitat significantly change during the season, and if so, how? Are spawning habitat improvement structures present, and are they functioning to improve spawning habitat? If no coho were seen, do you have any idea why? Were there any tributaries within the segment in which coho were seen? Were the names, addresses, and/or phone numbers of landowners mentioned in the description correct? Was this survey unusual compared to other surveys you have done? Attach additional sheets as necessary.

In many cases you will see certain sections of a stream more than any other person. You may end up learning things about a stream that no one else knows. If you feel that you have information that would either increase the quality of our data, correct possible errors in our stream database, or increase our understanding of a certain stream, this form is where that information should go.

# COHO SPAWNING HABITAT

## DESCRIPTION

Suitable spawning sites for coho salmon are characterized by gravel size, water depth, and water velocity. Optimal sites for redds are located at the tail end of pools or the head end of riffles (tail-outs), however other habitat types such as glides or side channels may also be used. Tail-outs appear to be preferred because they offer (1) large uniform gravel deposits, (2) a gradient of water depth and velocity, allowing options for redd construction over varying stream flow, (3) good inter-gravel flow through downwelling of stream flow and (4) protection from gravel scouring during freshets. Following is a listing of the physical parameters of optimal redd sites of coho salmon in Oregon coastal streams:

### **Habitat Unit Type**

- Tail-out of pool
- Glide

### **Gravel Size**

- < 15 cm (6 in ) in diameter
- > 2 cm (0.5 in) in diameter
- Prefer mean diameter of 9 cm (3-4 in)
- < 50 % of gravel area intermixed with fines (mud, silt, sand) or with larger rock (cobble, boulder)

### **Volume of Gravel Patch**

- $\geq 20$  cm (8 in) depth of deposit (thickness)
- $\geq 1$  M<sup>2</sup> ( 9 ft<sup>2</sup>) surface area of deposit

### **Water Depth Over Gravel**

- < 62 cm (24 in)
- > 4 cm (2 in)
- Prefer mean of 18 cm (7 in)



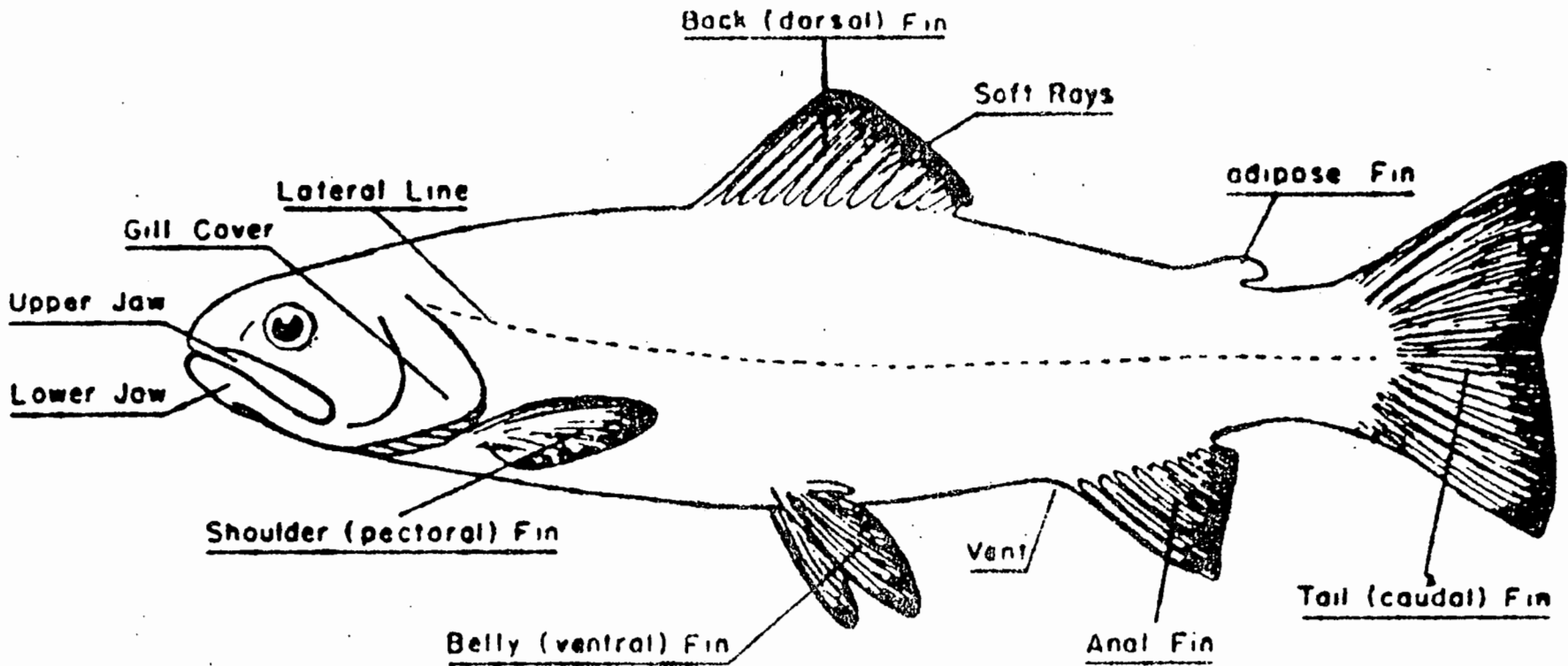
## **Method of Estimation of Coho Spawning Habitat During Spawning Season**

The availability of spawning sites (quantity of spawning gravel) can be estimated during spawning surveys by quantifying the occurrence of suitable gravel deposits within the stream channel under baseline winter flow conditions. If spawning is observed in habitat other than optimal habitat, record those observations in the Spawning Survey Evaluation Form.

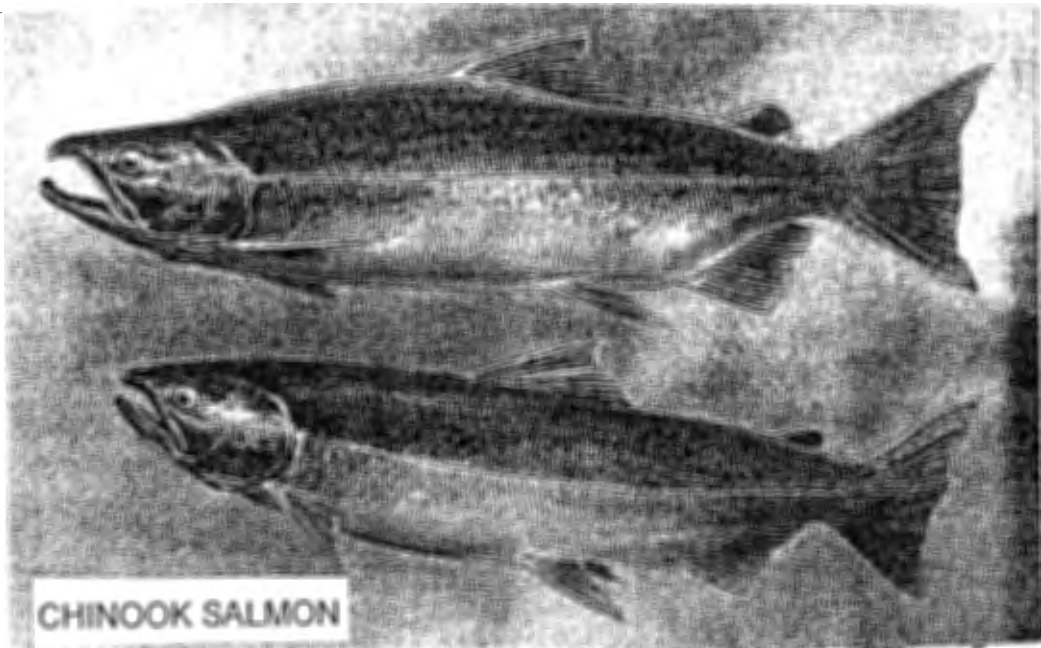
Follow this procedure when conducting spawning gravel estimates:

Within the wetted channel width under *low* or *moderate* flows, count each 2 M<sup>2</sup> patch of gravel that is between 4 cm (ankle height) and 62 cm (knee height) below the surface of the water. Gravel size can range from that of a marble to that of a grapefruit, but should average about the size of a baseball. No more than 50% of a patch should consist of fines (sand, silt, mud) or large rock (cobble over 6 inches in diameter or boulders). Do not count thin layers of gravel over silt or bedrock; you should be able to bury your foot in the gravel.

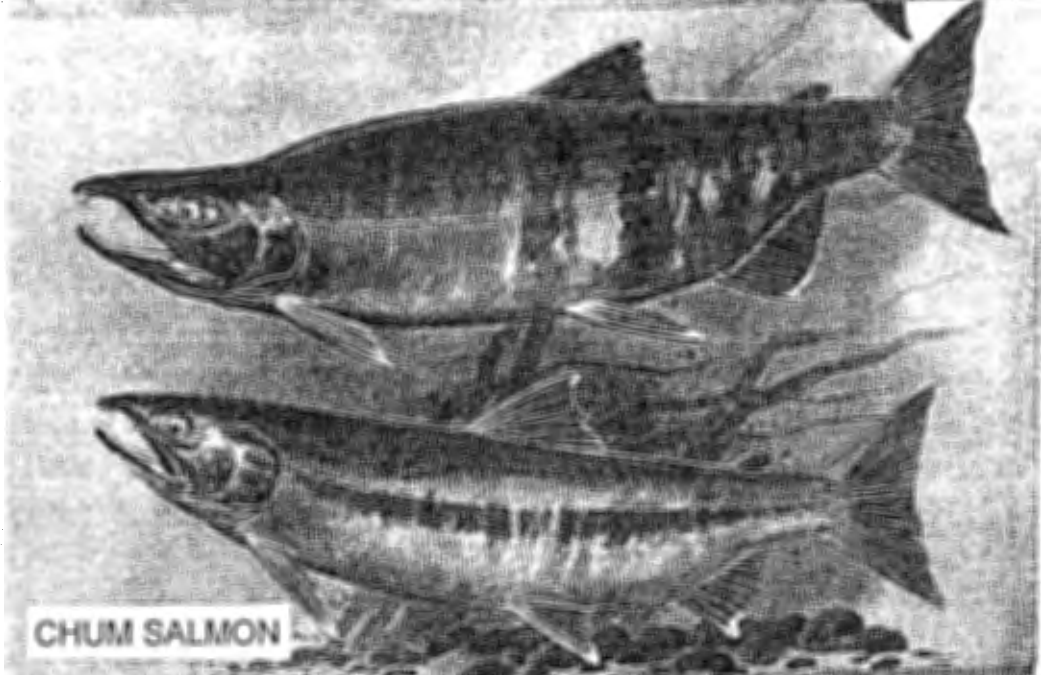
Gravel deposits larger than 2 M<sup>2</sup> are counted by estimating their area to the nearest M<sup>2</sup> and adding this value to your tally. Gravel patches should be relatively level, located in the tail-out of a pool or in a glide, and not piled up at a steep angle against the bank. If the water velocity over the gravel is excessively fast, the gravel will not likely be used. Make the first estimate after the first freshet, and make one estimate per stream per month starting in November.



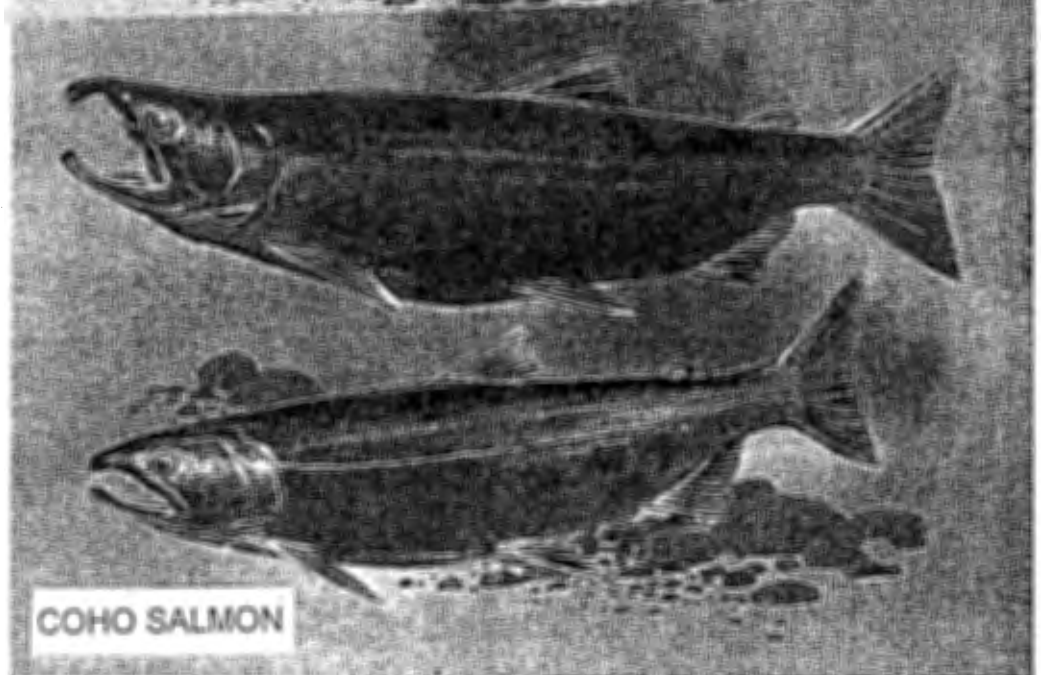
FIN NOMENCLATURE OF SALMON



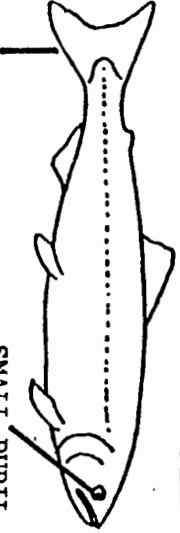
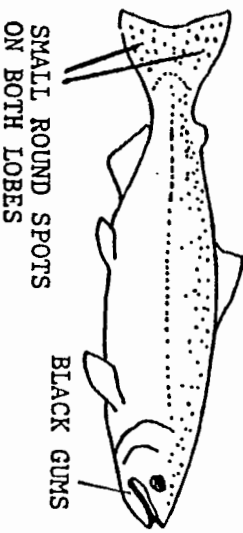
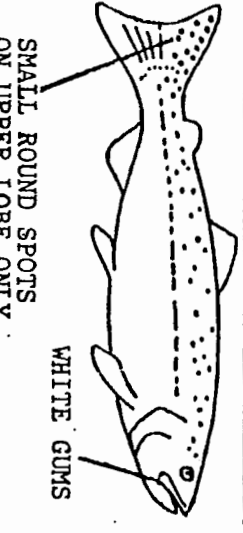
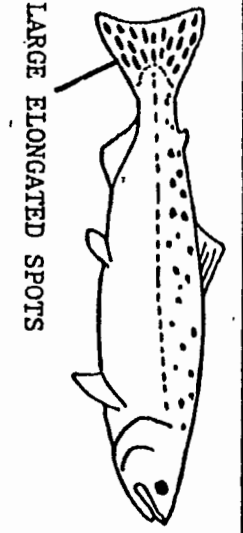
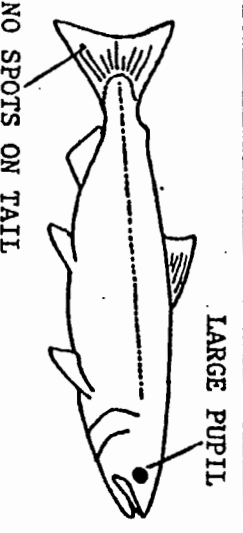
CHINOOK SALMON



CHUM SALMON



COHO SALMON

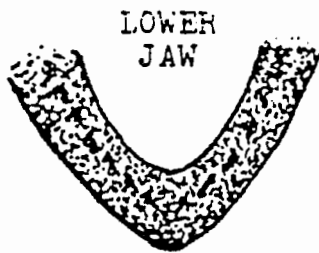
 <p>NO SPOTS ON TAIL</p> <p>SMALL PUPIL</p>	 <p>SMALL ROUND SPOTS ON BOTH LOBES</p> <p>BLACK GUMS</p>	 <p>SMALL ROUND SPOTS ON UPPER LOBE ONLY</p> <p>WHITE GUMS</p>	 <p>LARGE ELONGATED SPOTS</p>	 <p>NO SPOTS ON TAIL</p> <p>LARGE PUPIL</p>	<p>What it looks like when it is an adult.</p>
Sockeye (red)	King (chinook)	Silver (coho)	Pink (humpback)	Chum (dog)	Name of Salmon
Summer	Fall	Fall	Summer	Fall	When does it spawn?
<ul style="list-style-type: none"> <li>*blue tinged silver color</li> <li>*speckles on sides</li> <li>*turns bright red when spawning</li> </ul>	<ul style="list-style-type: none"> <li>*blue-green back</li> <li>*spots on both sides of tail and back</li> </ul>	<ul style="list-style-type: none"> <li>*bright silver</li> <li>*spots on top of body and top of tail fin</li> <li>*teeth are needle sharp</li> </ul>	<ul style="list-style-type: none"> <li>*heavily spotted back</li> <li>*hump behind the head</li> </ul>	<ul style="list-style-type: none"> <li>*fine dark speckles on back</li> <li>*no spots</li> <li>*dark side markings</li> <li>*large teeth at spawning</li> </ul>	<p>What does it look like</p>
5 to 7 lbs.	10 to 50 lbs.	6 to 16 lbs.	3 to 5 lbs.	8 to 18 lbs.	How much does it weigh?
dark red	orangish-pink	dark pink	light pink to white	pink	What color of "flesh" to look for at the grocery store
3 to 7 years	5 to 7 years	2 to 4 years	2 years	3 to 5 years	How long it lives



DRE. SALMON  
TAG CODE NO.

### 1. CHINOOK (KING)

TAIL RAYS SMOOTH

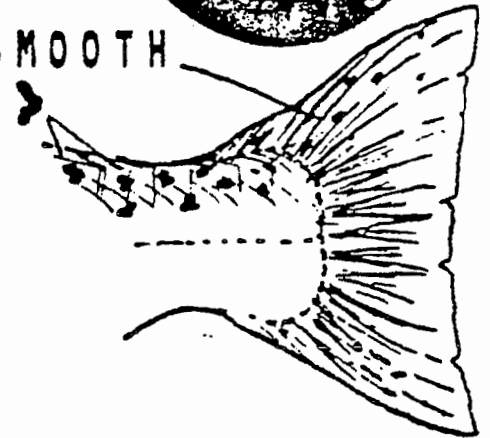


LOWER  
JAW

LARGE UNEVEN SPOTS ON BACK

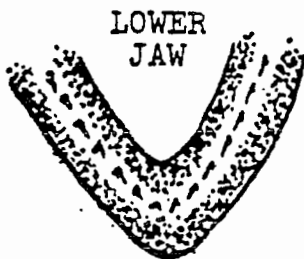
COLOR ON BACK REFLECTS PURPLE  
IN SUNLIGHT

GUMS AT BASE  
OF TEETH BLACK



### 2. COHO (SILVER)

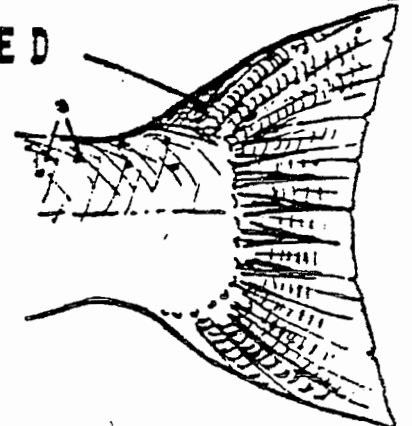
TAIL RAYS RIBBED



LOWER  
JAW

SMALL ROUND SPOTS ON BACK

SCALES COME OFF EASILY WHEN HANDLED  
COLOR BLUE TO GREEN ON BACK



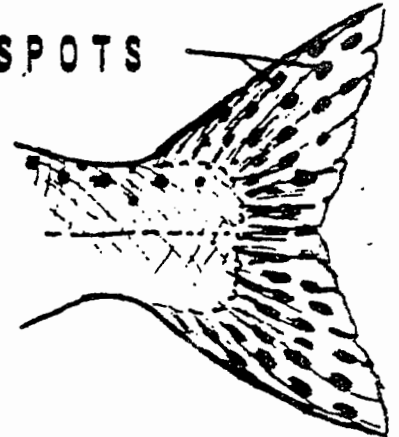
GUMS AT BASE  
OF TEETH WHITE OTHER PART OF JAW DARK

### 3. PINK (HUMPIE)

LARGE ROUND SPOTS  
ON DEEP FORKED TAIL

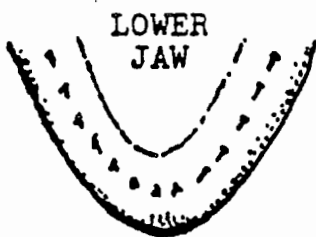


VERY SMALL FINE SCALES  
PINKS SHOULD BE CLEANED & ICED AS SOON  
AS POSSIBLE TO PREVENT FLESH FROM GOING SOFT



### 4. STEELHEAD

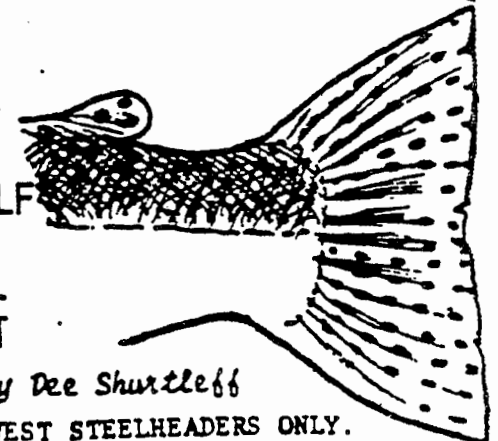
COLOR STEEL BLUE ON UPPER  
HALF & BACK  
PURE SILVER WHITE ON LOWER HALF



LOWER  
JAW

MOUTH & JAW  
ALL WHITE

SQUARE TAIL WITH SMALL  
UNIFORM SPOTS THRU-OUT



*Drawings by Dee Shurtleff*

REPRODUCTION BY PERMISSION OF THE CHETCO CHAPTER, NORTHWEST STEELHEADERS ONLY.

## CWT and Fin-mark Recoveries from Spawning Fish Surveys

### Instructions

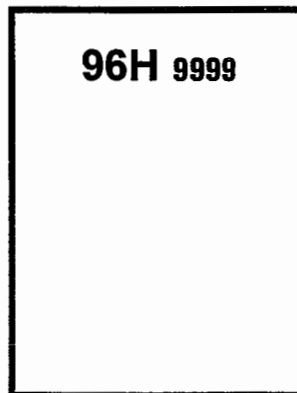
Recoveries of Coded-wire tags (CWT) and fin marks from salmon encountered on spawning fish surveys are used to assess straying of hatchery salmon to natural spawning areas. CWTs are uniquely marked minute pieces of wire that are inserted into the fleshy part of a salmon snout prior to being released from hatcheries. These tags are the primary means of uniquely identifying groups of salmon released from hatcheries. Roughly 9% of the salmon from Oregon's hatcheries receive CWTs prior to being released. CWT salmon are recognized by the absence of their adipose fin that is cut off at the time of tagging. CWT recoveries are decoded by removing the snout from adipose-clipped fish and sending the snout to the CWT processing lab for dissection and reading. In addition to CWTs, other fin marks are sometimes used to identify hatchery salmon. The occurrence of these fin marks are also recorded from salmon carcasses recovered on spawning surveys. The following procedures are used to sample CWT and other fin marked salmon and record recovery data:

1. Staple five ID labels in the spawning survey field notebook. When a marked fish is found, surveyors should write the following information in their field notebook: (1) *date*, (2) *stream name*, (3) *species*, (4) *sex*, and (5) *mid-eye to posterior scale (MEPS) length*. *In the field notebook, the ID number should be written down that corresponds with this information.* It is not essential to write the information on the ID label since the mark recovery form will be the primary source of information about mark recoveries. However, it might be a good idea to write the information on the ID label to minimize the possibility of losing the data.
2. *If the fish was adipose-clipped, remove the snout and place it and the ID label in a plastic snout-bag.* If a fish is found with a mark other than an adipose-clip, it should be given an ID number. After giving the fish an I. D. number, discard the I. D. label so as to insure that its I. D. number will not be reused. Number codes for fin marks are shown on the right margin of the mark recovery form.
3. When surveyors return to their field station, the mark information needs to be transferred from the field notebook to the mark recovery form. Note that an 11 digit code is used to identify survey locations (i.e. 25/1/26134.00/2). Also note that MEPS length is recorded in millimeters, and codes at right of form are used as data entries for the species, fin mark(s), and sex fields.
5. At the end of the season, snouts will be picked up from the district offices and transported to Clackamas for processing. Attach a label to the container of snouts that shows (1) *the district of origin*, (2) *the year*, and (3) *a statement that they were recovered on spawning fish surveys.*
6. Send the mark recovery summary forms to Cedric Cooney in Corvallis at the end of the spawning season.

## 1996 SNOUT ID LABELS

<b>NUMBER SERIES</b>	<b>DISTRICT OR STATION</b>
96H 8001-8100	SEASIDE
96H 8101-8200	JEWELL
96H 8201-8400	TILLAMOOK
96H 8401-8500	SALMON RIVER INDICATOR STOCK
96H 8501-8600	CORVALLIS
96H 8601-8700	LINCOLN
96H 8701-8800	SIUSLAW
96H 8801-8900	UMPQUA
96H 8901-9000	COOS-COQUILLE-TENMILE
96H 9001-9100	SOUTH COAST
96H 9101-9200	ELK AND SIXES RIVERS SURVEYS
96H 9201-9300	UPPER ROGUE
96H 9301-9400	CHETCO PROJECT
96H 9401-9500	UNASSIGNED

EXAMPLE OF SNOUT ID LABEL  
(actual size)



# CODED-WIRE TAG AND FIN-MARK RECOVERIES FROM SPAWNING GROUND SURVEYS



NO.	ID NUMBER ON SNOUT LABEL (eg. 96H1407)	FISH- ERY	SURVEY CODE BASIN/SUBBASIN/ SURVEY/SEGMENT (eg. 39/3/24318.00/2)	DATE MM/DD/YY (eg. 01/05/97)	SPECIES CODE	MEPS LENGTH (MM)	FIN MARK CODE	SEX CODE	SNOUT TAKEN NO=0 YES=1	SURVEY NAME
1		18								
2		18								
3		18								
4		18								
5		18								
6		18								
7		18								
8		18								
9		18								
10		18								
11		18								
12		18								
13		18								
14		18								
15		18								
16		18								
17		18								
18		18								
19		18								
20		18								
21		18								
22		18								
23		18								
24		18								
25		18								

**CODES:**

SPECIES

- 1=CHINOOK
- 2=COHO
- 3=STEELHEAD
- 5=CHUM
- 0=UNKNOWN

FIN MARKS

- 1=DORSAL
- 2=ADIPOSE
- 3=ANAL
- 4=LEFT VENTRAL
- 5=RIGHT VENTRAL
- 6=LEFT PECTORAL
- 7=RIGHT PECTORAL
- 8=LEFT MAXILLARY
- 9=RIGHT MAXILLARY

SEX

- 0=UNKNOWN
- 1=MALE
- 2=FEMALE



## SCALE SAMPLING INSTRUCTIONS

### Coho Salmon

1. Sample scales from all carcasses found.
2. Record MEPS length in millimeters.
3. Record survey number and segment number under *locality* on scale envelope.
4. If sampling scales from ~~an~~ adipose-clipped fish record snout ID number on scale envelope. *any*
5. Cut-off tail from all fish that are scale sampled to avoid re-sampling.
6. Sample scales from outside the key area only if there are no scales in the key area on either side of the fish and only if the scales are taken from above the lateral line and less than two inches (five centimeters) outside the key area. Be sure to indicate that the scales are from outside the key area (Comment Code C).

### Chinook Salmon

1. Need random collection of 500 scale samples from the six following index basins:
  - Nehalem
  - Wilson
  - Siletz
  - Siuslaw
  - Coquille
  - Chetco
2. Consult District Biologist to find out if any additional chinook scale samples need to be taken in your district.
3. Sample scales from all snout-sampled fish.
4. Follow instructions 2-6 under coho.

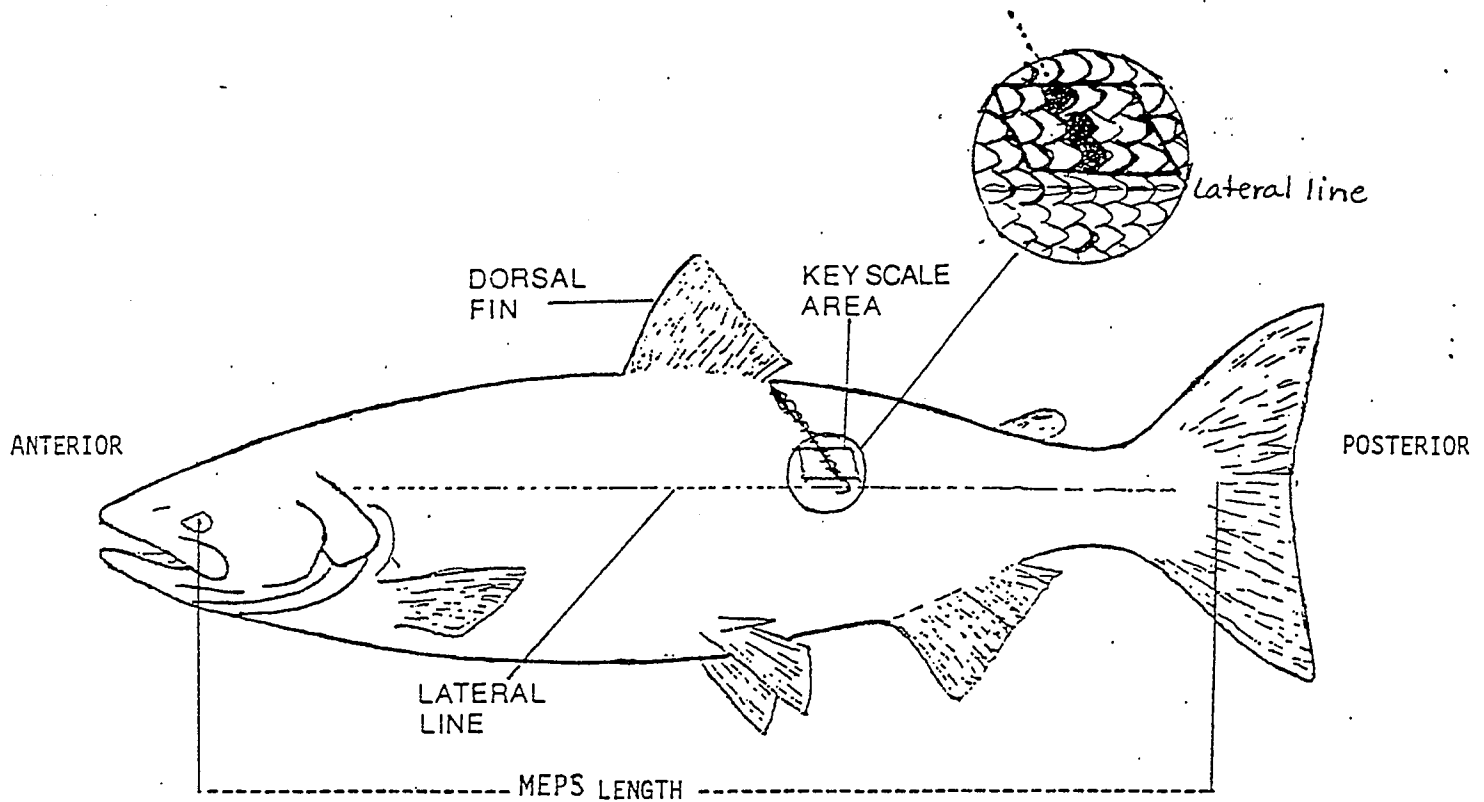
### Chum Salmon

1. Need random collection of 250 scale samples from Tillamook Basin.
2. Follow instructions 2-6 under coho.

## SCALE SAMPLING PROCEDURES

This procedure should be followed when sampling scales from any salmon or steelhead.

1. Locate key area by following the diagonal row of scales down and back from the posterior insertion of the dorsal fin to the first 3 scales above, but not including the lateral line. One to two scales in front of (anterior) and behind (posterior) these three scales are within the key area (see figure).
2. With forceps, pluck 4 - 5 scales from this area and place between the paper insert in the envelope. Be very careful that scales are from key area.
3. Turn fish over and repeat procedure on the other side of the fish, placing scales in the same envelope.
4. Write any pertinent information regarding that fish on the envelope.
5. If scales are absent from the key area on one side of the fish, sample from the key area on the other side of the fish. If scales are absent in the key area of both sides of the fish, substitute scales from up to two inches (five centimeters) outside the key area but above the lateral line.



## GENERAL SURVEY INSTRUCTIONS

1. Examine all carcasses for fin clips and tags, and remove snouts from all adipose clipped fish.
2. Leave dead fish where they are found.
3. Only count carcasses with intact skeleton (skull through caudal peduncle, although the tail may be severed if a scale sample was taken previously).
4. Use polarized sun glasses. Amber tinted glass lenses are best. Saliva or spray-on defogger may help reduce condensation on the glasses.
5. Walk all stream channels (side channels, backwater pools, etc.).
6. Keep the direction of the survey constant.
7. Wait until the end or termination of the survey to classify weather, flow and visibility for each survey area. *Comments should reflect the conditions of a majority of the survey.*
8. Ensure that each survey description is clear and accurate, and that survey starting and ending markers are intact. If necessary, revise the survey description using the Spawning Fish Survey Description Form and replace the markers.
9. If the mileage of a survey area is revised or changed, submit a new Spawning Fish Survey Description Form.
10. Count all species of salmon and steelhead seen in each survey area regardless of the target species of that survey area.
11. If live fish of the **target species** are observed during any visit to a survey area, note whether most are: (1) holding in pools, (2) migrating through survey area, (3) actively spawning, or (4) spawned out. Use comments 13-16 to record this on the Spawning Fish Survey Form. These data are mandatory anytime live fish of the target species are observed.
12. For survey areas where Area-Under-the-Curve (AUC) estimates are made (all standard surveys and any coho surveys), intervals between successive counts cannot exceed **10 days** from the date when the first visit is made. Surveys made under **water visibility rating 3**, or surveys having the comment **not surveyable** are not counted when calculating this interval. Standard surveys have a higher priority than all other types of surveys.
13. Record survey data in the Spawning Fish Survey Field Book and transfer the data to the Spawning Fish Survey Form **as soon as possible**. *Carefully* read the instructions for completing the form at the beginning of and throughout the season.
14. Send copies of all survey data collected during each semi-monthly period (on the 1<sup>st</sup> and 15<sup>th</sup> of each month) to the Marine Regional Office in Newport in care of Donna Lamb.

## PUBLIC RELATIONS AND SAFETY

When you are conducting surveys, you are personally representing the Oregon Department of Fish and Wildlife to landowners, anglers, and the general public. In order to insure continuing public cooperation with our efforts, it is essential that we maintain a positive image and relationship with the public.

If a landowner challenges your right to conduct surveys on their land, explain your understanding that permission was obtained during the summer, apologize for the misunderstanding, and request permission to continue the survey. *Under no circumstances* conduct a survey if the landowner denies you permission. If someone other than a landowner challenges your right to conduct a survey, explain your understanding that permission was obtained during the summer, and tell them that you will seek confirmation of permission through your supervisor. *Under no circumstances* conduct a survey if you feel that it is unsafe to do so.

Always treat members of the public with respect. It is not uncommon to encounter a person who has complaints about ODFW or other fish and wildlife management issues. If you encounter an angry person, end the encounter if you feel unsafe. Otherwise, repeating or paraphrasing back what the person says will help you gain that person's trust by letting them know that you hear and understand what they are saying. Find a point of agreement and end the conversation. Avoid prolonged discussions: your time and skills as a surveyor are valuable.

Respect traffic, especially on logging roads. Generally, emergency vehicles, low boys, log trucks, and pick-ups have the right-of-way in that order. ***Use your CB radio when you are on industrial forest roads!*** An example of how you might use your CB to warn unseen vehicles of your approach is "Milepost 17 up the Eighty-one Fifty-five Road". You cannot count on other vehicles using their CBs.

Respect your limits when conducting a survey. Don't push your luck when crossing strong streams, slick rocks or bedrock, and slick, unstable, or rotten logs. Keep all of your senses aware at all times (that bear needs that salmon more than we need the data).

***We Would Rather Lose A Survey Than A Surveyor***


***KEEP SAFETY IN THE FOREFRONT OF YOUR MIND***

***AT ALL TIMES***

# ODFW MILEAGE REPORT

1. RECORD FROM THE FIRST OF THE MONTH TO THE LAST DAY OF THE MONTH.
2. AT THE END OF THE MONTH, DIRECT THE WHITE COPY TO PORTLAND,  
THE YELLOW COPY TO CORVALLIS, AND LEAVE THE PINK COPY IN THE BOOK.

## EQUIPMENT MILEAGE AND USE REPORT

	FOR MONTH OF	ODOMETER/HOURMETER READING END OF PREV. MONTH	LOCATION				LICENSE/ EQUIPMENT NUMBER			
	OCT 19 93	13887	Newport				E987654			
Date	Odometer Hourmeter	Miles/ Hours	Driver Name	From	To	DV	PG	AC	UN	Project Number
18	13987	100	Cooney	Corvallis	Newport	12	34	56	78	123456
21	14087	100	Jacobs	Newport	ALSEA	09	87	65	43	210123

REVERSE SIDE

## FUEL REPORT

DATE	ODOMETER	GALLONS	GAS	DIESEL	OTHER SERVICE
18	13,980	14.2	X		OIL CHECKED - OK
20	14,050	2.5	X		ADD 1 QT. OIL

## PHONE LISTING

<u>NAME</u>	<u>TITLE</u>	<u>NUMBER</u>
	District Biologist	
	Asst. District Biologist	
Steve Jacobs	OCN Inventory Project Leader	(541) 737-7636
Cedric Cooney	OCN Inventory Asst. Project Leader	(541) 737-7638
Donna Lamb	Data Assistant	(541) 867-4741
Lisa Borgerson	Scale Reading Project Leader	(541) 737-7630
Howard Crombie	Crew Chief for North Coast and Tillamook Districts	(503) _____
Brian Riggers	Crew Chief for Umpqua, Coos-Coquille- Tenmile, and South Coast Districts	(541) 756-4129
Todd Kemp	Crew Chief for the Upper Rogue District Local O.S.P. Game Warden	(541) _____



**STANDARD SPAWNING SURVEYS FOR FALL CHINOOK SALMON IN OREGON COASTAL RIVER BASINS FOR THE 1996-97 SURVEY SEASON.**

RIVER BASIN OR SUBBASIN	STREAM SEGMENT	MILES	
<b>NORTH COAST FISHERY MANAGEMENT DISTRICT</b>			
NEHALEM: MAINSTEM	COOK CREEK	1.0	
	CRONIN CREEK	1.0	
	HUMBUG CREEK	1.0	
	EAST HUMBUG CREEK	1.0	
	NORTH FORK	SOAPSTONE CREEK	0.7
SALMONBERRY R.	SALMONBERRY RIVER	0.5	
	<b>TILLAMOOK FISHERY MANAGEMENT DISTRICT</b>		
KILCHIS	CLEAR CREEK	0.6	
	LITTLE SOUTH FORK, KILCHIS RIVER	1.0	
WILSON	LITTLE NORTH FORK, WILSON RIVER	0.5	
	CEDAR CREEK	2.8	
TILLAMOOK	TILLAMOOK RIVER	1.8	
	SIMMONS CREEK	0.6	
NESTUCCA	CLEAR CREEK	0.8	
	LOWER MOON CREEK	<b>ACCESS DENIED</b>	0.5
	NIAGARA CREEK	0.4	
<b>LINCOLN FISHERY MANAGEMENT DISTRICT</b>			
SILETZ: MAINSTEM	CEDAR CREEK	1.6	
	EUCHRE CREEK	1.0	
	SUNSHINE CREEK	1.2	
	ROCK CREEK	BIG ROCK CREEK	0.9
	YAQUINA	UPPER YAQUINA RIVER	2.0
GRANT CREEK		<b>ACCESS DENIED</b>	1.7
SALMON CREEK		0.6	
ALSEA:	LOWER DRIFT CREEK	1.5	
	FIVE RIVERS	LOWER LOBSTER CREEK	2.2
		BUCK CREEK	1.0
	NORTH FORK	NORTH FORK ALSEA RIVER	1.5
<b>SIUSLAW FISHERY MANAGEMENT DISTRICT</b>			
SIUSLAW: MAINSTEM	SWEET CREEK	0.5	
	LOWER WHITTAKER CREEK	0.3	
	UPPER WHITTAKER CREEK	0.4	
	ESMOND CREEK	1.0	



**STANDARD FALL CHINOOK SURVEYS CONTINUED.**

RIVER BASIN OR SUBBASIN	STREAM SEGMENT	MILES
<b>SIUSLAW FISHERY MANAGEMENT DISTRICT (CONTINUED)</b>		
SIUSLAW (CONTINUED):		
NORTH FORK	NORTH FORK SIUSLAW RIVER	0.8
LAKE CREEK	WEST FORK INDIAN CREEK	1.2
	ROGERS CREEK	1.3
	LAKE CREEK	0.8
<b>COOS-COQUILLE FISHERY MANAGEMENT DISTRICT</b>		
COOS:		
MILLICOMA RIVER	WEST FORK MILLICOMA RIVER	0.5
	EAST FORK MILLICOMA RIVER	0.5
SOUTH FORK	SOUTH FORK COOS RIVER	1.0
	WILLIAMS RIVER A	1.0
COQUILLE:		
NORTH FORK	NORTH FORK COQUILLE R. (UPPER-A)	1.0
	MIDDLE CREEK D	2.0
EAST FORK	LOWER EAST FORK COQUILLE RIVER	1.0
	EAST FORK COQUILLE R. (ABOVE DORA)	0.3
MIDDLE FORK	MIDDLE FORK COQUILLE RIVER	0.5
	ROCK CREEK (LOWER A)	0.5
SOUTH FORK	SOUTH FORK "C" COQUILLE RIVER	1.0
	LOWER SALMON CREEK	0.8
<b>SOUTH COAST FISHERY MANAGEMENT DISTRICT</b>		
FLORAS CREEK	UPPER FLORAS CREEK	0.5
SIXES RIVER	LOWER DRY CREEK	1.7
	UPPER DRY CREEK	1.7
EUCHRE CREEK	UPPER EUCHRE CREEK	1.0
LOWER ROGUE RIVER	JIM HUNT CREEK	0.8
	UPPER LOBSTER CREEK	1.0
HUNTER CREEK	UPPER HUNTER CREEK	1.0
PISTOL RIVER	DEEP CREEK	0.4
CHETCO RIVER	BIG EMILY CREEK	1.0
WINCHUCK RIVER	BEAR CREEK	0.8

**STANDARD SPAWNING SURVEYS FOR COHO SALMON IN OREGON COASTAL RIVER BASINS FOR THE 1996-97 SURVEY SEASON.**

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RIVER BASIN OR SUBBASIN	STREAM SEGMENT	MILES
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**NORTH COAST FISHERY MANAGEMENT DISTRICT**

NECANICUM	UPPER NECANICUM RIVER	1.5
ELK CREEK	WEST FORK	0.5
NEHALEM	NORTH FORK CRONIN CREEK	0.5
	WEST HUMBUG CREEK	1.0
	HAMILTON CREEK	1.1
	OAK RANCH CREEK	1.6
	NORTH FORK WOLF CREEK	1.4

**TILLAMOOK FISHERY MANAGEMENT DISTRICT**

KILCHIS	SAM DOWNS CREEK	1.0
WILSON	CEDAR CREEK	2.8
	UPPER DEVIL'S LAKE FORK	0.7
TILLAMOOK	SIMMONS CREEK	0.6
NESTUCCA	CLEAR CREEK	0.8
	BEAR CREEK	0.8
LITTLE NESTUCCA	BEAR CREEK	0.8

**LINCOLN FISHERY MANAGEMENT DISTRICT**

SILETZ	GRAVEL CREEK	1.0
	FOURTH OF JULY CREEK	0.8
YAQUINA	UPPER YAQUINA RIVER	2.0
	SALMON CREEK	0.6
BEAVER CREEK	NORTH FORK BEAVER CREEK	1.0
ALSEA:		
DRIFT CREEK	HORSE CREEK	1.0
	NETTLE CREEK	0.8
FIVE RIVERS	LOBSTER CREEK	1.3
	CHERRY CREEK	0.76
	WILSON CREEK	1.3

**SIUSLAW FISHERY MANAGEMENT DISTRICT**

YACHATS	WILLIAMSON CREEK	1.3
	SCHOOL FORK	0.7
SIUSLAW:		
MAINSTEM	DOGWOOD CREEK	1.0
	DOE CREEK	0.5
NORTH FORK	BILLIE CREEK	1.35

**STANDARD COHO SURVEYS CONTINUED.**

RIVER BASIN OR SUBBASIN	STREAM SEGMENT	MILES
<b>SIUSLAW FISHERY MANAGEMENT DISTRICT (CONTINUED)</b>		
SIUSLAW (CONTINUED):		
LAKE CREEK	ROGERS CREEK	1.3
	MISERY CREEK	0.8
	NORTH FORK PANTHER CREEK	0.8
<b>UMPQUA FISHERY MANAGEMENT DISTRICT</b>		
UMPQUA:		
MAINSTEM	SCHOFIELD CREEK	1.36
	DEAN CREEK	1.1
SMITH RIVER	BUCK CREEK	1.75
	BEAVER CREEK	1.5
	LITTLE SOUTH FORK	1.0
SOUTH UMPQUA RIVER	NORTH MYRTLE CREEK	1.0
	QUINES CREEK	1.0
<b>COOS-COQUILLE FISHERY MANAGEMENT DISTRICT</b>		
COOS BAY:		
MAINSTEM	LARSON CREEK	1.3
MILLICOMA RIVER	MARLOW CREEK	0.62
SOUTH FORK COOS R.	DANIELS CREEK	0.8
COQUILLE RIVER:		
NORTH FORK	NORTH FORK COQUILLE R. (UPPER A)	1.0
	<i>CHERRY CREEK A ACCESS DENIED</i>	1.8
	ALDER CREEK	1.0
EAST FORK	STEEL CREEK	0.8
MIDDLE FORK	SLATER CREEK	0.5
SOUTH FORK	SALMON CREEK (UPPER)	2.0
	<b>CHECK FOR ACCESS</b>	

**LAKE SPAWNING SURVEYS FOR COHO SALMON IN OREGON COASTAL LAKE BASINS  
FOR THE 1996-97 SURVEY SEASON.**

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LAKE BASIN OR SUBBASIN	STREAM SEGMENT	MILES
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**SIUSLAW FISHERY MANAGEMENT DISTRICT**

SILTCOOS RIVER:		
MAPLE CREEK	MAPLE CREEK	0.8
	NORTH PRONG CREEK	0.5
	HENDERSON CREEK	0.3
FIDDLE CREEK	FIDDLE CREEK	1.5
	ALDER CREEK	1.0
TAHKENITCH CREEK		
FIVEMILE CREEK	FIVEMILE CREEK	0.8
LEITEL CREEK	LEITEL CREEK	0.8

**COOS-COQUILLE FISHERY MANAGEMENT DISTRICT**

TENMILE CREEK		
NORTH TENMILE LAKE	ALDER CREEK (STD UNIT)	0.5
	BIG CREEK (STD UNIT)	0.5
	MURPHY CREEK	1.1
	NOBLE CREEK (STD UNIT)	1.2
SOUTH TENMILE LAKE		
	ADAMS CREEK (MF STD UNIT)	0.8
	ROBERTS CREEK (STD UNIT NO 2)	1.8
	ADAMS CREEK (RF STD UNIT)	0.7
	HATCHERY CREEK (RIGHT FORK)	0.1
	JOHNSON CREEK (RF STD UNIT)	0.8
	HATCHERY CREEK (MAIN STEM)	0.5
	HATCHERY CREEK (LEFT FORK)	0.1

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**STANDARD SPAWNING SURVEYS FOR CHUM SALMON IN OREGON COASTAL RIVER BASINS FOR THE 1996-97 SURVEY SEASON.**

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RIVER BASIN OR SUBBASIN	STREAM SEGMENT	MILES
<b>TILLAMOOK FISHERY MANAGEMENT DISTRICT</b>		
MIAMI RIVER	MIAMI RIVER	0.5
	MOSS CREEK	0.5
	PROUTY CREEK	0.4
KILCHIS RIVER	KILCHIS RIVER	1.0
	COAL CREEK	0.5
	CLEAR CREEK	0.6
WILSON	LITTLE NORTH FORK, WILSON RIVER	0.5
NESTUCCA	CLEAR CREEK	0.8

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# NORTH COAST DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
NECANICUM RIVER	MAIN STEM	BERGSVIK CR	26242.00	1	1.14	1
NECANICUM RIVER	MAIN STEM	LITTLE HUMBUG CR	26232.00	2	1.16	2
NECANICUM RIVER	MAIN STEM	LITTLE HUMBUG CR	26232.00	1	0.45	3
ARCH CAPE CREEK	MAIN STEM	ARCH CAPE CR	26163.00	1	0.81	4
NECANICUM RIVER	MAIN STEM	BERGSVIK CR	26240.00	1	1.06	5
NECANICUM RIVER	MAIN STEM	JOE CR	26239.00	1	1.11	6
NECANICUM RIVER	SOUTH FORK	NECANICUM R, S FK	26222.00	1	1.26	7
NEHALEM RIVER	MAIN STEM	CROOKED CR	26081.00	3	1.06	8
NEHALEM RIVER	MAIN STEM	CROOKED CR	26081.00	2	1.20	10
NEHALEM RIVER	NORTH FORK	SWEET HOME CR	25876.00	3	0.48	11
NEHALEM RIVER	NORTH FORK	NEHALEM R, N. FK.	25881.00	3	0.64	12
NEHALEM RIVER	MAIN STEM	WOLF CR	26141.00	1	1.09	13
NEHALEM RIVER	MAIN STEM	BUSTER CR	26001.00	2	0.61	15
NEHALEM RIVER	NORTH FORK	SWEETHOME CR	25876.60	2	0.34	16
NEHALEM RIVER	MAIN STEM	BENEKE CR	26016.00	2	1.15	17
NEHALEM RIVER	MAIN STEM	NEHALEM R, E FK	26089.00	1	1.23	18
NEHALEM RIVER	MAIN STEM	DELL CR	26126.00	1	1.00	19
NEHALEM RIVER	NORTH FORK	GODS VALLEY CR	25872.00	1	1.00	20
NEHALEM RIVER	MAIN STEM	HUMBUG CR	25975.00	2	0.62	21
NEHALEM RIVER	ROCK CREEK	ROCK CR	26107.00	2	1.08	22
NEHALEM RIVER	MAIN STEM	NORTHROP CR	26033.50	2	1.29	23
NEHALEM RIVER	MAIN STEM	COAL CR	26124.00	2	1.21	24
NEHALEM RIVER	NORTH FORK	NEHALEM R, N FK	25879.00	1	1.25	25
NEHALEM RIVER	MAIN STEM	GEORGE CR	25993.00	1	0.43	27
NEHALEM RIVER	MAIN STEM	LOUSIGNONT CR	26147.70	5	0.36	28
NEHALEM RIVER	MAIN STEM	LOUSIGNONT CR	26145.00	1	1.19	29
NEHALEM RIVER	MAIN STEM	OAK RANCH CR	26075.00	1	1.01	30
NEHALEM RIVER	MAIN STEM	LOUSIGNONT CR	26147.70	2	1.33	31
NEHALEM RIVER	MAIN STEM	DEEP CR	26043.00	6	1.18	32
NEHALEM RIVER	NORTH FORK	COAL CR	25842.00	1	1.59	33
NEHALEM RIVER	NORTH FORK	NEHALEM R, N FK	25881.90	1	1.06	34
NEHALEM RIVER	MAIN STEM	CROOKED CR	26081.00	4	1.01	35
NEHALEM RIVER	MAIN STEM	DEER CR	26067.00	1	1.17	36
NEHALEM RIVER	MAIN STEM	COOK CR	26083.00	1	0.71	37
NEHALEM RIVER	NORTH FORK	NEHALEM R, LITTLE N FK	25880.00	1	1.04	38
NEHALEM RIVER	NORTH FORK	NEHALEM R, N FK	25879.00	2	0.59	39
NEHALEM RIVER	MAIN STEM	FOLEY CR, TRIB S	25893.80	1	0.56	40
NEHALEM RIVER	MAIN STEM	PEBBLE CR	26127.00	1	0.84	41

# TILLAMOOK DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
NESKOWIN CREEK	MAIN STEM	HAWK CR	25328.00	2	1.26	1
NESKOWIN CREEK	MAIN STEM	SLOAN CR	25343.00	1	0.33	2
SAND LAKE	MAIN STEM	SAND CR	25535.00	2	0.83	3
NESKOWIN CREEK	MAIN STEM	JIM CR	25339.00	1	0.51	4
NESTUCCA RIVER	BEAVER CREEK	E BEAVER CR	25447.00	1	0.11	5
NESTUCCA RIVER	MAIN STEM AND BAY	BEULAH CR	25486.00	1	1.01	6
NESTUCCA RIVER	BEAVER CREEK	E BEAVER CR	25451.00	1	1.30	7
NESTUCCA RIVER	BEAVER CREEK	E BEAVER CR	25451.00	3	0.32	8
NESTUCCA RIVER	LITTLE NESTUCCA	S. FK LITTLE NESTUCCA	25370.00	3	0.76	9
NESTUCCA RIVER	LITTLE NESTUCCA	SOURGRASS CR, TRIB A	25382.50	1	0.18	10
NESTUCCA RIVER	LITTLE NESTUCCA	SOURGRASS CR	25382.00	1	0.72	12
NESTUCCA RIVER	MAIN STEM AND BAY	MINA CR	25495.00	1	0.69	13
NESTUCCA RIVER	MAIN STEM AND BAY	EAST CR	25474.00	2	1.60	15
NESTUCCA RIVER	MAIN STEM AND BAY	BEULAH CR	25486.00	2	1.18	16
NESTUCCA RIVER	LITTLE NESTUCCA	LITTLE NESTUCCA R	25385.00	1	1.40	17
NESTUCCA RIVER	MAIN STEM AND BAY	HORN CR	25403.70	1	1.48	19
WILSON RIVER	NORTH FORK	WILSON R, N FK	25689.00	1	1.36	21
TRASK RIVER	SOUTH FORK	E FK OF S FK TRASK R	25606.70	1	1.30	22
TILLAMOOK RIVER	MAIN STEM	BEWLEY CR	25559.00	2	0.78	23
WILSON RIVER	MAIN STEM	JORDAN CR	25675.00	3	1.16	24
TILLAMOOK RIVER	MAIN STEM	BEWLEY CR	25559.00	3	0.97	26
TILLAMOOK RIVER	MAIN STEM	KILLAM CR	25561.00	2	1.06	27
TILLAMOOK RIVER	MAIN STEM	BEWLEY CR	25559.00	1	1.30	28
KILCHIS RIVER	MAIN STEM	FRENCH CR	25762.50	1	0.43	30
WILSON RIVER	MAIN STEM	CEDAR CR, N FK	25679.50	1	0.29	31
MIAMI RIVER	MAIN STEM	MIAMI R	25802.00	1	0.76	32
TILLAMOOK RIVER	MAIN STEM	TILLAMOOK R	25572.00	6	0.75	33
TILLAMOOK RIVER	MAIN STEM	KILLAM CR	25561.00	3	1.10	35
TILLAMOOK RIVER	MAIN STEM	MUNSON CR	25569.90	1	0.43	36
MIAMI RIVER	MAIN STEM	ILLINGSWORTH CR	25785.00	1	0.61	37
WILSON RIVER	NORTH FORK	N FK OF W FK OF N FK WILSON	25688.30	1	1.00	38
WILSON RIVER	DEVIL'S LAKE FORK	WILSON R, DEVIL'S LAKE FK	25710.00	1	1.31	39
TRASK RIVER	MAIN STEM	MILL CR	25585.00	2	0.74	40
TILLAMOOK RIVER	MAIN STEM	SIMMONS CR	25565.00	3	1.49	41
MIAMI RIVER	MAIN STEM	MIAMI R	25800.00	1	1.44	42
WILSON RIVER	MAIN STEM	JORDAN CR	25675.00	2	1.10	43
WILSON RIVER	SOUTH FORK	WILSON R, S FK	25705.00	1	1.01	45
TILLAMOOK RIVER	MAIN STEM	FAWCETT CR	25563.00	3	1.25	46
WILSON RIVER	MAIN STEM	JORDAN CR	25675.50	2	1.07	47
TILLAMOOK RIVER	MAIN STEM	TILLAMOOK R	25566.00	1	0.31	48
TRASK RIVER	SOUTH FORK	TRASK R, E FK OF S FK	25610.00	2	1.19	50
TRASK RIVER	SOUTH FORK	EDWARDS CR	25612.00	3	1.03	51
MIAMI RIVER	MAIN STEM	MIAMI R	25798.00	1	1.27	52
MIAMI RIVER	MAIN STEM	WALDRON CR	25791.00	1	0.85	53
KILCHIS RIVER	MAIN STEM	KILCHIS R, N FK	25763.00	2	0.99	54

# TILLAMOOK DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
KILCHIS RIVER	MAIN STEM	KILCHIS R, N FK	25762.30	1	0.54	55
TILLAMOOK RIVER	MAIN STEM	FAWCETT CR	25563.00	1	1.00	56
WILSON RIVER	MAIN STEM	BEN SMITH CR	25695.00	1	0.42	57
TILLAMOOK RIVER	MAIN STEM	BEWLEY CR	25559.00	5	1.12	59
WILSON RIVER	DEVIL'S LAKE FORK	IDIOT CR	25709.00	1	0.80	60
WILSON RIVER	DEVIL'S LAKE FORK	WILSON R, DEVIL'S LAKE FK	25714.00	1	1.20	61
TRASK RIVER	MAIN STEM	GREEN CR	25587.00	1	0.86	63
TILLAMOOK RIVER	MAIN STEM	KILLAM CR	25561.00	4	0.46	64
KILCHIS RIVER	LITTLE SOUTH FORK	SAM DOWNS CR	25742.00	1	0.45	66
WILSON RIVER	MAIN STEM	JORDAN CR	25675.50	5	0.19	67
WILSON RIVER	MAIN STEM	CEDAR CR	25679.00	1	2.80	68
KILCHIS RIVER	MAIN STEM	MYRTLE CR	25725.00	2	0.40	69
WILSON RIVER	MAIN STEM	JORDAN CR	25675.00	1	0.98	71
KILCHIS RIVER	MAIN STEM	COMPANY CR	25760.00	1	1.02	72
MIAMI RIVER	MAIN STEM	MINICH CR	25789.00	1	0.90	73
MIAMI RIVER	MAIN STEM	PROUTY CR	25797.00	2	0.58	74
TILLAMOOK RIVER	MAIN STEM	BEWLEY CR	25559.00	4	1.25	75
KILCHIS RIVER	MAIN STEM	TILTON CR	25753.00	1	0.70	76
TILLAMOOK RIVER	MAIN STEM	MUNSON CR	25569.00	1	1.66	77
WILSON RIVER	MAIN STEM	FOX CR	25669.00	1	1.15	79
TILLAMOOK RIVER	MAIN STEM	SIMMONS CR	25565.00	5	0.68	80
KILCHIS RIVER	MAIN STEM	KILCHIS R, N FK	25762.34	1	1.51	81
WILSON RIVER	NORTH FORK	WILSON R, N FK	25689.00	2	1.34	82
WILSON RIVER	SOUTH FORK	WILSON RIVER, S FK	25705.00	4	1.00	83
TRASK RIVER	MAIN STEM	SAMSON CR	25601.00	1	0.65	85
TRASK RIVER	SOUTH FORK	TRASK R, S FK	25617.80	1	0.76	86
WILSON RIVER	MAIN STEM	ELK CR	25703.00	1	1.00	87
TILLAMOOK BAY	MAIN STEM AND BAY	DOUNTY CR	25772.00	2	0.47	88
TILLAMOOK RIVER	MAIN STEM	SIMMONS CR	25565.00	2	0.60	89
TILLAMOOK RIVER	MAIN STEM	SIMMONS CR	25565.00	1	0.64	89
TILLAMOOK RIVER	MAIN STEM	FAWCETT CR	25563.00	2	0.75	91



# LINCOLN DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
SPENCER CREEK	MAINSTEM,NFK,SFK	SPENCER CR, S FK	25061.00	1	1.13	1
FOGARTY CREEK	MAINSTEM	SALMON CR	25073.00	2	0.99	2
DEVIL'S LAKE	MAIN STEM	ROCK CR	25264.00	1	1.29	3
BEAVER CREEK	NORTH FORK	BEAVER CR, N FK	24924.00	4	0.96	5
BEAVER CREEK	SOUTH FORK	BEAVER CR, S FK	24913.00	1	0.69	6
SALMON RIVER	MAIN STEM AND BAY	BEAR CR	25296.00	2	1.40	7
SALMON RIVER	MAIN STEM AND BAY	TROUT CR	25299.70	1	1.00	8
SALMON RIVER	MAIN STEM AND BAY	SLICK ROCK CR	25300.00	2	1.05	9
SALMON RIVER	MAIN STEM AND BAY	BEAR CR	25296.00	3	1.10	10
YAQUINA RIVER	ELK CREEK	SAVAGE CR	24971.00	1	1.00	11
YAQUINA RIVER	ELK CREEK	DEER CR	24963.30	1	0.19	12
YAQUINA RIVER	ELK CREEK	BEAVER CR	24960.00	2	1.38	13
YAQUINA RIVER	MAIN STEM AND BAY	BALES CR	25033.00	1	0.45	14
YAQUINA RIVER	LITTLE ELK CREEK	SALMON CR	25022.00	2	0.54	15
YAQUINA RIVER	MAIN STEM AND BAY	SPILE CR	25045.70	1	1.05	16
YAQUINA RIVER	LITTLE ELK CREEK	SALMON CR	25022.00	1	0.60	17
YAQUINA RIVER	ELK CREEK	PETERSON CR	24978.00	1	0.46	18
SILETZ RIVER	DRIFT CREEK	SMITH CR	25244.00	3	1.16	19
SILETZ RIVER	MAIN STEM	JAYBIRD CR	25101.00	4	0.67	20
SILETZ RIVER	DRIFT CREEK	SMITH CR	25244.00	2	1.00	21
SILETZ RIVER	MAIN STEM	OJALLA CR	25111.00	1	1.13	22
SILETZ RIVER	MAIN STEM	MILL CR, S FK	25150.00	2	1.02	23
SILETZ RIVER	MAIN STEM	WHISKEY CR	25170.00	1	0.87	24
SILETZ RIVER	DRIFT CREEK	SAMPSON CR, UNNAMED TRIB	25241.00	1	1.32	25
SILETZ RIVER	DRIFT CREEK	ANDERSON CR	25232.00	2	0.86	26
SILETZ RIVER	DRIFT CREEK	SMITH CR	25244.00	1	1.16	27
SILETZ RIVER	MAIN STEM	STEMPLE CR	25091.00	1	0.90	28
SILETZ RIVER	MAIN STEM	JAYBIRD CR	25101.00	2	1.41	29
ALSEA RIVER	FIVE RIVERS	CHERRY CR	24754.00	1	0.76	30
ALSEA RIVER	FIVE RIVERS	BEAR CR	24708.00	1	1.14	31
ALSEA RIVER	FIVE RIVERS	PREACHER CR	24733.00	1	1.05	32
ALSEA RIVER	NORTH FORK	CROOKED CR	24848.00	2	0.44	33
ALSEA RIVER	FIVE RIVERS	LOBSTER CR, S FK	24745.00	2	1.76	34
ALSEA RIVER	FIVE RIVERS	GREEN R	24772.00	1	0.60	35
ALSEA RIVER	MAIN STEM AND BAY	BEAR CR	24670.00	1	0.92	36
ALSEA RIVER	FIVE RIVERS	CRAB CR	24766.00	2	0.91	37
ALSEA RIVER	SOUTH FORK	TOBE CR	24887.00	2	1.18	38
ALSEA RIVER	FIVE RIVERS	CRAB CR	24766.00	1	0.94	39
ALSEA RIVER	MAIN STEM AND BAY	RED CR	24672.00	1	0.37	40
ALSEA RIVER	FIVE RIVERS	LOBSTER CR, E FK	24746.00	3	0.69	41
ALSEA RIVER	FIVE RIVERS	S FK LOBSTER	24745.00	4	0.34	42
ALSEA RIVER	NORTH FORK	SEELEY CR	24845.30	2	0.88	43
ALSEA RIVER	FIVE RIVERS	PHILLIPS CR	24719.00	1	0.90	44
ALSEA RIVER	FIVE RIVERS	CROOKED CR	24716.00	1	0.75	45

# SIUSLAW DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
YACHATS RIVER	MAIN STEM	STUMP CR, TRIB A	24591.30	1	1.00	1
YACHATS RIVER	MAIN STEM	BEND CR	24567.00	1	1.10	2
YACHATS RIVER	MAIN STEM	BEAMER CR	24563.00	1	0.80	3
YACHATS RIVER	MAIN STEM	YACHATS R	24592.00	2	0.86	4
CAPE CREEK	MAIN STEM	CAPE CR	24500.00	2	1.40	6
TENMILE CREEK	MAIN STEM	TENMILE CR	24528.00	5	1.04	7
BIG CREEK	MAIN STEM & SFK	FRYINGPAN CR	24511.00	1	0.58	8
CUMMINS CR	MAIN STEM	CUMMINS CR	24544.00	2	1.23	9
CUMMINS CR	MAIN STEM	CUMMINS CR	24544.00	1	1.44	10
SUTTON CREEK	SUTTON LAKE	RATH CR	24477.00	1	0.80	11
SIUSLAW RIVER	NORTH FORK	MCLEOD CR	24025.00	4	1.00	12
SIUSLAW RIVER	NORTH FORK	CONDON CR	24019.00	1	0.59	14
SIUSLAW RIVER	NORTH FORK	MCLEOD CR	24025.00	1	0.97	16
SIUSLAW RIVER	MAIN STEM	WILDCAT CR	24273.00	1	0.99	17
SIUSLAW RIVER	LAKE CREEK	ROCK CR	24170.00	1	0.87	18
SIUSLAW RIVER	LAKE CREEK	LAMB CR	24205.00	1	0.81	19
SIUSLAW RIVER	WOLF CREEK	SWAMP CR	24334.00	1	1.20	20
SIUSLAW RIVER	LAKE CREEK	MISERY CR	24159.00	2	0.54	21
SIUSLAW RIVER	MAIN STEM	ROCK CR	24255.00	1	1.01	22
SIUSLAW RIVER	LAKE CREEK	GREEN CR	24151.00	3	1.06	23
SIUSLAW RIVER	MAIN STEM	LETZ CR	24439.00	2	0.89	24
SIUSLAW RIVER	LAKE CREEK	DEADWOOD CR	24171.00	1	1.04	25
SIUSLAW RIVER	MAIN STEM	SAN ANTONE CR	24249.00	1	0.80	26
SIUSLAW RIVER	NORTH FORK	MCLEOD CR	24025.00	5		27
SIUSLAW RIVER	MAIN STEM	KLINE CR	24354.00	1	1.00	28
SIUSLAW RIVER	MAIN STEM	MEADOW CR	24253.00	1	0.67	29
SIUSLAW RIVER	WOLF CREEK	WOLF CR	24345.00	1	0.96	30
SIUSLAW RIVER	WOLF CREEK	SWAMP CR	24334.00	2	1.25	32
SIUSLAW RIVER	MAIN STEM	PUGH CR	24363.20	2	0.88	33
SIUSLAW RIVER	LAKE CREEK	FISH CR, N FK	24208.40	1	0.74	34
SIUSLAW RIVER	LAKE CREEK	BOYLE CR	24154.00	1	0.76	35
SIUSLAW RIVER	WOLF CREEK	WOLF CR	24343.00	1	0.80	36
SIUSLAW RIVER	MAIN STEM	HOFFMAN CR	24052.00	1	1.14	37
SIUSLAW RIVER	LAKE CREEK	HULA CR	24185.00	1	1.01	38
SIUSLAW RIVER	LAKE CREEK	FISH CR, N FK	24208.00	1	0.68	39
SIUSLAW RIVER	MAIN STEM	HADSALL CR	24084.00	2	1.42	40
SIUSLAW RIVER	MAIN STEM	DOE CR	24423.00	1	1.54	41

# UMPQUA DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
UMPQUA RIVER	MAIN STEM AND BAY	HEDDIN CR	22820.00	2	1.28	1
UMPQUA RIVER	MAIN STEM AND BAY	MEHL CR	22824.00	1	1.03	2
UMPQUA RIVER	MAIN STEM AND BAY	LUTSINGER CR	22688.00	1	1.22	3
UMPQUA RIVER	MAIN STEM AND BAY	HUBBARD CR	22870.00	2	1.11	4
UMPQUA RIVER	MAIN STEM AND BAY	MEHL CR	22824.00	5	1.00	5
UMPQUA RIVER	MAIN STEM AND BAY	BUTLER CR	22690.00	1	0.90	6
UMPQUA RIVER	ELK CREEK	PARKER CR	22729.00	1	1.26	9
UMPQUA RIVER	CALAPOOYA CREEK	CALAPOOYA CR, S FK	22971.00	1	1.02	10
UMPQUA RIVER	ELK CREEK	THISTLEBURN CR	22716.00	1	1.30	11
UMPQUA RIVER	SOUTH UMPQUA	LEE CR	23124.00	1	1.03	13
UMPQUA RIVER	SOUTH UMPQUA	RICE CR	23063.00	1	0.70	16
UMPQUA RIVER	SOUTH UMPQUA	CANYON CR, W FK	23392.00	2	0.64	17
UMPQUA RIVER	SOUTH UMPQUA	BYRON CR, N FK	23030.00	1	0.39	18
UMPQUA RIVER	SOUTH UMPQUA	O-SHEA CR	23405.00	2	0.78	21
UMPQUA RIVER	SOUTH UMPQUA	CATTLE CR	23178.00	1	0.88	22
UMPQUA RIVER	SOUTH UMPQUA	CATCHING CR	23146.00	1	1.01	23
UMPQUA RIVER	SOUTH UMPQUA	CHINA CR	23149.00	1	0.25	24
UMPQUA RIVER	SOUTH UMPQUA	QUINES CR	23316.00	1	1.20	25
UMPQUA RIVER	SOUTH UMPQUA	WILDCAT CR	23326.00	1	0.28	26
UMPQUA RIVER	SOUTH UMPQUA	DOE CR	23166.00	1	1.08	28
UMPQUA RIVER	SOUTH UMPQUA	MIDDLE CR	23244.00	1	1.25	29
UMPQUA RIVER	SOUTH UMPQUA	LUNSBURY CR	23294.00	1	0.45	30
UMPQUA RIVER	SOUTH UMPQUA	COUNCIL CR	23148.00	1	0.78	31
UMPQUA RIVER	SOUTH UMPQUA	STARVEOUT CR	23333.50	2	0.99	32
UMPQUA RIVER	SOUTH UMPQUA	ASH CR	23138.00	2	0.20	33
UMPQUA RIVER	SMITH RIVER	SMITH R, LITTLE S FK	22584.00	2	1.00	34
UMPQUA RIVER	SMITH RIVER	SCARE CR	22509.00	3	0.69	35
UMPQUA RIVER	SMITH RIVER	SPENCER CR	22485.00	2	1.42	36
UMPQUA RIVER	SMITH RIVER	MOORE CR	22502.70	2	1.30	37
UMPQUA RIVER	SMITH RIVER	RUSSEL CR	22525.00	1	0.76	38
UMPQUA RIVER	SMITH RIVER	CLEGHORN CR	22559.00	1	1.23	39
UMPQUA RIVER	SMITH RIVER	BLACKWELL CR	22511.00	1	0.80	40
UMPQUA RIVER	SMITH RIVER	JOHNSON CR	22495.00	1	1.02	41
UMPQUA RIVER	SMITH RIVER	PANTHER CR	22577.00	1	1.33	42
UMPQUA RIVER	SMITH RIVER	BEAVER CR	22504.00	2	1.50	44
UMPQUA RIVER	SMITH RIVER	CLEGHORN CR	22563.00	1	0.75	45
UMPQUA RIVER	SMITH RIVER	CARPENTER CR	22515.00	1	1.10	46
UMPQUA RIVER	SOUTH UMPQUA	STOUTS CR, E FK	23474.00	1	0.46	47
UMPQUA RIVER	SOUTH UMPQUA	LOUIS CR	23087.00	4	1.01	49
UMPQUA RIVER	SOUTH UMPQUA	S MYRTLE CR	23098.00	2	0.97	50
UMPQUA RIVER	SOUTH UMPQUA	CANYON CR, W FK	23392.00	1	1.03	51

# COOS/COQUILLE DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
COOS RIVER	MAIN STEM	WILSON CR, TRIB D	22141.30	1	0.53	2
COOS RIVER	MILLICOMA RIVER	DETON CR	22235.00	1	1.06	3
COOS RIVER	SOUTH FORK	SHOTGUN CR	22187.00	1	0.84	4
COOS RIVER	MILLICOMA RIVER	MARLOW CR	22242.00	2	1.12	5
COOS RIVER	MILLICOMA RIVER	PANTHER CR	22301.00	1	0.77	6
COOS RIVER	SOUTH FORK	DANIELS CR	22158.00	2	0.80	7
COOS RIVER	SOUTH FORK	TIOGA CR	22194.00	1	0.94	8
COOS RIVER	MAIN STEM	DAVIS CR	22121.00	1	1.45	10
COOS RIVER	SOUTH FORK	CEDAR CR, TRIB F	22211.00	1	0.94	11
COOS RIVER	SOUTH FORK	TIOGA CR	22188.00	1	1.40	12
COOS RIVER	MILLICOMA RIVER	MILLICOMA R, W FK	22296.00	1	0.89	13
COOS RIVER	MILLICOMA RIVER	ELK CR	22297.60	3	0.98	14
COOS RIVER	SOUTH FORK	EIGHT R CR	22196.50	1	0.32	15
COOS RIVER	MILLICOMA RIVER	DETON CR	22235.00	2	0.75	16
COOS RIVER	MAIN STEM	LARSON CR	22320.00	3	0.71	17
COOS RIVER	SOUTH FORK	LAKE CR	22207.00	1	1.26	18
COOS RIVER	MILLICOMA RIVER	MILLICOM R, W FK	22300.00	1	0.74	19
COOS RIVER	SOUTH FORK	LOST CR	22227.00	4	1.02	20
COOS RIVER	SOUTH FORK	BEAVER SLIDE CR	22196.40	1	0.77	21
COOS RIVER	SOUTH FORK	TIOGA CR	22196.80	1	1.28	22
COOS RIVER	MILLICOMA RIVER	BUCK CR	22287.00	1	0.38	24
COOS RIVER	SOUTH FORK	SHOTGUN CR	22187.00	2	0.81	25
COQUILLE RIVER	NORTH FORK	MIDDLE CR	22014.00	1	1.03	27
COQUILLE RIVER	NORTH FORK	COQUILLE R, N FK	22051.00	3	1.04	28
COQUILLE RIVER	SOUTH FORK	WARNER CR	21825.00	1	0.36	29
COQUILLE RIVER	MAIN STEM AND BAY	MACK CR	21617.00	1	0.98	30
COQUILLE RIVER	NORTH FORK	MIDDLE CR	22018.00	2	1.18	31
COQUILLE RIVER	SOUTH FORK	WARD CR	21704.00	1	0.36	32
COQUILLE RIVER	NORTH FORK	COQUILLE R, N FK	22047.00	2	1.14	33
COQUILLE RIVER	NORTH FORK	MOON CR	22038.00	3	0.24	34
COQUILLE RIVER	NORTH FORK	ALDER CR	22015.00	1	0.50	35
COQUILLE RIVER	NORTH FORK	COQUILLE R, N FK	22045.00	1	0.50	36
COQUILLE RIVER	NORTH FORK	MOON CR	22037.50	3	0.70	38
COQUILLE RIVER	NORTH FORK	COQUILLE R, N FK	22047.00	1	1.20	39
COQUILLE RIVER	MIDDLE FORK	ROCK CR	21755.00	1	0.09	40
COQUILLE RIVER	NORTH FORK	HONCHO CR	22020.00	1	0.81	42
COQUILLE RIVER	MIDDLE FORK	AXE CR	21743.00	1	1.10	43
COQUILLE RIVER	NORTH FORK	MOON CR, TRIB A	22037.80	1	0.92	45
COQUILLE RIVER	MIDDLE FORK	KING CR	21736.00	2	0.53	46
COQUILLE RIVER	EAST FORK	WEEKLY CR	21949.00	2	0.97	47
COQUILLE RIVER	MAIN STEM AND BAY	CAWFIELD CR, TRIB A	21654.00	1		48
COQUILLE RIVER	NORTH FORK	MIDDLE CR	22006.00	1	1.13	49
COQUILLE RIVER	EAST FORK	STEEL CR	21957.00	3	1.02	50
COQUILLE RIVER	EAST FORK	HANTZ CR	21955.00	1	0.99	54
COQUILLE RIVER	MIDDLE FORK	MYRTLE CR	21758.00	1	1.22	55

# COOS/COQUILLE DISTRICT RANDOM SPAWNING SURVEYS FOR 1996

<u>BASIN NAME</u>	<u>SUBBASIN NAME</u>	<u>SURVEY NAME</u>	<u>SURVEY NUMBER</u>	<u>SEG- MENT</u>	<u>SURVEY LENGTH</u>	<u>PRIORITY</u>
COQUILLE RIVER	MAIN STEM AND BAY	HATCHET SL, TRIB A	21633.00	1	0.95	56
COQUILLE RIVER	NORTH FORK	CHERRY CR, S FK	22004.00	1	0.10	57
COQUILLE RIVER	SOUTH FORK	GETTYS CR	21712.00	1	0.74	58
COQUILLE RIVER	NORTH FORK	MOON CR., TRIB A	22037.60	1	0.06	59
COQUILLE RIVER	MIDDLE FORK	SLATER CR	21782.00	1	0.50	61
COQUILLE RIVER	SOUTH FORK	SALMON CR	21851.00	2	1.15	62
COQUILLE RIVER	NORTH FORK	MIDDLE CR	22018.00	1	1.03	63
COQUILLE RIVER	NORTH FORK	COQUILLE R, N FK	22041.00	1	0.77	64



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