

Fishery Management Report No. 09-55

**Annual Management Report for Groundfish Fisheries
in Kodiak, Chignik, and South Alaska Peninsula
Management Areas, 2008**

by

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

FISHERY MANAGEMENT REPORT NO. 09-55

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AND SOUTH ALASKA PENINSULA MANAGEMENT AREAS, 2008**

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ABSTRACT

This report summarizes the effort and harvest from state-waters and parallel commercial groundfish fisheries in Kodiak, Chignik, and South Alaska Peninsula areas during 2008. Over 80 million pounds of groundfish were harvested from state waters in 2008. State-waters Pacific cod *Gadus macrocephalus* fisheries harvested 30.67 million pounds with 230 vessels, for an estimated exvessel fishery value of \$17.5 million during 2008. Black rockfish *Sebastes melanops* were harvested by 17 vessels in Kodiak Management Area. Black rockfish harvest in Chignik Management Area remains confidential (fewer than 3 participated) and there was no effort in South Alaska Peninsula. Total black rockfish harvest from Kodiak Area was 132,325 pounds for an estimated exvessel value of approximately \$70,000.

A general fishery summary of information is provided on other groundfish species harvested in state waters, as well as a historic summary of non-pelagic trawl closures in the state waters of Kodiak, Chignik, and South Alaska Peninsula areas.

Key words: Westward Region, Kodiak, Chignik, South Alaska Peninsula, groundfish, Pacific cod, black rockfish, state-waters, parallel, commercial fisheries, exvessel, trawl, Annual Management Report, AMR

INTRODUCTION

Groundfish stocks in the Exclusive Economic Zone (EEZ) of the Gulf of Alaska (GOA) and Bering Sea/Aleutian Islands (BSAI) are managed by National Marine Fisheries Service (NMFS) under guidelines developed by the North Pacific Fishery Management Council (NPFMC). NPFMC establishes Acceptable Biological Catch (ABC) specifications for species. ABC may be reduced due to biological, economic, and social considerations to the level available for directed fishing, incidental harvest, and discards, which is termed the Total Allowable Catch (TAC). Appendix A defines frequently used acronyms and key words associated with Westward Region groundfish fisheries.

Authorization for federal control of resources in the EEZ from 3 to 200 nautical miles offshore comes from the Fishery Conservation and Management Act, now known as the Magnuson-Stevens Act, originally passed by the United States Congress in 1976 (MSFCMA 1996). Areas used for federal groundfish fisheries management are different than those used by State of Alaska (Figures 1 and 2).

State management areas include Eastern GOA, Prince William Sound, Cook Inlet, Kodiak, Chignik, South Alaska Peninsula, BSAI, and Chukchi-Beaufort areas (Figure 2). These management areas extend to the most seaward boundary of the EEZ. Alaska Department of Fish & Game (ADF&G) personnel in Southeast Alaska manage fisheries in Eastern Gulf of Alaska. Prince William Sound and Cook Inlet areas are managed by staff in Cordova and Homer and are part of ADF&G Central Region. The other five areas are part of ADF&G Westward Region. ADF&G staff in Kodiak manage Kodiak, Chignik, and South Alaska Peninsula areas (Appendix B), while the Dutch Harbor office manages BSAI fisheries. Historically, little to no groundfish harvest has occurred in Chukchi-Beaufort Area.

State of Alaska has management authority for groundfish resources within state waters. For groundfish fisheries in state waters (0-3 nm) that are not actively managed inseason by the state, ADF&G issues an emergency order (EO) at the beginning of each year, creating parallel fishing seasons. During parallel seasons, State of Alaska adopts NMFS' allowable gear, bycatch levels, and fishing season actions in state waters by authority of the annually issued global EO.

Exceptions to the parallel season occur when the state has established separate harvest quotas, seasons, or regulations for state waters. In Westward Region, these include fisheries for lingcod

Ophiodon elongates, sablefish *Anoplopoma fimbria*, Pacific cod *Gadus macrocephalus*, black rockfish *Sebastes melanops*, and dark rockfish *Sebastes ciliatus*. These fisheries are actively managed by ADF&G. For lingcod, dark rockfish, and black rockfish, the state has full management authority from shore to the 200 nautical mile boundary of the EEZ.

Pacific cod and walleye pollock *Theragra chalcogramma*, comprise the largest volume of groundfish harvested from state waters of Kodiak, Chignik, and South Alaska Peninsula areas (Table 1). All walleye pollock directed harvest occurs during parallel seasons, while Pacific cod are harvested in both parallel and state-waters seasons. In 2008, 19 emergency orders were issued to enact inseason regulatory changes to groundfish fisheries in Kodiak, Chignik, and South Alaska Peninsula areas (Table 2).

DATA VERIFICATION

Annual Management Reports (AMR) are updated on an annual basis. Prior to updating the 2008 AMR, table content was verified and updated when appropriate. It was not obvious in past report's tables whether, for example, discards were included. In some cases, numbers have changed substantially because of errors discovered in the database. As an example, parallel fisheries around Kodiak Island could use data for the Kodiak Management Area (state boundary) or Central GOA (federal boundary). There is justification for presenting data using either boundary because the parallel fishery is state managed, under federal rules. In this AMR, authors have attempted to clarify ambiguities and correct past mistakes. Except as noted, all pounds are in terms of whole fish pounds (unbled weight) and include discards at the dock, confiscated harvest, but exclude discards at sea.

PACIFIC COD

NMFS has managed Pacific cod fisheries in GOA since at least 1976 (Thompson et al. 2008). Pacific cod is managed by NMFS as a single GOA-wide stock because Pacific cod are considered a transoceanic species (Shimada and Kimura 1994; Thompson et al. 2008). The GOA TAC is apportioned among the Eastern (EGOA), Central (CGOA), and Western GOA (WGOA) federal management areas. The TAC limits catch in the federal and parallel waters fishery and apportionments among management areas are designed to spread out fishing effort.

Coincident with the NMFS GOA Pacific cod season, the State of Alaska opens a concurrent "parallel" season inside state waters (Sagalkin 2009). Harvest from federal and concurrent parallel seasons are subtracted from the same federal TAC.

In addition to federal and parallel Pacific cod seasons, there are state-waters seasons for Pacific cod. State-waters seasons are managed separately from federal and parallel seasons, and have separate harvest guidelines and separate management measures; however, NMFS accounts for state-waters fishery removals when establishing the federal/parallel TAC.

The 2008 federal ABC was 146,591,797 pounds (Thompson et al. 2008), and was apportioned 57% (83.6 million pounds) to CGOA, 39% (57.2 million pounds) to WGOA, and 4% (5.9 million pounds) to EGOA federal management areas (Thompson et al. 2008). Total Pacific cod harvest from CGOA, including federal, parallel, and state-waters fisheries, bycatch, and discards at the dock, was 71.0 million pounds (Table 3), or 15% under the ABC (ABC is referenced instead of the CGOA TAC because the state-waters fisheries are subtracted from the ABC). Approximately 36% of CGOA total harvest came from state waters (Table 3). Total Pacific cod

harvest from WGOA, including federal, parallel, and state-waters fisheries, bycatch, and discards at the dock, was 43.1 million pounds (Table 3), or 24% under the ABC. Approximately 50% of WGOA total harvest came from state waters.

PARALLEL SEASON

Background

During the parallel season, vessels do not need a federal License Limitation Program (LLP) permit to participate. However, to participate beyond three nautical miles, vessels must have a specific species, gear, and area endorsement from NMFS.

Most state waters in Westward Region are closed to non-pelagic trawling. During directed Pacific cod fishery openings, 100% of Pacific cod and walleye pollock must be retained under state regulation 5 AAC 28.075 *Utilization Of Pollock And Pacific Cod Taken In A Commercial Fishery*. Federal regulation, 50 CFR 679.B.27 *Increased Retention/Increased Utilization Program*, contains similar language requiring full retention of these species during directed fisheries occurring in federal waters (Beardon 1999). During directed fishery closures, maximum allowable percentages of Pacific cod and walleye pollock retained as bycatch is typically set at 20% by target species weight as designated by NMFS.

Several actions were taken by NMFS and NPFMC during 2001 in response to the Steller sea lion (SSL) Biological Opinion and Incidental Take Statement (BiOp) issued in November of 2001. Actions taken to mitigate the effect of commercial fishing effort on SSL changed widely over the course of the year and are best understood by referencing the appropriate federal documents. In general, federal fisheries were split into two seasons, designated “A” and “B” seasons. NMFS released 60% of the federal TAC for the “A” season on January 1. Incidental harvest of Pacific cod that occurs after the closure of the “A” season comes out of the remaining 40% of the annual TAC. If a sufficient amount of TAC remains for a commercial fishery to occur following these deductions, that amount is made available on September 1.

2008 Central Gulf of Alaska Parallel Season

The CGOA season closed on February 20, 2008, similar to closure timing in 2006 and 2007. After NMFS announced closure of CGOA and ADF&G announced opening of the Kodiak state-waters season, NMFS announced a re-opening of CGOA Pacific cod season for 24 hours beginning at noon on February 29, 2008. ADF&G did not push back the opening date of the Kodiak state-waters Pacific cod season, so the parallel season did not re-open concurrent with the February 29 opening. However, the parallel Pacific cod season was reopened in state waters concurrent with the federal CGOA B-season on September 1. The CGOA B-season closed October 3. Prior to the 2008 season, CGOA Pacific cod B-season had not closed prior to the end of the year since 2004.

Harvest of Pacific cod from Kodiak Area state waters during the 2008 parallel season totaled 5.29 million pounds (Table 4). The majority of Pacific cod were harvested using pot gear (3.31 million pounds) and longline gear (1.9 million pounds).

Chignik Management Area (ADF&G boundaries) crosses both CGOA and WGOA federal management boundaries. Most of Chignik Management Area is within CGOA, and the majority of productive Pacific cod fishing grounds in Chignik Area are closed to all fishing during federal fisheries. These closures include state and federal waters. The closures were implemented in

2001 as part of the SSL BiOp and remained in effect for the 2008 fisheries. Harvest from the 2008 parallel season inside Chignik Area state waters was minimal (Table 5).

2008 Western Gulf of Alaska Parallel Season

While the WGOA A-season closed on February 29, 2008, similar to the closure timing in 2006 and 2007, the WGOA B-season remained open until the end of the year. Harvest of Pacific cod from South Alaska Peninsula Area state waters during the 2008 parallel season totaled 7.84 million pounds (Table 6). The majority of Pacific cod were harvested using pot gear (6.50 million pounds).

STATE-WATERS SEASON

Background

In 1996, the Alaska Board of Fisheries (BOF) adopted state-waters Pacific cod management plans for fisheries in three groundfish areas in Westward Region: Kodiak, Chignik, and South Alaska Peninsula (SAP). The first state-waters Pacific cod seasons occurred in 1997 (Table 7).

State-waters Pacific cod seasons generally occur after the parallel Pacific cod “A” seasons, which typically close in late winter/early spring. Management plans restrict each vessel to either 60 pots or 5 jig machines.

State management plans restrict vessel length to 58-feet in Chignik and SAP areas. Harvest is allocated between pot and jig gear types in all three management areas. There was some concern that these restrictions would prevent harvest of the total guideline harvest level (GHL) while the fisheries were developing. To accommodate this concern, regulations were adopted that would remove exclusive area registration, vessel size limitations, and gear limits to allow harvest opportunity if the season GHL was not expected to be attained before the December 31 regulatory closure date.

GHLs for each area are set as a percentage of estimated ABC of Pacific cod as established by NPFMC. Initial GHLs were set at 15% of Western Gulf ABC for SAP Area, and 15% of Central Gulf ABC apportioned between Kodiak, Chignik, and Cook Inlet Areas. GHLs derived from Central and Western Gulf of Alaska areas were scheduled to increase incrementally to 20% and 25% of federal area ABCs if prior year annual state-waters harvest was within 10% of the established state-waters GHL.

2008 State-Waters Pacific Cod Season Overview

Over 30.67 million pounds of Pacific cod was harvested from Kodiak, Chignik, and SAP areas by 230 vessels (Table 8). Total exvessel fishery value was approximately \$17.45 million.

Kodiak Area

The 2008 Kodiak Area GHL was based on 12.5% of the 2008 CGOA ABC. The resulting GHL was 10.44 million pounds, which was announced by news release on January 3, 2008. The state-waters season began February 27, 2008, seven days after the closure of the parallel CGOA Pacific cod season (Table 9). Vessels using pot gear were allocated 50% of the total GHL or 5.22 million pounds. Within that allocation, vessels longer than 58 feet in overall length were restricted to 25% of the total GHL, or 2.61 million pounds, before September 1.

To track daily catch rates and forecast harvests, processors were requested to report landings daily. Additionally, daily volunteer harvest reports were also requested from pot gear vessel operators. Vessels registering for pot gear were provided a worksheet that described department information needs (number of pots pulled, pounds harvested during the previous 24-hours, and fishing location) and the time interval for the report (8 AM to 8 AM). On average, 65% of the pot fleet reported daily.

The total 2008 harvest of Pacific cod from Kodiak Area state-waters season was approximately 10.55 million pounds taken by 111 vessels (Table 8). By gear type, 8.50 million pounds was taken by 31 pot vessels and 2.04 million pounds was taken by 76 jig vessels (Table 10). Estimated exvessel fishery value was \$6.22 million (Table 8). Fishermen harvested Pacific cod from 38 separate statistical areas during the 2008 state-waters season (Table 11). The largest harvests came from Chiniak Bay (525733) and Uganik Bay (535732; Table 11).

Kodiak Pot Gear Season

Weather in 2008 was better at the beginning of the season compared to the 2007 season, and most vessels began fishing on the first day. Harvest rates were mixed throughout the area, but most people reported very slow harvests. Despite the higher exvessel price in 2008, the number of participants was similar to previous years. In past years, tender deliveries were rare, but two different processors used tenders in 2008.

Average daily harvest rates for the fleet remained relatively low until mid-March and then average harvest rates for the fleet increased from about 4,000-5,000 pounds per vessel per day to just under 10,000 pounds of Pacific cod per vessel per day.

Weather toward the very end of the season slowed harvest rates allowing more time to make management decisions. The closure was announced at 11:50 AM on March 24 for noon on March 26.

The pot fleet harvested 5.42 million pounds through March 24, which was over the pot gear GHL by approximately 4% (Table 10). Pot gear harvested additional Pacific cod after the federal B-season closure, when the state reopened the state-waters season, removing the allocation between jig and pot gear. Total harvest by the pot fleet was 8.5 million pounds (Table 10).

Kodiak Jig Gear Season

While many jig participants anticipated a strong season, harvest rates were relatively slow. Effort was slightly higher in 2008 with 94 vessels compared to 74 vessels in 2007. Peak weekly harvest occurred in late May. The jig fleet harvested approximately 1.98 million pounds through September 1 and an additional 63,344 pounds when the state-waters season reopened in the fall, for a total of 2.04 million pounds (Table 10).

Allocation Rollover

It was unlikely that the entire jig fleet allocation would be harvested by August 31, 2008. By regulation, the season closes and immediately reopens to both pot and jig gear to harvest the remaining quota on September 1. September 1 is also the date when NMFS reopens the Pacific cod 'B' season and parallel rules would normally apply inside state waters if the state-waters Pacific cod season was closed. Starting in 2006, the state opted to close the state-waters season to allow the parallel season to open because it allowed for more effort, additional gear types, and simplified catch accounting. The state again opted to close the state-waters season to allow the

parallel season to open in 2008. Because the parallel B-season closed October 3, 2008, the state-waters season reopened on October 5, 2008 (Table 9). The state-waters season reopened without gear limits and the allocation between pot and jig gear. The GHL was fully harvested in late November. ADF&G issued a news release on November 20, 2008 closing the season on November 22, 2008.

Chignik Area

Chignik Area attained its final GHL step-up increment as a result of attaining the 2003 GHL; therefore, the 2008 Chignik Area GHL was based on 8.75% of the 2008 CGOA ABC resulting in a GHL of 7.31 million pounds. The season opened by regulation on March 1 (Table 7). Vessels using pot gear were allocated 90% of the GHL or 6.58 million pounds. Jig season participants were allocated 10% or 0.73 million pounds (Table 12).

The 2008 Pacific cod harvest in Chignik Area from the state-waters fishery was approximately 6.84 million pounds taken by 23 vessels (Table 8); jig harvest is not reported due to confidentiality requirements. Estimated exvessel fishery value was \$3.83 million. Fishermen harvested Pacific cod from ten separate statistical areas during the 2008 state-waters season. The largest harvests came from Mitrofanina Island (585531), Semidi Islands (565602) and Chiginagak Bay (565633; Table 13).

Chignik Pot Gear Season

The pot season was managed primarily by reviewing daily processor reports. Fishing effort began the day after the season opening and deliveries began on March 3. Similar to Kodiak Area, processors were asked to send in daily landing reports from the beginning of the season. Weekly landings averaged approximately 800,000 pounds. Poor weather hampered fishing several times during the season.

Additional pot harvest occurred after the allocation rollover. The total pot fleet harvested 6.84 million pounds (Table 12).

Chignik Jig Gear Season

There was minimal jig effort in 2008. Weather conditions make it difficult for smaller vessels to participate in Pacific cod seasons in Chignik. Likewise, lack of a local processor makes it difficult for smaller vessels to operate. For the past 3-years, fewer than 3 jig vessels have participated.

Allocation Rollover

Several provisions in the *Chignik Area Pacific Cod Management Plan* (5 AAC 28.537) provide more harvest opportunity in the event GHLs are not likely to be attained. Specifically, an allocation rollover between the pot and jig GHLs may occur on August 15. Additionally, gear limitations and vessel size restrictions may be relaxed after October 30.

Under these provisions, a news release was issued on August 11, 2008 that allowed Pacific cod remaining on the jig-gear GHL to be taken on or after August 15, by either pot or jig gear (Table 14). Despite this rollover, there continued to be no effort in Chignik Area.

On August 20, 2008 a news release was issued that closed the state-waters season at 11:59 AM on September 1, 2008 and reopened state waters to the parallel season concurrent to the federal B-season that began at 12:01 PM on September 1, 2008. Because the parallel season closed

October 3, 2008, the state-waters season reopened on October 5, 2008. On November 4, 2008, ADF&G removed gear and vessel size limits. Only minimal effort occurred, and the season remained open until the end of the year.

South Alaska Peninsula Area

The 2008 SAP Area GHl was based on 25% of the 2008 WGOA ABC. The resulting GHl was 14.28 million pounds, which was announced by news release on January 3, 2008. The state-waters season began March 7, 2008, seven days after the closure of the parallel WGOA Pacific cod season (Table 15). Vessels using pot gear were capped at 85% of the total GHl or 12.15 million pounds (Table 16).

The total 2008 harvest of Pacific cod from the SAP Area state-waters season was approximately 13.28 million pounds taken by 96 vessels (Table 8). By gear type, 11.90 million pounds were taken by 48 pot vessels and 1.38 million pounds were taken by 51 jig vessels (Table 16). The estimated exvessel fishery value was \$7.55 million (Table 8). Fishermen harvested Pacific cod from 33 separate statistical areas during the 2008 state-waters season (Table 17). The largest harvests came from Sanak Island (625401) and around the Shumagin Islands (605502; Table 17).

South Alaska Peninsula Pot Gear Season

Given the remote location and difficulty of collecting catch information, ADF&G initiated a volunteer catch reporting program for the SAP state-waters Pacific cod season in 2006 in an attempt to gain accurate and timely inseason harvest reporting. Upon registering for the season, vessel operators were provided worksheets describing the desired information. Despite this effort, few vessels consistently participated. During the 2007 BOF meeting, a regulation was adopted that required vessel operators using pot gear to report effort and harvest to ADF&G on a daily basis.

The SAP state-waters Pacific cod season was open for 31 days in 2008. The season opened March 4 at noon, but walleye pollock openings in the area limited early effort during the state-waters Pacific cod season.

Effort increased during the fourth week of the season due to the vessels switching from the federal Bering Sea Pacific cod season. Vessel harvest rates remained good throughout the area, and the number of landings increased. Pounds landed and pounds estimated onboard through Saturday March 29 totaled approximately 9.3 million pounds. The pot fleet was harvesting approximately 750,000 pounds per day. On Monday March 31 estimated harvest totaled 10.8 million pounds. Weather on March 31 was favorable, but was expected to deteriorate later in the day. A news release was issued at 11:00 AM March 31 for a closure on Tuesday, April 1 at 10:00 AM. The pot fleet harvested 11.90 million pounds (Table 16), which was under the pot gear GHl by approximately 2%.

South Alaska Peninsula Jig Gear Season

The SAP jig season opened concurrently with pot gear on March 4; however, effort did not occur until after the pot season closure. Effort and harvest rates remained steady through mid July, and some effort occurred throughout the summer. Effort during the summer months is a new development, as a result of some fishermen looking for additional opportunities due to poor salmon returns.

The jig season was closed on September 1 to allow the state waters to open during the federal parallel “B” season for Pacific cod in the WGOA, which remained open through December 31. The final jig harvest was 1.38 million pounds (Table 16).

Pacific Cod Harvest Monitoring

ADF&G monitored the state-waters Pacific cod harvest during 2008 in the same manner as previous years. Dockside sampling occurred in the ports of Sand Point and King Cove the first few months of the season when fishing effort and harvest rates were highest, and in the port of Kodiak throughout the season. Port samplers conducted confidential interviews with vessel operators to obtain information on catch location, catch per unit effort, bycatch, and fishing effort. Samplers recorded data on fish length, individual fish weights, sex, reproductive status, and average weight. Otoliths were removed for age analysis. ADF&G personnel were also opportunistically placed on commercial vessels as observers to collect biological data and bycatch information.

Length frequency data have been collected every year during the state-waters fisheries. Data collected in 2008 did not differ greatly from length data collected in previous years. In Kodiak Area, Pacific cod averaged 65 cm in length, while Pacific cod from Chignik Area averaged 68 cm in length, and in South Alaska Peninsula Area, Pacific cod averaged 67 cm in length (Figure 3).

In Kodiak Area, Pacific cod lengths sampled from jig gear averaged 65 cm in length, while fish sampled from pot gear averaged 66 cm in length (Figure 4). Due to the limited number of jig landings in Chignik and South Alaska Peninsula areas during 2008, biological samples are not available.

Otoliths were collected from 1,192 Pacific cod for age analysis from Kodiak Area (48% from jig gear and 52% from pot gear), 473 from Chignik Area, and 541 from South Alaska Peninsula Area during the 2008 state-waters Pacific cod seasons. Analysis of 2008 Pacific cod otolith age data have not been completed for Kodiak Area. Preliminary analysis from previous years’ data collections shows that ages for Pacific cod ranged from 2 to 8 years, with an average age of 5.0 years for Kodiak. Pacific cod in Chignik Area ranged from 3 to 9 years, with an average age of 6.2 years, although the dominant age class was age 7. Average age for Pacific cod in South Alaska Peninsula Area was 6.1 years (Figure 5).

BLACK ROCKFISH

Historic Background

Black rockfish had limited market value and generally were not harvested commercially in the Kodiak Area until 1990. Harvests increased dramatically in 1991 as markets emerged and operators fished previously unexploited populations (Table 18). Fishermen primarily targeted black rockfish with jig gear, but some bycatch occurred in longline and trawl fisheries. Effort was concentrated in areas easily accessible from the city of Kodiak. Fishery production fell sharply following 1991, presumably due to lower abundance in areas that were previously exploited. Lower prices and alternative fisheries may have been additional factors that limited production after 1991.

Stocks were targeted along Alaska Peninsula and adjacent to Chignik in 1995 (Tables 19 and 20). Fishermen worked in areas near the port of Sand Point and east to Mitrofanina Island.

Black rockfish fisheries were managed by NMFS prior to 1997 as part of the pelagic shelf rockfish group that included dusky *Sebastes ciliatus*, yellowtail *S. flavidus*, and widow *S. entomelas* rockfish. Dusky rockfish is the most abundant species in the pelagic shelf rockfish group and dominated NMFS survey catches in GOA. An annual ABC, largely supported by dusky rockfish biomass estimates, was assigned to the entire group, placing few restrictions on the take of individual species within the group. Under this management strategy, ADF&G was concerned about localized depletion on this long-lived, slow-growing species and in some cases, closed state waters by emergency order. Adjacent federal waters did not close in these instances. Landings continued with federal statistical areas reported on fish tickets. Those reports were not always considered credible because the majority of the black rockfish resource is in state waters.

ADF&G submitted a fisheries management plan amendment to NPFMC in 1997 requesting that NMFS relinquish black rockfish management within the EEZ of GOA to the state (Table 21). This amendment was passed and implemented effective April 5, 1998. In 1997 and until the amendment was implemented in 1998, NPFMC separated black rockfish from the pelagic shelf group. This enabled federal fishery managers to place a 573,201 pound ABC on black rockfish in the CGOA. The ABC was based on NPFMC's Tier 6 guidelines, which apply to fisheries with little stock assessment information. Harvest limits were set at 75% of average production from 1978-1995 (Table 21).

ADF&G fishery managers applied this 75% limit to fisheries in Cook Inlet, Kodiak, and Chignik areas when setting preseason guidelines in 1997. NPFMC was in the process of delegating authority to the state, so these limits were set as an interim measure and were only enforceable in state waters. Harvest levels were set low enough to accommodate potential black rockfish bycatch¹ in other fisheries and not exceed the 573,201 pound total. Assigning GHGs to areas within CGOA was aimed at distributing effort and avoiding intense localized fishing effort that could lead to long-term depletion of the stocks. As a result, the 1997 GHG for Kodiak Area was set at 170,000 pounds. The GHG was further divided into four sections; three that encompassed the areas of historic harvest and one additional section with a low GHG for the rest of the area to allow for exploratory fishing. Chignik Area and South Alaska Peninsula Area Eastern District GHGs were set at 100,000 pounds each. ADF&G Dutch Harbor personnel manage Western District of South Alaska Peninsula Area; information regarding the history and most recent black rockfish fisheries in Western District are available in separate annual management reports (e.g., Milani 2008).

In 1998, Kodiak Area was further subdivided into seven sections with separate GHGs. The areas were loosely based on existing Tanner crab management sections to divide the area into sections that equally divided the highest historic effort (Figure 6).

The BOF adopted several measures for black rockfish fisheries in Kodiak and Chignik areas that became effective for the first time in the 2003 fisheries (Table 21). In Kodiak Area, vessel operators were required to register specifically for the black rockfish fishery. This prevented vessel operators from participating in Pacific cod and black rockfish fisheries simultaneously. It had been difficult to assess which vessel operators were harvesting black rockfish because they could target Pacific cod and rockfish under a general groundfish registration. Also in the Kodiak Area fishery, a 5,000 pound per 5 day harvest and landing trip limit was implemented. This,

¹ Black rockfish bycatch is allowed at 5% of the target species weight in all fisheries.

paired with registration requirements, allows ADF&G to more effectively manage the small GHGs for individual sections within Kodiak Area. Descriptions of black rockfish fishing districts, previously called sections, were also formally adopted in regulation as groundfish registration districts. Likewise, superexclusive registration was adopted for Chignik Area, and the area was subdivided into three districts for management purposes.

Prior to 2003, processors often neglected to sort black rockfish from dusky rockfish. Species identification can be difficult, and fishermen generally lacked incentive because they were often offered a higher price for black rockfish than dusky rockfish. ADF&G provided information to the processors to improve species identification starting in 2003.

In 2005, South Alaska Peninsula Eastern District was divided into three management sections in an effort to distribute harvest throughout the district. Harvest was limited to no more than 45,000 pounds from any section. In 2005, in Kodiak Management Area, the BOF adopted a regulation allowing vessels registered for directed jig groundfish fisheries, other than black rockfish, to register for incidental black rockfish harvest of up to 2,500 pounds per trip in the Kodiak Area, with a 5-day landing limit of 5,000 pounds (Table 21).

In 2006 and 2007, over 30,000 pounds of black rockfish were reported annually on fish tickets as bycatch in non-jig fisheries (Table 22). Most of this harvest occurred in non-state managed fisheries in offshore waters. ADF&G personnel believe that most black rockfish harvest reported in 2006 and 2007 in these offshore areas was misidentified because it is difficult to properly identify some of these rockfish and it would be unusual for black rockfish to be found in the locations they were reported on the fish tickets. ADF&G began monitoring federal fisheries harvesting rockfish in 2007 and most fish sorted as black rockfish by the processing plants were, in fact, dusky rockfish. Further speciation results are pending.

2008 Black Rockfish Speciation Overview

GHGs were attained in four of seven districts in Kodiak Area, and all three districts in Chignik Area. The GHG was not met in Eastern District of South Alaska Peninsula Area.

2008 Kodiak Area Fishery

ADF&G issued a news release on December 26, 2007 specifying a directed fishing GHG of 175,000 pounds for Kodiak Area. The fishery opened on January 1, 2008. Effort and harvest was highest March through June. Very little effort occurred in Southwest, Westside, or Mainland districts, as in previous years (Table 23).

The number of participants in the fishery decreased from 21 vessels in 2007 to 17 vessels in 2008 (Table 18). Harvest from the fishery in 2008 (132,325 pounds) was similar to the 2007 harvest (135,386 pounds; Table 18).

2008 Chignik Area Fishery

ADF&G issued a news release on December 26, 2007 specifying a Chignik Area directed fishing GHG of 100,000 pounds. Harvest was capped at 45,000 pounds per district to distribute harvest throughout the management area. Prior to 2003, the majority of the harvest (usually the entire GHG) had come from one of the three individual districts. The fishery opened on January 1, 2008. Only 1 vessel made directed black rockfish landings from Chignik Area; thus, directed harvest information is confidential.

2008 South Alaska Peninsula Area Eastern District Fishery

ADF&G issued a news release on December 26, 2007 specifying a directed fishing GHL of 75,000 pounds for South Alaska Peninsula Area Eastern District. The section GHLs implemented in 2005 were removed for the 2007 fishery and the total district GHL was lowered to 75,000 pounds.

The fishery opened on January 1, 2008. No vessels made directed black rockfish landings from Eastern District.

Black Rockfish Harvest Monitoring

Black rockfish harvests are monitored through fish ticket records and dockside sampling of commercial catches. Information collected by dockside samplers includes fishing location and effort (days fished) as well as fish length, weight, sex, and reproductive maturity. Additionally, otoliths are collected for age determination. Dockside data were collected for black rockfish in 2008 from Kodiak Area only.

Mean size of black rockfish sampled from landings in Kodiak Area during 2008 was 47 cm in length (Figure 7). Otoliths were collected from 1,034 black rockfish for aging from Kodiak Area during the 2008 state-waters black rockfish season. Ages for black rockfish in 2008 ranged from 5 to 47 years, with an average age of 15 for Kodiak (Figure 8).

SKATES

Historical Background

Skates are incidentally harvested in longline and trawl fisheries in Kodiak Area. On occasion, skates are retained and processed. Traditionally, most skates harvested in Kodiak Area are discarded at sea, ground into fishmeal, or discarded onshore once delivered to shore-based processors in unsorted catches from trawl fisheries. The majority of historic harvests have occurred in federal waters in CGOA (Table 24).

NMFS has managed skates under the “other species” assemblage that also includes sharks, sculpins, squid, and octopi. This assemblage is designed to monitor and protect species that have not traditionally been economically important, but may have an important ecological role and have potential for economic development (Gaichas et al. 2003). The other species assemblage has an annual TAC based on 5% of the sum of all other GOA FMP target species TACs.

Skates have been managed in state-waters under parallel seasons since the late 1980s. In 1998, the BOF mandated a commissioner’s permit to target skates in state waters. This regulation gave ADF&G the authority to restrict fishing depth, define seasons, specify fishing areas, establish minimum sizes, specify legal gear, require completed logbooks, and require other conditions determined to be necessary for conservation and management purposes. Skate seasons in state waters are prosecuted under the annual global EO and are defined as parallel seasons, with the additional requirement of the commissioner’s permit. The State of Alaska does not set a separate skate quota for state waters, nor does the state administer a separate season for skates in state waters. When the other species assemblage closes in federal waters, that closure is also in effect for state waters. Should a particular gear type, such as longline, be closed for directed fisheries because of bycatch constraints, that closure is additionally in effect for state waters under the parallel structure of the global EO.

Starting in 2003, several markets for skate products, primarily in Republic of Korea, were willing to purchase skates for as much as \$0.25 per pound. At this price, skates were more valuable than some species of salmon and several other species of groundfish. In addition, fishermen targeting skates were able to retain Pacific cod up to 20% of their retained skate weight, making even relatively small amounts of bycatch lucrative for participants. As a result, the skate harvest increased significantly in CGOA (Table 24). Prior to 2003, most skates were taken as bycatch, typically early in the season during Pacific cod fisheries.

In 2006, NMFS placed skates in bycatch status and disallowed directed fishing. This was done due to concerns of overfishing and the lack of information on skate biology or population size, and ADF&G discontinued issuing commissioner's permits for skates.

2008 Kodiak Area Skate Fishery

The 2008 skate fishery was bycatch only in both state and federal waters. A total of 184 vessels harvested 3.2 million pounds of skates in CGOA. Approximately 11% of the harvest came from state waters of CGOA (Table 24). A total of 43 vessels harvested 132,175 pounds of skates in WGOA. Approximately 5% of the harvest came from state waters of WGOA (Table 24).

SABLEFISH

Sablefish in state waters are managed separately from the federal sablefish individual fisherman's quota (IFQ) program. Known habitat for mature sablefish is limited in much of Westward Region's state waters. Mature fish are typically found in deeper waters such as those at edge of the continental shelf. Most state waters are relatively shallow and typically do not support sizeable populations of mature sablefish. Overall, sablefish stocks are not abundant in state waters east of Unimak Pass in WGOA.

In 2002, the BOF prohibited directed sablefish fisheries in the state waters of Kodiak and Chignik areas. In 2003, the BOF closed the directed sablefish fishery in Eastern District of SAP Area. A 1% bycatch allowance with certain restrictions on gear types has been allowed in other fisheries; this allocation is managed by NMFS and is adopted for state-waters through the global EO that establishes parallel seasons. The 2008 sablefish harvest taken as bycatch in Kodiak, Chignik, and South Peninsula state waters totaled 14,857 pounds excluding SAP Western District directed fishery (Table 1).

LINGCOD

Commercial regulations in Kodiak and Chignik Areas restrict all lingcod harvest to the period from July 1 to December 31 and require fish to be a minimum of 35 inches in total length. These regulations were designated to eliminate commercial exploitation during the nest-guarding period and ensure that only mature fish that have had at least one spawning opportunity are harvested. There are no similar regulations in SAP as the abundance of lingcod appears significantly lower in that area and is along the western boundary of the species range (Mecklenburg et al. 2002). Currently, all legal commercial gear types can be used to harvest lingcod, although regional registration is required for vessels intending to target lingcod. Harvest primarily occurs in rocky, reef areas, although large catches are periodically taken in offshore trawl fisheries.

Lingcod are generally not harvested during directed fisheries in Westward Region. Most harvest occurs as bycatch in other fisheries, although directed harvest with jig gear has occurred.

Lingcod were harvested by jig, pot, longline, and trawl gear. The 2008 harvest (521,257 pounds) was the highest recorded, and the majority was harvested as bycatch by the trawl fleet (Table 25).

The 2008 lingcod bycatch limit was initially set at 20% by weight of targeted species. By September 4, over 300,000 pounds of lingcod were landed, prompting a reduction in the bycatch limit from 20% to 3% for all gear sectors effective September 5. Despite the bycatch reduction, lingcod harvests remained strong from early through mid-September totaling approximately 110,000 pounds.

PARALLEL WALLEYE POLLOCK FISHERIES

State waters opened for a parallel walleye pollock season concurrent with federal seasons managed by NMFS. Harvest quotas were released in four openings during 2008 and were designated A, B, C, and D seasons (Table 26). Additional openings were allowed after the initial closures when pollock and bycatch quota remained. Walleye pollock were primarily harvested with pelagic trawl gear, although other gear types are legal.

Harvest of walleye pollock in 2008 was 71.5 million pounds from CGOA and 32.8 million pounds from WGOA (Table 27). The amount of harvest from state-waters in 2008 was similar to 2007 in CGOA and lower in WGOA compared to the 2007 harvests. Over 34% of total WGOA walleye pollock harvest occurred in state waters, while 31% of total CGOA harvest occurred in state waters (Table 27).

NON-PELAGIC TRAWL CLOSURES

The history of time and area closures to non-pelagic trawl gear around Kodiak Island and along Alaska Peninsula is variable. Generally, bays have been closed year round since 1986 (Figure 9). Additional changes occurred in 1994 and 1995 when the BOF opened state waters to non-pelagic trawling near Castle Rock and Sanak Island.

Non-pelagic trawling was considered again during 1999 with public proposals to close all state-waters in Kodiak and Chignik areas. The BOF adopted those proposals with the exception of an area along the westside of Kodiak Island, which remains open on a seasonal basis. Seasonal openings of state-waters were left in place to allow non-pelagic trawls access to flatfish resources during parallel fisheries. Additional closure areas in 1999 included all state waters in Chignik Area and state waters of Kodiak Area along Alaska Peninsula from Cape Kumlik to Cape Douglas, Marmot Bay and South Sitkalidak on Kodiak Island, and areas off Sitkinak and Ugak Islands. No additional closures were implemented for the 2008 fisheries.

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TABLES AND FIGURES

Table 1.—Harvest of the top 30 species, by total weight, from state waters of Kodiak, Chignik, and South Alaska Peninsula areas, as reported on groundfish fish tickets, 2008.

Species	Kodiak	Chignik	South Alaska	
			Peninsula	Total
Pacific Cod	16,151,197	7,050,294	21,294,582	44,496,073
Walleye Pollock	22,252,580	169,424	11,209,223	33,631,226
Pacific Halibut	2,792,842	634,552	1,877,202	5,304,595
Arrowtooth Flounder	1,304,135	1,581	402,459	1,708,176
Flathead Sole	400,010	0	94,584	494,594
Rock Sole	444,319	0	523	444,842
Octopus, unidentified	249,667	3,214	101,284	354,165
Black Rockfish		Confidential		226,705
Eulachon Smelt	221,139	0	4,482	225,621
Big Skate	184,680	2,554	0	187,234
Longnose Skate	126,730	565	2,835	130,131
Starry Flounder	58,269	0	15	58,284
Dusky Rockfish	37,303	481	18	37,802
Rattail Grenadier	37,650	0	0	37,650
Butter Sole	32,032	0	34	32,066
Rex Sole	26,261	0	1,914	28,175
Skate, unidentified	22,925	0	3,721	26,646
Lingcod	23,691	330	0	24,021
Jellyfish	20,065	27	1,424	21,516
Capelin Smelt	18,135	0	634	18,769
Dark Rockfish	17,680	27	4	17,710
Spiny Dogfish Shark	17,274	0	0	17,274
Squid	15,063	0	220	15,283
Sablefish	2,744	11,370	743	14,857
Northern Rockfish	12,610	0	0	12,610
Lumpsucker	5,939	0	2,341	8,279
Yelloweye Rockfish	3,266	1,123	2,014	6,403
Sculpin, unidentified	4,952	56	1,038	6,045
Dover Sole	4,986	0	77	5,063
Chinook Salmon	4,323	0	612	4,935

Note: Weights are in whole pounds. Discards at sea are excluded.

Table 2.—Groundfish emergency orders issued for Kodiak, Chignik, and South Alaska Peninsula Areas, 2008.

Emergency Order	Effective Date	Explanation
4-GF-01-08	December 31, 2007	Established parallel commercial groundfish fishing seasons and bycatch limits in Kodiak, Chignik, and South Alaska Peninsula, Bering Sea-Aleutian Islands, and Chukchi-Beaufort Areas.
4-GF-02-08	February 27, 2008	Opened Kodiak Area state-waters Pacific cod season.
4-GF-03-08	March 7, 2008	Opened South Alaska Peninsula Area state-waters Pacific cod season.
4-GF-06-08	March 26, 2008	Closed Kodiak Area state-waters Pacific cod season to pot gear.
4-GF-07-08	April 1, 2008	Closed South Alaska Peninsula Area state-waters Pacific cod season to pot gear.
4-GF-08-08	April 3, 2008	Closed the black rockfish fishery in Northeast District of Kodiak Area.
4-GF-09-08	April 17, 2008	Closed Chignik Area state-waters Pacific cod season to pot gear.
4-GF-10-08	July 2, 2008	Closed the black rockfish fishery in Chignik Bay District of Chignik Area.
4-GF-12-08	July 25, 2008	Closed the directed black rockfish fishery in Eastside District of Kodiak Area.
4-GF-13-08	August 11, 2008	Closed the black rockfish fishery in Southeast District of Kodiak Area.
4-GF-14-08	August 13, 2008	Closed the black rockfish fishery in Chignik Area.
4-GF-15-08	August 19, 2008	Closed the incidental black rockfish fishery in Eastside District of Kodiak Area.
4-GF-16-08	September 5, 2008	Lowered the lingcod bycatch rate in directed groundfish fisheries in Kodiak Area from 20 to 3 percent.
4-GF-17-08	September 25, 2008	Closed the black rockfish fishery in Afognak District of Kodiak Area.
4-GF-18-08	August 15, 2008	Closed Chignik Area state-waters Pacific cod season to jig gear, immediately reopened Chignik Area state-waters Pacific cod season to pot and jig gear.
4-GF-19-08	September 1, 2008	Closed Kodiak, Chignik, and South Alaska Peninsula areas state-waters Pacific cod seasons and reopened under parallel rules.
4-GF-20-08	October 5, 2008	Reopen Kodiak and Chignik state-waters Pacific cod seasons. Gear limits removed in Kodiak Area.
4-GF-21-08	November 4, 2008	Remove gear and vessel size limits in Chignik Area state-waters Pacific cod season.
4-GF-22-08	November 22, 2008	Closed the state-waters Pacific cod season in Kodiak Area.

Table 3.—Pacific cod harvest, in millions of pounds, from Central and Western Gulf of Alaska Management areas, 1990-2008.

NMFS Area	Year	Federal Waters		State Waters		Total	ABC	Discards at Sea (pounds)
		Pounds	% of total	Pounds	% of total			
Central GOA	1990	79.8	87%	11.8	13%	91.6	131.0	0.6
	1991	81.2	81%	19.5	19%	100.8	106.5	0.5
	1992	73.1	82%	16.5	18%	89.6	85.4	0.5
	1993	60.3	84%	11.6	16%	71.9	77.5	0.7
	1994	50.3	80%	12.9	20%	63.2	68.9	0.8
	1995	72.8	77%	21.8	23%	94.6	100.7	0.8
	1996	71.9	81%	16.8	19%	88.7	94.6	3.2
	1997	76.6	76%	24.6	24%	101.2	113.2	1.8
	1998	72.6	74%	24.9	26%	97.5	108.2	0.4
	1999	71.0	68%	34.1	32%	105.1	117.2	0.2
	2000	56.3	72%	21.7	28%	78.0	96.0	0.5
	2001	50.0	78%	14.1	22%	64.1	85.2	0.8
	2002	42.4	70%	18.2	30%	60.6	69.8	1.1
	2003	42.0	68%	20.1	32%	62.1	64.0	1.0
	2004	47.3	66%	24.2	34%	71.4	78.9	0.5
	2005	38.9	62%	24.0	38%	62.9	73.0	0.2
	2006	37.2	63%	22.3	37%	59.5	83.5	0.1
	2007	43.5	65%	23.0	35%	66.6	83.5	0.4
	2008	45.2	64%	25.8	36%	71.0	83.6	1.2

NMFS Area	Year	Federal Waters		State Waters		Total	ABC	Discards at Sea (pounds)
		Pounds	% of total	Pounds	% of total			
Western GOA	1990	72.2	85%	13.1	15%	85.3	65.5	0.7
	1991	71.9	94%	4.3	6%	76.2	56.7	0.3
	1992	59.7	82%	13.1	18%	72.9	51.8	0.7
	1993	37.9	95%	1.9	5%	39.8	41.3	0.2
	1994	24.9	77%	7.3	23%	32.2	36.7	0.1
	1995	35.7	80%	9.0	20%	44.7	44.2	0.2
	1996	35.3	73%	12.9	27%	48.2	41.6	0.3
	1997	47.3	71%	19.5	29%	66.9	62.9	0.4
	1998	40.0	69%	18.1	31%	58.0	60.1	0.1
	1999	39.7	65%	21.2	35%	60.9	65.1	0.0
	2000	33.7	55%	27.9	45%	61.6	60.6	0.1
	2001	23.0	54%	20.0	46%	43.0	53.8	0.0
	2002	26.3	55%	21.2	45%	47.5	49.5	0.1
	2003	17.5	40%	25.9	60%	43.5	45.4	0.1
	2004	17.1	38%	28.2	62%	45.3	49.8	0.0
	2005	16.5	43%	22.3	57%	38.8	46.1	0.1
	2006	11.2	29%	27.7	71%	39.0	59.2	0.1
	2007	15.8	42%	22.3	58%	38.1	59.2	0.1
	2008	21.6	50%	21.5	50%	43.1	57.2	0.1

Notes: Weights are in whole pounds. Discards at sea are excluded from all but the “Discards at Sea” column.

GOA = Gulf of Alaska, ABC= Acceptable Biological Catch, NMFS = National Marine Fisheries Service.

Table 4.—Kodiak Area state waters Pacific cod harvest during parallel Pacific cod seasons, by gear type, 1997-2008.

Year	Gear Type				Total
	Pot	Longline	Trawl	Jig	
1997	8,496,557	1,849,832	571,786	526	10,918,701
1998	4,998,323	2,113,533	500,663	27,246	7,639,765
1999	8,093,984	2,474,068	1,158,941	27,963	11,754,956
2000	4,463,886	3,512,904	198,805	79,365	8,254,960
2001	2,800,868	2,235,004	140,043	22,414	5,198,329
2002	2,324,281	1,275,408	14,173	5,926	3,619,788
2003	3,104,572	2,580,771	21,051	13,737	5,720,131
2004	2,329,223	3,767,088	12,433	237,555	6,346,299
2005	3,890,960	3,488,159	305,997	292,559	7,977,675
2006	4,430,232	5,377,684	137,566	190,037	10,135,519
2007	5,013,162	3,361,989	95,449	63,432	8,534,032
2008	3,317,365	1,897,939	31,460	38,267	5,285,031

Note: Weights are in whole pounds. Discards at sea are excluded.

Table 5.—Chignik Area state waters Pacific cod harvest during parallel Pacific cod seasons, by gear type, 1997-2008.

Year	Gear Type				Total
	Pot	Longline	Trawl	Jig	
1997		confidential			555,718
1998		confidential			409,669
1999		confidential			852,408
2000		confidential			426,788
2001		confidential			135,999
2002		confidential			264,836
2003		confidential			211,531
2004		confidential			157,008
2005		confidential			62,891
2006		confidential			62,324
2007		confidential			38,500
2008		confidential			175,908

Note: Weights are in whole pounds. Discards at sea are excluded. Data are confidential in cases where fewer than 3 vessels participated.

Table 6.—South Alaska Peninsula Area state waters Pacific cod harvest during parallel Pacific cod seasons, by gear type, 1997-2008.

Year	Gear Type				Total ^a
	Pot	Longline	Trawl	Jig	
1997	1,998,742	21,268	6,275,699	Confidential	8,295,709
1998	3,974,919	511,388	3,536,321	Confidential	8,022,628
1999	2,841,596	Confidential	5,145,488	0	7,987,084
2000	5,699,112	219,195	6,342,383	Confidential	12,260,690
2001	3,272,010	44,507	2,289,085	339,940	5,945,543
2002	6,051,920	Confidential	643,287	398,623	7,093,830
2003	12,966,344	46,165	160,705	92,528	13,265,743
2004	12,882,834	15,069	919,244	397,702	14,214,849
2005	6,128,240	536,983	2,826,290	100,691	9,595,204
2006	9,319,648	216,514	6,252,940	Confidential	15,789,102
2007	6,370,559	399,170	2,462,186	Confidential	9,235,215
2008	6,509,182	431,408	791,171	114,599	7,846,360

Note: Weights are in whole pounds. Discards at sea are excluded. Data are confidential in cases where fewer than 3 vessels participated.

^a Totals exclude confidential harvest.

Table 7.—Regulatory development of the state-waters Pacific cod seasons in Kodiak, Chignik, and South Alaska Peninsula Areas.

YEAR	REGULATION
1996	<ul style="list-style-type: none"> Alaska Board of Fisheries adopts state-waters Pacific cod management plans for Kodiak, Chignik, and South Alaska Peninsula (SAP) areas. All areas established as exclusive registration. Gear restricted to jig machine (5 machines) or pot (60 pots). Kodiak and SAP open 14 days after federal closure; Chignik opens April 15. Vessel size restricted to 58' in Chignik and SAP. Jig/pot allocation (50:50) in Kodiak; no allocation by gear type in Chignik or SAP. Gear allocation rollover September 1 in Kodiak. Gear limits and exclusive registration lifted October 31 in all areas; vessel size limits lifted October 31 for SAP and Chignik.
1997	<ul style="list-style-type: none"> Prosecution of the first state-waters Pacific cod fishery in Kodiak, Chignik and SAP areas.
1998	<ul style="list-style-type: none"> Kodiak and SAP change opening date to 7 days after federal closure Chignik opening date changed to April 1 SAP adopts gear allocation rollover September 1. SAP caps pot harvest at 85% of GHL.
1999	<ul style="list-style-type: none"> Chignik opening date changed to April 15. Chignik allocation (jig/pot) changed to 15:85 Chignik adopts gear allocation rollover on August 15. Chignik Area established as superexclusive registration. Kodiak adopts large vessel (> 58') cap of 25% of GHL prior to September 1.
2001	<ul style="list-style-type: none"> State recognition of Steller sea lion haulouts during parallel Pacific cod, walleye pollock and Atka mackerel seasons.
2002	<ul style="list-style-type: none"> Vessel monitoring system (VMS) rules implemented during parallel Pacific cod, walleye pollock, and Atak mackerel seasons. Pot storage requirement liberalized in Kodiak and Chignik areas for transition between parallel and state-waters seasons. Chignik opening date changed to March 1.
2004	<ul style="list-style-type: none"> Pot storage liberalized in SAP Area for transition between parallel and state-waters seasons.
2005	<ul style="list-style-type: none"> Chignik allocation (jig/pot) allocation changed in Chignik (10:90).
2007	<ul style="list-style-type: none"> SAP adopts 24-hour weather delay prior to fishery opening. SAP mandatory inseason catch reporting by vessels. SAP Area registration requirements changed, prohibiting fishing in another groundfish fishery outside of SAP area.

Table 8.—Harvest, effort, and value from Kodiak, Chignik, and South Alaska Peninsula Area state-waters Pacific cod seasons, 1997-2008.

Year	Vessels	Landings	GHL ^a	Pounds harvested ^b	Price Per Pound ^c	Fishery value ^d
Kodiak Area						
1997	108	714	8.5	7,559,143	\$0.22	\$1,661,078
1998	127	971	8.1	8,182,956	\$0.22	\$1,795,816
1999	176	1,255	11.7	10,694,975	\$0.34	\$3,635,108
2000	204	1,707	12.0	8,562,816	\$0.39	\$3,335,844
2001	103	669	10.6	4,843,741	\$0.34	\$1,638,642
2002	82	552	8.7	8,825,851	\$0.29	\$2,556,887
2003	128	837	8.0	8,154,867	\$0.33	\$2,685,922
2004	156	1,122	9.9	10,033,889	\$0.31	\$3,102,824
2005	158	1,011	9.1	8,548,163	\$0.32	\$2,734,882
2006	113	646	10.4	6,330,518	\$0.42	\$2,657,285
2007	95	643	10.4	6,439,757	\$0.51	\$3,278,695
2008	111	988	10.4	10,548,875	\$0.59	\$6,217,710
Chignik Area						
1997	13	74	5.9	1,133,972	\$0.18	\$201,728
1998	42	295	5.7	5,608,079	\$0.17	\$953,373
1999	40	452	8.2	6,425,584	\$0.29	\$1,863,419
2000	25	163	6.7	1,794,759	\$0.30	\$538,414
2001	26	179	6.0	2,648,655	\$0.26	\$688,645
2002	25	199	4.9	4,227,547	\$0.20	\$832,946
2003	28	257	4.5	4,467,571	\$0.27	\$1,206,244
2004	28	297	5.8	5,750,461	\$0.23	\$1,322,156
2005	22	248	6.4	5,787,467	\$0.25	\$1,446,687
2006	12	202	7.3	3,439,521	\$0.34	\$1,169,437
2007	16	242	7.3	5,699,461	\$0.45	\$2,564,576
2008	23	262	7.3	6,838,934	\$0.56	\$3,829,803
South Alaska Peninsula Area						
1997	89	655	9.4	9,481,523	\$0.18	\$1,623,576
1998	71	433	9.0	8,630,512	\$0.17	\$1,464,106
1999	74	554	13.0	11,821,979	\$0.26	\$3,070,338
2000	90	650	15.1	15,044,104	\$0.30	\$4,476,218
2001	121	727	13.4	13,464,020	\$0.25	\$3,362,729
2002	107	598	12.4	12,716,258	\$0.22	\$2,792,697
2003	92	604	11.4	11,560,663	\$0.27	\$3,117,330
2004	88	595	12.5	12,514,240	\$0.23	\$2,869,261
2005	73	528	11.5	11,436,172	\$0.25	\$2,846,795
2006	54	386	14.8	11,739,736	\$0.36	\$4,215,888
2007	60	465	14.8	12,678,151	\$0.47	\$5,940,742
2008	96	689	14.3	13,283,307	\$0.57	\$7,547,258
Total						
1997	206	1,443	23.8	18,174,638	\$0.20	\$3,538,187
1998	236	1,699	22.8	22,421,546	\$0.19	\$4,252,821
1999	287	2,261	32.9	28,942,538	\$0.30	\$8,677,822
2000	314	2,519	33.8	25,401,678	\$0.33	\$8,338,732
2001	246	1,574	30.0	20,956,415	\$0.27	\$5,648,153
2002	209	1,348	26.0	25,769,656	\$0.23	\$5,905,402
2003	248	1,698	23.9	24,183,101	\$0.28	\$6,764,929
2004	272	2,014	28.2	28,298,589	\$0.26	\$7,340,492
2005	253	1,787	27.0	25,771,801	\$0.27	\$6,944,517
2006	180	1,234	32.5	21,509,775	\$0.37	\$7,946,561
2007	232	1,348	32.5	24,817,369	\$0.47	\$11,640,842
2008	230	1,939	32.0	30,671,115	\$0.57	\$17,452,389

Note: Weights are in whole pounds. Discards at sea are excluded. Totals by area may not match number of vessels by gear type in Tables 10, 12, and 16 because a vessel may have used more than one gear type.

^a GHL = guideline harvest level.

^b Pounds harvested for Chignik exclude jig harvest in 2006 and 2008 due to confidentiality; jig vessel numbers and jig landing data are also excluded for these years.

^c Price per pound calculated from whole pounds sold excluding bait and meal.

^d Value calculated by multiplying pounds of sold product (not pounds harvested) by price per pound.

Table 9.–Kodiak Area state-waters Pacific cod season openings, 1997-2008.

	Pot Gear	Jig Gear
1997	<i>Fishery Dates:</i> April 4 - May 4 September 1 - September 30 October 28 - December 31	April 4 - December 31 October 28- December 31
	<i>Management Actions:</i> September 1 - reopened to pot gear. October 31 - allocation rollover, gear limits, exclusive registration area lifted.	
1998	<i>Fishery Dates:</i> March 17 - April 27 September 1 - December 31	March 17 - December 31
	<i>Management Actions:</i> September 1 - reopened to pot gear. October 31 - vessel size limit gear limits, exclusive registration area lifted.	
1999	<i>Fishery Dates:</i> March 21 - April 29 October 5 - December 31	March 21 - August 31 October 6 - December 31
	<i>Management Actions:</i> October 6 - reopen to pot gear (following CGOA opening). October 31 - gear limits lifted, exclusive registration area lifted.	
2000	<i>Fishery Dates:</i> March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i> October 31 - limits on pots, jigs, and vessel size removed, exclusive registration area lifted.	
2001	<i>Fishery Dates:</i> March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i> September 1 - reopen to pot gear. October 31 - limits on pots, jigs, and vessel size removed, exclusive registration area lifted.	
2002	<i>Fishery Dates:</i> March 16 - May 4 September 1 - December 31	March 16 - December 31
	<i>Management Actions:</i> September 1 - reopen to pot gear. October 31 - limits on pots, jigs, and vessel size removed, exclusive registration area lifted.	
2003	<i>Fishery Dates:</i> February 16 - March 2	February 16 - May 9
	<i>Management Actions:</i> Fishery closed when GHL allocations were attained.	
2004	<i>Fishery Dates:</i> February 7 - February 22	February 7 - April 20
	<i>Management Actions:</i> Fishery closed when GHL allocations were attained.	

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	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
2005	February 2 - February 13	February 2 - April 21
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	
	<i>Fishery Dates:</i>	
2006	March 7 - March 29	March 7 - September 1
	<i>Management Actions:</i>	
	Pot gear closed when GHL was attained. Jig season closed on 9/1 for parallel season (B-season).	
	<i>Fishery Dates:</i>	
2007	March 6 - April 8	March 6 - September 1
	<i>Management Actions:</i>	
	Pot gear closed when GHL was attained. Jig season closed on 9/1 for parallel season (B-season).	
	<i>Fishery Dates:</i>	
2008	February 27 - March 26	February 27 - September 1
	October 5 - November 22	October 5 - November 22
	<i>Management Actions:</i>	
	Pot gear closed when GHL was attained. Jig season closed on 9/1 for parallel season (B-season).	
	October 5 - reopen to pot and jig gear (following federal CGOA closure).	

Table 10.—Kodiak Area state-waters Pacific cod harvest and effort by gear type, 1997-2008.

Year	Gear	GHL ^a (millions)	Vessels	Landings	Pounds	Price per pound ^b
1997	Jig	4.25	73	482	1,978,772	\$0.23
	Pot	4.25	40	232	5,580,372	\$0.22
1998	Jig	4.05	91	661	2,112,817	\$0.23
	Pot	4.05	49	310	6,070,140	\$0.22
1999 ^c	Jig	5.85	118	793	2,294,837	\$0.38
	Pot	5.85	79	462	8,400,138	\$0.32
2000	Jig	6.00	143	1226	2,814,481	\$0.40
	Pot	6.00	69	481	5,748,334	\$0.39
2001	Jig	5.30	69	433	1,252,692	\$0.36
	Pot	5.30	34	236	3,591,049	\$0.33
2002	Jig	4.35	51	340	1,389,838	\$0.28
	Pot	4.35	33	212	7,436,013	\$0.29
2003	Jig	4.00	102	688	3,195,605	\$0.35
	Pot	4.00	42	149	4,959,262	\$0.32
2004	Jig	4.95	124	961	4,210,284	\$0.34
	Pot	4.95	47	161	5,823,605	\$0.29
2005	Jig	4.56	122	849	4,570,327	\$0.33
	Pot	4.56	51	162	3,977,835	\$0.30
2006	Jig	5.21	79	477	1,446,881	\$0.43
	Pot	5.21	41	169	4,883,637	\$0.41
2007	Jig	5.21	63	459	1,256,212	\$0.52
	Pot	5.21	34	184	5,183,545	\$0.50
2008	Jig	5.22	76	647	2,042,082 ^d	\$0.61
	Pot	5.22	37	341	8,506,792 ^d	\$0.59

Note: Weights are in whole pounds. Discards at sea are excluded.

^a GHL = guideline harvest level.

^b Price per pound calculated from whole pounds sold excluding bait and meal.

^c Beginning in 1999, vessels > 58' using pot gear were capped at 25% of the total GHL.

^d Pot harvest prior to the allocation rollover (September 1) was 5.42 million pounds. Jig harvest prior to the allocation rollover was 1.98 million pounds.

Table 11.—Pacific cod harvest from Kodiak Area state-waters season by statistical area, 2008.

Statistical Area	Pounds	Vessels	Landings ^a
515801	45,719	6	10
525701	558,457	33	99
525703	912,199	9	42
525731	525,972	43	192
525733	1,221,631	52	233
525802	50,498	7	17
525803	84,017	6	10
525805	54,251	12	22
525806	244,628	20	46
525834	256,837	7	14
535631	333,896	17	57
535633	30,753	4	4
535634	121,371	4	15
535703	206,494	7	28
535705	335,373	7	16
535732	1,038,244	27	70
535733	185,591	4	9
535734	60,307	11	23
535803	461,350	21	46
545632	85,957	4	15
545633	94,177	3	12
545701	752,179	5	25
545703	777,767	4	23
545731	51,140	6	9
545733	253,512	4	13
545734	567,796	5	20
545802	137,627	3	6
545803	212,919	6	14
555731	190,137	3	9
555732	261,688	4	10
Other ^b	436,386	10	27
Total	10,548,875		

Note: Weights are in whole pounds. Discards at sea are excluded.

^a Some landings involve multiple statistical areas.

^b A total of 8 statistical areas were combined due to confidentiality.

Table 12.—Chignik Area state-waters Pacific cod harvest and effort by gear type, 1997-2008.

Year	Gear	GHL ^a (millions)	Vessels	Landings	Pounds	Price per pound ^b
1997	Jig	2.95	4	14	35,002	\$0.18
	Pot	2.95	10	60	1,098,970	\$0.18
1998	Jig	2.85	11	59	167,283	\$0.18
	Pot	2.85	44	236	5,440,796	\$0.17
1999	Jig	4.10	11	56	218,408	\$0.32
	Pot	4.10	32	396	6,207,176	\$0.29
2000	Jig	1.01	5	12	38,453	\$0.35
	Pot	5.70	20	151	1,756,305	\$0.30
2001	Jig	0.90	13	55	277,411	\$0.27
	Pot	5.10	15	124	2,371,243	\$0.26
2002	Jig	0.74	14	60	324,227	\$0.20
	Pot	4.17	12	139	3,903,320	\$0.20
2003	Jig	0.68	16	106	433,067	\$0.28
	Pot	3.83	15	151	4,034,504	\$0.26
2004	Jig	1.10	14	53	141,697	\$0.24
	Pot	5.80	17	244	5,608,763	\$0.23
2005	Jig	0.63	8	42	136,872	\$0.24
	Pot	5.75	15	206	5,650,595	\$0.25
2006	Jig	0.73	1	2	Confidential	Confidential
	Pot	6.57	12	202	3,439,521	\$0.34
2007	Jig	0.73	0	0	0	ND
	Pot	6.57	16	242	5,699,461	\$0.45
2008	Jig	0.73	2	3	Confidential	Confidential
	Pot	6.58	23	262	6,838,934 ^c	0.56

Note: Weights are in whole pounds. Discards at sea are excluded. Data are confidential in cases where fewer than 3 vessels participated.

^a GHL = guideline harvest level.

^b Price per pound calculated from whole pounds sold excluding bait and meal.

^c Pot harvest prior to the allocation rollover (September 1) was 6.69 million pounds.

Table 13.—Pacific cod harvest from Chignik Area state-waters season by statistical area, 2008.

Statistical Area	Pounds	Vessels	Landings ^a
565602	1,098,018	5	19
565633	1,664,318	8	66
575601	788,953	3	28
575603	469,875	8	20
575634	32,188	3	4
575635	263,247	3	13
585531	1,913,109	7	80
585601	244,379	6	20
Other ^b	364,847	5	25
Total	6,838,934		

Note: Weights are in whole pounds. Discards at sea are excluded.

^a Some landings involve multiple statistical areas.

^b Total of 3 statistical area combined due to confidentiality.

Table 14.–Chignik Area state-waters Pacific cod season openings, 1997-2008.

	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
1997	April 15 - June 15	April 15 - June 15
	August 1 - September 30	August 1 - September 30
	October 28- December 31	October 28- December 31
	<i>Management Actions:</i>	
	October 31 allocation rollover - vessel size limit, gear limits, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
1998	April 1 - April 26	April 1- April 26
		May 20 - December 31
	<i>Management Actions:</i>	
	May 20 reopened to jig gear.	
	October 31 allocation rollover - gear limits lifted.	
	<i>Fishery Dates:</i>	
1999	April 15 - September 1	April 21 - September 1
	October 5 - December 31	October 5 - December 31
	<i>Management Actions:</i>	
	October 31 allocation rollover - limits on number of pots, jigs, and vessel size removed, exclusive area designation lifted.	
	<i>Fishery Dates:</i>	
2000	April 15 - December 31	April 15 - December 31
	<i>Management Actions:</i>	
	October 31 - limits on number of pots, jigs, and vessel size removed.	
	<i>Fishery Dates:</i>	
2001	March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i>	
	October 31 - limits on number of pots, jigs, and vessel size removed.	
	<i>Fishery Dates:</i>	
2002	March 1 - December 31	March 1 - December 31
	<i>Management Actions:</i>	
	October 31 - limits on number of pots, jigs, and vessel size removed.	
	<i>Fishery Dates:</i>	
2003	March 1 - April 11	March 1 - June 4
	<i>Management Actions:</i>	
	Fishery closed when GHF allocations were attained.	

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	Pot Gear	Jig Gear
2004	<i>Fishery Dates:</i>	
	March 1 - May 13	March 1 - December 31
	<i>Management Actions:</i> August 15 - jig GHL rollover; jig quota harvestable by either jig or pot gear. October 31 - limits on number of pots, jigs, and vessel size removed.	
2005	<i>Fishery Dates:</i>	
	March 1 - May 10	March 1 - December 31
	<i>Management Actions:</i> August 15 - jig GHL rollover; jig quota harvestable by either jig or pot gear. October 31 - limits on number of pots, jigs, and vessel size removed.	
2006	<i>Fishery Dates:</i>	
	March 1 - September 1	March 1 - September 1
	<i>Management Actions:</i> August 15 - jig GHL rollover; jig quota harvestable by either jig or pot gear. September 1 - state-waters season (jig and pot) closed and parallel season opened.	
2007	<i>Fishery Dates:</i>	
	March 1 - September 1	March 1 - September 1
	<i>Management Actions:</i> August 15 - jig GHL rollover; jig quota harvestable by either jig or pot gear. September 1 - state-waters season (jig and pot) closed and parallel season opened.	
2008	<i>Fishery Dates:</i>	
	March 1 - September 1	March 1 - September 1
	October 5 - December 31	October 5 - December 31
	<i>Management Actions:</i> August 15 - jig GHL rollover; jig quota harvestable by either jig or pot gear. September 1 - state-waters season (jig and pot) closed and parallel season opened. October 5 - reopen to pot and jig gear after federal CGOA closure. November 4 - vessel size limits and gear limits removed.	

Table 15.–South Alaska Peninsula Area state-waters Pacific cod season openings, 1997-2008.

	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
1997	April 4 -December 22	April 4 -December 22
	<i>Management Actions:</i>	
	October 31 allocation rollover - vessel size limit, gear limits, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
1998	March 10 - April 14	March 10 - October 9
	<i>Management Actions:</i>	
	October 31 allocation rollover - no action taken; federal WGOA reopened Oct. 9 - Dec 31.	
	<i>Fishery Dates:</i>	
1999	March 15 - April 11 October 31- December 31	March 15 - December 31
	<i>Management Actions:</i>	
	October 31 allocation rollover - reopened to pot gear. November 10 - number of pots and jig machine limits lifted.	
	<i>Fishery Dates:</i>	
2000	March 11 - April 8	March 11 - September 19
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	
	<i>Fishery Dates:</i>	
2001	March 6 - April 13	March 6 - June 12
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	
	<i>Fishery Dates:</i>	
2002	March 5 - March 24	March 5 - April 26
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	
	<i>Fishery Dates:</i>	
2003	February 24 - March 11	February 24 - April 22
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	
	<i>Fishery Dates:</i>	
2004	March 2 - March 24	March 2 - April 14
	<i>Management Actions:</i>	
	Fishery closed when GHL allocations were attained.	

-continued-

Table 15.–Page 2 of 2.

	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
2005	March 3 - March 24	March 3 - August 31
	<i>Management Actions:</i>	
	Pot fishery closed when GHJ allocation was attained.	
	Jig fishery closed August 31; parallel portion of WGOA reopened Sept 1-Dec 31.	
	<i>Fishery Dates:</i>	
2006	March 9 - March 29	March 9 - September 1
	April 4 - April 8	
	<i>Management Actions:</i>	
	Pot fishery closed when GHJ allocation was attained.	
	Jig fishery closed September 1 , parallel portion of WGOA reopened Sept 1-Dec 31.	
	<i>Fishery Dates:</i>	
2007	March 15 - April 17	March 15 - September 1
	<i>Management Actions:</i>	
	Pot fishery closed when GHJ allocation was attained.	
	Jig fishery closed September 1; parallel portion of WGOA reopened Sept 1-Dec 31.	
	<i>Fishery Dates:</i>	
2008	March 7 - April 1	March 7 - September 1
	<i>Management Actions:</i>	
	Pot fishery closed when GHJ allocation was attained.	
	Jig fishery closed September 1; parallel portion of WGOA reopened Sept 1-Dec 31.	

Table 16.—South Alaska Peninsula Area state-waters Pacific cod harvest and effort by gear type, 1997-2008.

Year	Gear	GHL ^a	Vessels	Landings	Pounds	Price per pound ^b
1997	Jig	4.70	45	178	349,468	\$0.17
	Pot	4.70	55	477	9,132,055	\$0.18
1998	Jig	1.35	28	124	437,708	\$0.16
	Pot	7.65	51	309	8,192,804	\$0.17
1999	Jig	1.95	27	166	706,952	\$0.29
	Pot	11.05	53	388	11,115,028	\$0.26
2000	Jig	2.28	28	145	757,953	\$0.28
	Pot	12.90	65	505	14,286,151	\$0.30
2001	Jig	2.01	69	417	3,402,427	\$0.24
	Pot	11.39	55	311	10,421,593	\$0.25
2002	Jig	1.86	66	322	2,046,686	\$0.24
	Pot	10.50	50	276	10,669,572	\$0.21
2003	Jig	1.80	65	413	3,633,007	\$0.27
	Pot	9.69	41	191	7,927,656	\$0.27
2004	Jig	1.90	51	317	1,671,461	\$0.24
	Pot	10.60	44	278	10,842,778	\$0.23
2005	Jig	1.73	39	261	1,229,832	\$0.25
	Pot	9.80	39	267	10,206,340	\$0.25
2006	Jig	2.22	12	36	99,552	\$0.36
	Pot	12.58	43	350	11,640,183	\$0.36
2007	Jig	2.22	14	59	254,178	\$0.47
	Pot	12.58	46	406	12,423,973	\$0.47
2008	Jig	2.14	51	299	1,382,268	\$0.57
	Pot	12.15	48	390	11,901,039	\$0.57

Note: Weights are in whole pounds. Discards at sea are excluded.

^a GHL = guideline harvest level.

^b Price per pound calculated from whole pounds sold excluding bait and meal.

Table 17.—Pacific cod harvest from South Alaska Peninsula Area state-waters season by statistical area, 2008.

Statistical Area	Pounds	Vessels	Landings ^a
595503	216,239	7	14
605432	74,772	4	5
605501	188,894	16	40
605502	1,800,273	17	64
605504	1,047,846	41	182
605507	116,371	14	38
605532	97,938	3	9
615507	41,184	3	6
625401	5,586,376	13	148
625434	62,751	4	4
625202	41,038	4	12
635432	264,408	6	20
635434	187,301	4	13
645403	445,507	4	7
665302	1,509,723	6	76
665332	271,413	5	14
Other ^b	1,331,273	20	58
Total	13,283,306		

Note: Weights are in whole pounds. Discards at sea are excluded.

^a Some landings involve multiple statistical areas.

^b Total of 17 statistical area combined due to confidentiality.

Table 18.–Kodiak Area harvest and effort from the black rockfish jig season, 1990-2008.

Year ^a	Vessels	Landings	Directed GHL ^b	Pounds	Price Per Pound ^c
1990	2	8	-	confidential	confidential
1991	55	317	-	782,133	\$0.25
1992	34	167	-	476,623	\$0.24
1993	14	58	-	105,244	\$0.24
1994	23	126	-	116,724	\$0.37
1995	33	183	-	311,455	\$0.44
1996	43	167	-	301,798	\$0.46
1997	51	297	-	221,167	\$0.38
1998	64	348	190,000	196,548	\$0.33
1999	70	300	185,000	128,008	\$0.42
2000	72	260	185,000	245,891	\$0.44
2001	36	168	185,000	213,629	\$0.50
2002	25	123	185,000	196,166	\$0.43
2003	33	90	185,000	84,237	\$0.36
2004	37	124	185,000	122,180	\$0.39
2005	23	85	175,000	116,726	\$0.40
2006	25	97	175,000	123,443	\$0.42
2007	21	96	175,000	135,386	\$0.41
2008	17	91	175,000	132,325	\$0.53

Note: Weights are in whole pounds. Discards at sea are excluded. Data are confidential in 1990 because fewer than 3 vessels participated. A GHL was not established prior to 1998 because black rockfish were managed with the federal pelagic shelf rockfish complex.

^a From 1990-1997 black rockfish were federally managed. After 1997, the State of Alaska assumed management responsibility from 0-200 nmi and only mechanical jig and hand jig gear were legal gear types for directed fishing.

^b GHL = guideline harvest level.

^c Price per pound calculated from whole pounds sold excluding bait and meal.

Table 19.—Chignik Area harvest and effort from the black rockfish jig season, 1990-2008.

Year ^a	Vessels	Landings	Directed GHL ^b	Pounds	Price Per Pound ^c
1990	0	0	-	0	na
1991	0	0	-	0	na
1992	0	0	-	0	na
1993	0	0	-	0	na
1994	0	0	-	0	na
1995	5	6	-	25,125	\$0.49
1996	11	25	-	201,825	\$0.36
1997	9	39	-	80,741	\$0.23
1998	10	30	100,000	87,712	\$0.28
1999	10	30	100,000	11,305	\$0.25
2000	7	14	100,000	95,572	\$0.43
2001	13	33	100,000	102,316	\$0.41
2002	7	15	100,000	81,015	\$0.41
2003	10	40	100,000	46,598	\$0.42
2004	6	26	100,000	99,122	\$0.27
2005	7	16	100,000	49,721	\$0.40
2006	2	4	100,000	Confidential	Confidential
2007	2	7	100,000	Confidential	Confidential
2008	1	4	100,000	Confidential	Confidential

Note: A GHL was not established prior to 1998 because black rockfish were managed with the federal pelagic shelf rockfish complex. Data from 2006-2008 is confidential because there were fewer than 3 participants.

^a From 1990-1997, black rockfish were federally-managed. After 1997, the State of Alaska assumed management responsibility from 0-200 nmi and only mechanical jig and hand jig gear were legal gear types for directed fishing.

^b GHL = guideline harvest level.

^c Price per pound calculated from whole pounds sold excluding bait and meal.

Table 20.—South Alaska Peninsula Area harvest and effort from the black rockfish jig season, 1990-2008.

Year ^a	Vessels	Landings	Directed GHL ^b	Pounds	Price Per pound ^c
1990	0	0	-	0	na
1991	1	1	-	Confidential	Confidential
1992	0	0	-	0	na
1993	0	0	-	0	na
1994	0	0	-	0	na
1995	8	49	-	120,745	\$0.33
1996	19	79	-	151,633	\$0.25
1997	11	43	-	182,862	\$0.34
1998	10	43	100,000	105,135	\$0.29
1999	13	68	100,000	71,100	\$0.40
2000	21	75	100,000	95,520	\$0.37
2001	30	83	100,000	105,863	\$0.38
2002	12	49	100,000	116,721	\$0.32
2003	6	9	100,000	6,638	\$0.21
2004	17	29	100,000	9,329	\$0.26
2005	12	27	100,000	60,359	\$0.36
2006	3	8	75,000	7,015	\$0.37
2007	2	9	75,000	Confidential	Confidential
2008	0	0	75,000	0	na

Note: A GHL was not established prior to 1998 because black rockfish were managed with the federal pelagic shelf rockfish complex. Data in 1991 and 2007 are confidential because there were fewer than 3 participants.

^a From 1990-1997, black rockfish were federally-managed. After 1997, the State of Alaska assumed management responsibility from 0-200 nmi and only mechanical jig and hand jig gear were legal gear types for directed fishing.

^b GHL = guideline harvest level.

^c Price per pound calculated from whole pounds sold excluding bait and meal.

Table 21.–Regulations and development of the black rockfish fishery in Westward Region.

YEAR	REGULATION
Pre-1997	<ul style="list-style-type: none"> ● Black rockfish managed by NMFS.
1997	<ul style="list-style-type: none"> ● NPFMC splits black rockfish from Pelagic Shelf Rockfish Group. ● State-waters managed separately: <ul style="list-style-type: none"> ○ Kodiak Area managed for 170,000 pounds. ○ Chignik Area managed for 100,000 pounds. ○ South Alaska Peninsula Eastern District managed for 100,000 pounds.
1998	<ul style="list-style-type: none"> ● State receives management authority from NMFS for black rockfish in the Exclusive Economic Zone. ● Kodiak and Chignik areas and South Alaska Peninsula Eastern District established as non-exclusive registration. ● Kodiak Area divided into 7 districts based on Tanner crab management sections and each district assigned a Guideline harvest level (GHL).
1999	<ul style="list-style-type: none"> ● ADF&G reduces the GHL for Northeast District of Kodiak Area from 25,000 pounds to 20,000 pounds.
2003	<ul style="list-style-type: none"> ● Kodiak Area requires specific black rockfish registration. ● Kodiak Area trip limit of 5,000 pounds per 5 days. ● Chignik Area designated superexclusive registration. ● Chignik Area divided into 3 management districts; ADF&G establishes an inseason GHL cap of 45,000 pounds from any one district.
2004	<ul style="list-style-type: none"> ● ADF&G reduces the GHL for Westside District of Kodiak Area from 30,000 pounds to 20,000 pounds.
2005	<ul style="list-style-type: none"> ● South Alaska Peninsula Eastern District divided into 3 management sections, ADF&G establishes an inseason GHL cap of 45,000 pounds from any one section. ● Board of Fisheries (BOF) implements 2,500 pounds "incidental" harvest during other direct jig groundfish fisheries in Kodiak Area. ● Logbook made mandatory for Kodiak Area black rockfish
2006	<ul style="list-style-type: none"> ● ADF&G reduces the GHL in the South Alaska Peninsula Eastern District to 75,000 pounds and section caps removed.
2007	<ul style="list-style-type: none"> ● BOF reduces "incidental" harvest trip limit in Northeast, Afognak, and Southeast Districts of Kodiak Area from 2,500 pounds to 1,000 pounds.

Table 22.—Jig and non-jig harvest of black rockfish from Kodiak, Chignik, and South Alaska Peninsula Areas, 1990-2008.

Year	Jig			Non-Jig			Total Pounds	Discard at sea
	Vessels	Landings	Pounds	Vessels	Landings	Pounds		
1990	2	8	confidential	10	36	69,390	confidential	889
1991	56	318	confidential	11	24	86,464	confidential	66
1992	34	167	476,623	13	16	10,528	487,151	100
1993	14	58	105,244	12	22	2,767	108,011	332
1994	23	126	116,724	8	10	2,767	119,491	10,980
1995	40	238	457,325	15	17	4,336	461,661	3,660
1996	62	271	655,256	18	20	7,483	662,738	13,027
1997	66	377	484,770	20	22	3,970	488,740	750
1998	82	421	389,395	24	33	9,771	399,166	5
1999	93	398	210,413	25	40	4,252	214,664	3,615
2000	93	348	436,983	26	30	9,386	446,369	1,250
2001	68	279	421,807	20	29	7,862	429,669	5,005
2002	35	183	393,902	22	27	9,251	403,153	0
2003	49	139	137,473	24	25	5,788	143,261	44
2004	57	179	230,631	31	41	1,982	232,613	942
2005	40	128	226,806	22	25	1,326	228,133	492
2006	28	109	confidential	29	37	29,410	confidential	607
2007	22	112	243,172	63	139	34,758	277,930	995
2008	17	95	confidential	31	53	5,130	confidential	7,078

Note: Weights are in whole pounds. Discards at sea are excluded from all but the “Discard at sea” column. Prior to 1998, there was not a GHL for black rockfish; they were managed as part of the Pelagic Shelf complex. Data in some years are confidential to keep data confidential in the individual area tables (Tables 18, 19, and 20).

Table 23.—Jig harvest of black rockfish from Kodiak, Chignik, and South Alaska Peninsula areas by district, 2008.

Area/District	Guideline	Pounds ^a	Directed Fishery Closure Date	Pounds	
	Harvest Level			Directed ^b	Other ^c
Kodiak Area					
Afognak	35,000	34,929	September 25	20,638	14,291
Northeast	20,000	20,017	April 3	0	20,017
Eastside	30,000	Confidential	August 19	Confidential	21,773
Southeast	30,000	28,932	August 11	17,745	11,187
Southwest	20,000	Confidential	December 31	0	Confidential
Westside	20,000	Confidential	December 31	Confidential	2,396
Mainland	20,000	Confidential	December 31	0	Confidential
Total (Kodiak Area)	175,000	132,325		57,239	75,086
Chignik Area					
Sutwik Island	45,000 ^d	Confidential	August 13	Confidential	0
Chignik Bay	45,000 ^d	Confidential	July 2	Confidential	0
Mitrofanía	45,000 ^d	Confidential	August 13	Confidential	0
Total (Chignik Area)	100,000	Confidential		Confidential	0
South Alaska Peninsula Area					
Total (South Peninsula Area)	75,000	0	December 31	0	0

Note: Weights are in whole pounds. Discards at sea are excluded.

^a Total pounds of black rockfish harvested by jig gear.

^b Total pounds of black rockfish harvested by jig gear in the directed black rockfish fishery.

^c Total pounds of black rockfish harvest by jig gear as bycatch or as incidental harvest.

^d No more than 45,000 pounds may be taken out of any one Chignik Area District with the total Chignik Area capped at 100,000 pounds.

Table 24.—All skate species harvest from Central and Western Gulf of Alaska, 1990-2008.

NMFS Area	Year	Vessels	Landings	Pounds	State Waters % of total	Discards at Sea
Central GOA	1990	15	46	61,520	2%	250,171
	1991	18	44	47,247	5%	451,036
	1992	20	29	25,481	24%	577,229
	1993	11	12	3,769	79%	595,654
	1994	21	55	85,291	10%	510,108
	1995	73	315	839,907	21%	884,503
	1996	143	696	2,221,465	20%	952,429
	1997	159	1085	3,372,641	21%	664,707
	1998	104	342	843,694	16%	779,203
	1999	65	152	210,579	4%	734,344
	2000	77	505	1,304,898	3%	722,677
	2001	107	486	968,027	13%	775,142
	2002	68	369	1,285,419	4%	309,661
	2003	136	755	7,040,060	17%	367,715
	2004	102	501	3,260,089	6%	311,868
	2005	96	554	2,644,925	8%	462,275
	2006	98	1,111	2,784,218	14%	726,444
2007	116	1,305	2,585,795	11%	654,771	
2008	184	1,534	3,193,782	11%	680,498	
<hr/>						
NMFS Area	Year	Vessels	Landings	Pounds	State Waters % of total	Discards at Sea
Western GOA	1990	4	8	4,900	0%	17,119
	1991	21	42	62,117	0%	249,631
	1992	18	29	19,876	1%	92,754
	1993	6	7	713	0%	15,625
	1994	9	9	167	14%	35,180
	1995	17	23	975	71%	9,214
	1996	9	13	343	59%	104,237
	1997	6	6	110	42%	66,276
	1998	16	17	840	38%	55,505
	1999	20	30	1,397	49%	93,235
	2000	15	22	11,826	5%	217,239
	2001	14	23	6,665	22%	52,760
	2002	13	24	182,071	0%	34,360
	2003	30	92	318,171	3%	77,368
	2004	22	34	130,139	0%	36,294
	2005	17	24	17,386	3%	44,792
	2006	16	25	77,212	0%	37,804
2007	23	103	69,970	3%	53,312	
2008	43	89	132,175	5%	59,028	

Notes: Weights are in whole pounds. Discards at sea are excluded from all but the “Discards at Sea” column.

GOA = Gulf of Alaska, ABC= Acceptable Biological Catch, NMFS = National Marine Fisheries Service.

Table 25.—Lingcod harvest from Kodiak, Chignik, and South Alaska Peninsula Areas, 1988-2008.

Year	Jig	Longline	Pot	Trawl	Total
1988	59	43	0	136,191	136,294
1989	69	0	0	14,324	14,394
1990	1,418	158	402	8,839	10,816
1991	8,375	501	386	663	9,925
1992	5,569	4,261	72	10,897	20,799
1993	0	511	0	4,778	5,289
1994	4,820	803	0	229	5,852
1995	34,574	3,467	79	1,191	39,311
1996	43,403	7,878	0	10,929	62,209
1997	12,637	6,499	4,251	5,267	28,654
1998	5,756	1,771	0	3,514	11,041
1999	1,358	3,802	4,189	4,593	13,941
2000	3,400	6,734	2,676	2,127	14,938
2001	527	4,063	3,597	5,688	13,875
2002	29	6,131	2,749	5,380	14,290
2003	229	9,740	0	5,069	15,037
2004	2,990	6,865	205	16,731	26,791
2005	772	18,831	7,983	14,078	41,663
2006	289	16,028	20,127	12,670	49,114
2007	35	28,163	32,024	45,419	105,641
2008	1,518	31,637	21,278	466,824	521,257

Note: Weights are in whole pounds. Discards at sea are excluded.

Table 26.–Central and Western Gulf of Alaska walleye pollock fishery openings, 2004-2008.

NMFS Area	2004	2005	2006	2007	2008
Area 630	Jan 20 - Jan 21	Jan 20- Jan 29	Jan 20 - Feb 15	Jan 20 - Jan 22	Jan 20 - Jan 22
	Feb 4 -Feb 4	Feb 6- Feb 14	Mar 10 (<i>12 hrs</i>)	Feb 6 - Feb 8	Mar 3 - Mar 4
	Feb 24 - Feb 24	Mar 10 (<i>12 hrs</i>)	Aug 25 - Sep 27	Feb 12 - Feb 14	Mar 7 - May 31
	Mar 10 - Mar 10	Aug 25- Aug 27	Oct 1 - Nov 1	Feb 20 -Feb 22	Aug 25 - Sep 4
	Aug 25 - Aug 29	Sep 8- Sep 10		Mar 1 - Mar 2	Oct 1 - Oct 6
	Sep 12 - Sep 15	Sep 15- Sep 16		Mar 10 - Mar 11	Oct 12 -Oct 14
	Oct 1 - Oct 2	Sep 22- Sep 23		Aug 25 - Aug 28	
	Oct 7 - Oct 9	Oct 1- Oct 8		Sept 15 - Sep 18	
		Oct 17- Oct 19		Sep 21 - Sep 23	
		Oct 27- Oct 28		Sep 25 - Nov 1	
Area 620	Jan 20 - Feb 25	Jan 20- Mar 2	Jan 20 - March 21	Jan 20 - Mar 27	Jan 20 - Mar 26
	Mar 10 - Mar 21	Mar 10- Mar 20	Aug 25- Aug 28	Aug 25 - Sep 10	Aug 25 - Sep 6
	Aug 25 - Aug 29	Aug 25- Aug 29	Aug 31 - Sep 3	Sep 21 - Sep 28	Oct 1 - Nov 1
	Sep 11 - Sep 15	Sep 8- Sep 12	Sep 6 - Nov 1	Oct 1 - Nov 1	
	Oct 1 - Nov 1	Sep 15- Sep 19			
	Sep 22- Nov 1				
Area 610	Jan 20 - Jan 22	Jan 20- Jan 23	Jan 20 - Jan 22	Jan 20 - Jan 22	Jan 20 - Jan 22
	Mar 10 - Mar 13	Mar 10- Mar 12	Jan 26 - Jan 27	Feb 5 - Feb 7	Mar 3 - Mar 4
	Aug 25 - Aug 30	Aug 25- Sep 3	Mar 10 - Mar 14	Feb 8 - Feb 10	Mar 7 - Mar 31
	Oct 1 - Oct 6	Oct 1- Oct 14	Aug 25 - Aug 28	Mar 10 - Mar 13	Aug 25 - Sep 4
	Oct 10 - Oct 11		Sep 6 - Sep 27	Mar 16 - Mar 18	Oct 1 - Oct 6
			Oct 1 - Nov 1	Mar 21 - Mar 23	Oct 12 - Oct 14
			Aug 25 - Nov 1		

Table 27.--Walleye pollock harvest in millions of pounds from Central and Western Gulf of Alaska, 1990-2007.

NMFS Area	Year	Vessels	Landings	Harvest	State Waters % of total	Discards at Sea
Central GOA	1990	108	1201	149.4	4%	4.1
	1991	108	1186	107.9	13%	3.5
	1992	216	1674	144.1	5%	1.3
	1993	132	1478	179.0	16%	1.0
	1994	152	1407	174.9	38%	0.9
	1995	162	934	74.0	12%	1.3
	1996	134	1035	50.4	28%	1.6
	1997	190	1782	121.4	31%	1.9
	1998	166	1847	206.8	34%	0.4
	1999	164	1484	148.2	27%	0.5
	2000	137	1328	106.2	4%	0.5
	2001	157	1421	87.0	21%	0.3
	2002	135	1095	71.0	43%	0.2
	2003	120	945	71.8	23%	0.2
	2004	108	895	86.7	37%	0.4
	2005	105	937	102.9	23%	0.3
	2006	123	1388	96.9	29%	0.2
	2007	165	1635	73.0	26%	0.3
	2008	175	1578	71.5	31%	1.0
Average 1998-2007		138	1,298	105.0	27%	0.3

NMFS Area	Year	Vessels	Landings	Harvest	State Waters % of total	Discards at Sea
Western GOA	1990	44	103	18.0	3%	4.4
	1991	76	243	64.5	0%	3.3
	1992	95	284	37.3	14%	1.9
	1993	55	428	43.7	25%	1.4
	1994	64	283	46.9	32%	0.9
	1995	101	361	65.7	34%	0.8
	1996	59	322	52.2	60%	0.8
	1997	85	334	62.5	32%	0.7
	1998	94	381	65.7	58%	0.1
	1999	90	454	52.8	53%	0.3
	2000	74	474	47.3	79%	0.1
	2001	68	582	67.5	74%	0.1
	2002	53	334	38.2	49%	0.2
	2003	55	280	37.1	54%	0.1
	2004	59	415	50.9	61%	0.1
	2005	60	584	67.9	49%	0.1
	2006	64	664	53.8	62%	0.2
	2007	62	633	38.2	53%	0.1
	2008	57	491	32.8	34%	0.0
Average 1998-2007		68	480	51.9	59%	0.1

Notes: Weights are in whole pounds. Discards at sea are excluded from all but the "Discards at Sea" column.

GOA = Gulf of Alaska, ABC= Acceptable Biological Catch, NMFS = National Marine Fisheries Service.

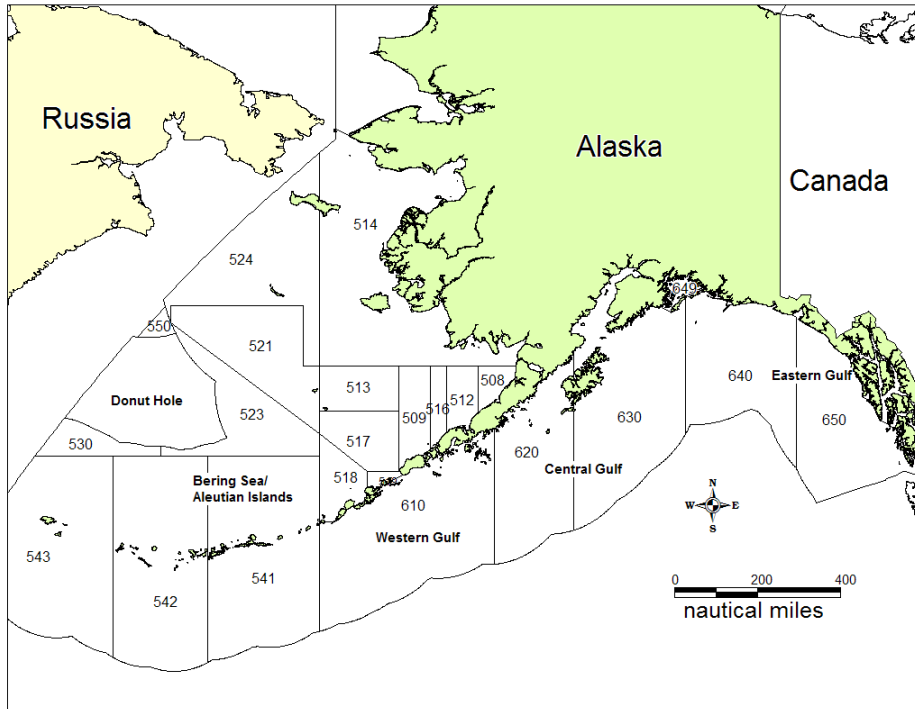


Figure 1.—National Marine Fisheries Service statistical and reporting areas.

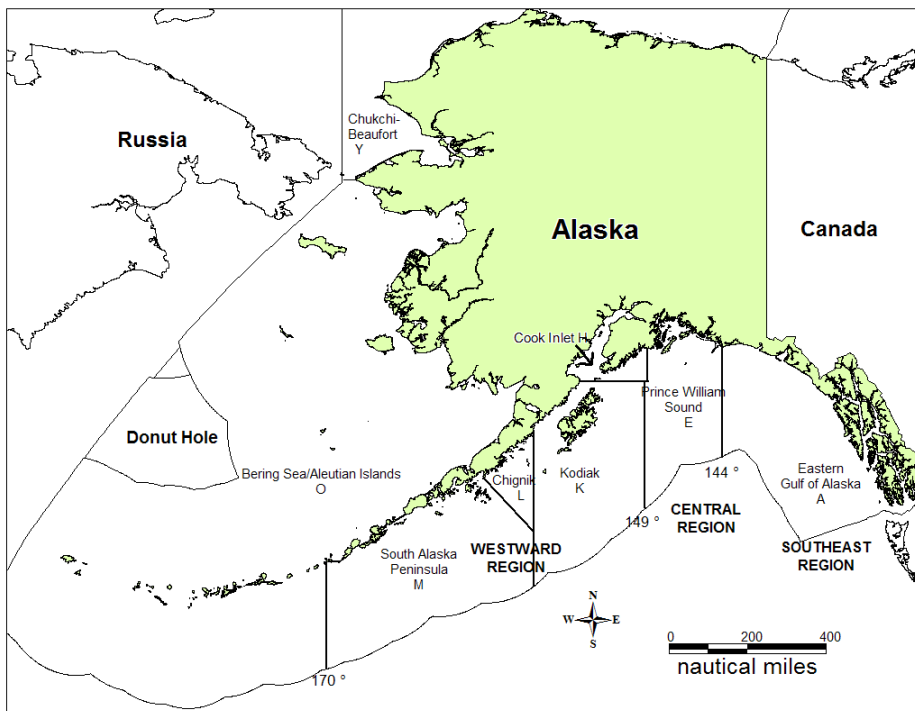


Figure 2.—Alaska Department of Fish and Game groundfish registration areas and regions.

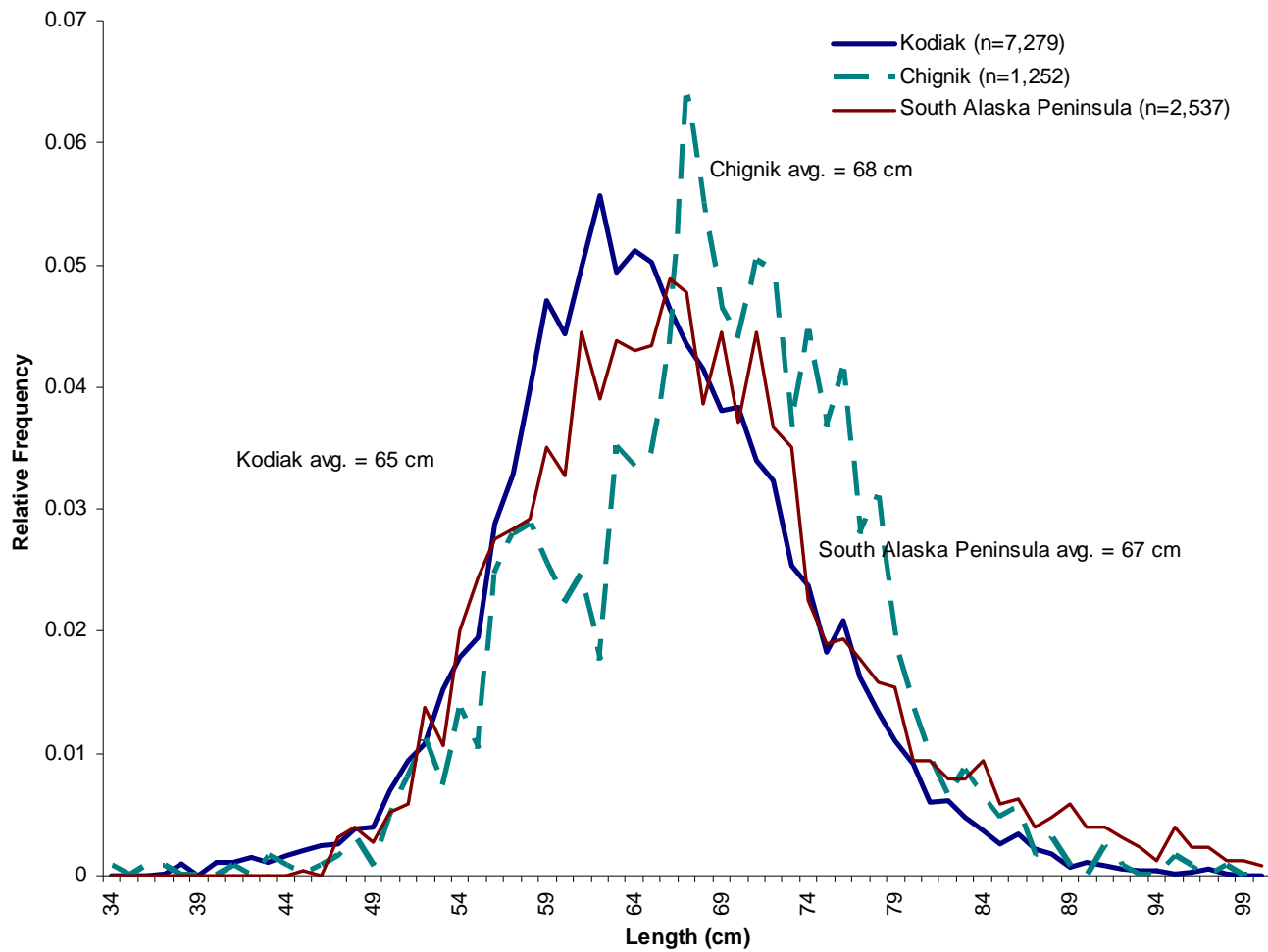


Figure 3.—Pacific cod lengths by area from 2008 state-waters fisheries in Kodiak, Chignik, and South Alaska Peninsula areas. Data are only from the pot fleet.

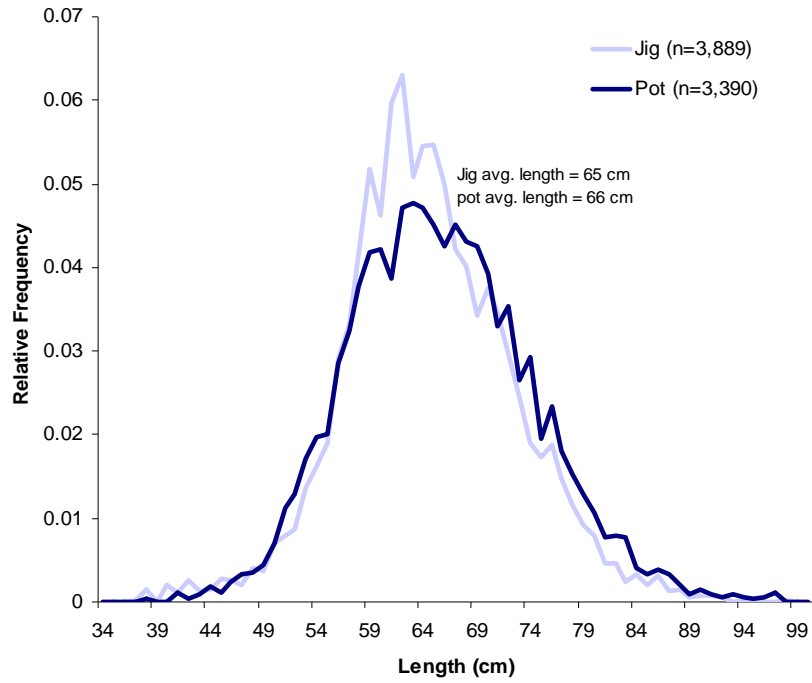


Figure 4.–Pacific cod lengths by gear type from the 2008 state-waters fisheries in Kodiak Area.

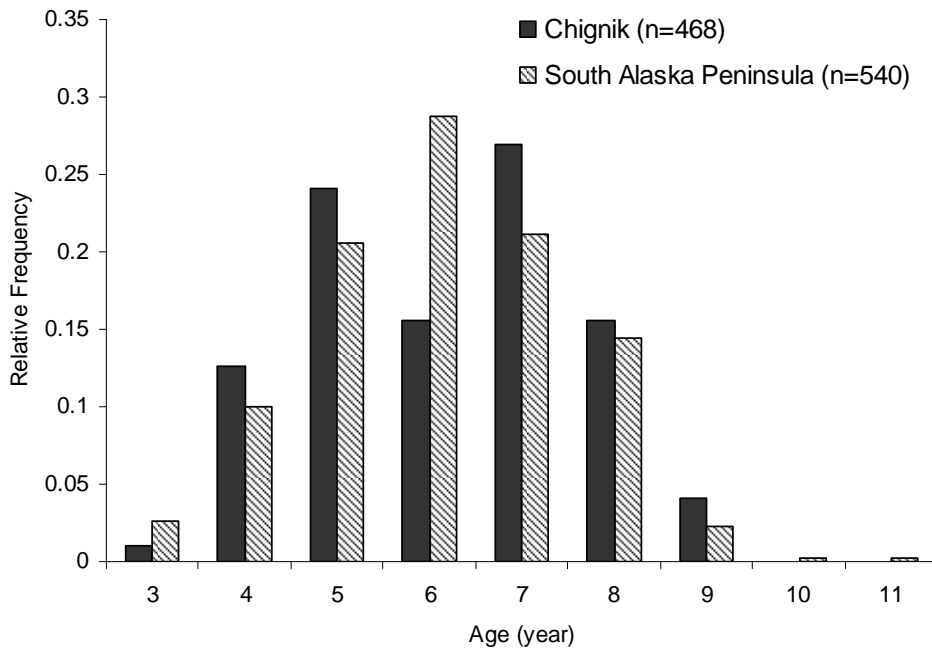


Figure 5.–Age composition of Pacific cod sampled from the 2008 state-waters fishery in Chignik and South Alaska Peninsula areas.

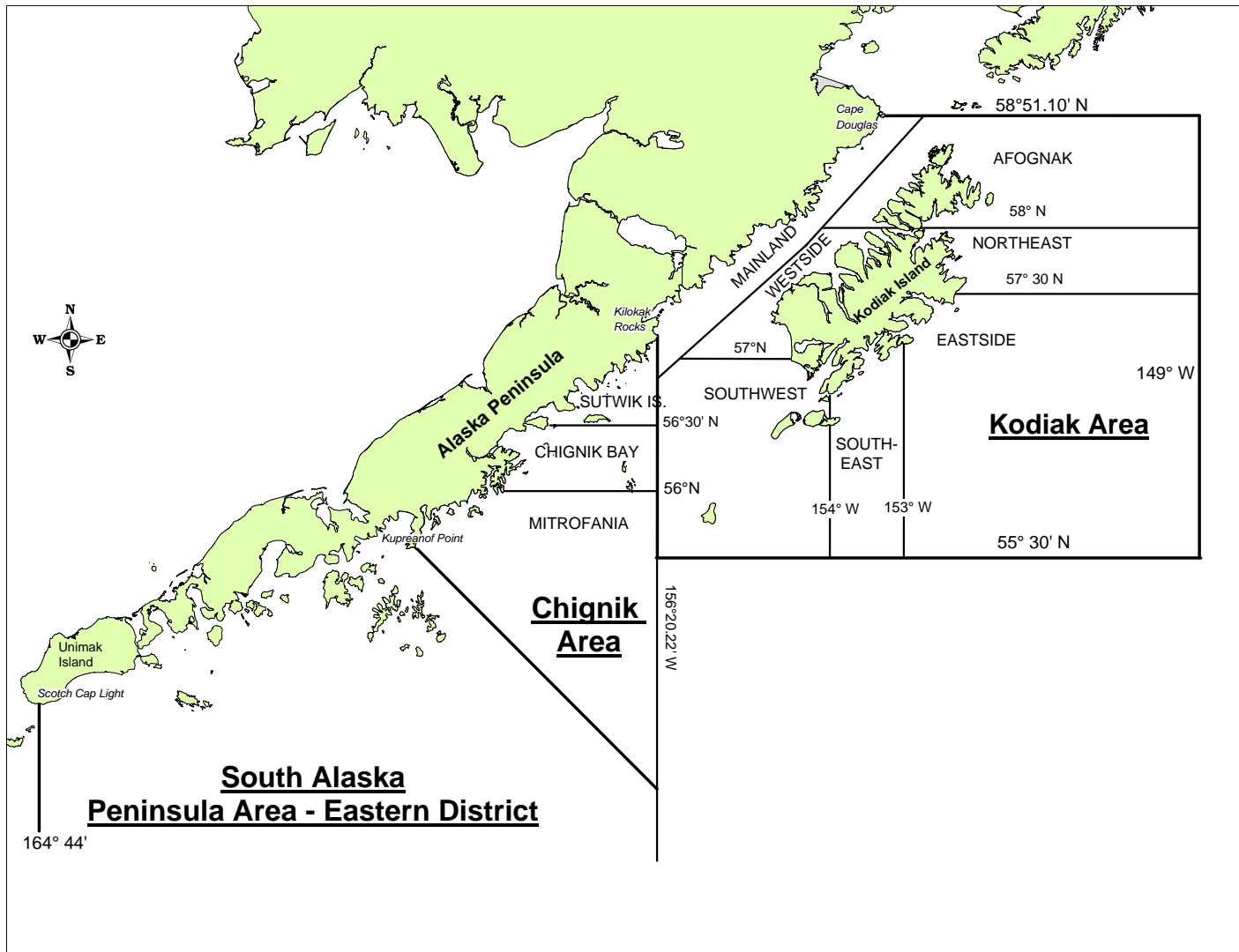


Figure 6.—Kodiak, Chignik, and South Alaska Peninsula black rockfish management areas and districts, 2008.

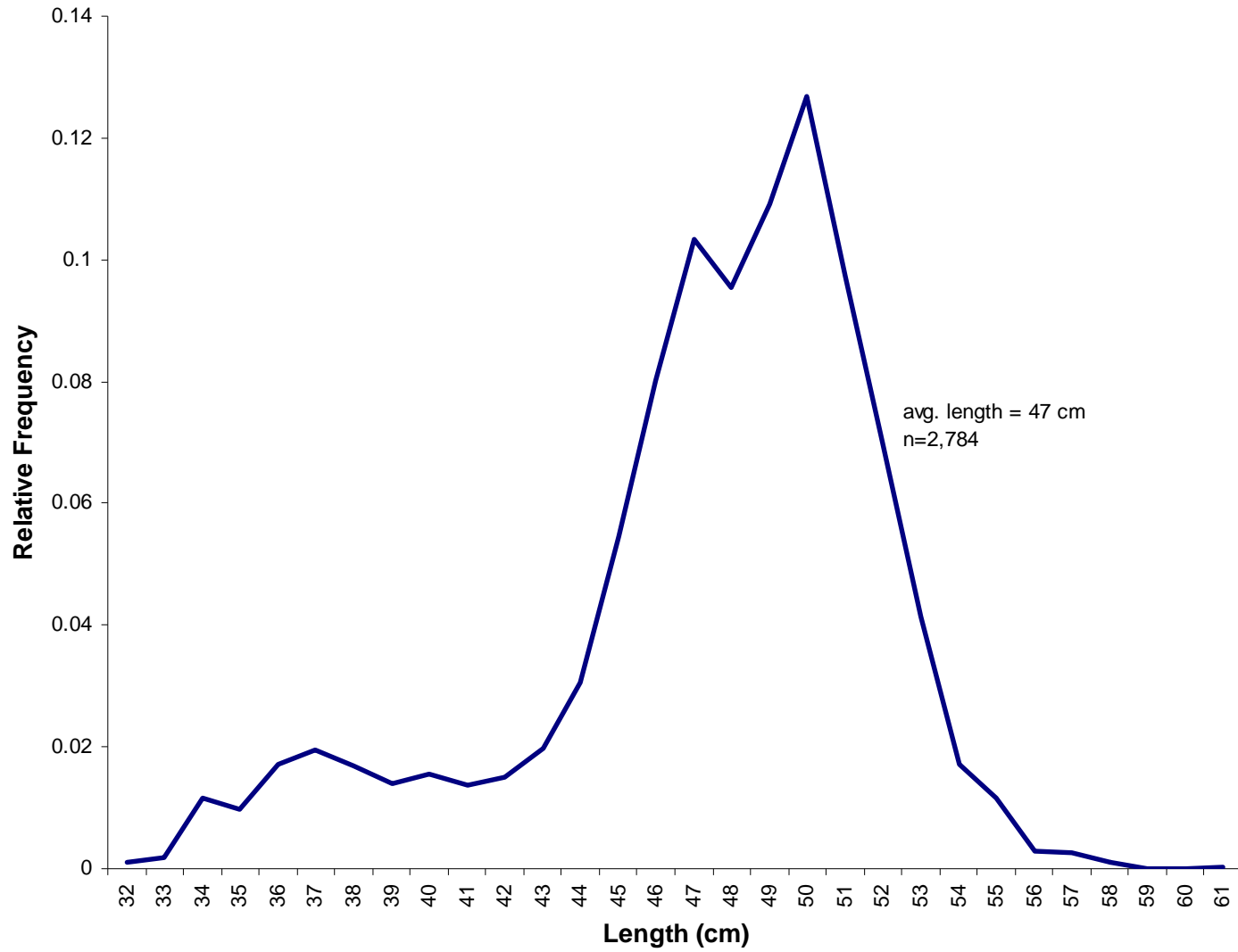


Figure 7.—Size composition of black rockfish sampled from the 2008 fishery in Kodiak, Chignik, and South Alaska Peninsula Areas.

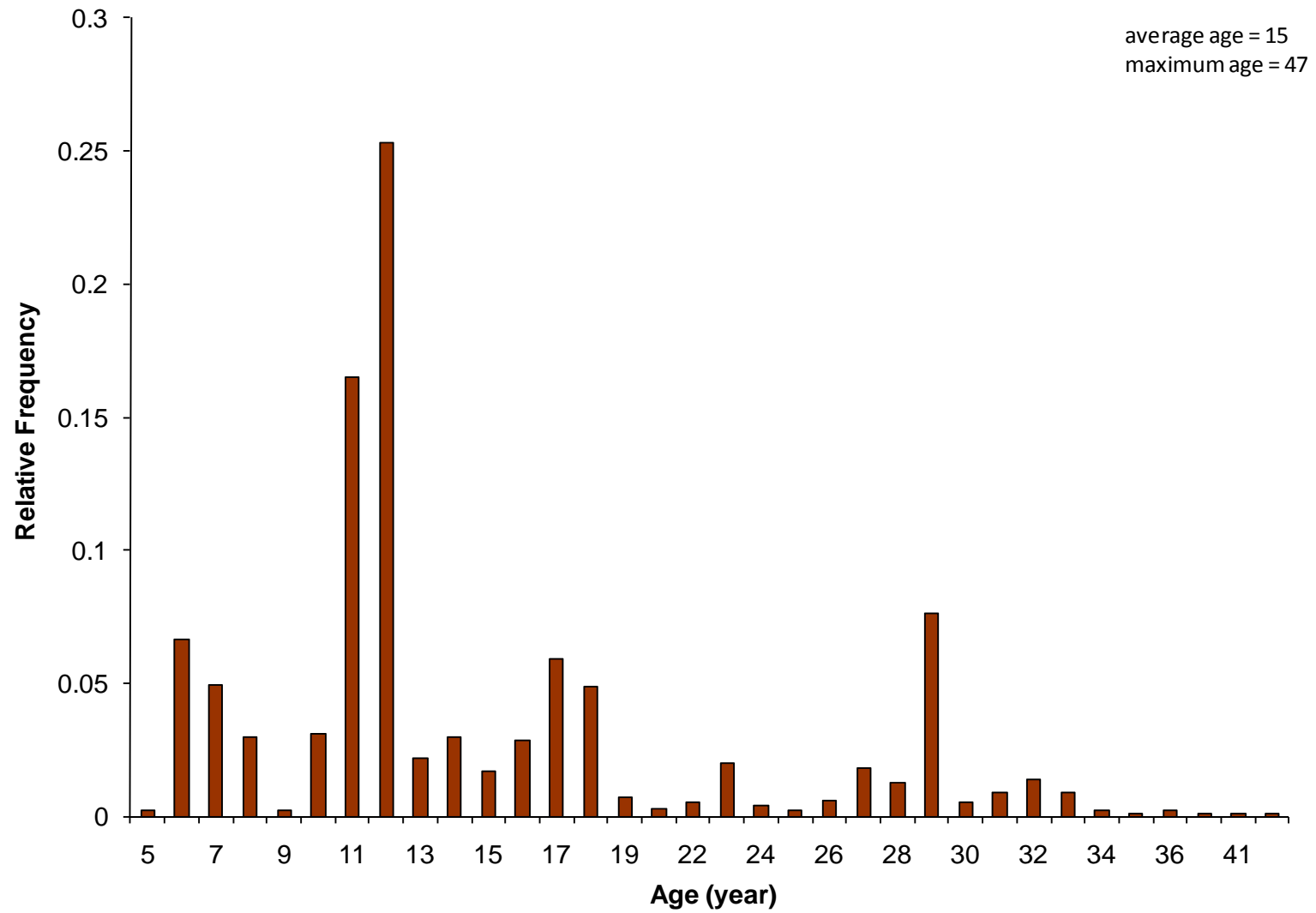


Figure 8.—Age composition of black rockfish sampled from the 2008 state-waters fishery in Kodiak Area.

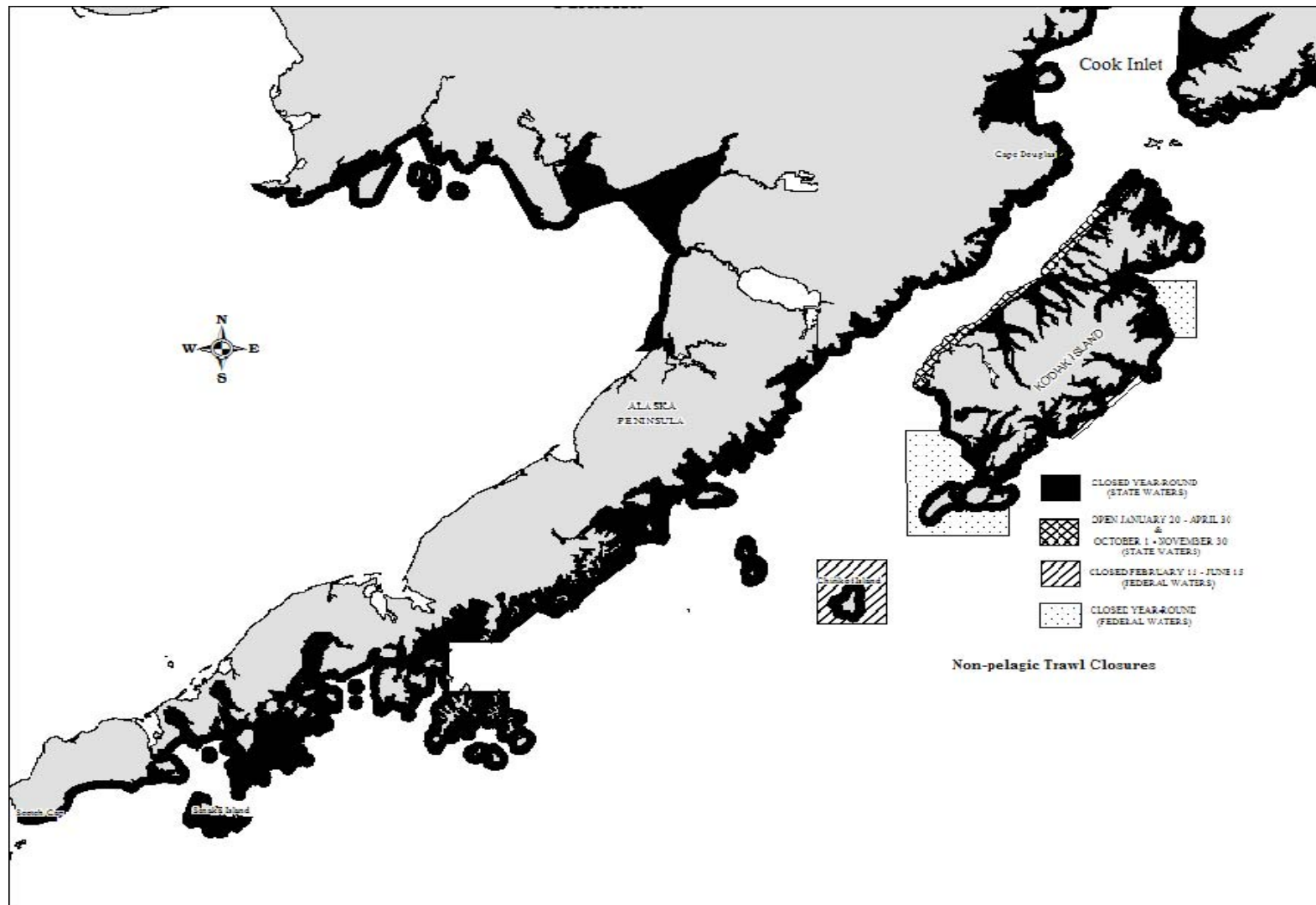


Figure 9.—Westward Region non-pelagic trawl gear closures, 2008.

APPENDIX A. FREQUENTLY USED ACRONYMS AND KEY WORDS

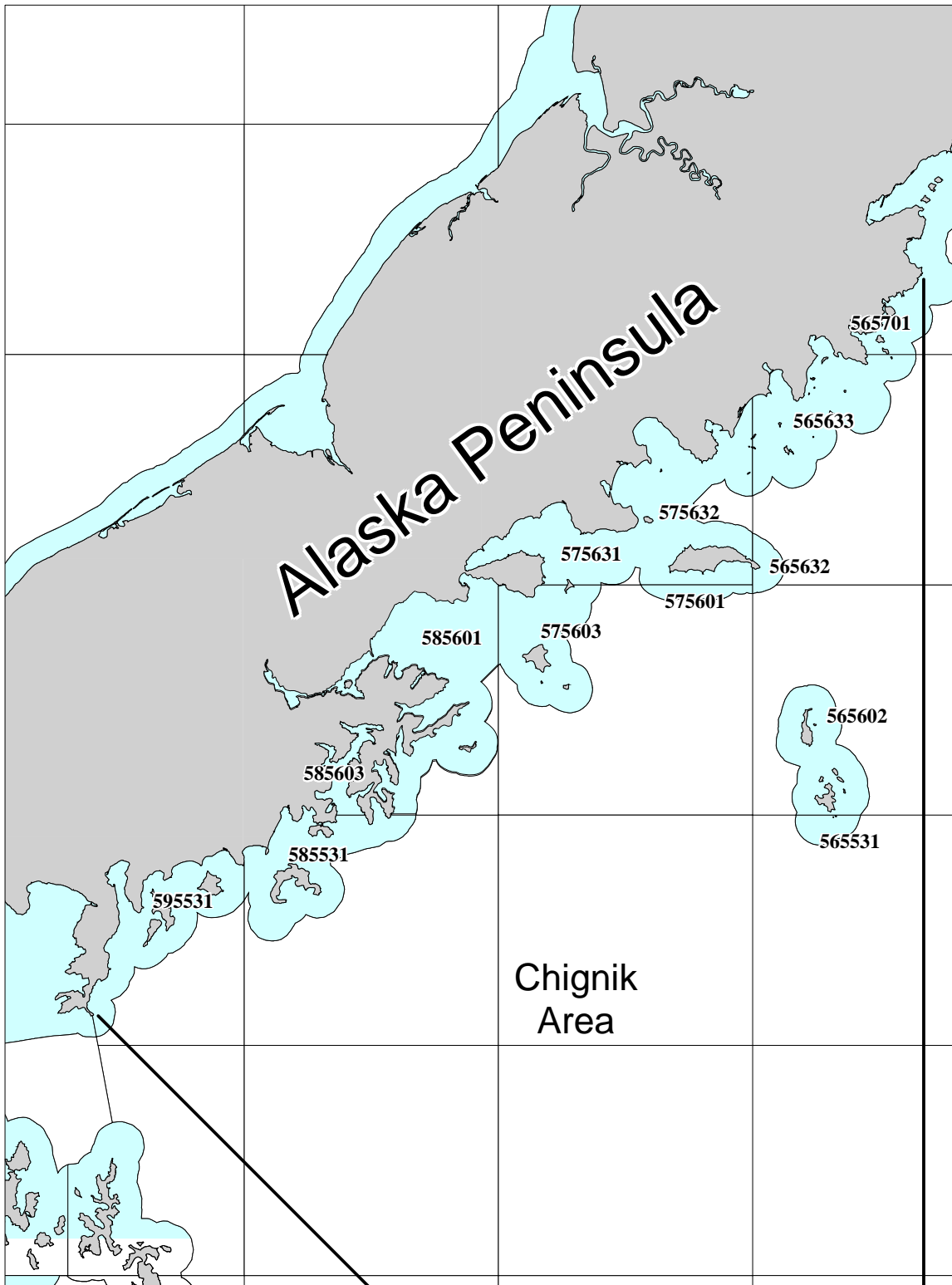
Appendix A1.–Frequently used acronyms and key words.

Acronym	Definition
ABC	Acceptable Biological Catch, stock specification as set by NPFMC on an annual basis
ADF&G	Alaska Department of Fish and Game
BOF	Alaska Board of Fisheries
BSAI	Bering Sea/Aleutian Islands Area, state management area or federal management area
CGOA	Central Gulf of Alaska, federal management areas 620 and 630
EEZ	Exclusive Economic Zone, from 3 to 200 nautical miles offshore
EGOA	Eastern Gulf of Alaska, federal management areas 640 and 650
EO	Emergency order, management action taken by ADF&G to effect regulatory change
GOA	Gulf of Alaska
LLP	Federal License Limitation Program
mt	metric ton (equal to 2,204.62 pounds)
NMFS	National Marine Fisheries Service
NPFMC	North Pacific Fishery Management Council
Parallel fishery	State waters from 0 to 3 nautical miles opened by the state under federal rules while a federal fishery is ongoing from 3 to 200 nautical miles
SSL	Stellar Sea Lion
State waters	Territorial sea from shore to three nautical miles
State-waters fishery	Fishery occurring from shore to 3 nautical miles open under state rules and managed exclusively by Alaska Department of Fish and Game
State-managed fishery	Fishery occurring from shore to 200 nautical miles and managed exclusively by Alaska Department of Fish and Game
TAC	Total Allowable Catch, final federal harvest specification for directed fishing as recommended by NPFMC and set by NMFS
WGOA	Western Gulf of Alaska, federal management area 610
Kodiak Area Chignik Area South Alaska Peninsula Area	Westward Region groundfish areas with specific state-waters Pacific cod, sablefish, and state managed black and blue rockfish management plans in the Alaska Administrative Code (AAC)

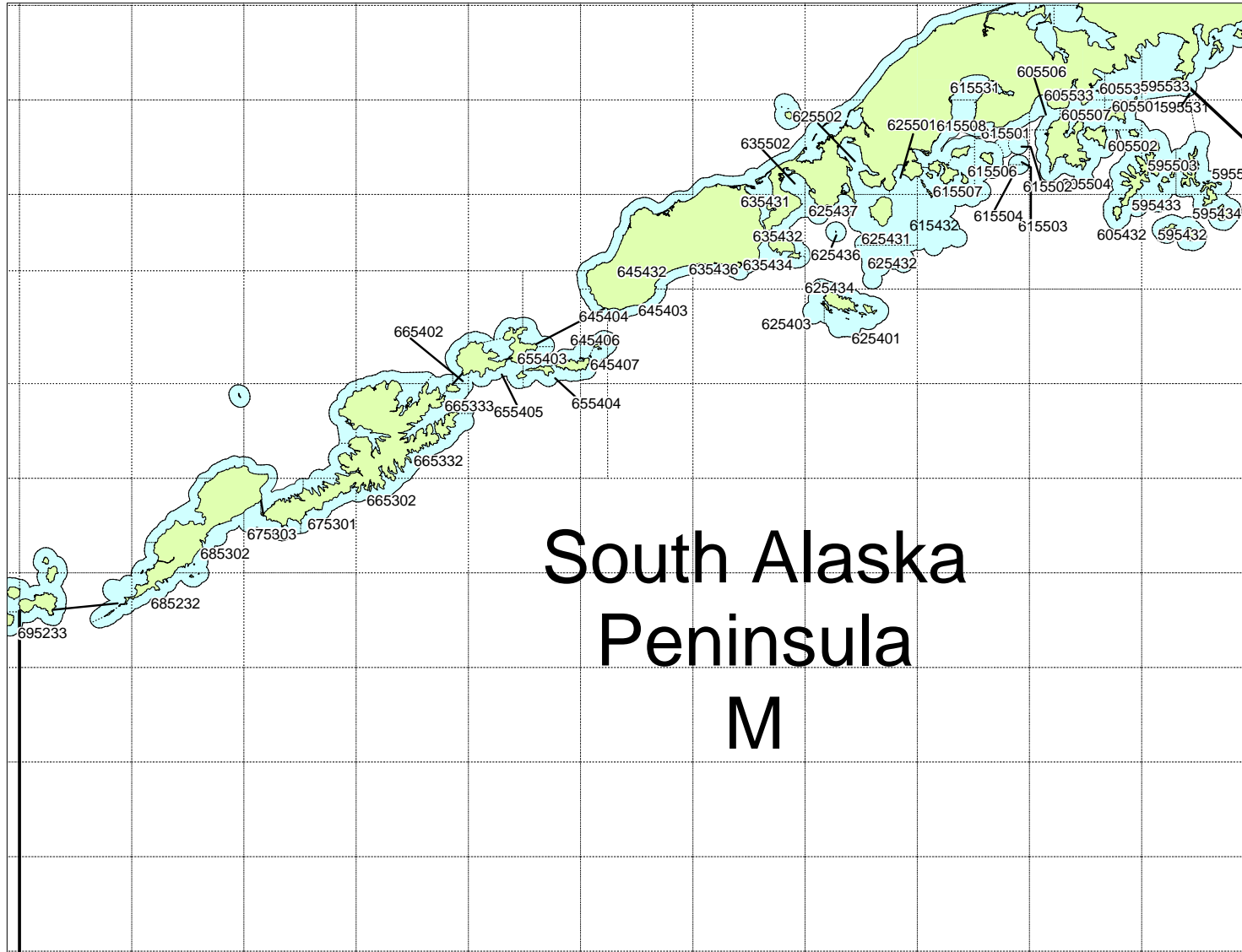
**APPENDIX B. KODIAK, CHIGNIK, AND SOUTH ALASKA
PENINSULA MANAGEMENT AREA STATE WATER
STATISTICAL AREAS FOR GROUND FISH**



Appendix B1.-Kodiak Management Area state water statistical areas for groundfish.



Appendix B2.—Chignik Management Area state water statistical areas for groundfish.



Appendix B3.—South Alaska Peninsula Area state water statistical areas for groundfish.