

YAKUTAT SET GILLNET FISHERY  
2000 MANAGEMENT PLAN



By

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Regional Information Report No.<sup>1</sup> 1J00-20

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

April 2000

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## INTRODUCTION

The Yakutat area encompasses the waters of Alaska between Cape Suckling and Cape Fairweather. The area is divided into two fishing districts: the Yakataga District between Cape Suckling and Icy Cape, and the Yakutat District between Icy Cape and Cape Fairweather. All five salmon species are harvested in the Yakutat area, with sockeye, coho, chinook, and pink salmon comprising the majority of the catch in that order of importance.

Set gillnet gear is the only net gear permitted in the Yakutat area. About 170 commercial setnet entry permits are renewed annually. Setnet permit holders in the Yakutat area do not have registered sites and may fish in any open fishing area. They may also move between fishing areas during the season as long as not more than one river is fished concurrently.

There are 25 unique setnet fisheries in the Yakutat area. Most of these fisheries target sockeye salmon from mid-June through July and coho salmon in August and September. The only targeted pink salmon fishery occurs in the southeast portion of Yakutat Bay on fish returning to Humpback Creek. Set gillnet fisheries in the Yakataga District primarily harvest coho salmon.

The Alaska Board of Fisheries (Board) met to consider proposals for Southeast Alaska-Yakutat groundfish and shellfish species in January 2000 and other finfish (including salmon) species in February 2000. At the January meeting in Juneau, the board approved a modified version of a proposal submitted by the Yakutat Advisory Committee that allows set gillnetters to retain and sell dogfish that are caught incidentally while fishing for salmon. Spiny dogfish retained and sold must be recorded on associated salmon fish tickets.

### *Anticipated Salmon Return*

No formal preseason forecast program exists for the Yakutat salmon runs. Preseason expectations are based on parent-year spawning escapements, commercial catch trends, local observations of rearing conditions, and information on year-class strength. The 2000 Yakutat area salmon runs are expected to be average for sockeye, above average for coho, and below average for pink salmon. More detailed projections by drainage begin on page 9.

### *Fishery Management*

Set gillnet fisheries in the Yakutat area are managed by adjusting fishing times and areas in response to inseason assessments of run strength. These actions are taken to provide adequate spawning escapements and to allow harvests of salmon that are surplus to escapement goals. Inseason assessment methods include both fishery performance and spawning escapement information. In the glacial systems, fishery performance data is utilized for management because poor visibility prevents the accurate observation of spawning escapements.

During 2000, the major fishing areas can be expected to open on the following dates:

Yakutat District

Area	Opening Date
Yakutat Bay (south of 59°40' N. lat.)	12 June
Dangerous River	12 June
Eastern Situk-Ahrnklin Inlet (approximately 2 miles)	12 June or 19 June
Alsek River	5 June
Manby Shore Ocean	19 June
Lost River	by Emergency Order
Situk-Ahrnklin Inlet	19 June
East River	by Emergency Order
Akwe River	26 June
Remainder of the Yakutat District	26 June
Italio River	by Emergency Order

Yakataga District

Season	Opening Date
Sockeye Season	by Emergency Order
Coho Season	by Emergency Order

**2000 SUMMER MANAGEMENT PLAN**

This management plan concentrates on the major fisheries in the Yakutat area. Information on areas that are fished only occasionally is available from the Yakutat area management biologist listed at the end of the plan.

*Alsek River*

The Alsek River, located 45 miles southeast of Yakutat, is a major transboundary river that drains a large area east of the coastal mountain range. The Alsek extends approximately 130 miles from its mouth upriver into the Yukon Territory of Canada. The U.S./Canada border is approximately 40 miles upstream from the river mouth. The river supports large populations of chinook, sockeye, and coho salmon, and small populations of pink and chum salmon. Alaskan set gillnet fisheries target on sockeye and coho salmon. Canadian subsistence and sport fisheries target on sockeye and chinook salmon.

Commercial salmon landings from the Alaskan portion of the Alsek River averaged approximately 20,000 sockeye, 8,300 coho, and 600 chinook salmon annually from 1995 through 1999. The Canadian subsistence and sport harvest has averaged approximately 750 chinook, 1,200 sockeye, and 200 coho salmon during the same period. Subsistence and sport fisheries in the Alaskan portion of the river are relatively minor, harvesting about 200 salmon annually.

Historically, the set gillnet fishery targeted on chinook salmon during May in the Alaskan portion of the river. However, due to what was thought to be depressed runs, the directed chinook salmon fishery has been closed since 1962 and chinook salmon are harvested only incidentally during the sockeye salmon fishery in early June. The 2000 run of chinook salmon is expected to produce fish in surplus to the current Klukshu River escapement goal of 1,200 fish.

Both the early and late run segments of the Alsek sockeye run are expected to be about average in 2000. The sockeye salmon count at the Klukshu River weir during the parent year (1995) was 2,289 for the early run and 18,400 fish for the late run. The interim escapement goal for 2000 is 7,500 to 15,000 sockeye past the Klukshu weir. The sockeye salmon escapement to Village Creek was approximately 4,000 fish in 1995. Sockeye escapements to most U.S. systems were above average in 1995.

The Alsek opens by regulation on the first Monday in June (June 5). Weekly openings will initially be set at 24 hours. The duration of weekly fishing periods will be based on fishery performance and Klukshu weir data. Gillnets will be restricted to a maximum mesh size of 6 inches through July 1 to minimize chinook salmon harvest. Fishing time will be based on a comparison of current to historical fishery performance data.

The Alsek River surf fishing area is expected to be open during the same periods as the inriver fishery. The surf fishing area includes the shoreline, 0.75 of a mile in each direction, from the river mouth to the outermost bar where the surf breaks.

### *East River*

The East River is a short, clear river originating from the upwellings and local drainage of the eastern portion of Dry Bay. The area open to inriver commercial fishing extends from the mouth to two miles upstream; the adjacent ocean waters within two miles of the mouth in each direction out to 500 yards from the shore at low tide are also open to commercial fishing. The surf and ocean area is open during the same periods as the inriver fishery.

Prior to 1994 the East River had been one of the most productive sockeye salmon fisheries in the Yakutat area. Salmon catches have dramatically declined since 1993 and have averaged about 37,000 sockeye, 1,500 chum, and 7,400 coho salmon (1994-1998). The river was closed to commercial fishing during the 1999 fishing season.

The East River sockeye salmon season opens by regulation on the fourth Monday of June (June 26). Due to the dramatic decline in recent sockeye runs the East River will not open until escapement goals are met. If the fishery does open, the duration of weekly fishing periods and open areas will be based on escapements. As in recent years, upriver closures may be necessary during high water periods to reduce the harvest of poor quality fish that "back out" of the closed area.

The sockeye salmon season is expected to continue until late August. The 1996 parent-year escapement was estimated at 29,000 fish. An average return from 29,000 spawners could yield a surplus of about 90,000

fish. An escapement goal range (peak aerial count) of 26,000 to 57,000 sockeye salmon has been established for the East River.

### *Situk-Ahrnklin and Lost River*

The Situk-Ahrnklin Inlet is the site of the oldest and, historically, most productive fishery in the Yakutat area. Located about nine miles by road from Yakutat, the Situk-Ahrnklin fishery normally supports the largest concentration of fishing effort in Yakutat (up to 96 permits). Fishing occurs primarily in the inlet, although some fishing occurs at the river mouth and in the adjoining surf-fishing area. Sockeye salmon make up the major portion of the harvest during the summer and coho salmon dominate the catch during the fall. Situk-Ahrnklin catches have averaged about 63,000 sockeye, 139,000 coho, 50,000 pink, and 4,000 chinook salmon (1995-1999).

The 1995 brood year Situk River sockeye escapement was 42,500 fish. Based on return per spawner data, the 2000 Situk River sockeye catch is expected to be around 75,000 fish with an escapement of 50,000 fish. The sockeye salmon escapement goal range for the Situk River drainage is 30,000 to 70,000 fish through the weir.

An early opening (June 12) for the eastern part of the Situk-Ahrnklin Inlet will depend on the number of chinook salmon counted at the Situk River weir and surveys conducted on the Ahrnklin River. Run timing of Ahrnklin sockeye is generally earlier than Situk sockeye. Evidence of the earlier timing and strength of the Ahrnklin River sockeye was seen when approximately 10,000 sockeye were harvested in openings during the second week of June in 1990 and 1991. Age composition analysis indicates that most of the harvested sockeye were freshwater age 0; distinguishing them from Situk stocks. There is no parent-year (1996) escapement information for the Ahrnklin River. Fishing periods will be based on fishery performance and escapements through the Situk River weir. A run-timing model will be used to estimate the total Situk River sockeye run beginning after several weeks of harvest and escapement data is available. A similar model will be used to project Situk chinook salmon abundance.

Because chinook salmon are taken incidentally in the set gillnet fishery, the Situk commercial catch of chinook is largely dependent on the fishing time allowed for sockeye. If the chinook salmon return is weak, conservation actions may be necessary to reduce the incidental harvest of chinook salmon. Conservation and allocation objectives associated with the harvest of Situk River chinook salmon are described in the "Situk-Ahrnklin Inlet and Lost River Chinook Management Plan" [5 AAC. 30.365].

Management options for maximizing harvest of Situk River pink salmon are limited due to the overlap in run timing with the more abundant sockeye and coho salmon. Escapement goals for pink salmon in the Situk River are 42,000 to 105,000 in even years and 54,000 to 200,000 in odd years. The parent year (1998) escapement past the Situk weir was 97,000 pinks.

Steelhead trout in post-spawning condition occasionally accumulate in the Situk River prior to the time they emigrate to the ocean. When the emigration is late, there is a potential for the Situk setnet fishery to harvest a larger than normal number of adults. The rate of emigration of spawned-out steelhead often increases following periods of heavy rainfall. If a major emigration is expected to occur during a scheduled gillnet fishing period, the opening may be delayed for a few days to reduce the incidental harvest of steelhead.

During the winter of 1998/99 the Lost River changed course and flowed into the Situk/Ahrnklin Estuary instead of the Gulf of Alaska. An attempt was made by some concerned citizens to divert the River back to the Gulf. This action was not successful and the Lost River continues to flow into the Situk/Ahrnklin

Estuary. Prior to the 1999 fishing season the department developed a management plan for the Lost River and Situk/Ahrnklin Estuary with the intent of meeting escapement requirements for the Lost River. This plan closed the Lost River and the North bank of the Situk/Ahrnklin Estuary between an ADF&G regulatory marker approximately 100 yards above the confluence of the Lost River and the Situk/Ahrnklin Estuary and a marker located near the mouth of the Situk/Ahrnklin Estuary. The plan went into effect at the beginning of the season and the Lost River (Tawah Creek) was surveyed weekly throughout the season to monitor escapement. The lower marker was moved closer to the Lost River as escapement objectives in the Lost River were met. The end result was that sockeye and coho escapement goals for both the Lost River and the Situk/Ahrnklin system were met.

Based on observations made in 1999 the plan has been modified for the 2000 fishing season. The weekly escapement surveys on the Lost River indicated sockeye run timing is different for Lost River and Situk/Ahrnklin stocks. Therefore, the north bank of the Situk/Ahrnklin Estuary from a marker at the mouth of the estuary to a marker 100 yards above the confluence of the Lost River will be close to commercial set gillnet fishing beginning July 10. Prior to this date the closed area will be confined to 100 yards on each side of the mouth of the Lost River. It is anticipated that the Lost River will remain closed for the entire season. The intent of these closures is to achieve the escapement goal (peak float count) of between 1,000 and 2,300 sockeye salmon that has been established for the Lost River and to maximize fishing opportunity in the Situk/Ahrnklin Estuary. Regulatory marker placement may change during the course of the season as escapement warrants.

### ***Yakutat Bay***

Three separate set gillnet fisheries occur in Yakutat Bay. The Monti Bay fishery occurs in the ocean waters of Yakutat Bay south of 59°40' N. latitude and opens by regulation on the second Monday of June (June 12). The Manby Shore Ocean fishery encompasses the ocean waters of Yakutat Bay north of 59°40' N. latitude and opens the third Monday of June (June 19) by regulation. The Manby Shore Inland fishery opens by regulation on the fourth Monday of June (June 26) and includes the streams along the northern shore of Yakutat Bay.

### **Monti Bay and Manby Shore Ocean Fisheries**

Both the Monti Bay and Manby Shore Ocean fisheries harvest mixed stocks of sockeye salmon. Tag recovery data collected in 1987 indicated that a major portion of the Monti Bay sockeye harvest was of Situk origin. Because of the high Situk River sockeye contribution to the Monti Bay and Manby Shore ocean fisheries, both fisheries will be managed to conserve or harvest Situk River sockeye from the third week in June through the third week of July. The Monti Bay fishery will open by regulation on Monday, June 12 for 2.5-days. The weekly fishing period will be limited to a maximum of 4.5 days due to the mixed stock nature of the ocean fisheries and the potentially adverse impact on weaker Yakutat area stocks.

The Manby Shore fishery will open by regulation on Monday, June 19. Weekly fishing periods will depend on Situk River sockeye salmon run strength.

### **Manby Shore Inland Fishery**

Management of the Manby Shore inland fisheries (waters upstream of the mean high tide line) will be based on the abundance of local stocks. During the summer, these fisheries harvest salmon primarily from Manby and Sudden Streams. A 2.5-day weekly fishing period can be expected during the initial opening period scheduled for June 26. Additional open periods will depend on fishery performance.

## **Humpback Creek Fishery**

The Humpy Creek fishery located in the southeastern portion of Yakutat Bay targets pink salmon. A below average run is expected at Humpy Creek for the 2000 season. The parent-year (1998) escapement was well below the escapement goal range. Inseason management of this fishery will be based on observed pink salmon escapement to Humpy Creek and the availability of pink salmon in the Yakutat Bay fishery. Escapement goals (peak aerial count) of 3,300 to 8,000 pink salmon in even years and 7,000 to 18,000 pink salmon in odd years have been established for Humpy Creek.

## ***Akwe River***

The Akwe River is a glacial river system located about 35 miles south of Yakutat. The lower seven miles of the river are wide and shallow and flow parallel to the beach before entering the ocean. The commercial fishery occurs in this lower portion of the river. The 1995-1999 average Akwe River harvest was approximately 2,600 sockeye, 8,500 coho, and 37 chinook salmon.

The sockeye salmon return to the Akwe River is expected to be average in 2000 based on parent-year fishery performance and effort. No parent-year escapement counts are available. Decreased sockeye salmon production in the last several years has resulted in a reduction of fishing effort. In spite of the reduced effort, fishery performance has not improved and reductions in the normal 2.5-day weekly fishing period have been necessary. The sockeye fishery is scheduled to open by regulation on June 26 and the season should extend through early August. Inseason management will be based on fishery performance and index escapement counts. An escapement goal (peak aerial count) of 600 to 1,500 sockeye salmon has been established for the Akwe River.

The Akwe River will be open upstream of the markers located about 0.5 miles from the terminus of the Akwe River lagoon at mean low tide to the upper markers located 2.5 miles downstream from the westernmost end of the Sand Dunes, a fishing area of about four miles.

## ***Italio River***

The Italio River is located adjacent to the Akwe River. The Italio supports small runs of sockeye and coho salmon. The course of the Italio River changed and flowed into the lower Akwe River during the winter of 1986/87 and both rivers now share a common mouth. Both Italio and Akwe salmon stocks are present in this area and for some distance upstream in each river. Determination of Akwe or Italio run strengths based on fishing success in the junction area is not possible. Therefore, the junction and a portion of each river above the junction is closed to set gillnet fishing.

The Italio River sockeye salmon fishery has not been open since 1987. When the Italio River changed channel and entered the Akwe River lagoon, the homing ability of Italio River sockeye salmon may have been negatively affected. As a result, it may take several years for the productivity of the Italio River sockeye stock to return to historic levels. The Italio River fishery opens by emergency order when good escapements are observed. The parent-year escapements for this year's sockeye return were in the lower range of the escapement goal. An escapement goal (peak aerial count) of 2,500 to 7,000 sockeye salmon has been established for the Italio River.

### *Yakataga District*

The Yakataga District is not expected to be open during the sockeye season in 2000. It will open by emergency order sometime in August based on coho escapement.

### **2000 FALL MANAGEMENT PLAN**

Fall fishing is directed primarily at harvesting coho salmon, although fall chum salmon contribute to the catches on the East River. The fall fishing season generally begins on the first Monday of August. At that time, the regulatory weekly fishing period changes in most areas to a 12:01 p.m. opening, and 12:00 noon, closing time.

During the fall, set gillnet fishing occurs in both the Yakutat and Yakataga Districts. In the Yakutat District, the fall coho salmon fishery occurs primarily in the same areas as the summer sockeye salmon fishery. In the Yakataga District, there are areas where only coho salmon fishing takes place.

Overall catches and escapements of coho salmon in the Yakutat area were good in the parent year (1996). As a result, the 2000 coho salmon run is expected to be strong areawide.

### *Yakutat District*

Fall fishing will begin on August 7 in the Yakutat District, except in the East River where management will continue to be based on sockeye salmon run strength through most of August. The initial fishing periods can be expected to extend from 12:01 p.m. Monday through 12:00 noon Thursday, the normal fall weekly gillnet period specified by regulation.

Inseason management of all Yakutat District fall fisheries will be based on fishery performance data and inseason coho escapement surveys. The following escapement goals (peak aerial or float counts) have been established for coho salmon in the Yakutat District: East River 2,500 to 8,500; Akwe River 1,800 to 5,000; Itatio River 1,400 to 3,600; Situk River 3,300 to 9,800; and Lost River 2,200 to 6,500.

Fishing time and area adjustments will be made for each river as needed for conservation. A closed area can be expected in the Yahtse River to protect schools of milling coho salmon at tributary mouths. The actual closed water area will be based on inseason observations of coho schooling behavior, which is related to river flow conditions. Several small coho streams are located along the forelands west of the Yahtse River to Cape Yakataga. Most of these streams have very small numbers of spawning coho and cannot support inriver set gillnet fisheries. This entire area will remain closed until harvestable surpluses are evident.

### *Yakataga District*

The major fisheries in the Yakataga District occur for coho salmon on the Kaliakh and Tsiu Rivers, located about 125 miles northwest of Yakutat. The Tsiu River is the more productive of the two rivers; in recent years, catches have averaged about 56,000 coho salmon, while the Kaliakh harvest has averaged about 5,000 coho salmon. Parent-year (1996) escapement counts were within the goal range for the Tsiu River. No aerial index counts are available for the Kaliakh due to poor weather conditions in parent years. The 2000 coho salmon return is expected to be strong. Escapement goals (peak aerial counts) of 10,000 to 29,000 and 4,000 to 14,000 coho salmon have been established for the Tsiu and Kaliakh rivers, respectively.

The Tsiu River opening date and fishing periods will be determined from observed escapements above and below the regulatory markers. The Kaliakh River weekly fall fishing periods will normally open from 9:00 a.m., Monday through 9:00 a.m., Thursday, beginning on August 14.

## **YAKUTAT AREA-2000 SALMON RUN PROJECTIONS**

### *Sockeye Salmon*

#### **Alsek River**

The parent-year escapement was approximately 20,000 through the Kluksu Weir. A total catch of around 20,000 sockeye is expected.

#### **East River**

The parent-year escapement was estimated at 29,000 fish. An average return per spawner would yield a catch of around 90,000 fish, with an escapement of 26,000 to 50,000. However, based on recent returns to the East River an average return per spawner is not expected.

#### **Akwe River**

No parent-year escapement counts are available. An average catch is expected for 2000 based on parent-year fishery performance and effort.

#### **Italio River**

Parent-year escapement was within the recommended escapement goal range. Although recent returns have been improving, it is unlikely there will be a directed sockeye salmon fishery in the Italio River in 2000.

#### **Situk River**

The parent-year escapement was 42,000 fish. A catch of around 75,000 sockeye, with an escapement of about 50,000 sockeye salmon is expected.

## *Coho Salmon*

### **Tsiu/Kaliakh River**

Depending on effort levels, a catch of over 60,000 coho may be possible in the Tsiu River in 2000. In the Kaliakh River, a harvest of 4,000 to 7,000 coho is possible.

### **Areawide**

Parent-year escapements were above average in most areas. The run is expected to be strong. The area wide set gillnet catch is expected to be about 200,000 coho.

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