

Regional Information Report No. 1J13-08

2013 Yakutat Set Gillnet Fishery Management Plan

by

Gordon F. Woods

and

Nicole L. Zeiser

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Alaska Department of Fish and Game

Division of Commercial Fisheries



Symbols and Abbreviations

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| Weights and measures (metric) | | General | | Mathematics, statistics | |
|---|--------------------|--|---|---|-------------------------|
| centimeter | cm | Alaska Administrative Code | AAC | <i>all standard mathematical signs, symbols and abbreviations</i> | |
| deciliter | dL | all commonly accepted abbreviations | e.g., Mr., Mrs., AM, PM, etc. | alternate hypothesis | H _A |
| gram | g | | | base of natural logarithm | <i>e</i> |
| hectare | ha | all commonly accepted professional titles | e.g., Dr., Ph.D., R.N., etc. | catch per unit effort | CPUE |
| kilogram | kg | | | coefficient of variation | CV |
| kilometer | km | at | @ | common test statistics | (F, t, χ^2 , etc.) |
| liter | L | compass directions: | | confidence interval | CI |
| meter | m | east | E | correlation coefficient (multiple) | R |
| milliliter | mL | north | N | correlation coefficient (simple) | r |
| millimeter | mm | south | S | covariance | cov |
| | | west | W | degree (angular) | ° |
| | | copyright | © | degrees of freedom | df |
| Weights and measures (English) | | corporate suffixes: | | expected value | <i>E</i> |
| cubic feet per second | ft ³ /s | Company | Co. | greater than | > |
| foot | ft | Corporation | Corp. | greater than or equal to | ≥ |
| gallon | gal | Incorporated | Inc. | harvest per unit effort | HPUE |
| inch | in | Limited | Ltd. | less than | < |
| mile | mi | District of Columbia | D.C. | less than or equal to | ≤ |
| nautical mile | nmi | et alii (and others) | et al. | logarithm (natural) | ln |
| ounce | oz | et cetera (and so forth) | etc. | logarithm (base 10) | log |
| pound | lb | exempli gratia | | logarithm (specify base) | log ₂ , etc. |
| quart | qt | (for example) | e.g. | minute (angular) | ' |
| yard | yd | Federal Information Code | FIC | not significant | NS |
| | | id est (that is) | i.e. | null hypothesis | H ₀ |
| Time and temperature | | latitude or longitude | lat. or long. | percent | % |
| day | d | monetary symbols | | probability | P |
| degrees Celsius | °C | (U.S.) | \$, ¢ | probability of a type I error (rejection of the null hypothesis when true) | α |
| degrees Fahrenheit | °F | months (tables and figures): first three letters | Jan,...,Dec | probability of a type II error (acceptance of the null hypothesis when false) | β |
| degrees kelvin | K | registered trademark | ® | second (angular) | " |
| hour | h | trademark | ™ | standard deviation | SD |
| minute | min | United States (adjective) | U.S. | standard error | SE |
| second | s | United States of America (noun) | USA | variance | |
| | | U.S.C. | United States Code | population sample | Var var |
| Physics and chemistry | | U.S. state | use two-letter abbreviations (e.g., AK, WA) | | |
| all atomic symbols | | | | | |
| alternating current | AC | | | | |
| ampere | A | | | | |
| calorie | cal | | | | |
| direct current | DC | | | | |
| hertz | Hz | | | | |
| horsepower | hp | | | | |
| hydrogen ion activity (negative log of) | pH | | | | |
| parts per million | ppm | | | | |
| parts per thousand | ppt, ‰ | | | | |
| volts | V | | | | |
| watts | W | | | | |

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By
Gordon F. Woods and Nicole L. Zeiser
Alaska Department of Fish and Game, Division of Commercial Fisheries, Yakutat

Alaska Department of Fish and Game
Division of Commercial Fisheries, Publications Section
802 3rd Street, Douglas, AK 99824

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*Gordon F. Woods,
and
Nicole L. Zeiser
Alaska Department of Fish and Game, Division of Commercial Fisheries,
P.O. Box 49
Yakutat, AK 99689, USA*

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TABLE OF CONTENTS

| | Page |
|---|-------------|
| LIST OF TABLES..... | i |
| ABSTRACT | 1 |
| INTRODUCTION | 1 |
| Anticipated Salmon Return..... | 1 |
| Fishery Management | 2 |
| 2013 SUMMER MANAGEMENT PLAN | 3 |
| Alsek River..... | 3 |
| Dangerous River | 5 |
| Yakutat Bay and Manby Shore Ocean Fisheries | 5 |
| Situk-Ahrnklin Inlet and Lost Rivers..... | 5 |
| East River | 8 |
| Akwe River..... | 8 |
| Manby Shore Inside Fishery | 9 |
| Humpback (Humpy) Creek Fishery..... | 9 |
| Italio River..... | 9 |
| Yakataga District | 10 |
| 2013 FALL MANAGEMENT PLAN | 10 |
| Yakutat District | 10 |
| Yakataga District | 11 |
| 2013 SALMON RUN EXPECTATIONS | 11 |
| Sockeye Salmon | 11 |
| Alsek River | 11 |
| East River | 11 |
| Akwe River..... | 11 |
| Italio River..... | 12 |
| Situk River | 12 |
| Coho Salmon | 12 |
| Tsiu/Kaliakh River..... | 12 |
| Area wide..... | 12 |
| FISHERY CONTACTS | 13 |

LIST OF TABLES

| Table | Page |
|--|-------------|
| 1. Yakutat area salmon escapement goals | 2 |
| 2. Opening dates for Yakutat area fisheries in 2013..... | 3 |

ABSTRACT

The 2013 Yakutat set gillnet fishing seasons and fishing periods will open by regulation on Sunday as specified in 5 AAC 30.310 and 5 AAC 30.320. The Alsek River will open on Sunday, June 2, Yakutat Bay will open on Sunday, June 9, the Situk-Ahrnklin Inlet and Manby Shore Outside Waters will open on Sunday, June 16. All Yakutat District fisheries will be open by Sunday, June 23 with the exception of the East Alsek River and the Italo rivers which will open by emergency order when sockeye escapement levels can be documented. The East Alsek River will be managed for sockeye salmon into September. Set gillnet fisheries are managed by adjusting fishing times and areas in response to inseason assessments of run strength. Management strategies will concentrate on sockeye and Chinook salmon in June and July. Following the first Sunday in August, fall fishing periods will go into effect and the emphasis for management strategies will switch to coho salmon. No formal preseason forecast program exists for the Yakutat salmon runs with the exception of Situk River Chinook salmon. The Division of Sport Fish provides a formal preseason forecast for Chinook salmon returning to the Situk River. The projected inriver return of Chinook salmon to the Situk River is 475 large fish (range 173–769). Returns are expected to be below average for sockeye salmon, and average to above average for coho salmon.

Keywords: Yakutat, set gillnet, fishing seasons, fishing periods, Chinook, sockeye, coho, pink and chum salmon, Biological Escapement Goals (BEGs), Sustainable Escapement Goals (SEGs), fishery management plan.

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 coho, sockeye, Chinook, and pink salmon comprising the majority of the catch in order of commercial value.

Set gillnet gear is the only net gear permitted in the Yakutat area. A power and hand troll fishery also occurs and is managed out of the Sitka Fish and Game office. 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 area 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.

In January 2006 the Alaska Board of Fisheries (BOF) adopted two regulations that permanently changed the weekly fishing periods and fishing seasons for the Yakutat Area from Monday to Sunday of each week. In 2013 the Alsek River will open on the first Sunday in June (June 2), Yakutat Bay and the Dangerous River will open on the second Sunday in June (June 9), and the Situk-Ahrnklin Inlet and Manby Shore Outside Waters will open on the third Sunday in June (June 16). By the fourth Sunday in June (June 23) all fisheries in the Yakutat District with the exception of the East River and the Italo rivers, may be open if expected returns are surplus to escapement needs. The East River will open in mid to late July when the lower end of the sockeye salmon escapement goal has been observed.

ANTICIPATED SALMON RETURN

No formal preseason forecast program exists for the Yakutat salmon runs except for Situk River Chinook salmon. Preseason expectations are based on parent-year spawning escapements,

commercial catch trends, local observations of rearing conditions, and information on year-class strength. The projected inriver Chinook salmon return to the Situk River is 475 three years or older fish (range 173–769). The 2013 Yakutat area salmon runs are expected to be below average for sockeye and average to above average for coho salmon. Detailed projections by specific drainage area are presented on pages 11–12.

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. Biological Escapement Goals (BEG) and Sustainable Escapement Goals (SEG) have been established for all major areas and salmon species in the Yakutat Area (Table 1).

Table 1.–Yakutat area salmon escapement goals.

| Species | System | Range | Year Established. |
|----------------|-----------------------------|---------------|--------------------------|
| Chinook | Klukshu River (Alsek River) | 800–1,200 | 2011 |
| | Alsek River (total) | 3,500–5,300 | 2011 |
| | Situk River | 450–1,050 | 2003 |
| Sockeye | East Alsek-Doame River | 13,000–26,000 | 2003 |
| | Klukshu River | 7,500–11,000 | 2011 |
| | Lost River | 1,000 | 2009 |
| | Situk River | 30,000–70,000 | 2003 |
| Coho | Lost River | 2,200 | 1994 |
| | Situk River | 3,300–9,800 | 1994 |
| | Tsiu/Tsivat Rivers | 10,000–29,000 | 1994 |
| Pink | Situk River* | 33,000 | 2011 |

Note: The Lost River sockeye and coho salmon, and Situk River pink salmon escapement goals are considered SEGs.

* The escapement goal is for 33,000 pink salmon through the weir by August 5.

During 2013, the major fishing areas can be expected to open on the dates shown in the following table (Table 2):

Table 2.—Opening dates for Yakutat area fisheries in 2013.

| Yakutat District | | |
|--------------------------------------|---------------------|--|
| Area | Opening Date | |
| Alsek River | 2 June | |
| Dangerous River | 9 June | |
| Yakutat Bay (south of 59°40' N lat.) | 9 June | |
| Manby Shore Ocean | 16 June | |
| Situk-Ahrnklin Inlet | 16 June | |
| Lost River | by Emergency Order | |
| East River | by Emergency Order | |
| Akwe River | 23 June | |
| Manby Shore Inside | 23 June | |
| Remainder of the Yakutat District | 23 June | |
| Italio River | by Emergency Order | |

| Yakataga District | | |
|--------------------------|---------------|---------------------------------------|
| Season | Area | Opening Date |
| Sockeye salmon | All areas | by Emergency Order |
| Coho salmon | Kaliakh River | 4 August |
| | Tsiu River | by Emergency Order (around August 18) |

2013 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 biologists listed at the end of the plan. Most Yakutat gillnet openings for sockeye salmon will generally run from 6:00 a.m. Sunday through 6:00 p.m. Tuesday.

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 sockeye and coho salmon. Canadian subsistence and sport fisheries target sockeye and Chinook salmon.

Commercial salmon landings from the Alaskan portion of the Alsek River averaged approximately 17,500 sockeye, 1,500 coho, and 500 Chinook salmon annually from 2007 through 2012—excluding the 2008 return which was an outlier. The Canadian subsistence and sport harvest has averaged approximately 130 Chinook, 800 sockeye, and 15 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 Chinook salmon during May in the Alaskan portion of the Alsek River. However, due to what was thought to be depressed runs, the directed Chinook salmon fishery has been closed since 1962 and Chinook salmon have been harvested only incidentally during the sockeye salmon fishery in early June. In 2005 the Transboundary River Panel of the Pacific Salmon Commission reached bilateral agreement to reopen the Stikine and Taku Inlet gillnet fisheries. At that time they also established a test fishery for the Alsek River that took place in late May of 2005–2008, 2011 and 2012. Because the bottom end of the Chinook salmon escapement goal of 1,100 fish in place at the time of the fisheries was not attained in 2005 through 2008 the test fishery was suspended in 2009 and 2010 to facilitate Chinook salmon escapement. Escapements improved in 2009 through 2011 and were within the desired objectives. The Chinook salmon escapement goal was not attained in 2012 and the test fishery for Chinook salmon will not be conducted in 2013. It is anticipated that the Transboundary River Panel will at some point reach bilateral agreement to reopen the Alsek River to commercial fishing for Chinook salmon in May if run strength allows. In January, 2006 the BOF adopted regulatory language to allow for this fishery should agreement be reached.

The principal escapement monitoring tool for Chinook stocks in the Alsek River is the Klukshu River weir. The escapement goal of 1,100 to 2,300 Chinook salmon through the Klukshu weir was recently re-examined. A revised joint escapement goal for the Klukshu stock was adopted by both the Department of Fisheries and Oceans (DFO), Canada and ADF&G in 2011, which recommends an escapement goal range of 800 to 1,200 Chinook spawners in the Klukshu drainage. Canadians and U.S. managers have agreed to a minimum escapement goal of 800 spawners in the Klukshu drainage in 2013. The 2013 Chinook salmon run is expected to produce fish surplus to the Klukshu River escapement goal.

The 2013 overall Alsek drainage sockeye salmon run is expected to be approximately 40,000 fish; this is well below the recent 10-year average of 80,000 fish. Recent sockeye and Chinook salmon returns have been below average, primarily due to poor marine survival. The principle contributing brood years will be 2008 (Klukshu escapement of 2,731 sockeye salmon) and 2009 (Klukshu escapement of 5,731 sockeye salmon). Both the early and late run segments of the Alsek sockeye run are expected to be below average in 2013. The current data pertinent to the escapement goal of 7,500 to 15,000 sockeye salmon through the Klukshu weir was recently re-examined and a new BEG was adopted in 2011. As a result of this analysis, Canadian and U.S. managers have bilaterally agreed on a spawning escapement goal range of 7,500 to 11,000 sockeye salmon. The Department of Fish and Game will manage the Alsek River commercial set gillnet fishery to achieve the agreed upon escapement goal range plus 3,000 sockeye salmon in accordance with the 2009–2018 agreement reached during the U.S./Canada Pacific Salmon Treaty (PST) negotiations in February 2008. The outlook for the 2013 sockeye salmon run indicates that it may be difficult to achieve the BEG of at least 7,500 to 11,000 spawners through the Klukshu River weir. The BEG for sockeye salmon was not attained in 2008 and 2009. According to Treaty language any transboundary system that does not attain the BEG for three years in a row comes under scrutiny. This can and may include a complete closure of a fishery. As a result, in 2010 the Alsek River commercial set gillnet fishery was managed very conservatively in an attempt to meet the BEG and the goal was achieved. Management strategies went back to traditional regimes in 2011 and 2012 and the goal was again attained in both years. In 2013 the

Alsek River commercial set gillnet fishery will continue to be managed traditionally by monitoring fishery performance data and comparing it to historical CPUE for a given opening to adjust fishing time and area openings. The Alsek will open downstream from a marker located three miles below the southern end of Alsek Basin on the first Sunday in June (June 2). Weekly openings will initially be set at 24 hours. The duration of weekly fishing periods will be based on fishery performance data (CPUE) and Klukshu weir data. Historically, gillnets have been restricted to a maximum mesh size of 6 inches through July 1 to minimize Chinook salmon harvest. In 2013 there will be no mesh restriction. Adjustments to inseason fishing regimes in the fisheries would be made if deemed necessary. Fishing times could be extended when CPUE warrants. The Alsek River surf fishing area is expected to be open during the same periods as the in-river 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.

DANGEROUS RIVER

The Dangerous River will be opened downstream from the Dangerous River Bridge on June 9th. Catch and effort from this system has been sporadic. Seven permits fished the Dangerous River during the 2008 parent year, and approximately 2,800 sockeye salmon were harvested. In 2012 six permits harvested approximately 6,000 sockeye salmon which is above the recent 5-year average of 5,000 fish. The Dangerous River is seldom fished for coho salmon. Marine waters adjacent to the mouth of the Dangerous will be open to the same fishing periods as the Dangerous River itself.

YAKUTAT BAY AND MANBY SHORE OCEAN FISHERIES

Three separate set gillnet fisheries occur in Yakutat Bay. The Yakutat Bay fishery occurs in the ocean waters of Yakutat Bay south of 59°40' N. latitude and will open on the second Sunday of June (June 9) for 2.5 days. The Manby Shore Ocean fishery encompasses the ocean waters of Yakutat Bay north of 59°40' N. latitude and will open the third Sunday of June (June 16). Weekly fishing periods will depend on Situk River sockeye salmon run strength. The Manby Shore Inside Waters fishery will open on the fourth Sunday of June (June 23) in streams along the northern shore of Yakutat Bay.

Both the Yakutat 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 Yakutat Bay sockeye harvest was of Situk River origin. Because of the high Situk River sockeye salmon contribution to the Yakutat 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 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.

SITUK-AHRNKLIN INLET AND LOST RIVERS

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 100 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 harvests have

averaged about 60,000 sockeye, 68,000 coho, 80,000 pink and 100 Chinook salmon (2007–2012, excluding the outlier year of 2008.).

The 2008 brood year Situk River sockeye salmon escapement was approximately 22,500 fish. This was below the BEG range of 30,000 to 70,000 sockeye salmon established for the Situk River drainage. The weir was removed before the end of the sockeye salmon run on July 23 due to flooding and large debris damaging the weir. Recent trends and return per spawner data indicates that the 2013 Situk River sockeye salmon run could approach 75,000 fish. A mid-range escapement of 50,000 could leave somewhere in the vicinity of 20,000-40,000 fish available for harvest. Sockeye salmon returns in recent years have not lived up to preseason expectations, and the actual surplus available for harvest may not exceed 20,000 sockeye salmon.

The Situk-Ahrnklin Inlet will open initially on Sunday, June 16. Fishing periods will be based on fishery performance and escapements through the Situk River weir. The escapement of Chinook and sockeye salmon through the weir serve as an inseason indicator of stock strength. Adjustment to the Situk-Ahrnklin Inlet commercial set gillnet fisheries may be made on the basis of these counts. A run-timing model will be used to estimate the total Situk River sockeye salmon run after several weeks of harvest and escapement data are available. A similar model will be used to project Situk Chinook salmon abundance.

Chinook salmon are taken incidentally in the set gillnet fishery, and the Situk-Ahrnklin Inlet commercial harvest of Chinook salmon is largely dependent on fishing time allowed for sockeye salmon. The point estimate for the preseason Situk River Chinook salmon forecast in 2013 is 475 large (3-ocean age and older) fish, with a range of 173–769 fish. This year's estimate is slightly lower than last year's forecast (2012 = 500 large fish). The BEG for Situk River Chinook salmon is 730 three ocean age and older fish, with a range of 450–1,050 fish. According to Yakutat Commercial Fishing Regulation 5 AAC 30.365, if the preseason projection is below 451–730 fish, the Commissioner **shall implement management measures for conservation purposes by restricting** the sport, subsistence, personal use, commercial set gillnet, and troll fisheries for Chinook salmon. No personal use fishery exists in the Situk-Ahrnklin Inlet. During the commercial set gillnet fishery for sockeye salmon, Chinook salmon may not be retained. The troll fishery in the marine waters adjacent to the mouth of the Situk-Ahrnklin Inlet will close at the start of the summer season on July 1, 2013. The Situk-Ahrnklin Inlet and Lost River King Salmon Fisheries Management Plan (5 AAC 30.365) makes no mention of sockeye salmon management strategies during periods of low Chinook salmon abundance. Due to low projected abundance, strict management actions were implemented by the department for Chinook salmon conservation during the sockeye fishery in 2011 and 2012. With poor Chinook salmon returns for three years in a row, the department will again manage the fisheries conservatively in an attempt to achieve both Chinook and sockeye salmon escapement goals. Management measures anticipated by the department for Chinook salmon conservation during the sockeye salmon fishery in 2013 include:

- a) The closed area at the mouth of the Situk River will be enlarged to encompass the area of high Chinook salmon abundance in the Inlet. This will be a line from the far eastern end of Johnson Slough to a marker on the shore of Black Sand Spit to a marker west of the mouth of the Situk River in the vicinity of the Yakutat Seafoods buying station.
- b) Chinook salmon may not be retained in the commercial fishery for individual personal use. Dead Chinook salmon may be delivered to the buying stations at the time of sockeye

salmon delivery for distribution to the Yakutat Senior Center and other needy in the community (blind, disabled, or 65 years of age or older).

- c) The department requests that permit holders closely attend the gear when it is in fishing configuration and release Chinook salmon alive. The department has no regulatory authority to enforce this measure, but the alternative may be a closure of the fishery for sockeye salmon. If you, as a permit holder, want to fish for sockeye salmon, stay on your gear when it is in fishing configuration.
- d) Subsistence fishing for Chinook salmon will be closed until Chinook salmon escapements warrants. It is a condition of the subsistence permit that subsistence fishermen in the Situk-Ahrnklin Inlet must closely attend their gear at all times when it is fishing. Chinook salmon may not be retained.
- e) The commercial set gillnet fishery in the Situk-Ahrnklin Inlet will open by regulation on the third Sunday in June (June 16) for a 60 hour period (2.5 days). Subsequent weekly fishing periods may be adjusted as the effectiveness of this plan is evaluated inseason.
- f) The sport fishery for Chinook salmon in the Situk River will be closed due to low projected abundance. Management measures may be adjusted inseason if Chinook returns meet escapement goals.

Management options for maximizing harvest of Situk River pink salmon are limited due to the overlap in run timing with sockeye and coho salmon. The historical biological escapement goals for pink salmon in the Situk River of 42,000 to 105,000 in even years and 54,000 to 200,000 in odd years was recently reevaluated. Given uncertainties regarding total escapements, the revised spawning escapement goal for Situk River pink salmon is now based on a more stable index of escapement. The recommended goal is a lower bound sustainable escapement goal (SEG) of 33,000 pink salmon counted at the Situk River weir through August 5 (Piston and Heintz 2011). The parent year (2011) escapement past the Situk weir was approximately 170,000 pink salmon. Subsequent float surveys recorded a peak escapement count of approximately 200,000 pink salmon.

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 set gillnet 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 1998/1999 the Lost River mouth underwent geological changes and discharged into the Situk/Ahrnklin Estuary instead of the Gulf of Alaska. The Lost River continues to flow into the Situk/Ahrnklin Estuary. Prior to the 1999 fishing season ADF&G 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 100 yards below the confluence. Sockeye salmon are never seen during escapement surveys in Tawah Creek prior to the week of July 10. During the week of July 10 both markers will be moved out to 500 yards from the confluence to protect returning sockeye salmon stocks to the Lost River drainage. This marker configuration will remain in effect through the coho salmon season. While coho salmon escapement goals for both the Lost River and the

Situk/Ahrnklin system have been consistently met using this management scenario, the escapement goal of 1,000 sockeye salmon for the Lost River was not attained in 2007–2009, or 2012. Although the sockeye salmon escapement goals were achieved in 2010 and 2011, sockeye salmon productivity in the Lost River is thought to be declining due to geological changes in the system. It is anticipated that the Lost River will remain closed to commercial fishing for the entire season. The intent of this closure is to achieve the SEG for both sockeye and coho salmon, while providing for a normal fishery in the Situk-Ahrnklin Inlet. Regulatory marker placement at the mouth of the Lost River may change during the course of the season as escapement or river channel movement warrants.

EAST RIVER

The East River is a short, clear river originating from upwelling Alek River water 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 areas are 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, however salmon catches have dramatically declined. From 1994 to 1998, average catch was about 37,000 sockeye, 1,500 chum, and 7,400 coho salmon. The river was closed to commercial fishing for sockeye during 1999 through 2002. The East was opened during coho season in 2002, and for both sockeye and coho salmon from 2003 to 2007. During those recent-year openings sockeye salmon catches steadily increased, from a low of 2,500 in 2003 to a high of almost 63,000 in 2007. In 2007 the East opened during the second week of July, some years it does not open until the third or fourth week of July. The river was not open to fishing in 2008. In 2009 escapement goals for sockeye were met and the fishery was opened to commercial fishing on July 19. In 2010 the East River was not open during sockeye season but opened during coho season on September 4. Escapement goals for both sockeye and coho salmon were met in 2010. In 2011 and 2012 escapement goals for sockeye were met and the fishery was opened to commercial fishing. In 2012 a peak escapement count of 13,000 sockeye salmon was observed on July 28.

The East River will be managed to achieve the BEG of 13,000 to 26,000 sockeye salmon. Returns to the East River are predominantly age 4 (0.3). The 2008 parent-year escapement was an anomaly with an estimated escapement of 7,000 sockeye salmon, well below the BEG. Escapement will be closely monitored, and the East will not open until the lower end of the escapement goal is attained. The duration of the weekly fishing periods will be based on escapement observations.

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 2008–2012 average Akwe River harvest was approximately 9,000 sockeye and 85 Chinook salmon. Historically, the Akwe coho salmon harvest has averaged approximately 4,000 fish, but the recent average of 3,000 has been due to decreased effort because of market conditions.

The sockeye salmon return to the Akwe River is expected to be below average in 2013 based on parent-year fishery performance and effort. The 2008 parent year harvest of 3,000 sockeye salmon is well below the recent five-year average and is the lowest recorded harvest during that time. Parent-year escapement counts were minimal due to the turbidity of the river. The sockeye fishery is scheduled to open on Sunday, June 23 and the season will extend through early August. Inseason management will be based on fishery performance and index escapement counts, and reductions in the normal 2.5-day weekly fishing period may be necessary to ensure adequate escapement. 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 regulatory markers located approximately 500 yards upstream from the confluence of the New Italo River to the upper markers located 2.5 miles downstream from the westernmost end of the Sand Dunes, a fishing area of about 3 and one half miles.

MANBY SHORE INSIDE FISHERY

Management of the Manby Shore inside 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 23. Additional open periods will depend on fishery performance.

HUMPBACK (HUMPY) CREEK FISHERY

The Humpy Creek fishery located in the southeastern portion of Yakutat Bay targets pink salmon. An average to above average run is expected at Humpy Creek for the 2013 season based on the 2011 parent year. 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. Prior to 2011 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 were established for Humpy Creek when fishermen targeted pink salmon near the mouth of the creek. There has not been a directed fishery on Humpy Creek since 1988 and there are no longer escapement goals in place for this system.

ITALIO RIVER

The Italo River is located adjacent to the Akwe River. The Italo supports small runs of sockeye and coho salmon. The course of the Italo River changed and flowed into the lower Akwe River during the winter of 1986/1987 and both rivers now share a common mouth. Both Italo and Akwe salmon stocks are present in this area and for some distance upstream in each river. Determination of Akwe or Italo run strengths based on fishing success in the junction area is not possible. Therefore, in order to protect Italo stocks fishing is closed to set gillnet fishing from the mouth up to 500 yards upstream from the confluence of the New Italo River. The Italo River sockeye salmon fishery has not been open since 1987. When the Italo River changed channel and entered the Akwe River lagoon, the homing ability of Italo River sockeye salmon may have been negatively affected. As a result, it may take several years for the productivity of the Italo River sockeye stock to return to historic levels. The Italo River fishery may open by emergency order if good escapements are observed. Prior to 2002 an escapement goal of 2,500 to 7,000 sockeye was established for the Italo River. Based on an analysis completed in the winter

of 2002–2003 the escapement goal for the Italo was rescinded and no formal goal is in place due to changes in productivity of the system.

YAKATAGA DISTRICT

The Yakataga District is not expected to be open during the sockeye season in 2013. It will open by emergency order in early August based on coho escapement.

2013 FALL MANAGEMENT PLAN

Fall fishing is directed primarily at harvesting coho salmon, although sockeye as well as fall chum salmon can contribute to the catches on the East River. The fall fishing season generally will start on the first Sunday 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 slightly above average in the parent year (2009). Escapement surveys on the Situk River were limited due to high water and poor visibility. A peak escapement count of 3,232 coho was observed on September 24 which is just shy of the lower end escapement goal of 3,300 fish. The peak escapement count for Tsiu River coho of 28,000 fish fell within the upper end of the BEG range of 10,000–29,000 fish. Although the parent year return was above average, coho salmon returns since 2003 have been average to below average for the most part. The 2013 coho salmon run is expected to be average to above average area-wide.

A potential concern regarding Yakutat area coho salmon is based on both climatic and geological effects. Yakutat has been in a drought stage for nearly a decade. The land is rising away from the water table due to some of the highest rates of isostatic rebound found in the world. These factors dramatically affect fresh water rearing habitat for coho salmon. Forest Highway 10 crosses many streams, tributaries of the Situk and Ahrnklin Rivers and of Seal Creek. At least five of these streams, although listed in the Anadromous Stream Catalog as important for both spawning and rearing of coho salmon, no longer exist. These streams have not had any water in them at all for almost ten years. It is possible that these events will negatively impact coho salmon production in the Yakutat area.

YAKUTAT DISTRICT

Fall fishing will begin on Sunday, August 4 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 and into September. The initial fishing periods can be expected to extend from 12:01 p.m. Sunday through 12:00 noon Wednesday. Inseason management of all Yakutat District fall fisheries will be based on fishery performance data and inseason coho escapement surveys.

The following BEGs have been established for coho salmon in the Yakutat District: East River 2,500 to 8,500; Akwe River 1,800 to 5,000; Italo Rivers 1,400 to 3,600; Situk River 3,300 to 9,800. The Lost River has an established SEG threshold of 2,200 coho salmon.

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 in-river set gillnet fisheries. The area from the Yahtse River to Cape Yakataga 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, harvests have averaged about 45,500 coho salmon. The Kaliakh River had minor effort in 2004, no effort in 2005, minor effort in 2006, 2007, and 2008, was not fished in 2009, had minor effort in 2010, and was not fished in 2011 or 2012. The Tsiu River recorded minor effort in 2004 and supported a more normal fishery from 2005 through 2012. Prior to 2004 it had not been fished since 2001 due to market conditions. The parent-year (2009) escapement count of 28,000 coho salmon was within the BEG range of 10,000 to 29,000 fish. No later surveys were flown after October 14. The Kaliakh has not been surveyed since 2007. The 2013 coho salmon return is expected to be average to above average in both the Tsiu and Kaliakh Rivers.

The Tsiu River will open by Emergency Order and opening dates 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., Sunday through 9:00 a.m., Wednesday, beginning on August 1. Market conditions will determine whether or not the Yakataga District is fished in 2013. The area is remote and fish must be flown to markets. It is possible that it will be economically unfeasible to fish the district.

2013 SALMON RUN EXPECTATIONS

SOCKEYE SALMON

Alsek River

The parent-year (2008) sockeye salmon escapement was approximately 3,000 through the Klukshu River Weir. A total catch of around 4,000 to 10,000 sockeye salmon is expected in 2013.

East River

The parent year (2009) escapement was approximately 12,000 sockeye salmon. A normal return this year could lead to a catch of approximately 5,000 to 10,000 fish.

Akwe River

The parent year (2008) sockeye salmon harvest was 3,000 fish. No surveys were conducted due to inclement weather. The Akwe has shown above average sockeye salmon production in recent years. A catch of 3,000 to 6,000 sockeye salmon is expected based on parent year performance and recent fishery trends.

Italo River

Parent-year escapements were low and it is unlikely there will be a directed sockeye salmon fishery in the Italo River in 2013.

Situk River

The parent-year (2008) escapement was approximately 22,500 sockeye salmon. A catch of around 20,000 to 40,000 with an escapement of about 40,000 sockeye salmon is expected.

COHO SALMON

Tsiu/Kaliakh River

If there is any effort, a catch of over 40,000 coho may be possible in the Tsiu River in 2013. In the Kaliakh River, a harvest of 1,000 to 3,000 coho salmon is possible.

Area wide

Parent-year escapements were average to above average in most areas. Based on recent trends in the fishery, the run is expected to be average to above average. The area wide set gillnet catch is expected to be about 80,000 to 130,000 coho salmon. Effort, and how it is distributed throughout the area, will largely determine how many coho are harvested.

FISHERY CONTACTS

The following Alaska Department of Fish and Game, Division of Commercial Fisheries staff may be contacted regarding this management plan:

| | |
|---|---|
| Scott Kelley Region I Supervisor | 802 3 rd Street Douglas, Alaska 99824 (907) 465-4250 |
| Bill Davidson/Dan Gray Region I Management Coordinator | 304 Lake St. Room 104 Sitka, Alaska 99835 (907) 747-6688 |
| Gordie Woods Area Management Biologist | 1 Fish and Game Plaza Yakutat, Alaska 99689 (907) 784-3255 |
| Nicole Zeiser Assistant Area Management Biologist | 1 Fish and Game Plaza Yakutat, Alaska 99689 (907) 784-3255 |
| Jim Craig Publication Specialist | 802 3rd Street Douglas, Alaska 99824 (907) 465-4236 |