

SOUTHEAST ALASKA DRIFT GILLNET FISHERY

MANAGEMENT PLAN, 1994



- Regional Information Report No. ¹ 1J94-15

Alaska Department of Fish and Game
Commercial Fisheries Division
Southeast Region
Juneau, Alaska

April 1994

¹ The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
SALMON RETURNS	1
MANAGEMENT APPROACH	2
Weekly Fishing Announcements	3
Weekly Fishing Periods	3
Gillnet Specifications	3
U.S./CANADA PACIFIC SALMON TREATY	4
CHINOOK SALMON CATCH	4
TREE POINT AND PORTLAND CANAL FISHERY	5
Introduction	5
1994 Outlook	5
Management Goals	6
Management Plan	6
PRINCE OF WALES AND STIKINE FISHERIES	8
Introduction	8
1994 Outlook	8
Management Goals	9
Management Plan	9
TAKU/SNETTISHAM GILLNET FISHERY	11
Introduction	11
1994 Outlook	11
Management Goals	12
Management Plan	12

TABLE OF CONTENTS (Cont.)

	<u>Page</u>
LYNN CANAL FISHERY	14
Introduction	14
1994 Outlook	14
Management Goals	15
Management Plan	15
TERMINAL HATCHERY FISHERIES	17
Northern Southeast Regional Aquaculture Association Terminal Area Fisheries	17
Terminal Area - Deep Inlet	17
Southern Southeast Regional Aquaculture Association Terminal Area Fisheries	18
Terminal Area - Eastern Passage	18
Crystal Lake Hatchery Chinook and Coho Salmon Terminal Fishery	18
FISHERY CONTACTS	19

INTRODUCTION

This management plan provides an overview of the expected salmon run sizes, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 1994.

There are approximately 480 limited entry permits in the Southeast Alaska drift gillnet fishery of which over 95% are actively fished each year. Drift gillnet landings have averaged approximately 2,100,000 salmon annually since 1960. Of the total commercial salmon harvest in Southeast, the drift gillnet fishery harvests an average of 40% of the sockeye, 26% of the chum, 13% of the coho, 4% of the pink, and 4% of the chinook salmon.

The drift gillnet fishery targets primarily on sockeye, pink, and summer-run chum salmon during the summer season, and on coho and fall-run chum salmon during the fall season. Chinook salmon are usually harvested incidentally, although some targeted chinook salmon fisheries are allowed in terminal hatchery areas in the spring. Currently, there are no directed gillnet fisheries for natural stocks of chinook salmon in Southeast Alaska.

There are five drift gillnet fishing areas in Southeast Alaska: District 1 (Tree Point and Portland Canal), District 6 (Prince of Wales), District 8 (Stikine), District 11 (Taku-Snettisham), and District 15 (Lynn Canal). In addition, drift gillnet fisheries occur in several terminal areas adjacent to hatchery facilities. Each of these gillnet fisheries are discussed separately in this management plan.

SALMON RETURNS

In Southeast Alaska, the Alaska Department of Fish and Game (ADF&G) issues a preseason return forecast only for pink salmon. Otherwise, the projected returns of sockeye, chum, and coho salmon presented in this management plan are strictly qualitative and should not be considered official department forecasts. The return projections are calculated primarily from parent-year catch and escapement data and are expressed in terms of probable magnitude of return relative to historic levels.

Average returns of sockeye salmon to most drift gillnet fishing areas are expected in 1994, with above average returns expected to the Stikine River. Returns of natural summer chum salmon stocks are anticipated to be average in most areas, while increased hatchery production should provide an above average, overall return. Returns of hatchery-produced, summer chum salmon are expected to contribute significantly to the Districts 1, 11, and 15 gillnet fisheries. Poor returns of fall chum salmon are expected to the Taku/Snettisham and Lynn Canal fisheries. Overall, returns of coho salmon should be above average owing, in part, to significant hatchery contributions. A strong pink salmon return of 76,600,000 has been predicted for Southeast Alaska in 1994. Subtracting the escapement goal of 30,700,000 results

in a catch forecast of 45,900,000. The major portion of this harvest will be taken by purse seine gear, but above average harvest opportunities are also expected for gillnet fisheries.

MANAGEMENT APPROACH

The lack of accurate preseason forecasts for salmon returns to the drift gillnet fishing areas requires a flexible management approach. Thus, this management plan presents only a general outlook of how the season is expected to develop. Some specific management approaches may be altered depending on inseason assessments of salmon run strength. Fishermen are encouraged to contact department management staff listed at the end of this plan for more detailed information.

The primary objectives for management of the 1994 drift gillnet fishery are:

1. Obtain overall salmon spawning escapement goals with the best possible distribution to all systems;
2. Provide for an orderly fishery while harvesting those fish in excess of escapement needs;
3. Promote the harvest and processing of good quality fish within the constraints dictated by run size;
4. Manage the fisheries for a maximum Southeast gillnet catch of 7,600 chinook salmon, exclusive of Alaska hatchery-produced fish [5 AAC 33.365. (10)(B)]; and
5. Minimize, to the extent possible, the interception of salmon destined for locations where weak returns are expected.

Achievement of these management objectives will be accomplished by inseason adjustments of fishing time to control harvests in specific areas in accordance with salmon run strength and timing. Comparisons of current-year fishing performance to historical fishing success (i.e., catch per unit effort, or CPUE analysis) are a major component of inseason run strength assessment. This approach assumes that catch rates are a true reflection of run strength by time period, and can be relied upon to indicate salmon escapements through the fishing area.

Past experience has demonstrated that management of salmon fisheries based only on CPUE data can be misleading, especially for mixed-stock fisheries. Therefore, although fishery performance will be important to inseason management, other available run strength indicators will also be used. For example, information on spawning escapements, stock separation using scale characteristics, test fishing, observed

salmon concentrations or schooling in sanctuary areas, catches from other fisheries, and salmon run timing models will also be utilized.

The increasing availability of hatchery-produced salmon is a major factor in the management of the Southeast Alaska drift gillnet fisheries. Where inseason management is based on fishery performance, it may be difficult to gauge natural stock run strength if significant numbers of hatchery fish are present in the catch. Where possible, the hatchery component of the catch will be separated when evaluating fishery performance.

Weekly Fishing Announcements

Inseason management of the District 1 drift gillnet fisheries is conducted by the Ketchikan Area staff, Districts 6 and 8 by the Petersburg and Wrangell area staff, District 11 by the Juneau area staff, and District 15 by the Haines area staff. Because fishermen can move freely among all drift gillnet fisheries, weekly fishing announcements for all areas will be coordinated by the Juneau regional office. These will normally be released simultaneously in all area offices by mid-afternoon each Thursday during the fishing season.

Weekly Fishing Periods

Weekly fishing periods can generally be expected to begin on Sunday at 12:01 p.m. Exceptions are the Northern and Southern Southeast Regional Aquaculture Association's (NSRAA & SSRAA) terminal fisheries in Deep Inlet, Nakat Inlet, and Earl West Cove, where rotational harvest plans for drift gillnet, seinc, and troll fisheries will apply, and the Wrangell Narrows and Ohmer Creek terminal hatchery fisheries that will begin on Monday.

Gillnet Specifications

The 1991-1993 Southeast-Yakutat Commercial Fishing Regulations booklet mistakenly omitted a portion of the Gillnet Specifications and Operation. The official regulation register does contain the correct gillnet specifications which read:

"5 AAC 39.250. GILLNET SPECIFICATIONS AND OPERATIONS. (c) Gillnet web must contain at least 30 filaments, except that

- (1) in the Southeast Alaska, Yakutat, Prince William Sound, and Cook Inlet Areas, gillnet web must meet one of the following requirements:

- (A) the web must contain at least 30 filaments and all filaments must be of equal diameter,
- or
- (B) the web must contain at least six filaments, each of which must be at least 0.20 millimeter in diameter."

Gillnetters should also be aware of a recent regulatory change that was adopted by the Board of Fisheries during its meeting in Ketchikan, January 1994. The intent of the new regulation is to clarify the definition of extra gillnet gear that may be carried unsacked aboard a fishing vessel. The new regulation reads as follows:

"5 AAC 33.331. GILLNET SPECIFICATIONS AND OPERATIONS. (a) No person may operate a gillnet vessel that has on the reel, or in the water, more than one legal limit of gillnet gear. Extra gillnet gear may be carried on board the vessel. Any gear in excess of one legal limit must be sacked or bagged. Unassembled gillnet gear components, including cork, webbing, or leadline may be carried on board fishing vessels without being sacked or bagged.

U.S./CANADA PACIFIC SALMON TREATY

The U.S./Canada Pacific Salmon Treaty (PST) will influence management of the Districts 1, 6, 8, and 11 drift gillnet fisheries. However, negotiations for the 1994 season are still not complete at this time. These fisheries will be managed consistent with provisions of the PST annexes for the transboundary rivers (Taku and Stikine) and the northern boundary area (northern British Columbia and southern Southeast Alaska). The management provisions specified by the PST will be considered separately under the specific management plan for each respective fishery. Gillnet fishermen are encouraged to contact local department staff for more detailed information concerning Alaska's PST obligations as it becomes available. Because PST negotiations are ongoing, management plans are subject to change.

CHINOOK SALMON CATCH

Existing regulations [5 AAC 33.365. (10)(B)] specify a catch limit of 7,600 chinook salmon (exclusive of Alaska hatchery fish) for the Southeast Alaska drift gillnet fishery. The Alaska Board of Fisheries adopted this regulation to ensure that the various user groups maintain their recent-year share of the total chinook salmon harvest quota.

The need for management measures to comply with the drift gillnet harvest quota for chinook salmon will depend on inseason evaluation of chinook salmon catch rates relative to the 7,600-fish ceiling. The Board of Fisheries has recommended nighttime fishing closures as the primary management measure to restrict the incidental catch of immature, "feeder" chinook salmon. As in past years, early-season area closures will be maintained to minimize the incidental harvest of mature, "spawner" chinook salmon returning to the Stikine River in District 8, the Taku River in District 11, and the Chilkat River in District 15.

TREE POINT AND PORTLAND CANAL FISHERY

Introduction

The Tree Point and Portland Canal gillnet area consists of Sections 1-A and 1-B. This fishery targets on chum and sockeye salmon early in the season, followed by pink salmon, and finally chum and coho salmon at the end of the season.

1994 Outlook

Sockeye salmon returns to Canadian systems, which contribute significant numbers of fish to the Tree Point drift gillnet fishery, are expected to be average, based on parent-year escapements. Returns to Hugh Smith Lake, a local U.S. spawning system, are expected to be below average. If the returns of sockeye salmon develop as predicted, early-season fishing time and area may be affected. Chum salmon returns to natural spawning systems are expected to be above average to most areas, based on parent-year spawning levels to systems in Boca de Quadra and Behm Canal. Chum salmon returns to Portland Canal are expected to be below average.

Returns of summer chum, fall chum, and coho salmon to the Nakat Inlet release site of the Southern Southeast Alaska Regional Aquaculture Association (SSRAA) are expected to contribute fish to the Tree Point gillnet fishery. The 1994 projected returns are approximately 109,000 summer chum, 100,000 fall chum, and 9,500 coho salmon. Peak chum salmon catches from these releases are expected between mid-July to mid-August for summer chum and late August and early September for fall chum and coho salmon.

The Pink Salmon Management Plan (5 AAC 33.260) establishes gillnet fishing time in Section 1-B in relation to District 1 purse seine fishing time when both gear types are concurrently harvesting the same pink salmon stocks. Based on regulations passed by the Board of Fisheries in February of 1991, the plan will start on the third Sunday in July (July 17). The fishing time formula specified by regulation is as follows:

1. When the purse seine fishery is open for any portion of one day during a fishing week, the drift gillnet fishery must be open for 48 hours during the same fishing week.
2. When the purse seine fishery is open for any portion of two days during a fishing week, the drift gillnet fishery must be open for 96 hours during the same fishing week.
3. When the purse seine fishery is open for any portion of three or more days during a fishing week, the drift gillnet fishery must be open for 120 hours during the same fishing week.
4. Conservation concerns for other salmon species may reduce the fishing time specified in the Pink Salmon Management Plan.

Management Goals

The following are additional specific management goals for the 1994 Tree Point drift gillnet fishery:

1. Manage the fishery in accordance with the Pink Salmon Management Plan (5 AAC 33.360).
2. Manage the fishery consistent with the provisions of the U.S./Canada Pacific Salmon Treaty (5 AAC 33.361).

The sockeye salmon fishery will be managed in accordance with the PST which specifies an average annual harvest of 130,000 sockeye salmon. The catch limit is viewed as a level to be maintained over the long term. An average seasonal catch of approximately 171,400 sockeye salmon has occurred in the area during the PST period from 1985 through 1993.

Management Plan

The Tree Point gillnet fishery will initially be open in the waters of Section 1-B for a standard 4-day fishing week beginning at 12:01 p.m., Sunday, June 19. This is the opening date specified by regulation. The duration of subsequent fishing periods, through mid-July, will be based on the strength of sockeye and summer chum salmon returns and fishing effort levels. Sockeye salmon run strength to Canadian and Alaskan systems will be considered when establishing fishing periods.

As in recent years, the catch of the Nakat Inlet release site summer chum salmon stock will not be included in the evaluation of natural stock fishery performance. The contribution of Nakat Inlet chum salmon will be determined by inseason analysis of codedwire tag data. Enhanced chum salmon have

contributed as much as 71% of individual weekly catches, and as much as 31% of the total harvest in recent years.

The PST requires that interception of Portland Canal chum salmon be minimized to assure rebuilding of these stocks. In 1994, no fishing in Section 1-A for Portland Canal chum salmon should be expected, unless it is determined that a harvestable surplus exists. Any management decision to fish Portland Canal must assume there is sufficient additional surplus fish to support a Canadian as well as an Alaskan fishery.

The Section 1-B gillnet fishery will be managed according to the Pink Salmon Management Plan, beginning July 17. If the pink salmon run develops as forecasted, it is expected that four to 5-day weekly fishing periods will be allowed from mid-July through late August or early September. As allowed by regulation, a minimum gillnet mesh size of six inches may be required, if needed, to protect pink salmon during the fall season.

Fall management at Tree Point starts after the end of the pink salmon season. During the fall season the Tree Point fishery targets primarily on fall chum and coho salmon. Little is known about the stock composition of the chum and coho salmon at this time of the year. However, the estimated exploitation rate of the Hugh Smith Lake coho salmon stock reaches 80% in some years and has averaged about 67% since 1982. If the same exploitation rate holds true for adjacent areas, then wild coho stocks in the surrounding Tree Point area may benefit from a closing date at Tree Point of approximately September 20.

Due to the uncertainties of the escapement levels of the stocks being harvested, the documented high exploitation rate of Hugh Smith coho, and the high preponderance of hatchery fish in the harvest, the department will continue to take a conservative approach to the fall season at Tree Point. Although the department feels that the management strategy of closing the Tree Point fishery on approximately September 20 has been successful, it is willing to re-examine the fall season at Tree Point and, if catch levels of wild stock chum and coho appear to be of sufficient strength to warrant additional openings, the department could open Tree Point for a limited time after September 20.

Hatchery releases from Nakat Inlet of fall chum and coho has resulted in increased effort late in the season at Tree Point. This increase in effort has placed more pressure on wild stocks. In the last four years approximately 50% of the fall chum and coho have been hatchery fish. Nakat Inlet fish not harvested in the common property fisheries can be harvested in the Nakat Inlet Special Harvest Area which remains open to commercial fishing through mid-October.

PRINCE OF WALES AND STIKINE FISHERIES

Introduction

The District 6 drift gillnet fishery occurs in the waters of northern Clarence Strait and Sumner Strait, in regulatory Sections 6-A, 6-B and 6-C, and portions of Section 6-D. The Stikine fishery encompasses the waters of District 8 surrounding the terminus of the Stikine River. Due to their close proximity, management of these fisheries is interrelated, resulting in some major stocks being subject to harvest by both fisheries. Two distinct management areas exist within each district; the Frederick Sound (Section 8-A) and Wrangell (Section 8-B) portions of District 8, and the Sumner Strait (Section 6-A) and Clarence Strait (Sections 6-B, 6-C, and 6-D) portions of District 6. Terminal hatchery fisheries for harvesting returns to the Crystal Lake (ADF&G) and Earl West Cove (SSRAA) hatchery facilities will be discussed in the "Terminal Hatchery Fisheries" portion of this management plan.

Historical information indicates that Stikine River sockeye salmon stocks represent a major proportion of the fish available in District 8, a small proportion of the fish in Section 6-A, and a very low proportion in Sections 6-B, 6-C and 6-D. Management of these fisheries is based on sockeye salmon abundance early in the season, pink salmon abundance in the middle, and coho salmon abundance at the end of the fishing season.

1994 Outlook

The 1994 Stikine River sockeye salmon return is expected to be excellent and increased effort on these stocks is anticipated. Sockeye returns to local Alaskan spawning areas have been average in recent years, but it is difficult to anticipate their production for 1994.

Average pink salmon returns are forecast for District 6 spawning streams. Because returns are harvested in mixed stock fisheries prior to entering District 6, it is difficult to anticipate local availability. However, pink salmon returns to southern Southeast Alaska are forecast to be above average in 1994. Because the District 6 gillnet fishery occurs in a major migration corridor, pink salmon destined for other districts will be available at certain times. The return of natural coho salmon stocks is expected to be about average. Chinook, coho, and chum salmon returns to enhancement facilities are also expected to contribute significantly to these fisheries. The projected returns to the Eastern Passage Specific Harvest Area (Earl West Cove) are 22,000 coho, 99,000 summer chum, and 5,700 chinook salmon.

The Alaska Board of Fisheries made the following three regulations changes this past winter that will affect gillnetting in the area:

1. Both Districts 6 and 8 can open on the second Sunday of June.
2. The Stikine River Flats closure was changed to those waters north of a line from Indian Point to Point Rothsay from the third Sunday in June through the first Saturday in August. Prior to the third Sunday in June and after the first Saturday in August, the original line will be in effect.
3. The Eastern Passage (Earl West Cove) terminal harvest area is now open west of 132°06'36" W. longitude (Navigational Marker at the Narrows), and Madan Bay is open.

Management Goals

Management goals for the 1994 Districts 6 and 8 gillnet fisheries are as follows:

1. Minimize the interception of mature spawning chinook salmon returning to the Stikine River while harvesting increased numbers of enhanced sockeye returning to the Stikine River.
2. Obtain pink salmon spawning escapement goals in District 6 and District 7.
3. Maintain spawning escapement goals of sockeye salmon in local Alaskan systems while harvesting increased numbers of enhanced sockeye returning to the Stikine River
4. Manage the Districts 6 and 8 gillnet fisheries consistent with the provisions of the PST (5 AAC 33.361). Discussions between the U.S. and Canada are ongoing, hence this management plan is subject to change.

Management Plan

The sockeye salmon fishery in both districts will be managed in accordance with the Transboundary Rivers (TBR) Annex of the PST. The TBR Annex generally allows the District 6 fishery to be managed for harvesting local Alaskan sockeye salmon stocks and is not influenced under most conditions by the presence of sockeye salmon stocks of Stikine River origin. Management of the District 8 fishery will be based on the need to harvest sockeye salmon of Stikine River origin as allowed by the sharing provisions of the TBR Annex and the conservation of the resource. The 1994 Stikine River returns should be strong enough to fulfill PST obligations and allow drift gillnetting in District 6 and increased fishing time in District 8.

The season will start at noon on Monday, June 13 for a 24-hour open period in District 8, and at noon Sunday, June 19 for a 48-hour open period in District 6 and District 8. During the second week in June, only the outer portions of District 8 will be open to evaluate the run strength of Stikine River sockeye and the availability of chinook salmon. Depending upon the number of sockeye salmon harvested, and the numbers of chinook salmon incidentally harvested, additional fishing time may be granted during the first fishing week.

Management actions during the sockeye salmon fishing season will be based on analysis of test fishing, CPUE, and stock identification data to determine the availability of Stikine River fish. These stock abundance indicators, along with fishery performance and stock composition data obtained from Canadian commercial, test, and subsistence fisheries, will be incorporated into a Stikine sockeye management model. This model will, as the season progresses, be the primary tool used to estimate the availability of sockeye for harvest by the Alaskan fishery in District 8 and the Canadian inriver fisheries. Any increased fishing measures required for Stikine River sockeye salmon will first be implemented in District 8, followed by Sumner Strait in District 6. Mid-week openings will be used when additional fishing time is needed. Mid-week openings will be based upon the most recent Stikine sockeye model update and the current weekly sockeye harvest. In order to adjust the mid-week period to best follow the most current catch data, announcements for the mid-week opening will be announced on the fishing grounds by 10:00 A.M. of the last day of the regular fishery opening. Open area and fishing time may not necessarily be the same as the general weekly opening if adjustments are needed to reduce chinook salmon catches or adjust fishing times. If the sockeye returns to local Alaskan island systems are determined to be weak, area and time restrictions may be necessary in District 6.

The area adjacent to the Stikine River mouth, and other milling areas for Stikine River chinook salmon in District 8, will be closed during the early portions of the sockeye season to reduce the incidental harvest of Stikine River chinook. Area restrictions will be maintained during sockeye directed fishing periods through early July. As the season progresses, the restrictions will generally be reduced. If areas of high concentrations of chinook are identified during initial weekly openings they will be closed during any subsequent mid-week openings. To avoid harvesting chinook salmon, the Stikine flats will not open until the first Sunday in July.

Pink salmon should begin entering District 6 in significant numbers by the third or fourth week of July. Early-season pink salmon gear restrictions (i.e., large mesh gillnets) are not anticipated. The early portion of the pink salmon fishery will be managed primarily on CPUE. By mid-August, pink salmon destined for local systems will begin to enter the fishery in greater numbers and at that time, management will be based on observed local escapements. If the run strength of the local returns are not evenly dispersed within the district, or are weaker than anticipated, area restrictions may be necessary.

The coho salmon season will occur during late August and early September. Limited directed fishing in terminal areas is anticipated in District 8. Management of the District 6 fishery will be based predominantly on wild stock CPUE. The State-operated Crystal Lake Hatchery, and the SSRAA Earl West Cove and its facilities in the Ketchikan area, are expected to contribute coho salmon to the District 6 and 8 fisheries. Inseason estimates from codedwire tag recovery data will be used to identify the

hatchery component of the catch. Only the catch of wild coho will be used for fishery performance evaluation.

Regulations allow gillnetting along the Screen Island shore of Section 6-D during the early and late portions of the season. Specifically, this area encompasses those waters of Section 6-D west of a line from Mariposa Rock Buoy to the northernmost tip of Point Harrington to a point on the shore of Etolin Island at 56°09'35" N. latitude, 132°42'42" W. longitude to the southernmost tip of Point Stanhope. The periods when fishing may be allowed are: 1) from the second Sunday in June (June 12) through the last Saturday in July (July 30), and 2) from the second Sunday in September (September 11) until the season is closed. During this time, gillnetting is allowed during the same time periods that the adjoining waters of Section 6-C are open.

TAKU/SNETTISHAM GILLNET FISHERY

Introduction

The Taku/Snettisham (District 11) gillnet area encompasses Section 11-B (Taku Inlet, Port Snettisham, and Stephens Passage south to Midway Island) and Section 11-C (Midway Island south to a line from Point League to Point Hugh). This fishery has traditionally targeted on sockeye salmon during the early portion of the season, and fall chum and coho salmon later in the season.

1994 Outlook

The harvest of natural salmon stocks is anticipated to be generally average for the Taku/Snettisham gillnet fishery in 1994. Returns of sockeye and pink salmon are expected to be average. Coho salmon returns should be above average, while fall chums are anticipated to be very poor. Hatchery contributions of summer chum salmon from the Snettisham (ADF&G) and Douglas Island Pink and Chum (DIPAC) hatcheries, should contribute significantly to the District 11 drift gillnet harvest. Additional fishing time may be allowed this season to harvest the expected return of 130,000 chums to Limestone Inlet remote release site operated by the Northern Southeast Regional Aquaculture Association with fry from DIPAC and Snettisham hatcheries. Approximately 65,000 adult sockeye salmon are also projected to return from Snettisham Hatchery fry plants in Sweetheart Lake. These enhanced sockeye salmon will be harvested during the normal wild stock sockeye fishery, and in a directed terminal area fishery at the head of Gilbert Bay. The DIPAC hatchery is also projecting a return of 500,000 pink, 600,000 chum and 100,000 coho salmon to its Gastineau Channel facilities in 1994 which will be harvested incidental to the directed wild stock sockeye and coho salmon fisheries.

Management Goals

Management goals for the 1994 Taku/Snettisham drift gillnet fishery are as follows:

1. Provide for sufficient salmon spawning escapements to the Taku River and Port Snettisham and Stephens Passage streams while harvesting those fish in excess of escapement needs.
2. Minimize, to the extent practical, the incidental harvest of feeder chinook salmon, within the confines of the 7,600 PST gillnet allocation.
3. Manage the fishery consistent with the provisions of the PST (5 AAC 33.361). Discussions between the U.S. and Canada are ongoing, hence this management plan is subject to change.
4. Maximize the harvest of hatchery-produced chum salmon returning to Limestone Inlet and hatchery sockeye salmon returning to Gilbert Bay, while minimizing the incidental harvest of Port Snettisham wild sockeye salmon.

Management Plan

Section 11-B will initially open for a 72-hour period on the third Sunday of June (June 19). The fishery will be managed on the strength of the sockeye salmon return. Run strength will be evaluated from fishery CPUE data and from weekly escapement estimates derived from the Taku River fish wheel tagging and recovery project operated by ADF&G at Canyon Island.

As specified in the PST, the Canadian inriver gillnet fishery is allocated 18% of the total allowable catch (TAC) of sockeye salmon originating from the Canadian portion of the Taku River. In addition, the Canadian fishery is allowed to harvest a maximum of 3,000 coho salmon. Other species are allocated to Canadian fishermen only as incidental landings taken during the directed sockeye and coho salmon fisheries. Analysis of CPUE, fishwheel tag recovery, and scale pattern data will be used to manage the District 11 gillnet fishery consistent with the PST.

In recent years the District 11 drift gillnet fishery harvest of Taku River sockeye salmon has been below the U.S. share of the TAC. The department traditionally manages conservatively until the run strength of Taku River sockeye is accurately assessed, usually after mid-July. Extensions of fishing time late in the sockeye salmon season in District 11 have been limited in recent years, despite high overall inriver sockeye salmon abundance. This has occurred because of weak returns of Tatsamenie sockeye and the need to pass through sufficient broodstock for a joint U.S./Canada enhancement project on this stock. Since overall sockeye escapements to the Taku River have surpassed the escapement goal during the past

five years, the department will manage the District 11 fishery more aggressively in 1994, and extensions in fishing times may be expected earlier in the season.

To minimize the harvest of mature wild stock Taku River chinook salmon, Taku Inlet will be closed north of the latitude of Jaw Point during the first week of the fishery.

Approximately 900 surplus chinook salmon are expected to return in 1994 from Snettisham Hatchery releases. Although the majority of these fish will be caught before entering Port Snettisham, a small terminal area fishery is expected in Speel Arm during the first several weeks of the Section 11-B gillnet fishery to harvest the available surplus. Following the normal weekly closure of the gillnet fishery, Speel Arm will be opened for an additional 2-day (48 hours) period. This area will be exempt from the 6-inch maximum mesh size restriction, by regulation [5 AAC 33.331. (d)(2)(B)].

Large incidental catches of immature chinook during the early portion of the summer fishery may result in nighttime fishing closures. Harvests and CPUE of chinook in the Juneau recreational fishery prior to the opening of the gillnet fishery, and catches during initial gillnet openings, will be evaluated to determine the need for nighttime fishing closures during the 1994 season.

Conservation of Port Snettisham sockeye salmon returns will again be necessary in 1994 to rebuild escapements of these stocks to historic levels. Port Snettisham will be closed inside a line from Point Amner to Point Styleman through approximately August 13. This restriction does not apply to the openings in Speel Arm in June and early July for harvesting Snettisham Hatchery chinook salmon, or in Gilbert Bay in late July for harvesting Sweetheart Lake enhanced sockeye salmon returns.

Since the 1994 combined Snettisham and DIPAC hatchery chum salmon return to Limestone Inlet is expected to be 130,000 fish, extended fisheries and minimum mesh size restrictions in the area may be necessary to harvest the return. The department may implement a 6-inch minimum mesh size restriction in Section 11-B south of Circle Point beginning as early as July 10.

A small area at the head of Gilbert Bay in Port Snettisham will be opened in late July or early August to harvest an expected return of 65,000 sockeye salmon from a Snettisham Hatchery enhancement project in Sweetheart Lake. Since Sweetheart Creek is blocked to anadromous fish, the returning sockeye must be harvested. To ensure that the return is fully utilized, a personal use gillnet fishery will also be allowed.

Pink salmon will be harvested in Section 11-B incidental to the sockeye and enhanced summer chum salmon fisheries. Fishing time for pink salmon in Section 11-C will depend on the strength of returns to streams in lower Stephens Passage, Seymour Canal, and the northern portions of District 10. Pink salmon escapements into these areas were mixed in 1992, with Seymour Canal experiencing very poor escapements. Section 11-C openings may include only portions of the section and may not occur until early August.

Beginning in mid-August, management of the Taku/Snettisham gillnet fishery will be based on the run strength of fall chum and coho salmon. Inseason management will be based on evaluation of the fishery catch, effort, and CPUE relative to historical levels, and on escapement estimates from the Taku River fish wheel project. Coho salmon is the primary species managed for during the fall season, but area closures and time restrictions may be necessary to further protect the weaker fall chum salmon returns.

In order to avoid gear conflicts, the District 11 drift gillnet fishery will not be open concurrent with the Juneau Golden North Salmon Derby. Consequently, during Statistical Week 35, the District 11 gillnet fishery will not open until Monday, August 22.

LYNN CANAL FISHERY

Introduction

The Lynn Canal drift gillnet fishery includes Section 15-A in upper Lynn Canal, Section 15-C in Lower Lynn Canal, and Section 15-B (Berners Bay). Sockeye salmon are the target species during the summer season; chum and coho salmon dominate the catch from late August through the end of the season.

1994 Outlook

Sockeye salmon returns to Chilkoot Lake are expected to be average in 1994. The 1989 parent-year produced a harvest of 292,000 Chilkoot sockeye, the second largest for this stock. The resulting escapement through the Chilkoot Weir of 54,900 sockeye was slightly below the mid-point of the annual escapement goal range. Chilkat Lake stocks produced a 1989 parent-year harvest of 159,500 sockeye with a resulting record escapement of 140,500 fish. The age-6 component (normally 38% of the run) will return from a 1988 parent-year escapement of 27,500 sockeye, well below goal levels. However, high survival of this brood year should result in a strong return to Chilkat Lake during the 1994 season.

The chum salmon harvest in Lynn Canal during the 1990 parent-year was approximately 210,300 fish, of which 80,000 were summer stock. Parent-year fall chum salmon escapements were uniformly poor throughout the Chilkat River drainage. Numbers of spawners were particularly low in the Klehini River and its tributaries. Mainstem Chilkat River chum salmon peak index counts were also well below desired levels. The continued critically low population level observed during the past five years suggests that a very conservative fall chum management approach should be anticipated for the 1994 season.

Summer chum salmon harvests in lower Lynn Canal (Section 15-C) are anticipated to be supplemented by hatchery chum salmon returning to the Boat Harbor remote release site. An estimated 100,000 chum

salmon may return to this site in 1994. Special openings along the Boat Harbor shoreline and extended fishing time will be provided, similar to the strategy used during the previous season, to maximize utilization and quality of the return. Management priority will continue to be provided to wild stock pink and chum salmon returning to lower Lynn Canal systems.

The total harvest of coho salmon during the 1990 parent year was approximately 62,900 fish, above the long term average, but limited due to reduced fishing time and early season closure necessitated by chum salmon conservation measures. Escapement of coho salmon, therefore, resulted in above average levels. In lower Lynn Canal, a peak count of 11,000 spawners was recorded in the Berners River system. Major index systems in upper Lynn Canal, including Chilkoot Lake, Chilkat Lake, and the Tahini River were all well above average. As a result, returns of coho salmon to Lynn Canal are expected to be above average in 1994.

Management Goals

Specific management goals for the 1994 Lynn Canal drift gillnet fishery are as follows:

1. Obtain an escapement of between 53,000 and 92,000 sockeye salmon through the Chilkoot Weir. The escapement objective for the early stock is approximately 22,000 fish prior to Statistical Week 29 (about July 12), and 40,000 fish for the late stock.
2. Obtain an escapement of between 52,000 and 106,000 sockeye salmon through the Chilkat Weir. The escapement objective for the early stock is approximately 18,000 fish through Statistical Week 33 (about August 15), and 48,000 for the late stock.
3. Provide for sufficient chum and coho salmon spawning escapements to the Chilkat, Chilkoot, and Berners Rivers and other Lynn Canal systems, while harvesting those fish in excess of escapement needs.
4. Minimize, to the extent practical, the incidental harvest of chinook salmon.

Management Plan

The 1994 Lynn Canal gillnet fishery will open on Sunday, June 19, for a 48-hour fishing period. The open area will include portions of both Sections 15-A and 15-C. During the initial fishing period, the waters of Section 15-A will be opened south of the northern tip of Sullivan Island to provide additional protection for mature chinook salmon returning to the Chilkat River. Adjustments to area closures will be made during the early weeks of the season, prior to mid-July, to protect mature chinook salmon while

allowing flexibility to harvest early sockeye stocks. Chilkat Inlet and Chilkoot Inlet south of the latitude of Mud Bay Point may remain closed until Chilkat River sockeye run strength can be determined.

After the initial opening, gillnet fishing time and area adjustments will be based on stock-specific catch and escapement information obtained from CPUE analysis, stock composition from scale sampling, weir counts, and test fishing. Total-run models for each specific sockeye salmon stock will be utilized to assess run strength on a weekly basis and to help gauge the exploitation rate required to achieve escapement objectives.

As a general guideline, targeted fishing effort on Chilkoot and Chilkat Lake sockeye salmon will not be conducted in Section 15-C unless adequate run strength is demonstrated for both stocks. As in recent seasons, portions of Section 15-C will be opened during the first week of the season to evaluate the availability of hatchery-produced summer chum salmon while harvesting early wild stock chum. Section 15-B, Berners Bay, is not expected to be opened as long as adequate harvests of Berners stocks occurs outside of the Bay, which in recent years has improved the quality of salmon landed. Returns to the Boat Harbor remote release site are expected to contribute approximately 100,000 hatchery-produced chum salmon during the summer season. Special openings along the western shoreline of Section 15-C, including extended fishing time, are planned to optimize the harvest of these fish. During July, additional portions of Section 15-C may be opened to target wild stock summer chum and pink salmon stocks returning to local streams. Following the period of peak availability of summer chum and pink salmon stocks, the fishery will return to sockeye salmon management and areas along the eastern shoreline may be closed.

Fall season management will begin in late August or early September, depending on the availability of sockeye and chum salmon. Due to continued critically low fall chum salmon escapements, a very conservative management approach will be followed during the early weeks of the fall season until chum salmon run strength can be adequately assessed. Chilkat Inlet, and additional area outside of the inlet, will initially be closed. Management of Section 15-C during the fall season will be based on chum and coho salmon run strength and fishing effort levels. Due to continued strong coho salmon returns as well as high escapement levels to Berners Bay systems, conservation closures along the St. Mary shoreline are not anticipated. Directing effort on coho salmon in lower Lynn Canal while conserving fall chum returns, is the expected management strategy to be implemented during the late fall season.

In order to avoid gear conflicts, the District 15 drift gillnet fishery will not be open concurrent with the Juneau Golden North Salmon Derby. Consequently, during Statistical Week 35, the District 15 gillnet fishery will open on Monday, August 22.

TERMINAL HATCHERY FISHERIES

For the 1994 season, drift gillnet terminal area fisheries can be expected in Deep Inlet, Nakat Inlet, and Earl West Cove (Eastern Passage) to harvest salmon returning to NSRAA and SSRAA enhancement facilities, and in portions of Blind Slough to harvest salmon returning to the Crystal Lake Hatchery (ADF&G). No common property drift gillnet fisheries are expected in the Neets Bay or Carroll Inlet (SSRAA) terminal areas.

Northern Southeast Regional Aquaculture Association Terminal Area Fisheries

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to Board of Fisheries management plans. The open gillnet fishing times will be announced by ADF&G news releases prior to, and during, the fishing season.

Terminal Area - Deep Inlet

NSRAA expects a return of 1,360,000 chum salmon to its Deep Inlet remote release site and the Medvejie Hatchery in 1994. Of this return, approximately 1,145,000 will be available for the common property harvest. The fishery will be managed jointly with NSRAA, and in accordance with the Deep Inlet Terminal Harvest Management Plan (5 AAC 33.376). The plan provides for the distribution of the harvest of hatchery-produced chum salmon between the purse seine and drift gillnet fleets. The ratio of gillnet fishing time to purse seine fishing time will be 2:1. Additionally, the Board of Fisheries has allowed trolling to occur when net fisheries are closed and when trolling does not interfere with cost recovery.

The Deep Inlet drift gillnet fishing area includes the waters of Deep Inlet, Aleutkina Bay and contiguous waters south of a line from a point at the east entrance to Pirates Cove at 135°22'10" W. longitude, 56°59'18" N. latitude, to a point on the West side of Long Island at 135°21'50" W. longitude, 56°59'50" N. latitude, to the easternmost tip of Long Island to the southeasternmost tip of Emgeten Island to the southernmost tip of Error Island to the southernmost tip of Boidarkin Island to a point at 135°17'31" W. longitude, 57°00'38" N. latitude.

When chum salmon begin returning to the Deep Inlet THA, in approximately mid-July, the area will be open to purse seine, drift gillnet, and troll gear. The department will issue a news release in early May listing the open fishing dates for each gear type. Fishermen should check with the department or NSRAA prior to fishing to obtain updated fishery information. Fishermen are also requested to ensure that fish caught in terminal areas are reported correctly on their fish tickets. This will enable the accurate documentation of fish taken from the Deep Inlet Terminal Harvest Area.

Southern Southeast Regional Aquaculture Association Terminal Area Fisheries

The terminal hatchery fisheries at Earl West Cove (Eastern Passage) and Nakat Inlet will be managed jointly with SSRAA and according to Board of Fisheries management plans. The open gillnet fishing times will be announced by ADF&G news releases prior to, and during, the fishing season.

Terminal Area - Eastern Passage

The Eastern Passage drift gillnet fishing area includes the waters of Eastern Passage south of 56°24'50" N. latitude and west of 132°06'36" W. longitude.

Crystal Lake Hatchery Chinook and Coho Salmon Terminal Fishery

The two terminal fishing areas for harvesting chinook salmon returns to the state-operated Crystal Lake Hatchery are at the mouth of Crystal Creek in the Wrangell Narrows portion of District 6, and at the mouth of Ohmer Creek in District 8.

Crystal Lake chinook salmon will return to both terminal areas in 1994. The return to the District 8 (Ohmer Creek) terminal area is expected to be approximately 130 adults, all of which will be available for harvest. In the Wrangell Narrows (District 6) terminal area, the expected return is lower than in previous years and no fishery is anticipated. If inseason indicators show the return is stronger than anticipated, gillnetting will be allowed. Open fishing periods will depend upon the egg take needs of the hatchery and the availability of surplus chinook. If a fishery is warranted, the openings are expected to occur on Mondays to minimize conflicts between fishing vessels and other vessels traveling Wrangell Narrows. Fishing would be limited to the daylight hours, and the length of gillnets will be limited to 75 fathoms.

The Ohmer Creek portion of District 8 will open on Monday, June 6, for two days. Open periods after the start of the general gillnet season on Monday, June 13, will be based on the fishing time allowed in the directed sockeye salmon fishery and the availability of surplus chinook salmon. The length of gillnets will be limited to 150 fathoms.

The coho salmon return to the Crystal Lake hatchery is expected to produce 2,000 fish available for harvest in Wrangell Narrows. A limited number of 1-day periods to harvest these returns can be expected beginning in mid- to late-August. Fishing time will be limited to daylight hours; openings will occur on Mondays, and gillnets will be limited to 75 fathoms in length.

FISHERY CONTACTS

The following people are Commercial Fisheries contacts for this management plan:

Scott Marshall
Region 1 Supervisor
P.O. Box 240020
Douglas, AK 99824
(907) 465-4250

Doug Mecum
Region 1 Management Coordinator
P.O. Box 240020
Douglas, AK 99824
(907) 465-4250

Don Ingleduc
Area Management Biologist
P.O. Box 240020
Douglas, AK 99824
(907) 465-4205

Joe Muir
Assistant Area Management Biologist
P.O. Box 240020
Douglas, AK 99824
(907) 465-4206

Phil Doherty
Area Management Biologist
2030 Sea Level Drive, Suite 205
Ketchikan, AK 99901
(907) 225-5195

William Bergmann
Area Management Biologist
P.O. Box 667
Petersburg, AK 99833
(907) 772-3801

Bob DeJong
Area Management Biologist
304 Lake Street, Room 103
Sitka, AK 99835
(907) 747-6688

Randy Timothy
Assistant Area Management Biologist
P.O. Box 200
Wrangell, AK 99929
(907) 874-3822

Ray Staska
Area Management Biologist
P.O. Box 431
Haines, AK 99827
(907) 766-2830

Brian Lynch
Assistant Area Management Biologist
P.O. Box 667
Petersburg, AK 99833
(907) 772-3801

The following is a list of telephone numbers that may be called during the gillnet fishing season to obtain recorded announcements concerning areas open to gillnet fishing:

Ketchikan	-	(907) 225-6870
Petersburg	-	(907) 772-3700
Sitka	-	(907) 747-5022
Juneau	-	(907) 465-8905

ADA Publications Statement

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood, or disability. For information on alternative formats available for this and other department publications, contact the department ADA Coordinator at (voice) 907-465-4120, (TDD) 907-465-3646. Any person who believes s/he has been discriminated against should write to: ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; or O.E.O., U.S. Department of the Interior, Washington, DC 20240.