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2012 Summer Troll Fishery Management Plan

by

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And

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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		Measures (fisheries)	
centimeter	cm	Alaska Administrative		fork length	FL
deciliter	dL	Code	AAC	mideye-to-fork	MEF
gram	g	all commonly accepted		mideye-to-tail-fork	METF
hectare	ha	abbreviations	e.g., Mr., Mrs., standard length		SL
kilogram	kg		AM, PM, etc.	total length	TL
kilometer	km	all commonly accepted		C	
liter	L	professional titles	e.g., Dr., Ph.D.,	Mathematics, statistics	
meter	m		R.N., etc.	all standard mathematical	
milliliter	mL	at	@	signs, symbols and	
millimeter	mm	compass directions:		abbreviations	
		east	E	alternate hypothesis	H_A
Weights and measures (English)		north	N	base of natural logarithm	e
cubic feet per second	ft ³ /s	south	S	catch per unit effort	CPUE
foot	ft	west	W	coefficient of variation	CV
gallon	gal	copyright	©	common test statistics	$(F, t, \chi^2, etc.)$
inch	in	corporate suffixes:		confidence interval	CI
mile	mi	Company	Co.	correlation coefficient	01
nautical mile	nmi	Corporation	Corp.	(multiple)	R
ounce	oz	Incorporated	Inc.	correlation coefficient	
pound	lb	Limited	Ltd.	(simple)	r
quart	qt	District of Columbia	D.C.	covariance	cov
yard	yd	et alii (and others)	et al.	degree (angular)	0
yaru	yu	et cetera (and so forth)	etc.	degrees of freedom	df
Time and temperature		exempli gratia	cic.	expected value	E E
day	d	(for example)	e.g.	greater than	>
degrees Celsius	°C	Federal Information	0.6.	greater than or equal to	≥
degrees Ceisius degrees Fahrenheit	°F	Code	FIC	harvest per unit effort	≥ HPUE
degrees kelvin	K	id est (that is)	i.e.	less than	/ CE
hour	h	latitude or longitude	lat. or long.	less than or equal to	< <
minute	min	monetary symbols	iat. or long.	logarithm (natural)	≥ ln
second	S	(U.S.)	\$, ¢	logarithm (base 10)	
second	8	months (tables and	Ψ, γ	logarithm (specify base)	log
Dhysics and chamistry		figures): first three			log ₂ , etc.
Physics and chemistry		letters	Jan,,Dec	minute (angular)	NS
all atomic symbols	A.C.	registered trademark	®	not significant	
alternating current	AC	trademark	тм	null hypothesis	H _O
ampere	A cal	United States		percent	% P
calorie		(adjective)	U.S.	probability	P
direct current	DC	United States of	0.5.	probability of a type I error	
hertz	Hz	America (noun)	USA	(rejection of the null	
horsepower	hp	U.S.C.	United States	hypothesis when true)	α
hydrogen ion activity (negative log of)	pН		Code	probability of a type II error (acceptance of the null	
parts per million	ppm	U.S. state	use two-letter	hypothesis when false)	β
parts per thousand	ppt,		abbreviations	second (angular)	"
	‰		(e.g., AK, WA)	standard deviation	SD
volts	V			standard error	SE
watts	W			variance	
				population	Var
				sample	var

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2012 SUMMER TROLL FISHERY MANAGEMENT PLAN

by
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TABLE OF CONTENTS

	Page
LIST OF FIGURES	ii
ABSTRACT	1
INTRODUCTION	1
2012 SUMMER TROLL FISHERY DATES	1
CHANGES IN THE 2012 TROLL FISHERIES	1
MANAGEMENT APPROACH	2
Chinook Salmon	
Management Methods	3
Projected 2012 Chinook Salmon Harvests and Allocations	3
Coho Salmon	
Tentative 2012 Summer Season Schedule	6
Management Methods	7
Allocation Actions	8
SUMMER TROLL SEASON OPEN AND CLOSED AREAS	8
Closed Waters	8
SPORT FISHING AND CHARTERING FROM A REGISTERED COMMERCIAL TROLL VESSEL	9
REGIONAL AQUACULTURE TERMINAL HARVEST AREAS	10
Chum Troll Salmon Fisheries	
Neets Bay	10
Sitka Sound	10
Hidden Falls	11
REGULATIONS PERTAINING TO COMMERCIAL TROLL BYCATCH OF GROUNDFISH HALIBUT	
FISHERY CONTACTS	23

LIST OF FIGURES

Figure		Page
1.	Southeast Alaska commercial troll fishing area, Cape Suckling to Dixon Entrance.	14
2.	Fisheries Performance Data program reporting areas in Southeast Alaska	15
3.	Southeast Alaska areas closed to trolling for all species following the initial Chinook salmon opening	3
	in the Southeast Alaska summer troll season.	16
4.	The regression model that is used in season to predict the wild Southeast Alaska coho salmon return.	17
5.	Ketchikan area general summer trolling areas and seasons	18
6.	District 8 summer troll closed waters.	19
7.	Juneau area summer troll closed waters.	20
8.	Yakutat area troll closed waters, beginning July 1	21
	Southeast Alaska lingcod management areas and Sitka area closed waters.	

ABSTRACT

This document summarizes the plan that the Alaska Department of Fish and Game (department) will follow to manage the 2012 Southeast Alaska summer commercial salmon troll fishery from July 1 through September 30, 2012. The troll fishery will be managed according to the Board of Fisheries adopted guidelines listed in the State of Alaska Administrative Code, Title 5, Chapter 29 Salmon Troll Fishery. The first Chinook salmon fishing period will begin on July 1 and will close by emergency order. The fishery is being managed for a target harvest of 98,135 fish, including the estimated Alaska hatchery contribution. The remainder of the troll Chinook salmon treaty allocation will be harvested following the August coho salmon closure period. The fishery will be open to harvest coho salmon July 1–September 20, with inseason consideration given to a possible conservation closure period in late July, a possible conservation or allocation closure in mid-August, and consideration of an extension of the season through September 30.

Key words: salmon, troll, summer, commercial, management plan, Chinook salmon, coho salmon, Southeast Alaska

INTRODUCTION

The Southeast Alaska/Yakutat commercial salmon troll fishery occurs in State of Alaska and Federal Exclusive Economic Zone (EEZ) waters east of Cape Suckling and north of Dixon Entrance. The fishery is managed according to regulations promulgated by the Alaska Board of Fisheries (board), the North Pacific Fishery Management Council (NPFMC), the National Marine Fisheries Service (NMFS), and the U.S./Canada Pacific Salmon Commission (PSC). The department, under emergency order authority, conducts inseason management. The all-gear Chinook salmon fishery will be managed to achieve a harvest target based on the 2008 Bilateral Pacific Salmon Treaty Agreement (PSTA). The treaty agreement specifies a harvest based on a relationship between a preseason Abundance Index (AI) generated by the Pacific Salmon Commission's Chinook Technical Committee and a target harvest rate specified in the agreement. The Treaty agreement also provides for an inseason adjustment to the harvest level based on an assessment of inseason data. Coho salmon will be managed to ensure escapement goals and to achieve board allocation guidelines. Coho salmon near Dixon Entrance will be managed in cooperation with Canada according to the treaty agreement.

This management plan discusses the management objectives and methods used to achieve board, NPFMC, NMFS, and PSC policies and goals for the commercial summer troll fishery. This plan covers commercial trolling for Chinook, coho, and chum salmon. Other species caught and retained by trollers are considered incidental.

2012 SUMMER TROLL FISHERY DATES

The summer troll fishing season covered in this plan is July 1 through September 20. Chinook salmon may be harvested only during open periods announced by the department. The coho salmon season may be extended no more than 10 days (September 21 through September 30) in Districts 101 through 116 (Figure 1) depending on run strength (5AAC 29.110).

CHANGES IN THE 2012 TROLL FISHERIES

During the 2012 Board of Fisheries (BOF) meeting, several new troll regulations were adopted. These new regulations will not take effect until July 13, 2012. Effective July 1, the department will implement new regulations involving time and area by Emergency Order authority. All new regulations will be effective on July 13.

New regulations which relate to the summer troll fisheries will be in effect as follows:

- 1. Revise criteria for season extension past September 20 as follows: "5 AAC 29.110. MANAGEMENT OF THE COHO SALMON TROLL FISHERY. (a) Coho salmon may be taken from June 1 through September 20. However, the commissioner, in years when wild coho salmon abundance is expected to meet escapement needs after considering harvest and effort, may extend, by Emergency Order, the coho salmon fishery in any portions of Districts 1-16 for up to 10 days after September 20."
- 2. Modify troll area boundaries in West Behm Canal (Section 1-E) from July 1–September 20, by Emergency Order as was done the past two years.
- 3. Clarify by Emergency Order that portions of Section 1-F are open for trolling during the summer fishery beginning July 1.
- 4. Remove restriction on the number of fishing rods that may be <u>onboard</u> a hand troll vessel year-round, to allow spare rods in case of breakage. Maintain current restrictions on the number of fishing rods or hand troll gurdies that may be <u>operated</u> from a hand troll vessel. This provision will be in effect by regulation on July 13, 2012.
- 5. Close a portion of Bear Cove in the Silver Bay Special Harvest Area to protect broodstock and provide safety, by Emergency Order beginning July 1 as was done in recent years. This provision will be in effect by regulation on July 13, 2012.
- 6. Open the Hidden Falls Terminal Harvest Area from June 1 through September 20 to provide access to enhanced coho salmon and provide opportunity during troll closures. This area will be open by regulation during any coho salmon closures on or after July 13.

MANAGEMENT APPROACH

CHINOOK SALMON

Most of the Chinook salmon harvested in the Alaska summer troll fishery are of wild stock origin. Hatchery stocks harvested in the fishery originate in British Columbia, Canada, Washington, and Oregon with a relatively small number from Alaskan hatcheries. As a result, the Southeast Alaska Chinook salmon harvest is managed on an annual, all-gear harvest quota established by the United States and Canada through the PSC. The ceiling is now abundance-based, with increased quotas when abundance is high, and vice versa. In addition to the harvest ceiling of treaty fish, provisions of the treaty administered by the PSC provide for an additional harvest of Chinook salmon that have been produced in Alaskan hatcheries (add-on). The all-gear add-on is equal to the total number of Alaskan hatchery Chinook caught, minus the pre-treaty production of Chinook salmon and a risk adjustment factor of around 4,700 fish.

Management Objectives

- 1. Achieve the allowable Chinook salmon harvest.
- 2. Maximize the harvest of Alaska hatchery-produced Chinook salmon.
- 3. Manage the fishery according to the board's Summer Salmon Troll Fishery Management Plan (5AAC 29.100)
- 4. Continue the coastwide natural Chinook salmon stock-rebuilding program.
- 5. Achieve harvest allocations among user groups as mandated by the board.
- 6. Minimize the incidental mortality of Chinook salmon to the extent practicable.

Management Methods

Historically, the majority of the annual troll Chinook salmon harvest is taken during the general summer opening, when salmon may be taken throughout most of the Southeast Alaska/Yakutat including the outside waters of the EEZ. Unlike the spring fishery, a quota is set for management of Chinook salmon. One of the major functions of the department's troll management plan is determining when the general summer season for Chinook salmon must be closed in order to stay within the allowable harvest. Tabulating the up-to-date troll catch is difficult due to the large number of fish tickets and the difficulty of receiving them from remote areas in a timely manner. Therefore, a Fisheries Performance Data (FPD) program, consisting of confidential interviews with commercial trollers as they deliver catches, is used to estimate daily catch rates in six areas (Figure 2). The total number of days the fishery will be open for Chinook salmon retention is calculated by dividing the summer season harvest goal by the estimated daily catch by the troll fleet.

From 1992 through 1995, and again in 2000, 2001 and 2008, the department announced a fixed number of days beginning July 1, due to the low number of Chinook salmon available for harvest. From 1996-1999, 2002-2007 and 2009-2011, the Chinook fishery was managed in season and closed by emergency order, due to the larger Chinook quotas during those years. In 2012, the department will again manage the first Chinook opening inseason and will close the fishery by emergency order. The department will manage the summer troll season according to the BOF management plan (5 AAC 29.100), which calls for harvesting 70% of the summer Chinook salmon troll quota (see next section) in an initial opening beginning July 1. The remainder of the Chinook salmon quota is to be harvested following any closure for coho salmon conservation and/or allocation in August. Following the first Chinook opening, the waters of high Chinook abundance will be closed unless the department determines that less than 30% of the Chinook salmon harvest goal for the initial opening was taken in that opening (Figure 3). In addition, during the second Chinook salmon opening, if the department determines after 10 days that the annual troll Chinook salmon harvest ceiling might not be reached by September 20 with those waters closed, the department shall reopen the waters of high Chinook salmon abundance by emergency order.

The hatchery add-on is calculated inseason through port sampling programs. Chinook salmon are sampled for the presence of adipose fins. The heads from fish that have missing adipose fins are then sent to the Juneau Mark, Tag and Age lab for processing. Coded-wire tags are removed from the heads and decoded. The number of Alaskan hatchery fish is calculated by expanding the number of Alaskan hatchery-produced Chinook salmon in the sampled catch by the total catch.

Projected 2012 Chinook Salmon Harvests and Allocations

The Chinook salmon fisheries will be managed according to the 2008 PSTA. In addition to the pre-treaty troll fishery "base catch" of 3,700 Alaska hatchery-produced Chinook salmon, and the hatchery harvest in the winter and spring fisheries, Alaska hatcheries are projected to contribute approximately 4,600 Chinook salmon to the summer troll harvest, for a projected 2012 total of 25,888 Alaska hatchery Chinook salmon. The actual hatchery add-on will be determined inseason and finalized postseason from coded-wire-tag (CWT) estimates.

At the February 1997 and January 2006 Board of Fisheries meetings, sharing percentages were established for the recreational and commercial troll and net Chinook salmon fisheries (not including Alaska hatchery Chinook salmon). The commercial troll fishery was allocated 80%

and the recreational fishery 20% of the PST quota, after subtracting 4.3% from the total for the purse seine fisheries, 2.9% for the drift gillnet fishery, and 1,000 fish for the set gillnet fishery. The pre-treaty Chinook salmon harvest and risk adjustment factors (4,700 combined) are proportionally shared between the gear groups.

Allocations of this harvest quota for 2012 are as follows:

All-gear Treaty Quota	Purse Seine	Drift Gillnet	Set Gillnet	Total Net	Sport	Troll
266,800	11,472	7,737	1,000	20,209	49,318	197,272

The Chinook Technical Committee (CTC) of the PSC has determined that the Chinook salmon abundance index for Southeast Alaska for 2012 is 1.52. This abundance index equates to an allgear quota of 266,800 treaty Chinook salmon, which is about 28,000 fish fewer than the 2011 quota. Chinook salmon returns to many west coast rivers from Oregon to Alaska remain below the high levels seen from 2003 to 2005, but several key populations are showing improvements over the returns that led to the significantly reduced allowable harvests in 2008. According to the BOF allocation plan outlined above, the troll fishery allocation of the treaty quota is 197,272 fish.

Estimated troll fishery harvests of treaty Chinook from the winter and spring troll fisheries are:

Fishery	Total	Alaska Hatchery	Treaty Fish
Winter Fishery	47,779	5,865	41,914
Spring Fishery	26,603	11,687	14,671
Pre-summer Totals	74,382	17,552	56,585

The summer troll treaty quota is calculated by adding the winter treaty harvest of 41,914 fish, the spring treaty harvest estimated at 14,671 fish, the pre-treaty Alaska hatchery harvest of 3,700 fish, and a statistical risk factor surrounding the Alaska hatchery contribution estimate of 1,000 fish. The resultant sum is then subtracted from the troll allocation, yielding a summer troll quota of **135,988** treaty fish (5,149 less than 2011 pre-season target). In addition, under the BOF plan, 70% of the summer quota is to be harvested during the first summer opening beginning July 1. Therefore, the target harvest for the first opening will be approximately **95,191** treaty fish, plus an estimated 3% Alaska hatchery fish, or a **total first summer opening target harvest of 98,135** fish. The second Chinook opening target harvest is projected to be approximately **42,496** fish (including **40,796** treaty fish).

The department will update the preseason projection of abundance with actual fishery harvest and effort statistics immediately following the closure of the first opening. Any adjustments to the targeted all-gear harvest based on this inseason data will be made as soon as possible.

Based on past fishery performance at similar abundance levels of treaty Chinook salmon, the department anticipates the first opening harvest target will be taken in 8 to 10 days. However, effort and catch rates are highly variable and the projected fishery length is based on historical effort levels. If available data indicates that the catch rates are significantly different than expected, the length of the opening would be adjusted in response. Trollers are strongly encouraged to call or email the troll managers with inseason information on catch rates and

effort. Closure announcements and any updates will be made via U.S. Coast Guard marine advisory broadcasts and trollers are advised to either listen to the U.S. Coast Guard Marine Advisory broadcasts daily or stay in close contact with the department or processors for any such announcements. Closure announcements will also be recorded on troll hotline numbers listed at the end of all troll news releases.

Following the closure of the initial summer Chinook salmon period, all Chinook salmon must be offloaded prior to trolling for other species.

COHO SALMON

Most coho salmon harvested in the troll fishery are of Alaskan origin. They spawn in approximately 2,500 streams in Southeast Alaska during the fall and early winter months. Coho salmon harvests were depressed in the mid to late 1970s but improved through most of the 1980s and 1990s. Factors contributing to the increased harvests include the improved spawning escapement levels achieved under the conservative management regime implemented in 1980, increased marine survivals due to favorable ocean conditions, increased targeting of coho salmon by trollers and increasing Alaska hatchery production. Hatchery coho salmon production (almost entirely from Southeast Alaska facilities) first became significant in 1980. The contribution of hatchery coho salmon has varied since then from 0.4% of the total troll catch in 1980 to 26% in 2011. The 2011 Alaska hatchery contribution was above the 1991–2010 average of 20%. The 2011 troll coho salmon harvest of 1.3 million was below the 1991–2010 average of 1.7 million fish.

Early in the season, coho salmon stocks returning to southern Southeast Alaska are harvested by the troll fishery in northern and central outside areas where they intermingle with coho salmon bound for northern and central areas of the region. Troll fishery harvests of coho salmon in outer coastal areas generally peak during mid-July to mid-August. Harvests in inside fisheries generally peak during late August to mid-September. Management of coho salmon is based on aggregate abundance. Lack of a general coho salmon stock identification technique prevents assessment of run strength of individual stock groups contributing to these early-season mixed stock fisheries.

The widespread and complex nature of the troll fishery necessitates a closely coordinated management program. Inseason management is accomplished through a team consisting of the Southeast regional supervisor, the regional management biologist, two troll fishery management biologists, and 12 area management biologists. Department contact information is listed at the end of this plan.

Management Objectives

- 1. Provide adequate escapement of coho salmon, by area, to ensure sustainable populations.
- 2. Provide maximum opportunities for harvest consistent with conservation objectives (5AAC 29.110).
- 3. Manage the coho salmon fisheries to achieve allocations consistent with board regulations.
- 4. Manage coho salmon on the U.S./Canada border to comply with provisions of the PST Agreement.

Tentative 2012 Summer Season Schedule

The following is a generalized timetable for summer salmon management. It is emphasized that some modifications to this schedule may be required.

DATES	EXPECTED REGULATORY ACTIONS
July 1	The 2012 general summer troll season opens for all salmon species; the initial troll Chinook salmon opening will close when 70% of the total summer harvest target has been harvested. The first Chinook salmon retention period will be managed in season and will close by Emergency Order. The waters of frequent high Chinook salmon abundance will close following the Chinook salmon closure.
Mid- through late- July	Coho salmon run strength in Southern Southeast Alaska is assessed. Portions of Districts 101–104 may close if run strength indicates conservation concerns for coho salmon stocks near the U.S./Canada border.
July 25 or later	If the projected run size is less than 1.1 million wild coho salmon, up to a 7-day regionwide conservation closure may be implemented. The projected total season commercial harvest will be used as index of run size.
Early August	An assessment of coho run strength will determine the need for and length of a mid-August troll closure.
Mid- to late- August	A regionwide closure of up to 10 days will be implemented if required for either coho salmon conservation or allocation, based on assessment of stock and fishery performance data relative to BOF-established criteria. If a regionwide conservation closure has occurred during late July, the likelihood of a closure being implemented for allocation at this time will be reduced.
	Following any closure of the troll fishery, the Chinook salmon fishery will reopen to take the remaining treaty Chinook salmon. A minimum closure of 2 days is required prior to the second Chinook salmon opening to allow for a fair start (5 AAC 29.100(c)(1)(B)(ii)).
Late-August to September 20	Coho salmon conservation measures may be implemented regionwide or by area, as required to protect weak coho stocks.
Mid-September	An assessment of coho strength to determine if the troll season may be extended beyond September 20.
September 20	Established regulatory closing date of 2012 general summer troll season. All salmon must be offloaded prior to fishing in the Winter Troll Fishery, beginning October 11.

Management Methods

As with Chinook salmon, the department's primary tool for inseason assessment of troll coho salmon catch rates is the FPD program, consisting of confidential dockside interviews with vessel skippers. Harvests by the net fisheries are obtained from fish tickets, while the recreational catch is estimated from a creel census conducted by the Sport Fish Division. An assessment of run strength using troll catch per unit of effort (CPUE) data from the FPD program occurs in mid to late-July. Information available on individual coho salmon indicator stocks will also be considered in management actions.

Catch rates will be assessed in Southern Southeast Alaska from mid- through late-July to assess run strength of early-run coho salmon returning to systems in both Canada and the U.S., near the border. If run strength is weak, areas of Districts 101–104 may close for conservation for up to three weeks, from late July through mid-August, as per the terms of the 1999 and 2008 PST agreement.

Projected total season troll coho salmon harvests will be used as a relative index of total run size. Analysis of the FPD program has shown that the average area-wide catch-per-day for Statistical Weeks 28–30 for the years 1996 to 2001 and 2004 to 2010 is a good predictor of the wild coho salmon return (Figure 4). If the projected overall run size is less than 1.1 million wild fish, the department will implement a 7-day conservation closure beginning sometime in late July (5AAC 29.110). The department will make this initial projection during the third or fourth week of July (Figure 4). The 2002 and 2003 catch and effort data will not be used for this projection because coho fishing or fish behavior patterns during those years did not reflect patterns consistent with other years. The department will continue to monitor all coho fisheries after the July assessment to determine if the number of coho salmon reaching inside areas will be adequate to provide for spawning requirements, given normal or even restricted inside fisheries. The primary abundance indicators for this assessment consist of relative harvest levels by all fisheries and, in particular, CPUE of wild fish in inside drift gillnet and sport fisheries compared to 1971–1980 levels. A second assessment will be made in early August to determine when and how long to close the troll fishery for conservation and allocation purposes.

Cumulative catch-per-day of wild fish will be monitored in each of the six FPD areas (Figure 2) through August to assess run strength in each of the areas. Data will be compared with catches and CPUE within these areas and, if necessary, the department will implement area-specific closures.

The department, in years of high abundance, may extend the troll season through September 30 in portions of Districts 101 through 116 if there are no conservation concerns. The department will consider the following data in determining if an extension is warranted:

- 1. Total run size projection,
- 2. Total harvests to date by gear by area,
- 3. CPUE relative to previous years by gear by area,
- 4. Percent of hatchery fish in the catch relative to previous years,
- 5. Survival projections for hatchery and wild stocks, and
- 6. Inseason escapement data.

The department will announce any extensions, if warranted, during the third week of September.

Allocation Actions

The board has established long-term allocation goals for the coho salmon harvest by each commercial gear type. Target percentages established by the board are 61% for troll, 19% for purse seine, 13% for drift gillnet, and 7% for set gillnet. The board stated that subsistence, personal use, and recreational harvests of coho salmon are not affected by the established allocations between commercial gear types. The board also stated that:

"These percentages are guidelines only and may vary from season to season given natural fluctuations in salmon abundance and distribution and the limitations of fisheries management. It is, however, the board's intent that these allocation guidelines be met as closely as possible over the long term. It is not the board's intent for the department to disrupt any of the traditional commercial fisheries that the historical allocation is founded. The department may, however, make inseason adjustments to attempt to achieve these long term allocation guidelines."

The department will, however, implement applicable, existing regulations (5AAC 29.110). These regulations indicate that:

A regionwide troll closure for up to 10 days is required during the coho salmon season to address allocations between outer coastal fisheries and inside water fisheries if the department determines that the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and recreational fisheries compared to the 1971–1980 levels. Primary inside fishery indicators for this assessment are overall coho salmon harvests, escapement projections for streams where escapement goals have been established, and CPUE in the Tree Point, Prince of Wales, Taku/Snettisham, and Lynn Canal drift gillnet fisheries, and Juneau marine sport fishery.

If a regionwide troll closure is implemented to conserve coho salmon during late July or early August, the length and timing of an additional closure during August will consider the combined impacts of both closures. Any potential transfer of coho salmon harvest to inside fisheries resulting from an early closure, if implemented, will be reflected in inside fishery performance indicators used for comparison against the allocation criteria.

SUMMER TROLL SEASON OPEN AND CLOSED AREAS

Salmon trolling is permitted in all areas during the first Chinook salmon retention period of the 2012 general summer season except for those waters described in 5AAC 29.100 and the closed waters listed in 5AAC 29.150. In addition, during subsequent Chinook salmon retention periods, waters designated as frequent high Chinook salmon abundance (5AAC 29.025) will be closed as necessary.

Closed Waters

- 1. In Sections 1-C, 1-E, and 1-F, salmon may be taken only as follows (Figure 5).
 - (a) Section 1-C: from August 15 through September 20.
 - (b) Section 1-E:

- (1) In waters of W. Behm Canal within one nautical mile of the western shore of Revillagigedo Island north of the latitude of Escape Point 55°39.07'N. latitude, 131°43.08' W. longitude, excluding the waters of the Neets Bay SHA (5 AAC 33.370) from July 1 through September 20.
- (2) All other waters from July 13 through September 20.
- (c) Section 1-F: east of a line from the northernmost tip of Kirk Point to Mary Island Light to the southernmost tip of Cone Island, from July 13 through September 20.
- (d) Section 1-F: east of a line from the southernmost tip of Black Island to the westernmost tip of Slate Island to the westernmost tip of White Reef to the easternmost tip of Black Rock to the northernmost tip of Kirk Point, including the waters of Boca de Quadra not closed under 5 AAC 29.150(b)(2), from August 1 through September 20.
- 2. In District 8 the weekly fishing periods for trolling are the same as for drift gillnetting (5 AAC 29.100(e)). The waters of District 8 closed to fishing are described by regulation in 5 AAC 29.150(i), (Figure 6).
- 3. In District 11 salmon may be taken only in Sections 11-C and 11-D (Figure 7).
- 4. In District 15 salmon may be taken only in Sections 15-A and 15-C (Figure 7).
- 5. In the Yakutat area, waters near the mouth of the Situk River will be closed to the harvest of king salmon by troll gear effective July 1. The current projected king salmon escapement to the Situk River is well below the minimum Biological Escapement Goal range of 450-1,050 fish. As per 5AAC 30.365, the Situk-Ahrnklin Inlet and Lost River King Salmon Fisheries Management Plan, a portion of District 181 south of Yakutat Bay, in State waters, will close to king salmon retention by troll gear beginning at 12:01 a.m., July 1. This area is described in 5AAC 30.365(b)(1)(C) and is as follows:

"in the waters of Alaska bounded on the west by the seaward limit of the three-nautical-mile territorial sea and on the north by a line extending seaward from 59° 30.49' N lat, 139° 46.58' W. long and intersecting the three-nautical-mile limit at 59° 28.65' N. lat, 139° 51.17' W. long and on the south by a line extending seaward from 59° 20.30' N. lat, 139° 16.50' W. long and intersecting the three-nautical-mile limit at 59° 18.25' N. lat, 139° 21.94' W. long. (Figure 8).

As a clarification, trolling will be allowed within this area but retention of king salmon will be prohibited until further notice. If king salmon escapements to the Situk River improve significantly, the need for this closure will be re-evaluated.

SPORT FISHING AND CHARTERING FROM A REGISTERED COMMERCIAL TROLL VESSEL

- 1. Sport fishing is allowed from a registered commercial salmon troll vessel [5AAC 47.041 (a)].
- 2. If sport fishing in **waters closed** to commercial trolling, the dorsal fin must be removed immediately from any salmon brought onboard the vessel [5AAC 47.041(c)]. This regulation also applies when a person is sport fishing for a **species closed** to commercial trolling.

- 3. Sport fishing from a commercially licensed vessel, while commercially caught salmon are in possession, is illegal in waters closed to commercial salmon fishing [5AAC 47.041(d)]. No person may possess sport-caught halibut aboard a vessel when other fish or shellfish on the vessel are destined for sale, trade or barter [5 AAC 75.995(8)].
- 4. A vessel registered for commercial trolling may also be registered as a charter vessel, though a vessel may not be used for both activities on the same day [5AAC 75.995 (8)]. A person may not sport fish and commercial fish for salmon from the same vessel on the same day. Sport-caught fish may not be sold [5 AAC 75.015].
- 5. A troll gurdy may NOT be used in conjunction with a fishing rod while fishing commercially but may be legally used as a downrigger to *sport fish* from a hand or power troll vessel [5AAC 29.120 (e)].
- 6. A person may not possess unpreserved sport-caught salmon on any commercial salmon vessel while engaged in commercial salmon fishing [5 AAC 47.041(g)].

REGIONAL AQUACULTURE TERMINAL HARVEST AREAS

Terminal harvest areas (THAs) are described in the Southeast Alaska and Yakutat Commercial Salmon Fishing Regulations book. Hidden Falls, Neets Bay, Anita Bay, Deep Inlet, and Nakat Inlet THAs will be open to the harvest of all salmon species unless closed by emergency order. Trollers are requested to consult the appropriate terminal harvest area News Releases or contact any department office for the exact harvest schedules for each THA.

CHUM TROLL SALMON FISHERIES

Icy Strait

The Douglas Island Pink and Chum, Inc. (DIPAC) projects a return of 2.5 million chum salmon to the Macauley Hatchery and other release sites in 2012, down by 9% from the 2011 projection of 3.1 million. Trollers have targeted DIPAC chum salmon in Icy Strait during June and early July since 2010.

Neets Bay

SSRAA is expecting approximately 1.7 million summer chum salmon to return to the Neets Bay THA, which is 42% more than the 1.2 million summer chum that were projected to return in 2011. Trollers may target Neets Bay chum salmon outside the THA in West Behm Canal when those waters are open to trolling (Figure 5). The Neets Bay THA will close to trolling at noon on July 2 to provide for cost recovery and could remain closed throughout the summer season. SSRAA will monitor troll harvest and effort on a daily basis and a portion of the THA may open to trolling at a later time.

Sitka Sound

NSRAA has projected a return of approximately 730,000 chum salmon to the Deep Inlet THA and Medvejie Hatchery in 2012, with approximately 650,000 chum salmon available for common property fisheries. Compared to 2011, this projected return is smaller by 330,000 fish. The Deep Inlet THA rotational fishing schedule began on May 27 to intercept Medvejie hatchery Chinook salmon. The THA is open to trolling one day per week, each Saturday, between May 27 and September 29, unless changed by a subsequent announcement. The department issued a

news release on April 18, describing common property net and troll fisheries in the Deep Inlet THA.

Troll harvest of returning chum salmon typically takes place in Eastern Channel and in Sitka Sound from the last week of July through the mid-August troll closure. An area has been established in Sitka Sound where trollers may target chum salmon during the troll coho closure in August. During the coho closure, trollers may not have coho salmon onboard while fishing for chum salmon [5 AAC 29.112].

Hidden Falls

NSRAA has projected a return of 820,000 chum salmon to the Hidden Falls THA and hatchery, which is approximately 69% of the return projected in 2011, yet is almost double the actual 2011 return of 246,000.

This will be the first season that NSRAA will not be conducting any direct cost recovery harvests. Instead, in order to derive the necessary revenues, the NSRAA Board of Directors has requested that the Department of Revenue assess a 20% tax of the value of all chum salmon harvested in the waters described as Section 12-A south of 57°27.00′ N. latitude, north of 57°01.00′ N. latitude, and west of a line from 57°27.00′ N. latitude, 134°45.50′ W. longitude to 57°01.00′ N. latitude, 134°41.50′ W. longitude (**Subsections 112-11, 112-21, and 112-22**) from June 15 through July 31 as provided for under AS 16.10.455 and Department of Revenue regulations. Department of Revenue regulations concerning the tax assessment can be found at: http://www.tax.alaska.gov/programs/documentviewer/viewer.aspx?209s.

REGULATIONS PERTAINING TO COMMERCIAL TROLL BYCATCH OF GROUNDFISH AND HALIBUT

For information on Southeast Alaska Groundfish regulations, refer to the 2011–2012 Statewide Commercial Groundfish Fishing Regulations booklet available at all Alaska Department of Fish and Game area offices. Information on groundfish bycatch allowances in the troll fishery can be found in the "Groundfish Bycatch in the 2012 Salmon Troll Fishery" news release issued on April 23, 2012.

In the state waters portion of the Eastern Gulf of Alaska, commercial salmon trollers operating hand or power troll gear during an open commercial salmon fishing period may legally retain and possess incidentally taken groundfish in unlimited amounts, with the exception of the species listed below. The bycatch allowance for each species or species group reflects the percentage that may be retained and sold and is based on the round weight of salmon on board.

• The bycatch allowance for demersal shelf rockfish (DSR) is limited to 10% of the round weight of all salmon on board the vessel. All DSR in excess of 10% must be weighed and reported as bycatch overage on a department fish ticket. All proceeds from the sale of excess DSR bycatch taken in state waters shall be surrendered to the state [5 AAC 28.171 (a)]. The seven species of rockfish in the DSR assemblage are yelloweye, quillback, canary, rosethorn, copper, china, and tiger rockfish. DSR bycatch overages must be reported on fish tickets but may be kept for a person's own use.

The DSR bycatch allowance in federal waters east of 140° W. long (Southeast Outside District is 10% as well. The DSR troll bycatch allowance in waters west of 140° W. long,

is limited to 5%, aggregated with all other rockfish. DSR overage from federal waters may not be sold or enter commerce.

- Black, blue, and dark rockfish are state managed species and may all be retained as incidental bycatch in both state and federal waters. In federal waters, the rockfish bycatch allowance for species other than DSR, black, blue, and dark rockfish is 5% in aggregate.
- The bycatch allowance for spiny dogfish in state waters is limited to 35%.
- Lingcod may be taken as bycatch in the commercial salmon troll fishery only from May 16 through November 30 [5AAC 28.113 (c)].
- Lingcod must measure at least 27 inches from the tip of the snout to the tip of the tail, or 20.5 inches from the front of the dorsal fin to the tip of the tail.
- Lingcod bycatch is closed in the Icy Bay Subdistrict (IBS) for the remainder of 2012.
- Lingcod bycatch in the Northern Southeast Outside (NSEO) Section is limited to 5% (round weight) of the round weight of salmon on board. Lingcod bycatch in the East Yakutat (EYKT) Section, Central Southeast Outside (CSEO) Section, Southern Southeast Outer Coast (SSEOC) Sector, Northern Southeast Inside (NSEI) Subdistrict, and Southern Southeast Internal Waters (SSEIW) Sector is limited to 30% of the round weight of salmon on board. Lingcod harvest allocations for the troll fishery are set by Lingcod Management Area (Figure 9) and area closures will occur as allocations are taken. In-season closures will be announced by news release and marine radio broadcast by the U.S. Coast Guard and National Weather Service. For updates on lingcod area closures, call the Groundfish Hotline at 907-747-4882 or contact the Groundfish staff in Sitka at 907-747-6688. Management areas will remain open to lingcod bycatch until area allocations are taken or November 30, whichever occurs first. Lingcod bycatch allowances are set by the state and are consistent throughout a management area in both state and federal waters.
- The retention of lingcod is prohibited in the troll fishery in the waters of Sitka Sound [5AAC 28.150(a)]. The Sitka Sound closure area is defined as the waters that are enclosed on the north by lines from Kruzof Island at 57°20.50′ N. lat., 135°45.17′ W. long. to Chichagof Island at 57°22.05′ N. lat., 135°43.00′ W. long., and from Chichagof Island at 57°22.58′ N. lat., 135°41.30′ W. long. to Baranof Island at 57°22.28′ N. lat., 135°40.95′ W. long., and on the south and west by a line running from the southernmost tip of Sitka Point at 56°59.38′ N. lat., 135°49.57′ W. long. to Hanus Point at 56°51.92′ N. lat., 135°30.50′ W. long. to the green day marker in Dorothy Narrows at 56°49.28′ N. lat., 135°22.75′ W. long. to Baranof Island at 56°49.28′ N. lat., 135°22.60′ W. long.
- Lingcod and other groundfish may not be taken in the waters off Cape Edgecumbe (Edgecumbe Pinnacles Marine Reserve) enclosed by a boxed-in area within 56° 55.50' N. lat., 56° 57.00' N. lat., 135° 54.00' W. long., and 135° 57.00' W. long. [5AAC 28.150(c)]

Vessels trolling for salmon in the exclusive economic zone (EEZ) in the Gulf of Alaska that retain groundfish bycatch must have a Federal Fisheries Permit (FFP) endorsed for troll gear. For information on FFP requirements and bycatch allowances in federal waters contact the NOAA

Fisheries Enforcement at 907-586-7225 (Juneau), 907-747-6940 (Sitka), 907-772-2285 (Petersburg), or 907-247-5804 (Ketchikan).

Other regulations:

Halibut incidentally taken during an open commercial halibut season by power and hand troll gear being operated for salmon consistent with applicable state laws and regulations are legally taken and possessed [5AAC 28.133 (c)]. Commercial halibut may be legally retained only by Individual Fishing Quota (IFQ) permit holders during the open season for halibut, March 17–November 7, 2012. Trollers making an IFQ halibut landing of 500 pounds or less of IFQ weight as determined pursuant to 50 CFR 679.42(h) are exempted from the three hour prior notice of landing (PNOL) if landed concurrently with a legal landing of salmon [50 CFR 679.5(l)(1)(iv)(A)]. Halibut taken incidentally during the troll fishery shall be reported on the troll salmon fish ticket documenting the landing. For information on regulations and landing requirements for the federal IFQ halibut fishery contact the NOAA Fisheries.

Commercial fishermen are allowed to longline for groundfish and troll for salmon on the same trip as long as commercial fishing for any species on board the vessel is not prohibited in the area that is being fished and the fisherman has the appropriate commercial fishing permits.

A vessel may not fish for groundfish with dinglebar troll or mechanical jig gear if they have commercial caught salmon on board. A vessel fishing for groundfish with dinglebar troll gear must display the letter "D" and a vessel fishing for groundfish with mechanical jigging machines must display the letter "M" at all times when fishing with or transporting fish taken with dinglebar troll gear or mechanical jigging machines [5AAC 28.135 (a)(4)]. A person may not operate a vessel that is displaying one of these letters when the vessel is being used to fish for salmon [5AAC 28.135 (c)].

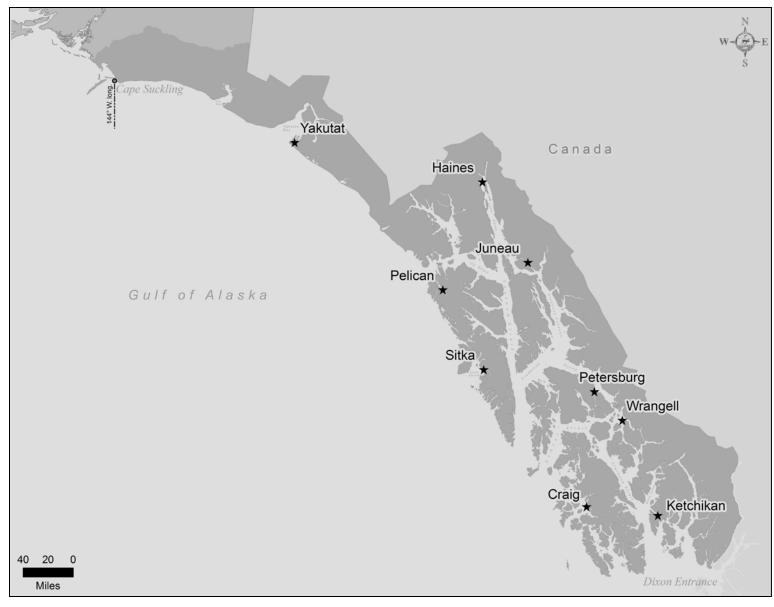


Figure 1.—Southeast Alaska commercial troll fishing area, Cape Suckling to Dixon Entrance.

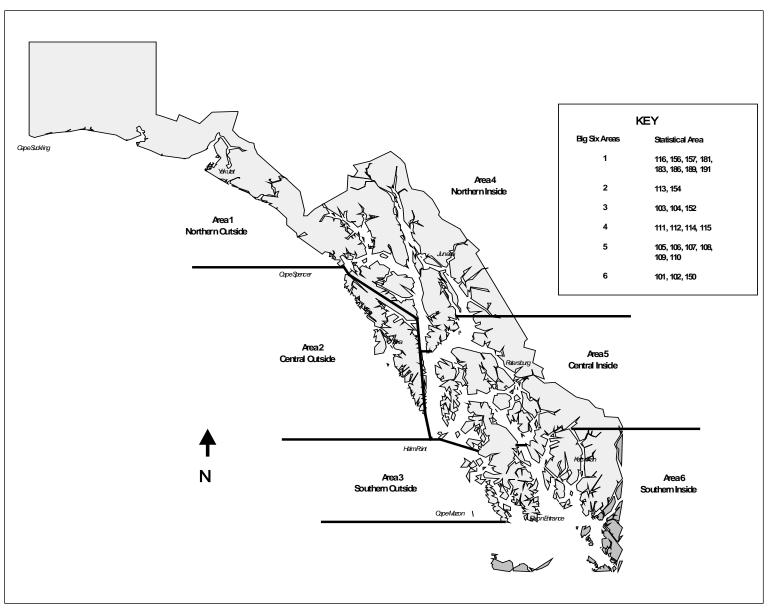


Figure 2.–Fisheries Performance Data program reporting areas in Southeast Alaska.

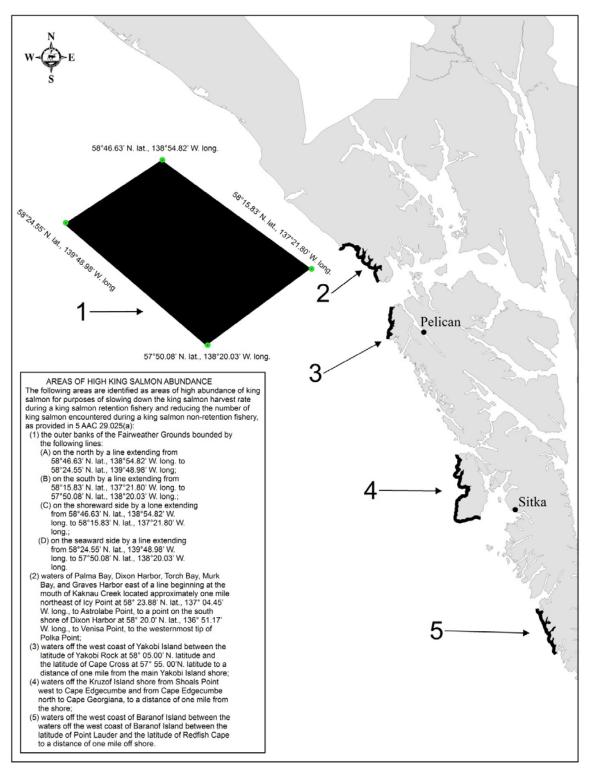


Figure 3.—Southeast Alaska areas closed to trolling for all species following the initial Chinook salmon opening in the Southeast Alaska summer troll season.

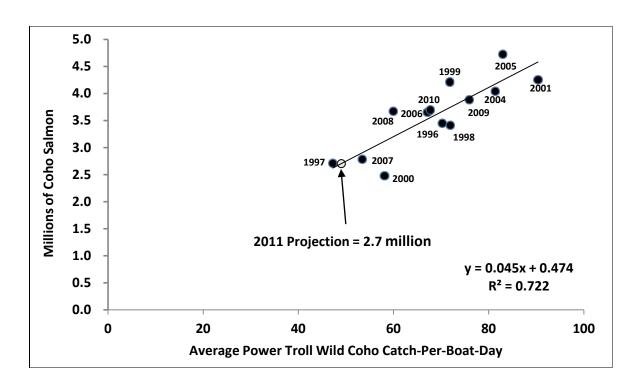


Figure 4.—The regression model that is used in season to predict the wild Southeast Alaska coho salmon return.

Note: Y axis = Region total commercial wild coho salmon return prediction.

X axis = Troll fishery average power troll wild coho catch per boat day for statistical weeks 28–32 (July 3–August 6).

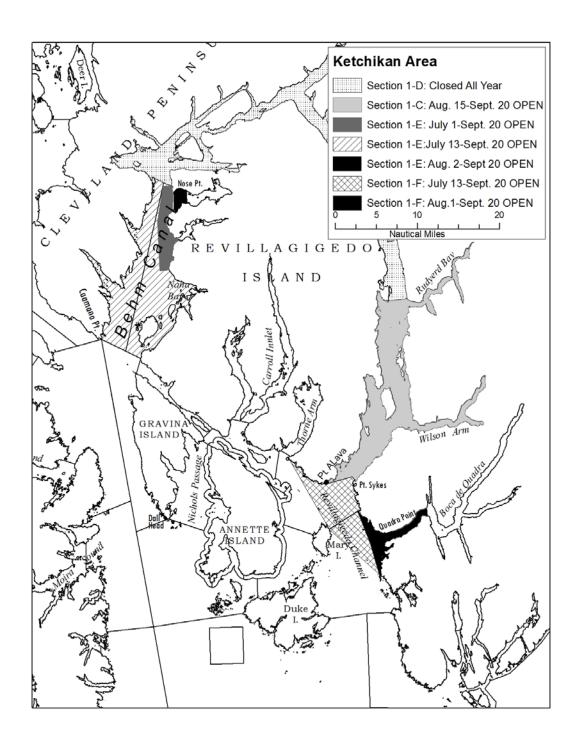


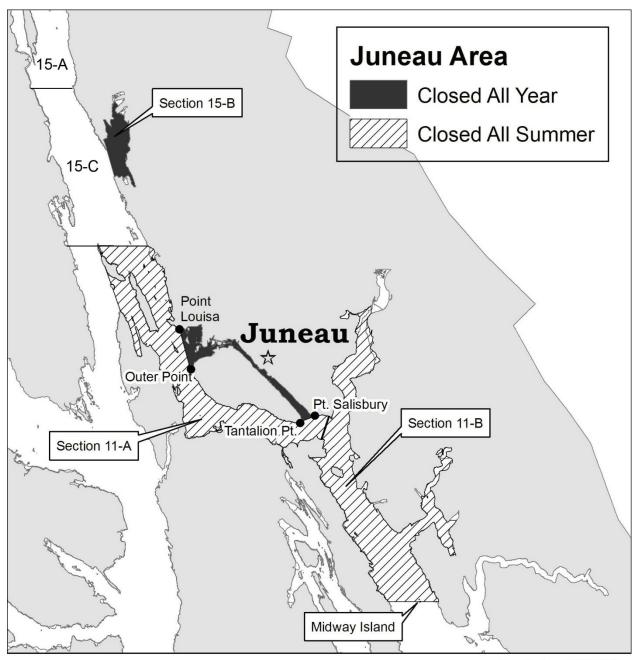
Figure 5.–Ketchikan area general summer trolling areas and seasons.

Note: This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.



Figure 6.–District 8 summer troll closed waters.

Note: This map is for general information only and does not exempt trollers from provisions in (5 AAC 29.150 (CLOSED WATERS)) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150



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Figure 7.–Juneau area summer troll closed waters.

Note: This map is for general information only and does not exempt trollers from provisions in (5 AAC 29.150 (CLOSED WATERS)) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.

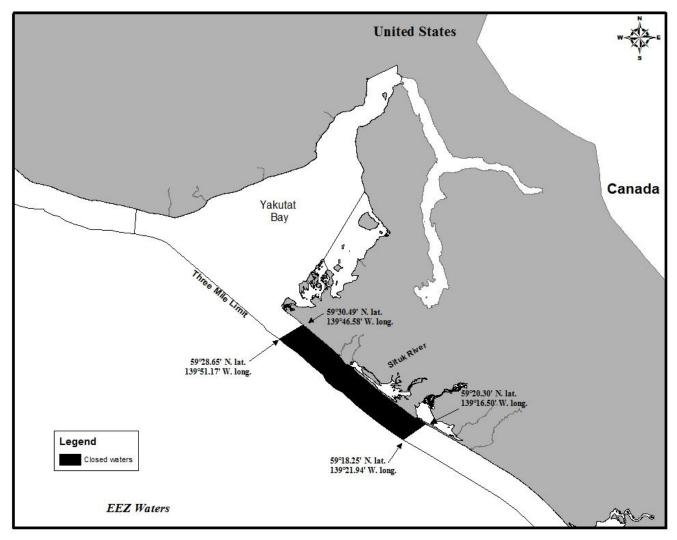


Figure 8.–Yakutat area troll closed waters, beginning July 1.

Note: This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.

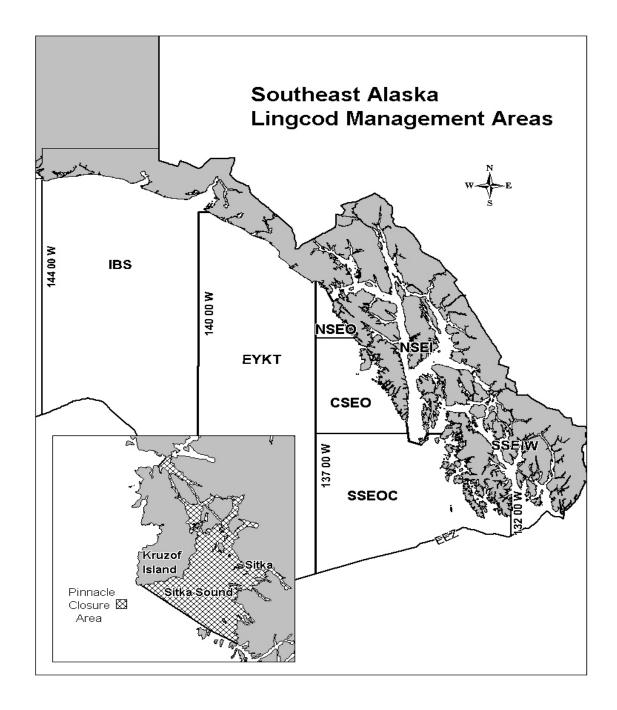


Figure 9.-Southeast Alaska lingcod management areas and Sitka area closed waters.

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The following are commercial fisheries division contacts regarding this management plan:

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For up-to-date troll information, call the 24-hour information line in the Douglas Office at 465-TROL (8765). In addition, the following telephone numbers may be called during the troll fishing season to obtain recorded announcements concerning areas open to trolling.

Ketchikan (907) 225-6870

Sitka (907) 747-8765

Petersburg (907) 772-3700

Southeast Alaska Troll Website:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareasoutheast.salmon