# Annual Management Report for Groundfish Fisheries in the Kodiak, Chignik, and South Alaska Peninsula Areas, 2021

by

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and

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September 2022



**Divisions of Sport Fish and Commercial Fisheries** 



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

#### FISHERY MANAGEMENT REPORT NO. 22-19

# ANNUAL MANAGEMENT REPORT FOR GROUNDFISH FISHERIES IN THE KODIAK, CHIGNIK, AND SOUTH ALASKA PENINSULA AREAS, 2021

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> > September 2022

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This document should be cited as follows:

Whiteside, C., and K. Bevaart. 2022. Annual management report for groundfish fisheries in the Kodiak, Chignik, and South Alaska Peninsula Areas, 2021. Alaska Department of Fish and Game, Fishery Management Report No. 22-19, Anchorage.

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#### **ABSTRACT**

This report summarizes 2021 harvest, effort, and management of commercial state-waters and parallel groundfish fisheries managed by the Alaska Department of Fish and Game (ADF&G) in the Kodiak, Chignik, and South Alaska Peninsula Areas. Reported harvest data were acquired from the ADF&G fish ticket database. Principal state-waters fisheries include Pacific cod *Gadus macrocephalus* and black rockfish *Sebastes melanops*. The 2021 harvest of Pacific cod during state-waters fisheries totaled 10.69 million pounds from 103 vessels, with an estimated exvessel value of \$4.27 million. Black rockfish harvest in the Kodiak Area jig gear fisheries totaled 87,634 pounds from 15 vessels with an estimated exvessel value of \$87,634. Black rockfish harvest in the Chignik Area is confidential and no effort occurred in South Alaska Peninsula Eastern District. During parallel fisheries, ADF&G adopts most season dates, bycatch limits, area closures, and allowable gear types established by the National Marine Fisheries Service (NMFS) for federal fisheries that occur in the adjacent exclusive economic zone. Walleye pollock *Gadus chalcogrammus* and Pacific cod are the predominant species harvested during parallel fisheries.

Keywords: Kodiak, Chignik, South Alaska Peninsula, groundfish, Pacific cod, black rockfish, walleye pollock, lingcod, state waters, parallel, commercial fisheries, exvessel, trawl, pot, longline, jig, Annual Management Report

#### INTRODUCTION

This report provides an overview of commercial groundfish fisheries in the Kodiak, Chignik, and South Alaska Peninsula Areas and summarizes commercial catch information and regulations that guide management of groundfish resources. These commercial fisheries include Pacific cod *Gadus macrocephalus*, black rockfish *Sebastes melanops*, dark rockfish *Sebastes ciliatus*, lingcod *Ophiodon elongates*, and walleye pollock *Gadus chalcogrammus*. Fishery harvest data reported was acquired from the Alaska Department of Fish & Game (ADF&G) fish ticket database. Appendix A defines frequently used acronyms and keywords associated with groundfish fisheries.

Commercial groundfish fisheries inside state waters (0–3 nmi) are managed by ADF&G under regulations developed by the Alaska Board of Fisheries (BOF). Management authority for commercial groundfish fisheries in the exclusive economic zone (EEZ; 3–200 nmi) off Alaska, with the exception of exclusively state managed species (e.g., black rockfish), is delegated to National Marine Fisheries Service (NMFS) through the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA 2007). Federal commercial groundfish fisheries are prosecuted under guidelines developed by the North Pacific Fishery Management Council (NPFMC).

Several commercially important groundfish species managed by NMFS also occur inside state waters. To facilitate consistency between state and federal regulations for specific transboundary groundfish species, ADF&G issues an annual Emergency Order (EO), effective January 1, establishing parallel groundfish seasons in state waters, during which the state adopts most regulations of adjacent federal fisheries unless superseded by BOF regulations (Table 1).

State-waters seasons are independent of federal/parallel seasons. In the Kodiak, Chignik, and South Alaska Peninsula Areas, state-waters seasons for Pacific cod, lingcod, black rockfish, and dark rockfish are established by regulation. State-waters seasons for Pacific cod are prosecuted exclusively within state waters of Alaska (0–3 nmi), whereas ADF&G has management authority from shore to the 200 nautical mile boundary of the EEZ in the Gulf of Alaska (GOA) for lingcod, black rockfish, and dark rockfish. In 2021, 14 EOs were issued to regulate state-waters groundfish fisheries in the Kodiak, Chignik, and South Alaska Peninsula Management Areas (Table 1).

During 2021, walleye pollock and Pacific cod were the primary species harvested from state waters in the Kodiak, Chignik, and South Alaska Peninsula Areas (Table 2). In state waters, all directed walleye pollock harvest occurred during parallel seasons, whereas Pacific cod were harvested during state-waters and parallel seasons.

#### **PACIFIC COD**

In the GOA, Pacific cod are managed as a single stock (Shimada and Kimura 1994) but are apportioned as Acceptable Biological Catches (ABCs) among the federal regulatory areas of Eastern Gulf of Alaska (EGOA), Central Gulf of Alaska (CGOA), and Western Gulf of Alaska (WGOA; Figure 1). The random effects model used for area apportionments for the 2019 GOA Pacific cod stock assessment resulted in a substantial shift in biomass from the WGOA to the CGOA (Barbeaux et al. 2019). Rather than adopt this apportionment, in 2019 the NPFMC GOA Groundfish Plan Team recommended using an average of the 2017 and 2019 apportionment values, and this method was also recommended for use in the 2020 assessment in anticipation of a 2021 survey (Barbeaux et al. 2020a). These recommended apportionment values were ultimately adopted by the NPFMC Science and Statistical Committee for use the during 2021 fisheries, resulting in the area-apportioned ABCs of 57.8% to the CGOA (30.1 million pounds), 33.8% to the WGOA (17.6 million pounds), and 8.4% to the EGOA (4.4 million pounds; Barbeaux et al. 2020b).

Pacific cod ABCs are further apportioned between federal/parallel fisheries and state-waters fisheries. In the CGOA, federal/parallel fisheries receive 75% of the CGOA ABC as Total Allowable Catch (TAC) and state-waters fisheries receive 25% of the CGOA ABC as Guideline Harvest Level (GHL). In the WGOA, federal/parallel fisheries receive 70% of the WGOA ABC and state-waters fisheries receive 30% of the WGOA ABC. Federal/parallel TACs are further apportioned by season, gear type, and processing activity. During directed federal fisheries, NMFS allocated 60% of the TAC to the spring A season, and the remaining 40% of the TAC was made available during the fall B season. State-waters Pacific cod GHLs in the Kodiak, Chignik, and South Alaska Peninsula Areas are not apportioned into A and B seasons.

NMFS conducts an annual stock assessment to establish Pacific cod ABCs. The data as interpreted indicates that the stock remains at low levels, but is increasing with a better 2018 recruitment and reduction in fishing mortality (Barbeaux et al. 2020b). The 2021 spawning biomass is estimated to be 22.2% of an unfished biomass, above the overfished determination level (i.e., 17.5%) and above the 20% threshold designed to protect forage for endangered Stellar Sea Lions; federal regulation prohibits directed Pacific cod fisheries if biomass falls below 20% (Barbeaux et al. 2020b). As a result, federal/parallel and state-waters fisheries were prosecuted in 2021.

#### PARALLEL SEASON

#### **Background**

ADF&G annually issues an EO establishing parallel Pacific cod seasons in state waters of the Kodiak, Chignik, and South Alaska Peninsula Areas (EO# 4-GF-01-21; Table 1). This EO adopts most federal fishing regulations including season dates, allowable gear types, area closures, bycatch limits, or other regulations the commissioner determines reasonably necessary to accommodate federal fishery management measures in state waters. Most NMFS area closures, including closures for Steller sea lion (SSL) protection, are in effect during parallel fisheries.

Federal seabird avoidance requirements are recognized by the state during parallel Pacific cod fisheries as are vessel monitoring system (VMS) and catch reporting requirements. Federal sector allocations based on processing activity are not recognized in parallel Pacific cod fisheries. State waters adjacent to federal waters open to a gear type, for either catcher–processor or catcher–vessel, are considered open in the parallel fishery for that same gear type regardless of processing activity.

#### 2021 Parallel Pacific Cod Season Overview

The 2021 CGOA Pacific cod harvest, including federal, parallel, and state-waters seasons, totaled 24.39 million pounds, which was 81% of the CGOA ABC (Table 3). Approximately 41% of the CGOA total harvest was taken from state waters. Total Pacific cod harvest from the WGOA during 2021 was 13.94 million pounds, which was 79% of the WGOA ABC (Table 4). Approximately 48% of the total WGOA harvest was taken from state waters.

#### Kodiak Area

The 2021 Kodiak Area parallel pot gear A season was open from January 1 through January 22 and parallel pot gear B season was open from September 1 through December 31.

During the January 2020 BOF meeting, the state-waters jig gear fishery start date was changed to open on January 1, concurrent with the federal CGOA opening date (Table 5). Therefore, vessels using jig gear within state waters of Alaska (0–3 nmi) participated in the state-waters fishery, and the parallel jig gear season would not open until the state-waters GHL was achieved. The state-waters jig fishery was open from January 1 through December 31; therefore, the parallel jig fishery did not open and no harvest occurred (Tables 6 and 12).

Harvest of Pacific cod by all gear types during the 2021 parallel fishery within the Kodiak Area totaled 1.96 million pounds (Table 6). Most Pacific cod were harvested using longline gear (60%) and pot gear (38%).

#### Chignik Area

The majority of the Chignik Area is located within the CGOA with a small portion located within the WGOA federal management area (Figure 1). The Chignik Area parallel season has separate dates according to location within federal management areas. For the Chignik Area located within the CGOA, the 2021 parallel pot gear A season was open from January 1 through January 22 and the parallel jig gear A season was open from January 1 through March 14. The parallel pot gear B season did not open because the state-waters rollover season did not close until December 31; the parallel jig gear B season did not open because the state-waters season did not close until December 31. For the Chignik Area located within the WGOA, the parallel pot gear A season was open from January 1 through February 3 and the parallel jig gear A season was open from January 1 through March 14. The parallel pot gear B season did not open because the state-waters rollover season did not close until December 31; the parallel jig gear B season did not open because the state-waters season did not close until December 31.

The 2021 Chignik Area parallel Pacific cod harvest of 10,591 pounds was harvested by vessels using longline (73%) and trawl gear (27%; Table 7). Chignik Area parallel harvest of Pacific cod was predominantly located in the CGOA, but some parallel harvest in the WGOA did occur.

#### South Alaska Peninsula Area

The 2021 South Alaska Peninsula Area parallel A season was open from January 1 through February 3 for pot gear and from January 1 through March 15 for jig gear. The WGOA parallel pot gear B season was open from September 1 through December 31; the parallel jig gear B season did not open because the state-waters season did not close until December 31. Harvest of Pacific cod by all gear types during the 2021 South Alaska Peninsula Area parallel season totaled 1.85 million pounds (Table 8). Pot gear vessels harvested the largest proportion (65%), followed by trawl gear vessels (29%).

#### STATE-WATERS SEASON

#### **Background**

State-waters Pacific cod seasons in the Kodiak, Chignik, and South Alaska Peninsula Areas began in 1997. The BOF developed state-waters Pacific cod management plans for each management area (Table 5). Allowable gear types (pot, mechanical jigging machine, and hand troll gear) are the same across management areas, whereas fishing season dates, vessel size limits, registration exclusivity, GHL allocations and rollover provisions, and gear storage regulations are unique to each management area.

The Chignik and South Alaska Peninsula Area management plans specify gear limits of 60 pots or 5 jig machines. Vessels operating pot gear in the Kodiak Area also specify a limit of 60 pots. In January 2020, the BOF increased the jig gear limit for the Kodiak Area (Table 5). The regulation came into effect on June 5, 2020, and vessels targeting groundfish with jig gear in the Kodiak Area may operate up to 6 jigging machines with a maximum of 30 hooks per line. Previously, vessels were allowed up to 5 machines. The Kodiak Area cap of no more than 500 hooks in aggregate on board the vessel remains unchanged.

GHLs for each state-waters management area are set as a percentage of the annual federal Pacific cod ABC. State-waters GHLs were initially set at 15% of the ABC established for the federal CGOA or WGOA management areas and were structured to increase incrementally to 20% and then 25% of federal ABCs if harvest in any year exceeded 90% of the established state-waters GHL. By 2003, each management area achieved the maximum GHL increment, and GHLs were set at 25% of the WGOA ABC for the South Alaska Peninsula Area and 25% of the CGOA ABC divided among the Kodiak Area (12.5%), Chignik Area (8.75%), and Cook Inlet Area (3.75%). In 2014, the BOF increased the South Alaska Peninsula Area GHL to 30% of the WGOA ABC. GHLs for each state-waters management area are further apportioned between gear types. If a gear type GHL allocation will not be attained by the date specified in regulation, a rollover provision may allow all gear types the opportunity to harvest some or all of the remaining GHL.

#### 2021 State-Waters Pacific Cod Season Overview

Approximately 10.69 million pounds of Pacific cod were harvested from Kodiak, Chignik, and South Alaska Peninsula Areas by 103 vessels during the 2021 state-waters seasons (Table 9). This was a 41% increase in participation and a 135% increase in harvest compared to the 2020 state-waters season. Compared to the previous 5-years (2016–2020), 2021 participation was 6% below average and harvest was 41% below average (Table 9). Total 2021 state-waters seasons exvessel value was approximately \$4.27 million. The 2021 price per pound of \$0.40 is lower than the last 2 years but consistent with the previous 5-year average of \$0.40 (Table 9).

#### Kodiak Area

The 2021 Kodiak Area GHL was 3.76 million pounds (Table 9). Pot and jig gear vessels were each allocated 50% of the total GHL, or 1.88 million pounds (Table 10). Total Pacific cod harvest from the 2021 Kodiak Area state-waters season was 3.65 million pounds taken by 55 vessels with an estimated exvessel value of \$1.46 million based on an average price of \$0.40 per pound (Table 9). Pacific cod were harvested from 27 statistical areas during the season (Table 11). Harvest was distributed around the Kodiak Archipelago; notable harvest occurred in Outer Kiluida Bay (statistical area 525703), Chiniak Bay (statistical area 525733), Uganik Bay (statistical area 535732), Izhut Bay (statistical area 525806), Outer Ugak Bay (statistical area 525701), and Marmot Bay (statistical area 525731; Table 11, Figure 2, and Appendix B1).

#### **Kodiak Pot Gear Season**

The Kodiak Area state-waters pot gear season opens 7 days after closure of the federal CGOA pot gear A season. The 2021 federal CGOA pot gear A season closed January 22; therefore, the Kodiak Area state-waters Pacific cod pot gear season opened January 29 (Table 12).

A total of 10 vessels participated in the 2021 Kodiak Area state-waters pot gear season; 4 vessels were over 58 feet overall length (OAL) and 6 vessels were 58 feet OAL or less. This was an increase in the total number of participating vessels from the previous year (43% increase) but overall, the second lowest number since the start of the fishery in 1997 (Table 10). The GHL allocation for pot gear vessels is 50% of the total state-waters GHL (1,881,626 pounds); however, pot gear vessels greater than 58 feet OAL are limited to 25% of the total state-waters GHL (940,813 pounds) before September 1. Fleetwide landings ranged from approximately 3,000 to 183,000 pounds per day and averaged 75,919 pounds per day on days when landings occurred. Individual vessel landings ranged from approximately 3,000 to 132,000 pounds with an average landing of 35,811 pounds. The pot gear season closed on February 18 for vessels greater than 58 feet OAL and on February 27 for vessels 58 feet OAL or less (Table 1). The pot gear season was open for 30 days (Table 12). The total harvest by vessels operating pot gear was 1,897,975 pounds and the estimated exvessel value of the 2021 pot gear fishery was \$740,000 based on an average exvessel price of \$0.39 per pound (Table 10).

#### Kodiak Jig Gear Season

The Kodiak Area state-waters Pacific cod season for vessels using jig gear opened at 12:01 AM January 1, 2021 (Table 12). There was a 50% increase in participation compared to the 2020 season. A total of 45 vessels participated in the 2021 Kodiak state-waters jig gear season, landing 1,752,630 pounds (93% of the jig GHL allocation; Table 10).

Peak harvest during the Kodiak jig gear season occurred March through June. During this time period, the number of landings per week ranged from 2 to 22. No landings occurred in August, September, October, or December. Fleetwide landings ranged from approximately 100 to 106,000 pounds per day and averaged 16,500 pounds per day on days when landings occurred. Individual vessel landings ranged from approximately 100 to 26,000 pounds with an average landing of 7,028 pounds. The season closed on the regulatory closure date of December 31 (Table 12). The estimated exvessel value of the 2021 jig gear fishery was \$736,000 based on an average price of \$0.42 per pound (Table 10).

#### Allocation Rollover

Provisions in the *Kodiak Area Pacific Cod Management Plan* (5 AAC 28.467) permit additional harvest opportunity if ADF&G determines the GHL will not be attained by the regulatory closure on December 31. The management plan allows unharvested state-waters GHL to be taken by either pot or jig gear after closure of the federal CGOA pot gear B season. The federal CGOA pot gear B season remained open until the regulatory closure of December 31; therefore, no allocation rollover occurred during the 2021 season.

#### Chignik Area

The 2021 Chignik Area GHL was 2.63 million pounds (Table 9). Vessels using pot gear were allocated 90% of the GHL (2.37 million pounds), and vessels using jig gear were allocated 10% (263,428 pounds; Table 13). Total Pacific cod harvest from the 2021 Chignik Area state-waters season was 2,344,095 pounds (99% of the GHL), taken by 5 vessels with an estimated exvessel value of \$844,000 based on an average price of \$0.36 per pound (Table 9). Harvest occurred in 4 statistical areas during the 2021 state-waters season. Although a large portion of statistical area level harvest data is confidential, 40% of the harvest occurred near Mitrofania Island (statistical area 585531; Table 14 and Appendix B2).

#### **Chignik Pot Gear Season**

The Chignik Area state-waters pot gear season opens March 1 or 7 days after closure of the federal CGOA pot gear A season, whichever is later. The 2021 federal CGOA pot gear A season closed January 22; therefore, the Chignik Area state-waters Pacific cod pot gear season opened March 1 (Table 15).

A total of 4 vessels participated in the 2021 Chignik Area state-waters pot gear season, which was the same amount of participation as the previous year (Table 13). All effort and harvest occurred during March. Fleetwide landings ranged from approximately 29,000 to 216,000 pounds per day and averaged 107,000 pounds per day on days when landings occurred. Individual vessel landings ranged from approximately 24,000 to 186,000 pounds with an average landing of 80,831 pounds. Harvest at the time of the pot gear closure on April 9 was 2.34 million pounds (99% of the GHL allocation; Table 13). The pot gear season was open for 40 days (Table 15).

#### Chignik Jig Gear Season

The 2021 Chignik Area state-waters jig gear season opened by regulation on March 15 and closed on December 31 (Table 15). No vessels participated in the 2020 Chignik Area directed jig gear season; one vessel harvested Pacific cod as bycatch (Table 13).

#### Allocation Rollover

Provisions in the *Chignik Area Pacific Cod Management Plan* (5 AAC 28.537) permit additional harvest opportunity if ADF&G determines the GHL will not be attained by the regulatory closure date. The management plan allows unharvested GHL to be taken by either pot or jig gear starting August 15. In 2021, the rollover fishery was open from August 15 through December 31; however, no harvest occurred.

#### South Alaska Peninsula Area

The 2021 South Alaska Peninsula Area GHL was 5.28 million pounds (Table 9). Vessels using pot gear were allocated 85% of the total GHL (4.49 million pounds), and vessels using jig gear were allocated 15% of the GHL (792,267 pounds; Table 16). The 2021 total harvest of 4.69 million pounds (89% of the GHL) was taken by 44 vessels with an estimated exvessel value of \$1.92 million based on an average exvessel price of \$0.41 per pound (Table 9). Harvest occurred in 22 statistical areas with notable harvests near Nagai Island (statistical area 605502), Sanak Island (statistical area 625401), Big Koniuji Island (statistical area 595502), and Ikatan Peninsula (statistical areas 635434 and 635432; Table 17, Figure 3, and Appendix B3).

#### South Alaska Peninsula Pot Gear Season

Unless delayed by weather, the state-waters pot gear season opens March 7 or 7 days after the close of the federal WGOA pot gear season, whichever is later. The 2021 federal WGOA pot gear A season closed February 3. Therefore, the South Alaska Peninsula Area state-waters Pacific cod pot gear season was scheduled to open March 7; weather delayed the opening until March 9 (Table 18).

A total of 28 vessels participated in the 2021 South Alaska Peninsula Area state-waters pot gear season, which was an increase in participation from the previous 3 years (2018–2020; Table 16). Fleetwide landings ranged from approximately 128,000 to 1.11 million pounds per day and averaged 579,023 pounds per day on days when landings occurred. Individual vessel landings ranged from approximately 3,700 to 111,000 pounds, with an average landing of 45,541 pounds. Harvest at the time of the pot gear season closure on March 15 was 4.1 million pounds, approximately 90% of the pot gear GHL allocation (Table 16). The pot gear season was open for 6 days (Table 18). The estimated exvessel value of the pot gear fishery was \$1.66 million based on an average price of \$0.41 per pound (Table 16).

#### South Alaska Peninsula Jig Gear Season

The South Alaska Peninsula Area state-waters Pacific cod season for vessels using jig gear opens 48 hours after closure of the federal Western Gulf of Alaska (WGOA) jig gear sector A season or March 15 if the WGOA federal jig gear A season has not closed. Through March 8, 2021, approximately 75% of the federal/parallel WGOA jig gear A-season allocation remained unharvested. Based on effort and harvest rate, it appeared unlikely that the federal/parallel WGOA jig gear A season would close with sufficient time remaining to fully harvest the statewaters jig gear GHL allocation prior to the regulatory closure on December 31. Therefore, the South Alaska Peninsula Area parallel Pacific cod jig gear season was closed at 11:59 AM March 15, 2021, and the South Alaska Peninsula Area state-waters Pacific cod jig gear season was immediately opened at 12:00 noon March 15, 2021 (Table 18).

A total of 18 vessels participated in the 2021 South Alaska Peninsula state-waters jig gear season, which was a 20% increase in participation from the previous year. The 2021 season jig gear harvest was 637,494 pounds, 81% of the jig gear GHL allocation (Table 16). Fleetwide landings ranged from approximately 700 to 36,000 pounds per day and averaged 8,500 pounds per day on days when landings occurred. Individual vessel landings ranged from approximately 100 to 26,000 pounds, with an average landing of 5,141 pounds. The jig gear season closed on the regulatory closure date of December 31 (Table 18). The estimated exvessel value of the 2021 jig gear fishery was \$249,000 based on an average price of \$0.39 per pound (Table 16).

#### **Allocation Rollover**

Provisions in the South Alaska Peninsula Area Pacific Cod Management Plan (5 AAC 28.577) permit additional harvest opportunity if ADF&G determines the GHL will not be attained by the regulatory closure date of December 31. The management plan allows unharvested state-waters GHL to be taken by either pot or jig gear after closure of the federal WGOA pot gear B season. The federal WGOA pot gear B season remained open until the regulatory closure of December 31; therefore, no allocation rollover occurred during the 2021 season. The season remained open to jig gear until the regulatory closure date; however, no harvest occurred after October 30.

#### Pacific Cod Harvest Monitoring

During the 2021 Pacific cod seasons, daily harvest reports were obtained from vessel operators using pot gear. Harvest reports included daily number of pots pulled, pounds retained, and fishing location for each vessel. Processor and vessel catch reports were subsequently referenced against landing data derived from the Interagency Electronic Reporting System (eLandings) to track daily catch and forecast harvests.

Dockside sampling was conducted in the port of Kodiak throughout the state-waters season and in Sand Point during the South Alaska Peninsula Area pot gear season. Pacific cod harvested in the Chignik Area were opportunistically sampled if those fish were landed in Kodiak or Sand Point. Samplers also collected data on fish length, weight, sex, age, and reproductive status. Sampling goals include 500 otolith samples for each gear type (pot and jig) for the Kodiak Area, and 500 otolith samples for combined gear types per area for Chignik and the South Alaska Peninsula.

Usually, dockside samplers conducted confidential interviews with vessel operators to obtain information on catch location, catch per unit effort, and bycatch. Safety protocols due to the Covid-19 pandemic prohibited dockside sampling staff from conducting skipper interviews; during 2021, sampling staff in Kodiak and Sand Point conducted 0 skipper interviews and collected biological samples from 94 deliveries. Samplers collected 5,659 fish lengths, 1,980 individual fish weights, extracted 1,980 otolith pairs for age determination, and made 1,980 observations of sex and maturity.

In 2021, average length of sampled Pacific cod in the Kodiak Area (67 cm), Chignik Area (69 cm), and South Alaska Peninsula Area (74 cm) were greater than the 10-year averages (63 cm, 64 cm, and 65 cm, respectively; Figures 4–6). The age of Pacific cod sampled in 2021 from all areas ranged from 4 to 11 years, whereas the recent 10-year averages ranged between age 2 to 12 years (Figures 7–9). In the Kodiak and Chignik Areas, the average age of 6 years is consistent with the recent 10-year averages (Figures 7 and 8). In the South Alaska Peninsula Area, the 2021 average age of 7 years is greater than the 10-year average of 6 years; the 2021 South Alaska Peninsula age distribution differed from the 10-year average, with fewer fish age 6 or younger and more fish age 8 or older (Figure 9).

#### BLACK ROCKFISH

In 1998, ADF&G assumed management authority for black rockfish within the EEZ of the GOA. Beginning that year, ADF&G assigned GHLs to state groundfish management areas within the GOA to better distribute effort (Figure 10). Since 2008, the BOF has provided further structure

to black rockfish fishery regulations through registration requirements, trip limits, gear limits, and bycatch limits (Table 19).

The Kodiak Area is divided into 7 districts: Afognak, Northeast, Eastside, Southeast, Southwest, Westside, and Mainland. The Chignik Area is divided into 3 districts: Mitrofania, Chignik Bay, and Sutwik Island. The South Alaska Peninsula Area is divided into the Eastern and Western Districts; the Western District is located west of Scotch Cap light and is managed by ADF&G staff in Dutch Harbor (Figure 10). ADF&G staff in Kodiak annually establish district GHLs for the South Alaska Peninsula Eastern District and 5 districts of the Kodiak Area. Two districts in the Kodiak Area, Southwest and Mainland Districts, only allow harvest of black rockfish as bycatch in other fisheries. For the Chignik Area, there are no district GHLs but rather an area GHL with district harvest caps (Table 20).

Mechanical jigging machine and hand troll gear are the only legal gear types in the directed black rockfish fishery. All black rockfish harvested by jig gear, either through directed effort or as bycatch to other jig gear fisheries (i.e., Pacific cod or dusky rockfish *Sebastes variabilis*), accrue against area or district GHLs. Black rockfish bycatch harvest from non-jig gear fisheries (i.e., trawl, longline, etc.) does not accrue against area or district GHLs. Districts are individually managed and closed to directed fishing upon achieving the district GHL or district harvest cap. Additionally, individual area or district bycatch limits may be reduced inseason to prevent exceeding GHLs.

#### 2021 Black Rockfish Overview

The black rockfish fishery in the Kodiak Area, Chignik Area, and South Alaska Peninsula Eastern District opened January 1, 2021. The directed fishery was closed in 2 districts in the Kodiak Area before the regulatory closure date when GHLs were attained; GHLs were not fully harvested in 3 districts in the Kodiak Area, Chignik Area, or South Alaska Peninsula Eastern District (Table 20).

#### Kodiak Area

Fifteen vessels harvested a total of 87,634 pounds of the 120,000-pound GHL during the 2021 Kodiak Area black rockfish fishery (Table 21, Figure 11). Seven vessels harvested 72,557 pounds (60% of the GHL, 92% of total harvest) during the directed fishery with the remainder taken as bycatch to other jig gear fisheries (Table 20). Directed harvest in the Afognak, Northeast, Eastside, and Southeast Districts occurred from February through October, although concentrated effort was intermittent, occurring in February, March, July, September, and October. The estimated exvessel value of the 2021 black rockfish fishery was approximately \$88,000 based on an average price of \$1.00 per pound (Table 21).

#### Chignik Area

The 2021 Chignik Area black rockfish GHL was 100,000 pounds. One vessel participated; harvest is confidential (Table 22).

#### South Alaska Peninsula Area

The 2021 South Alaska Peninsula Area black rockfish GHL was 75,000 pounds. No vessels participated in 2021 (Table 23).

#### Black Rockfish Harvest Monitoring

Black rockfish harvest is monitored through fish ticket records, district vessel registrations, mandatory directed fishery logbooks, and dockside sampling. Information collected by dockside samplers includes fish length, weight, sex, age, and reproductive status. The 2021 black rockfish dockside data collection was primarily focused on the Kodiak Area due to limited availability of dockside staff in the Chignik and South Alaska Peninsula Areas.

During 2021, dockside sampling staff in Kodiak collected biological samples from 19 deliveries from the Kodiak Area and 1 delivery from the Chignik Area. Samplers collected 2,067 fish lengths and 980 individual fish weights, extracted 980 otolith pairs for age determination, and made 980 observations of sex and maturity.

Black rockfish sampled from the Kodiak Area during 2021 averaged 43 cm in length, smaller than the recent 10-year average of 46 cm; fish length frequencies peak at 41 cm, with a smaller peak at 49 cm (Figure 12). A large cohort of small black rockfish have been observed since 2015, signaling the influx of a strong year class into the fishery. Sampled ages ranged from 5 to 45 years, with several predominant age classes (7, 8, and 9) in the catch making up 79% of the samples (Figure 13). Average age of sampled black rockfish in the Kodiak Area was 10 years, younger than the 10-year average of 17 years (Figure 13).

#### **LINGCOD**

Commercial regulations in the Kodiak and Chignik Areas prohibit retention of lingcod prior to July 1 and require retained lingcod to be a minimum of 35 inches in total length. These regulations buffer against commercial exploitation during nest-guarding and ensure only mature fish are harvested. The South Alaska Peninsula Area is believed to be near the western limit of lingcod distribution (Mecklenburg et al. 2002) and harvests are uncommon; therefore, seasonal retention and size limit regulations are unnecessary.

Since 1988, harvests of lingcod in the Kodiak, Chignik, and South Alaska Peninsula Areas have generally remained below 100,000 pounds annually. Although jig and hand troll gear may be used to target lingcod, most harvest occurs as bycatch in other commercial groundfish fisheries. The 2021 lingcod harvest in the Kodiak, Chignik, and South Alaska Peninsula Areas was 40,775 pounds (Table 24).

#### PARALLEL WALLEYE POLLOCK FISHERIES

State waters are opened for parallel walleye pollock seasons concurrent with adjacent federal seasons. Prior to the 2021 season, annual harvest limits were allocated across 4 seasons (A, B, C, and D seasons). Beginning in 2021, the CGOA and WGOA trawl catcher-vessel pollock fishery A and B seasons were combined into a single season and redesignated as the A season, and the C and D seasons were combined into a single season and redesignated as the B season (50 CFR § 679). Additionally, the opening date of the redesignated pollock B season was changed from August 25 to September 1. In some years and areas, directed fishing for pollock was prohibited to prevent exceeding the TAC, or more than one opening occurred within a season to ensure the full seasonal allocation was harvested (Table 25). Walleye pollock were primarily harvested by vessels using trawl gear.

The 2021 retained walleye pollock harvest totaled 164.7 million pounds in the CGOA and 38.9 million pounds in the WGOA (Tables 26 and 27). Approximately 5% (8.5 million pounds) of the

total 2021 CGOA walleye pollock harvest and 18% (6.8 million pounds) of the total 2021 WGOA harvest occurred in state waters.

#### REFERENCES CITED

- Barbeaux, S., K. Aydin, B. Fissel, K. Holsman, B. Laurel, W. Palsson, L. Rogers, K. Shotwell, Q. Yang, and S. Zador. 2019. Assessment of the Pacific cod stock in the Gulf of Alaska. [In] Plan team for the groundfish fisheries of the Gulf of Alaska (compiler). Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Management Council, Anchorage.
- Barbeaux, S., M. Bryan, S. Cleaver, C. Cunningham, O. Davis, M. Dorn, A. Deary. K. Echave, R. Ehresmann, C. Faunce, K. Fenske, B. Ferriss, B. Fissel, D. Goethel, D. Hanselman, A. Havron, L. Hillier, P. Hulson, , J. Ianelli, M., Jaenicke, D. Jones, M. Levine, S. Lowe, C. Lunsford, P. Malecha, M.E. Matta, A. McMarthy, C. McGilliard, C. Monnahan, N. Nichols, C. O'Leary, O. Ormseth, W. Palsson, C. Rodgveller, L. Rogers, J. Rumble, K. Shotwell, K. Siwicki, K. Spalinger, P. Spencer, I. Spies, J. Sullivan, M. Szymkowiak, C. Tribuzio, B. Williams, K. Williams, M. Wang, K. Wood, and Q. S. Zador. 2020a. GOA SAFE Intro Chapter [In] Plan team for the groundfish fisheries of the Gulf of Alaska (compiler). Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Management Council, Anchorage.
- Barbeaux, S., B. Ferriss, W. Palsson, K. Shotwell, I. Spies, M. Wang, and S. Zador. 2020b. Assessment of the Pacific cod stock in the Gulf of Alaska. [In] Plan team for the groundfish fisheries of the Gulf of Alaska (compiler). Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Management Council, Anchorage.
- Mecklenburg, W., T. A. Mecklenburg, and L. K. Thorsteinson. 2002. Fishes of Alaska. American Fisheries Society, Bethesda, Maryland.
- MSFCMA (Magnuson-Stevens Fishery Conservation and Management Act). 2007. Magnuson-Stevens Fishery Conservation and Management Act as amended through January 12, 2007. U.S. Department of Commerce, NOAA Technical Memorandum.
- Shimada, A. M., and D. K. Kimura. 1994. Seasonal movements of Pacific cod (*Gadus macrocephalus*) in the eastern Bering Sea and adjacent waters based on tag-recapture data. Fishery Bulletin 92:800–816.

**TABLES AND FIGURES** 

Table 1.-Kodiak, Chignik, and South Alaska Peninsula Areas groundfish emergency orders summary, 2021.

Emergency order	Effective date	Explanation
4-GF-01-21	January 1, 2021	Established parallel commercial groundfish fishing seasons and bycatch limits in the Kodiak, Chignik, South Alaska Peninsula, and Bering Sea-Aleutian Islands Areas
4-GF-03-21	January 29, 2021	Opened Kodiak Area state-waters Pacific cod season to pot gear
4-GF-04-21	March 1, 2021	Opened Chignik Area state-waters Pacific cod season to pot gear
4-GF-06-21	March 7, 2021	Opened South Alaska Peninsula Area state-waters Pacific cod season to pot gear
4-GF-07-21	February 18, 2021	Closed Kodiak Area state-waters Pacific cod season to vessels greater than 58 feet to pot gear
4-GF-08-21	February 27, 2021	Closed Kodiak Area state-waters Pacific cod season to pot gear
4-GF-09-21	March 15, 2021	Opened South Alaska Peninsula Area state-waters Pacific cod season to jig gear
4-GF-10-21	March 9, 2021	Reestablished the opening of the South Alaska Peninsula Area state-waters Pacific cod season to pot gear due to weather delays.
4-GF-11-21	March 15, 2021	Closed South Alaska Peninsula Area state-waters Pacific cod season to pot gear
4-GF-13-21	April 9, 2021	Closed Chignik Area state-waters Pacific cod season to pot gear
4-GF-15-21	July 2, 2021	Closed directed black rockfish fishery and reduced black rockfish bycatch allowance from 20% to 5% for vessels using jig gear in the Northeast District of the Kodiak Area
4-GF-16-21	August 15, 2021	Removed gear limits and allowed either pot or jig gear to be used to harvest the remaining GHL for the remainder of the Chignik Area state-waters Pacific cod season
4-GF-17-21	August 15, 2021	Increased trip limit from 5,000 pounds to 7,000 pounds for vessels targeting black rockfish in the Afognak, Southeast, and Westside Districts of the Kodiak Area
4-GF-18-21	September 27, 2021	Closed directed black rockfish fishery and reduced black rockfish bycatch allowance from 20% to 5% for vessels using jig gear in the Eastside District of the Kodiak Area

Notes: Omitted emergency orders (e.g., 4-GF-02-21) enacted for management areas outside of Kodiak, Chignik, and South Alaska Peninsula.

Table 2.–Top 30 species harvested, by weight in pounds, as reported on groundfish fish tickets, from state waters of Kodiak, Chignik, and South Alaska Peninsula (SAP) groundfish management areas, 2021.

Species	Kodiak	Chignik	SAP	Total
Walleye pollock	7,970,327	601,875	6,704,353	15,276,555
Pacific cod	5,610,886	2,354,767	6,539,248	14,504,901
Pacific halibut	1,686,224	173,438	890,231	2,749,893
Arrowtooth flounder	81,325	4,290	104,594	190,209
Black rockfish	82,976	9,121	71	92,168
Flathead sole	27,061	1,853	15,990	44,904
Longnose skate	29,853	CF	CF	29,853
Big skate	21,407	CF	142	21,549
Pacific ocean perch	19,582	0	211	19,793
Yelloweye rockfish	10,686	1,448	3,035	15,169
Octopus spp.	7,253	CF	7,540	14,793
Herring bycatch	13,019	22	1,101	14,142
Capelin	14,035	CF	CF	14,035
Sablefish	11,933	CF	558	12,491
Dusky rockfish	8,182	142	21	8,345
Chinook salmon	3,121	760	3,850	7,731
Squid	7,240	CF	232	7,472
Dark rockfish	6,116	CF	0	6,116
Euchalon	CF	CF	2,166	2,166
Shortraker rockfish	5,721	CF	41	5,762
Rex sole	4,966	CF	247	5,213
Rougheye rockfish	4,428	CF	613	5,041
Lingcod	3,354	809	CF	4,163
Sculpin spp.	438	CF	1,670	2,018
Salmon shark	CF	CF	1,395	1,395
Spiny dogfish	596	CF	757	1,353
English sole	1,349	CF	CF	1,349
Pacific sleeper shark	0	0	1,292	1,292
Lumpsucker	326	CF	715	1,041
Chum salmon	849	CF	147	996

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated. Total fish pounds do not include confidential data.

Table 3.—Central Gulf of Alaska Management Area federal and state-waters Pacific cod harvest, in millions of pounds, 1990–2021.

	Federal waters		State	State waters			Discards
Year	Harvest	% of Total	Harvest	% of Total	Total harvest	ABC	at sea
1990	79.79	87.1	11.82	12.9	91.61	130.95	0.58
1991	81.24	80.6	19.55	19.4	100.79	106.48	0.51
1992	73.12	81.6	16.53	18.4	89.65	85.40	0.46
1993	60.31	83.9	11.60	16.1	71.91	77.50	0.66
1994	50.28	79.6	12.89	20.4	63.16	68.89	0.81
1995	72.84	77.0	21.76	23.0	94.60	100.69	0.79
1996	71.93	81.1	16.76	18.9	88.70	94.58	3.22
1997	76.64	75.7	24.59	24.3	101.24	113.20	1.83
1998	72.63	74.5	24.90	25.5	97.53	108.20	0.39
1999	71.03	67.6	34.08	32.4	105.11	117.22	0.17
2000	56.32	72.2	21.71	27.8	78.03	96.01	0.45
2001	50.00	78.0	14.08	22.0	64.08	85.20	0.80
2002	42.44	70.0	18.18	30.0	60.62	69.84	1.11
2003	41.97	67.6	20.14	32.4	62.11	64.02	0.99
2004	47.26	66.1	24.19	33.9	71.45	78.93	0.49
2005	38.94	61.9	24.00	38.1	62.94	73.01	0.24
2006	37.21	62.5	22.29	37.5	59.50	83.49	0.14
2007	43.58	65.4	22.99	34.6	66.57	83.49	0.41
2008	45.21	63.6	25.84	36.4	71.05	83.56	1.16
2009	35.33	59.9	23.68	40.1	59.02	69.50	1.23
2010	63.34	63.9	35.74	36.1	99.08	108.10	0.94
2011	66.87	59.9	44.86	40.1	111.73	118.64	0.48
2012	67.86	58.8	47.51	41.2	115.38	125.53	0.44
2013	54.64	67.0	26.85	33.0	81.49	108.66	0.88
2014	65.95	64.8	35.77	35.2	101.72	117.07	2.62
2015	58.61	57.9	42.64	42.1	101.26	135.19	1.14
2016	33.81	46.4	39.05	53.6	72.86	108.71	0.14
2017	26.41	59.2	18.20	40.8	44.61	97.40	0.11
2018	9.68	64.9	5.25	35.1	14.93	17.90	0.30
2019	9.29	60.5	6.07	39.5	15.36	16.90	0.72
2020	4.76	60.1	3.16	39.9	7.92	18.65	1.52
2021	14.48	59.4	9.91	40.6	24.39	30.11	0.91

Notes: Weights reported in whole fish pounds. Discards at sea excluded from all columns except the Discards at sea column. State and federal harvests may not add to total due to rounding. ABC = Acceptable Biological Catch.

Table 4.—Western Gulf of Alaska Management Area federal and state-waters Pacific cod harvest, in millions of pounds, 1990–2021.

	Federa	l waters	State	waters	Total		Discards
Year	Harvest	% of Total	Harvest	% of Total	harvest	ABC	at sea
1990	72.20	84.6	13.13	15.4	85.33	65.48	0.74
1991	71.95	94.4	4.29	5.6	76.24	56.67	0.32
1992	59.73	82.0	13.15	18.0	72.87	51.80	0.74
1993	37.90	95.3	1.88	4.7	39.78	41.25	0.18
1994	24.88	77.3	7.32	22.7	32.20	36.67	0.15
1995	35.68	79.9	8.99	20.1	44.67	44.24	0.20
1996	35.28	73.2	12.92	26.8	48.20	41.56	0.29
1997	47.34	70.8	19.55	29.2	66.88	62.89	0.37
1998	39.98	68.9	18.06	31.1	58.04	60.11	0.08
1999	39.73	65.2	21.16	34.8	60.90	65.12	0.04
2000	33.73	54.7	27.90	45.3	61.63	60.64	0.07
2001	23.02	53.5	19.97	46.5	42.99	53.81	0.03
2002	26.32	55.4	21.22	44.6	47.54	49.52	0.07
2003	17.55	40.4	25.93	59.6	43.48	45.40	0.07
2004	17.11	37.8	28.16	62.2	45.27	49.85	0.05
2005	16.49	42.5	22.29	57.5	38.77	46.11	0.05
2006	11.23	28.8	27.74	71.2	38.96	59.21	0.04
2007	15.83	41.6	22.31	58.4	38.14	59.21	0.05
2008	21.53	50.1	21.47	49.9	43.00	57.17	0.06
2009	17.11	42.4	23.24	57.6	40.35	47.55	0.05
2010	26.00	44.0	33.16	56.0	59.16	61.03	0.36
2011	28.42	43.7	36.63	56.3	65.05	66.98	0.10
2012	30.93	54.7	25.59	45.3	56.53	61.80	0.07
2013	31.37	55.2	25.41	44.8	56.78	62.35	0.12
2014	32.92	49.0	34.24	51.0	67.16	72.19	0.08
2015	28.75	46.0	33.77	54.0	62.52	85.32	0.14
2016	27.69	45.3	33.49	54.7	61.18	89.29	0.05
2017	30.83	54.0	26.24	46.0	57.07	80.01	0.03
2018	9.37	58.0	6.78	42.0	16.15	17.82	0.08
2019	9.13	57.9	6.65	42.1	15.79	16.83	0.09
2020	0.32	13.0	2.14	87.0	2.46	10.90	0.01
2021	7.32	52.5	6.62	47.5	13.94	17.61	0.03

Notes: Weights reported in whole fish pounds. Discards at sea excluded from all columns except the Discards at sea column. State and federal harvests may not add to total due to rounding. ABC = Acceptable Biological Catch.

Table 5.–Kodiak, Chignik, and South Alaska Peninsula (SAP) Areas regulatory development for state-waters and parallel Pacific cod fisheries, 1996–2021.

Year	Regulation
1996	<ul> <li>Alaska Board of Fisheries developed state-waters Pacific cod management plans for Kodiak, Chignik, and SAP Areas.</li> </ul>
	- Kodiak, Chignik, and SAP Areas established as exclusive registration areas for state-waters fisheries; suspension of exclusivity allowed after
	October 30.
	- Kodiak, Chignik, and SAP Areas allowable gear for state-waters established; mechanical jigging machines (five machines), hand troll, and pots
	(60 pots); suspension of gear limits allowed after October 30.
	- Season opening dates established for state-waters fisheries; Kodiak and SAP Areas open 14 days after federal season closure; Chignik Area opens
	April 15.
	<ul> <li>Vessel size limits established for Chignik and SAP state-waters fisheries (≤58 ft); suspension of vessel size limit allowed after October 30.</li> </ul>
	<ul> <li>Kodiak Area state-waters GHL allocated by gear type (50% pot, 50% jig); allocation rollover allowed after August 31.</li> </ul>
1997	<ul> <li>Kodiak, Chignik, and SAP Areas first state-waters fisheries prosecuted.</li> </ul>
1998	- Season opening dates changed for state-waters fisheries; Kodiak and SAP Areas open seven days after federal season closure; Chignik Area opens
	April 1.
	<ul> <li>SAP Area state-waters GHL allocated by gear type (85% pot, 15% jig); allocation rollover allowed after August 31.</li> </ul>
1999	<ul> <li>Chignik Area state-waters season opening date changed to April 15.</li> </ul>
	<ul> <li>Chignik Area state-waters GHL allocated by gear type (85% pot, 15% jig); allocation rollover allowed after August 14.</li> </ul>
	<ul> <li>Chignik Area changed to superexclusive registration area for state-waters fishery.</li> </ul>
	<ul> <li>Kodiak Area pot gear vessels &gt;58 ft harvest capped at 25% of state-waters GHL prior to September 1.</li> </ul>
2001	<ul> <li>State regulation adopted recognizing Steller sea lion haulouts during parallel fisheries.</li> </ul>
	<ul> <li>Chignik Area state-waters season opening date changed to seven days after federal CGOA closure.</li> </ul>
2002	<ul> <li>Vessel monitoring system (VMS) rules implemented during parallel fisheries.</li> </ul>
	<ul> <li>Pot storage requirements liberalized in Kodiak and Chignik Areas for transition period between parallel and state-waters fisheries.</li> </ul>
	<ul> <li>Chignik Area state-waters season opening date changed to March 1.</li> </ul>
2004	<ul> <li>Pot storage requirements liberalized in SAP Area for transition period between parallel and state-waters fisheries.</li> </ul>
2005	<ul> <li>Chignik Area state-waters GHL allocation changed (90% pot, 10% jig).</li> </ul>
2007	<ul> <li>SAP Area 24-hour weather delay prior to state-waters season opening adopted.</li> </ul>
	<ul> <li>SAP Area mandatory inseason catch reporting by vessels during state-waters fishery adopted.</li> </ul>
	- SAP Area registration requirements changed, prohibiting fishing in another groundfish fishery outside of SAP Area and a portion of Chignik Area.
2010	<ul> <li>SAP Area vessel size limit (≤58 ft) for parallel fishery adopted.</li> </ul>

Table 5.—Page 2 of 2.

Year	Regulation
2011	<ul> <li>Chignik Area vessel size limit (≤58 ft) for parallel fishery adopted.</li> </ul>
2012	- Kodiak Area state-waters season opening dates changed: pot gear opens seven days after federal CGOA pot gear A-season closure; jig gear opens
	48 hours after federal CGOA jig gear A-season closure.
	- Chignik Area state-waters season opening dates changed: pot gear opens seven days after federal CGOA pot gear A-season closure or March 7,
	whichever is later.
	- SAP Area state-waters season opening dates changed: pot gear opens seven days after federal WGOA pot gear A-season closure or March 7,
	whichever is later, unless delayed by weather.
	- Kodiak, Chignik and SAP Areas state-waters season closure dates changed: jig gear closes June 8 or later, based on inseason assessment, to allow
	parallel jig gear season.
2014	<ul> <li>SAP Area state-waters GHL increased to 30% of WGOA ABC.</li> </ul>
	- Chignik Area state-waters season opening dates changed: pot gear opens seven days after federal CGOA pot gear A-season closure or March 1,
	whichever is later.
	- Chignik and SAP Areas pot gear storage regulations changed: vessels may store open and unbaited pots at any depth beginning seven days prior to
	state-waters season opening.
2015	<ul> <li>Chignik Area gear limits removal date changed from after October 30 to after August 14.</li> </ul>
2016	- Chignik Area reduced waters closed for Steller sea lion haulouts during parallel fishery for vessels that do not possess a FFP.
2017	<ul> <li>Kodiak Area nonexclusive registration area designation date changed from October 30 to June 10 for jig gear vessels.</li> </ul>
2018	- Chignik Area state-waters rollover season closure date changed from September 1 to October 30, or when the GHL is attained, whichever occurs first.
	<ul> <li>SAP Area state-waters season opening weather delay provision removed for vessels using jig gear.</li> </ul>
2020	<ul> <li>Kodiak Area state-waters jig gear season opening dates changed to January 1.</li> </ul>
	- Kodiak Area state-waters rollover season addition: if it is determined that the jig gear GHL allocation will not be taken by June 10, 50% of the
	remaining jig gear allocation, as of March 25, may be taken by either pot or jig gear beginning April 1.
	<ul> <li>Kodiak Area gear limit increased from 5 to 6 mechanical jigging machines.</li> </ul>

Notes: SAP = South Alaska Peninsula. GHL = Guideline Harvest Level. CGOA = Central Gulf of Alaska. WGOA = Western Gulf of Alaska. ABC = Acceptable Biological Catch. FFP = Federal Fisheries Permit.

Table 6.–Kodiak Area Pacific cod harvest, in pounds, by gear type, during parallel fisheries, 1997–2021.

		Gear ty	oe		
Year	Pot	Longline	Trawl	Jig	Total
1997	8,311,893	1,894,214	857,688	CF	11,063,795
1998	4,998,323	2,166,389	799,570	27,246	7,991,527
1999	8,102,503	2,579,782	1,226,554	27,963	11,936,802
2000	4,459,508	3,577,798	247,475	79,365	8,364,146
2001	2,800,868	2,284,067	213,454	22,414	5,320,803
2002	2,324,281	1,310,940	270,531	5,926	3,911,678
2003	3,104,572	2,700,479	428,503	16,045	6,249,599
2004	2,329,223	3,857,610	498,690	244,600	6,930,123
2005	3,890,960	3,508,713	366,751	298,326	8,064,750
2006	4,429,520	5,423,320	398,582	190,037	10,441,459
2007	5,018,241	3,420,699	150,583	68,583	8,658,106
2008	3,317,365	1,941,762	305,023	38,267	5,602,418
2009	2,741,107	2,910,195	139,002	70,765	5,861,069
2010	5,142,268	3,319,129	115,026	232,643	8,809,066
2011	7,804,342	4,747,813	108,274	1,080,840	13,741,269
2012	6,401,191	8,175,700	32,606	783,464	15,392,961
2013	3,021,936	2,892,600	59,008	66,766	6,040,309
2014	3,425,588	4,189,250	95,711	240,985	7,951,533
2015	9,058,728	3,782,261	186,690	742,855	13,770,535
2016	12,098,040	1,411,143	44,068	493,548	14,046,799
2017	5,512,551	1,736,340	4,244	28,539	7,281,674
2018	280,159	942,012	11,603	0	1,233,774
2019	471,411	483,954	48,885	65,391	1,069,641
2020a	0	25,492	73,834	0	99,326
2021	741,220	1,185,051	34,010	0	1,960,281

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential in cases where fewer than 3 vessels participated. Total pounds do not include confidential data.

<sup>&</sup>lt;sup>a</sup> No directed parallel Pacific cod fisheries, bycatch only.

Table 7.—Chignik Area Pacific cod harvest, in pounds, by gear type, during parallel fisheries, 1997–2021.

	Gear type					
Year	Pot	Longline	Trawl	Jig	Total	
1997		CF – All gear types			651,504	
1998		CF – All gear types			541,455	
1999	822,098	3,056	39,704	0	864,858	
2000		CF – All gear types			434,483	
2001		CF – All gear types			174,654	
2002		CF – All gear types			294,577	
2003		CF – All gear types			292,112	
2004		CF – All gear types			211,006	
2005		CF – All gear types			95,400	
2006		CF – All gear types			112,499	
2007	CF	1,549	CF	0	40,033	
2008	CF – All gear types				210,326	
2009	239,584	63,551	0	0	303,135	
2010	564,567	66,398	0	0	630,965	
2011	258,963	96,036	CF	CF	357,322	
2012	CF	14,631	37,626	CF	88,878	
2013	395,052	25,716	20,018	0	440,785	
2014	1,729,086	6,828	0	0	1,735,914	
2015	1,053,533	14,881	837	0	1,069,251	
2016	1,154,775	57,981	5,245	0	1,218,002	
2017	352,566	8,587	171	0	361,324	
2018	0	11,079	CF	0	11,079	
2019	CF CF CF 0				517,520	
2020a	0	6,625	29,501	0	36,126	
2021	0	7,679	2,912	0	10,591	

Notes: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated. Total fish pounds do not include confidential data.

<sup>&</sup>lt;sup>a</sup> No directed parallel Pacific cod fisheries, bycatch only.

Table 8.—South Alaska Peninsula Area Pacific cod harvest, in pounds, by gear type, during parallel fisheries, 1997–2021.

		Gear ty	pe		
Year	Pot	Longline	Trawl	Jig	Total
1997	2,068,400	32,624	7,758,378	CF	9,859,402
1998	4,205,388	522,328	3,867,782	0	8,595,498
1999	3,279,793	34,975	5,308,250	0	8,623,018
2000	5,699,112	236,808	6,698,838	11,499	12,646,257
2001	3,272,010	53,184	2,424,221	340,092	6,089,507
2002	6,051,920	30,456	666,876	411,378	7,160,630
2003	12,966,344	60,803	310,012	92,528	13,429,687
2004	12,887,904	30,455	945,983	397,922	14,262,264
2005	6,175,670	566,138	2,835,871	100,691	9,678,370
2006	9,286,910	233,028	6,366,015	CF	15,885,953
2007	6,559,997	426,535	2,483,748	3,300	9,473,580
2008	6,387,463	626,799	863,671	114,599	7,992,532
2009	8,054,281	2,308,330	654,176	417,515	11,434,302
2010	13,229,552	1,605,590	1,691,696	763,299	17,290,137
2011	17,487,423	375,680	765,222	503,458	19,131,783
2012	5,720,700	358,908	2,761,687	567,920	9,409,215
2013	7,851,502	356,391	700,882	674,577	9,583,352
2014	8,551,709	503,917	1,048,900	1,690,458	11,794,984
2015	8,115,335	211,007	707,076	120,803	9,154,221
2016	7,464,402	462,774	2,185,670	114,765	10,227,611
2017	4,164,565	407,498	1,340,668	106,746	6,019,476
2018	691,392	56,093	407,353	274,989	1,429,827
2019	327,056	46,080	719,310	296,219	1,388,665
2020a	CF	16,259	72,807	0	89,066
2021	1,204,644	22,209	542,962	78,777	1,848,592

Notes: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential in cases where fewer than 3 vessels participated. Total pounds do not include confidential data.

<sup>&</sup>lt;sup>a</sup> No directed parallel Pacific cod fisheries, bycatch only.

Table 9.–Kodiak, Chignik, and South Alaska Peninsula Areas state-waters Pacific cod effort, guideline harvest level (GHL), harvest in pounds, and value, 2001–2021.

	Year	Vessels	Landings	GHL	Harvesta	Price per pound <sup>b</sup>	Exvessel value
Kodiak	2001	103	669	10,651,083	4,843,741	\$0.35	\$1,695,309
Area	2002	82	552	8,730,306	8,825,851	\$0.32	\$2,824,272
	2003	128	837	7,991,757	8,154,867	\$0.35	\$2,854,203
	2004	156	1,122	9,865,686	10,033,889	\$0.30	\$3,010,167
	2005	158	1,011	9,126,311	8,548,163	\$0.33	\$2,820,894
	2006	113	646	10,436,959	6,330,518	\$0.41	\$2,595,512
	2007	94	639	10,436,959	6,406,965	\$0.52	\$3,331,622
	2008	111	988	10,444,675	10,548,875	\$0.60	\$6,329,325
	2009	130	971	8,686,489	8,591,477	\$0.34	\$2,921,102
	2010	114	880	13,514,888	13,566,306	\$0.27	\$3,662,903
	2011	161	1,168	14,830,496	15,268,123	\$0.36	\$5,496,524
	2012	179	1,356	15,691,401	15,416,530	\$0.37	\$5,704,116
	2013	88	441	13,582,680	7,277,324	\$0.27	\$1,964,877
	2014	100	753	14,633,165	12,347,200	\$0.34	\$4,198,048
	2015	127	1,046	16,898,432	12,180,136	\$0.34	\$4,141,246
	2016	140	931	13,589,294	10,161,895	\$0.33	\$3,353,425
	2017	48	227	12,174,904	3,839,186	\$0.39	\$1,497,283
	2018	20	56	2,237,118	1,166,191	\$0.52	\$606,419
	2019	48	161	2,112,834	2,118,905	\$0.56	\$1,186,587
	2020	37	188	1,515,044	1,518,504	\$0.47	\$713,697
	2021	55	317	3,763,252	3,650,604	\$0.40	\$1,460,242
Chignik	2001	26	179	5,964,606	2,648,655	\$0.26	\$688,650
Area	2002	25	198	4,888,971	4,227,519	\$0.20	\$845,504
	2003	28	257	4,475,384	4,467,571	\$0.28	\$1,250,920
	2004	28	297	6,905,980	5,750,461	\$0.24	\$1,380,111
	2005	23	250	6,388,418	5,787,543	\$0.25	\$1,446,886
	2006	14	206	7,305,871	3,439,521	\$0.34	\$1,169,437
	2007	16	241	7,305,871	5,700,861	\$0.45	\$2,565,387
	2008	25	265	7,311,273	6,838,934	\$0.56	\$3,829,803
	2009	12	123	6,080,542	5,679,676	\$0.24	\$1,363,122
	2010	17	183	9,460,421	9,153,719	\$0.30	\$2,746,116
	2011	32	244	10,381,347	10,346,856	\$0.31	\$3,207,525
	2012	26	204	10,983,981	10,496,608	\$0.36	\$3,778,779
	2013	19	191	9,507,876	8,712,190	\$0.27	\$2,352,291
	2014	13	157	10,243,216	9,593,269	\$0.29	\$2,782,048
	2015	19	213	11,828,903	10,248,382	\$0.27	\$2,767,063
	2016	10	192	9,512,506	8,482,544	\$0.28	\$2,375,112
	2017	11	103	8,522,432	3,253,854	\$0.32	\$1,041,233
	2018	3	19	1,565,982	1,413,366	\$0.46	\$650,148
	2019	5	24	1,478,983	1,388,727	\$0.52	\$722,138
	2020	4	14	1,060,531	980,178	\$0.39	\$382,269
	2021	5	30	2,634,277	2,344,095	\$0.36	\$843,874

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Table 9.–Page 2 of 2.

	Year	Vessels	Landings	GHL	Harvesta	Price per pound <sup>b</sup>	Exvessel value
South Alaska	2001	121	727	13,448,198	13,464,020	\$0.26	\$3,500,645
Peninsula	2002	103	594	12,381,712	12,715,465	\$0.23	\$2,924,557
Area	2003	92	604	11,353,806	11,560,663	\$0.27	\$3,121,379
	2004	88	594	12,461,629	12,442,442	\$0.24	\$2,986,186
	2005	74	529	11,527,972	11,436,857	\$0.26	\$2,973,583
	2006	54	386	14,801,285	11,739,736	\$0.38	\$4,461,100
	2007	60	465	14,801,285	12,678,151	\$0.47	\$5,958,731
	2008	97	700	14,292,568	13,302,050	\$0.57	\$7,582,169
	2009	72	514	11,886,774	11,594,124	\$0.25	\$2,898,531
	2010	69	534	15,258,744	15,288,266	\$0.26	\$3,974,949
	2011	82	551	16,744,109	16,806,305	\$0.31	\$5,209,955
	2012	95	644	15,449,995	15,356,768	\$0.34	\$5,221,301
	2013	74	529	15,586,682	15,583,345	\$0.27	\$4,207,503
	2014	73	616	21,657,085	21,949,138	\$0.29	\$6,365,250
	2015	76	759	25,596,991	23,867,585	\$0.28	\$6,682,924
	2016	55	619	26,788,149	22,821,190	\$0.27	\$6,161,721
	2017	49	570	24,002,142	20,196,191	\$0.31	\$6,260,819
	2018	41	182	5,345,273	5,347,934	\$0.42	\$2,246,132
	2019	43	175	5,048,314	5,074,974	\$0.47	\$2,385,238
	2020	32	148	2,124,573	2,051,238	\$0.43	\$882,032
	2021	44	213	5,281,781	4,690,656	\$0.41	\$1,923,169
Total harvest	2001	246	1,575	30,063,887	20,956,415	\$0.28	\$5,867,796
	2002	208	1,344	26,000,989	25,768,835	\$0.30	\$7,730,651
	2003	248	1,698	23,820,947	24,183,101	\$0.34	\$8,222,254
	2004	272	2,013	29,233,295	28,266,792	\$0.27	\$7,632,034
	2005	253	1,790	27,042,701	25,772,563	\$0.30	\$7,731,769
	2006	179	1,234	32,544,115	21,509,775	\$0.40	\$8,603,910
	2007	170	1,345	32,544,115	24,785,977	\$0.50	\$12,392,989
	2008	232	1,953	32,048,516	30,689,859	\$0.59	\$18,107,017
	2009	213	1,608	26,653,805	25,865,277	\$0.30	\$7,759,583
	2010	199	1,597	38,234,053	38,008,291	\$0.27	\$10,262,239
	2011	275	1,963	41,955,952	42,421,284	\$0.34	\$14,423,237
	2012	300	2,204	42,125,377	41,269,905	\$0.36	\$14,857,166
	2013	180	1,161	38,677,238	31,572,859	\$0.27	\$8,524,672
	2014	186	1,526	46,533,466	43,889,607	\$0.31	\$13,605,778
	2015	222	2,018	54,324,326	46,296,103	\$0.31	\$14,351,792
	2016	205	1742	49,889,949	41,465,629	\$0.30	\$12,439,689
	2017	107	900	44,699,478	27,289,230	\$0.33	\$9,005,446
	2018	64	257	9,148,373	7,927,492	\$0.43	\$3,408,822
	2019	96	360	8,640,131	8,582,606	\$0.50	\$4,291,303
	2020	73	350	4,700,148	4,549,920	\$0.42	\$1,910,966
	2021	103	560	11,679,310	10,685,355	\$0.40	\$4,274,142

Notes: Weights reported in whole fish pounds. Discards at sea excluded. Totals by area may not match number of vessels by gear type in Tables 10, 13, and 15 because a vessel may use more than one gear type. GHL = Guideline Harvest Level. 
<sup>a</sup> Chignik Area jig vessel harvest excluded in 2006, 2008–2010, 2014–2015, 2017, and 2021 due to confidentiality.

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

Table 10.-Kodiak Area state-waters Pacific cod guideline harvest level (GHL), effort, harvest in pounds, and value, by gear type, 1997–2021.

Year	Gear	GHL	Vessels	Landings	Harvest <sup>a</sup>	% of GHL harvested	Price per pound <sup>b</sup>	Exvessel value
1997	Jig	4,249,410	72	483	1,976,546	46.5%	\$0.23	\$454,606
	Pot	4,249,410	38	243	5,769,129	135.8%	\$0.22	\$1,269,208
1998	Jig	4,057,608	88	662	2,114,685	52.1%	\$0.23	\$486,378
	Pot	4,057,608	47	310	6,070,139	149.6%	\$0.22	\$1,335,431
1999°	Jig	5,860,989	113	793	2,294,837	39.2%	\$0.38	\$872,038
	Pot	5,860,989	77	471	8,492,710	144.9%	\$0.32	\$2,717,667
2000	Jig	6,000,707	139	1,226	2,814,481	46.9%	\$0.40	\$1,125,792
	Pot	6,000,707	69	481	5,748,334	95.8%	\$0.39	\$2,241,850
2001	Jig	5,325,542	69	433	1,252,692	23.5%	\$0.36	\$450,969
	Pot	5,325,542	34	236	3,591,049	67.4%	\$0.33	\$1,185,046
2002	Jig	4,365,153	51	340	1,389,838	31.8%	\$0.28	\$389,155
	Pot	4,365,153	33	212	7,436,013	170.3%	\$0.29	\$2,156,444
2003	Jig	3,995,878	100	688	3,195,605	80.0%	\$0.35	\$1,118,462
	Pot	3,995,878	42	149	4,959,262	124.1%	\$0.32	\$1,586,964
2004	Jig	4,932,843	120	961	4,210,284	85.4%	\$0.34	\$1,431,497
	Pot	4,932,843	47	161	5,823,605	118.1%	\$0.29	\$1,688,846
2005	Jig	4,563,155	117	849	4,570,327	100.2%	\$0.33	\$1,508,208
	Pot	4,563,155	51	162	3,977,835	87.2%	\$0.30	\$1,193,350
2006	Jig	5,218,480	77	477	1,446,881	27.7%	\$0.43	\$622,159
	Pot	5,218,480	41	169	4,883,637	93.6%	\$0.41	\$2,002,291
2007	Jig	5,218,480	63	457	1,249,753	23.9%	\$0.52	\$649,872
	Pot	5,218,480	33	182	5,157,212	98.8%	\$0.41	\$2,114,457
2008	Jig	5,222,338	76	647	2,042,082	39.1%	\$0.61	\$1,245,670
	Pot	5,222,338	37	341	8,506,792	162.9%	\$0.59	\$5,019,007
2009	Jig	4,343,244	94	833	4,450,423	102.5%	\$0.32	\$1,424,135
_000	Pot	4,343,244	38	138	4,141,054	95.3%	\$0.32	\$1,325,137
2010	Jig	6,757,444	81	707	6,504,733	96.3%	\$0.30	\$1,951,420
2010	Pot	6,757,444	36	173	7,061,573	104.5%	\$0.25	\$1,765,393
2011	Jig	7,415,248	132	980	7,135,466	96.2%	\$0.35	\$2,497,413
2011	Pot	7,415,248	46	190	8,132,657	109.7%	\$0.35	\$2,497,413
2012	Jig	7,845,701	145	1,160	7,938,727	101.2%	\$0.38	\$3,016,716
ZU1Z	Jig Pot	7,845,701	45	1,160	7,477,802	95.3%	\$0.38	\$3,016,716

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Table 10.—Page 2 of 2.

Year	Gear	GHL	Vessels	Landinas	Harvesta	% of GHL harvested	Price per pound <sup>b</sup>	Exvessel value
				Landings				
2013	Jig	6,791,340	55	199	587,942	8.7%	\$0.26	\$152,865
	Pot	6,791,340	34	242	6,689,382	98.5%	\$0.26	\$1,739,239
2014	Jig	7,316,583	77	520	3,170,713	43.3%	\$0.35	\$1,109,750
	Pot	7,316,583	28	233	9,176,488	125.4%	\$0.30	\$2,752,946
2015	Jig	8,449,216	100	809	3,879,512	45.9%	\$0.36	\$1,396,624
	Pot	8,449,216	30	236	8,300,600	98.2%	\$0.34	\$2,822,204
2016	Jig	6,794,647	108	747	3,327,887	49.0%	\$0.35	\$1,164,760
	Pot	6,794,647	36	184	6,834,008	100.6%	\$0.33	\$2,255,223
2017	Jig	6,087,452	23	50	101,991	1.7%	\$0.41	\$41,816
	Pot	6,087,452	25	177	3,737,195	61.4%	\$0.39	\$1,457,506
2018	Jig	1,118,559	10	21	29,016	2.6%	\$0.50	\$14,508
	Pot	1,118,559	10	35	1,137,175	101.7%	\$0.52	\$591,331
2019	Jig	1,056,417	33	101	363,646	34.4%	\$0.59	\$214,551
	Pot	1,056,417	16	60	1,755,259	166.2%	\$0.56	\$982,945
2020	Jig	757,522	30	156	682,291	90.1%	\$0.50	\$341,146
	Pot	757,522	7	32	836,213	110.4%	\$0.44	\$367,934
2021	Jig	1,881,626	45	264	1,752,630	93.1%	\$0.42	\$736,105
	Pot	1,881,626	10	53	1,897,975	100.9%	\$0.39	\$740,210

Notes: Weights reported in whole fish pounds. Discards at sea excluded.

<sup>&</sup>lt;sup>a</sup> Harvest may include landings made after allocation rollovers.

<sup>&</sup>lt;sup>b</sup> Price per pound calculated from sold whole fish pounds.

<sup>&</sup>lt;sup>c</sup> Beginning in 1999, vessels >58 ft using pot gear are capped at 25% of the total GHL prior to September 1.

Table 11.-Pacific cod effort and harvest in pounds by statistical area, from the Kodiak Area state-waters season, 2021.

Statistical area	Vessels	Landingsa	Harvest
525703	23	52	875,480
525733	23	71	486,641
535732	17	29	402,259
525806	16	37	352,605
525701	21	52	331,533
525731	17	47	291,140
525805	5	9	118,773
535803	10	14	62,490
535631	6	7	37,354
515801	5	5	26,963
525802	3	4	22,751
535705	4	4	6,642
Other <sup>b</sup>	13	35	635,973
Total	55	317	3,650,604

Notes: Weights reported in whole fish pounds. Discards at sea excluded. Kodiak Area state-waters statistical areas for groundfish can be found in Appendix B1.

<sup>&</sup>lt;sup>a</sup> Landings may involve multiple statistical areas.

<sup>&</sup>lt;sup>b</sup> A total of 15 statistical areas combined due to confidentiality.

Table 12.-Kodiak Area state-waters Pacific cod fishery dates and management actions, by gear type, 1997–2021.

	Pot gear	Jig gear						
1997	Fishery Dates:							
	April 4–May 4	April 4–December 31						
	September 1–December 31							
	Management Actions:							
	May 4 - Pot gear season closed when GHL was attained							
	September 1 - Allocation rollover; pot gear season reopen	ned						
	October 31 - Gear limits and exclusive vessel registration	removed						
1998	Fishery Dates:							
	March 17–April 27 March 17–December 31							
	September 1–December 31							
	Management Actions:							
	April 27 - Pot gear season closed when GHL was attained							
	September 1 - Allocation rollover; pot gear season reopened							
	October 31 - Gear limits and exclusive vessel registration	removed						
1999	Fishery Dates:							
	March 21–April 29	March 21-September 1						
	October 5–December 31	October 5–December 31						
	Management Actions:							
	April 29 - Pot gear season closed when GHL was attained							
	September 1 - Jig gear season closed for parallel B season							
	October 5 - Pot and jig gear seasons reopened following federal CGOA B-season closure							
	October 31 - Gear limits and exclusive vessel registration	removed						
2000	Fishery Dates:							
	March 11–December 31	March 11–December 31						
	Management Actions:							
	October 31 - Gear limits and exclusive vessel registration	removed						
2001	Fishery Dates:							
	March 11–December 31	March 11–December 31						
	Management Actions:							
	October 31 - Allocation rollover; gear limits and exclusiv	ve vessel registration removed						
2002	Fishery Dates:							
	March 16–May 4 March 16–December 31							
	September 1–December 31							
	Management Actions:							
	May 4 - Pot gear season closed when GHL was attained							
	September 1 - Allocation rollover; pot gear season reopened							
	October 31 - Gear limits and exclusive vessel registration	removed						

-continued-

Table 12.—Page 2 of 4.

	Det acce	L'a aces
2003	Pot gear	Jig gear
2003	Fishery Dates:	F.1 16 M 0
	February 16–March 2	February 16–May 9
	Management Actions:	
	March 2 - Pot gear season closed when GHL was attained	
2004	May 9 - Jig gear season closed when GHL was attained	
2004	Fishery Dates:	Eshmany 7 April 20
	February 7–February 22	February 7–April 20
	Management Actions:	
	February 22 - Pot gear season closed when GHL was attained	
2005	April 20 - Jig gear season closed when GHL was attained	
2005	Fishery Dates:	E-h
	February 2–February 13	February 2–April 21
	Management Actions:	
	February 13 - Pot gear season closed when GHL was attained	
2006	April 21 - Jig gear season closed when GHL was attained	
2006	Fishery Dates:	M 176 4 1 1
	March 7–March 29	March 7–September 1
	Management Actions:	
	March 29 - Pot gear season closed when GHL was attained	
2007	September 1 - Jig gear season closed for parallel B season	
2007	Fishery Dates:	Moush 6 Soutombon 1
	March 6–April 8	March 6–September 1
	Management Actions:  April 8 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2008	Fishery Dates:	
2008	February 27–March 26	February 27–September 1
	October 5–November 22	October 5–November 22
	Management Actions:	October 5-November 22
	March 26 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
		ad fallowing fadoral CCOA
	October 5 - Allocation rollover; pot and jig gear seasons reoper	led following federal CGOA
	B-season closure	
	November 22 - Pot and jig gear seasons closed when GHL was	attained
2009	Fishery Dates:	
	February 3–February 18	February 3–September 1
	16	October 3–December 31
	Management Actions:	
	February 18 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	2 1
	October 3 - Jig gear season reopened following federal CGOA	5-season closure

Table 12.—Page 3 of 4.

	Pot gear	Jig gear			
2010	Fishery Dates:				
	February 7–February 23	February 7–June 5			
	Management Actions:				
	February 23 - Pot gear season closed when GHL was attained				
	June 5 - Jig gear season closed when GHL was attained				
2011	Fishery Dates:				
	February 5–February 18	February 5–April 14			
	Management Actions:				
	February 18 - Pot gear season closed when GHL was attained				
	April 14 - Jig gear season closed when GHL was attained				
2012	Fishery Dates:				
	February 17–March 1	March 8–May 23			
		October 12–December 31			
	Management Actions:				
	March 1 - Pot gear season closed when GHL was attained				
	May 23 - Jig gear season closed when GHL was attained				
	October 12 - Allocation rollover; jig gear season reopened follo	owing federal CGOA B-season closure			
2013	Fishery Dates:				
	February 17–April 2	March 15-December 31			
	Management Actions:				
	April 2 - Pot gear season closed when GHL was attained				
	October 29 - Exclusive vessel registration for jig gear removed				
2014	Fishery Dates:				
	February 20–March 19	March 15-December 31			
	November 10–December 31				
	Management Actions:				
	March 19 - Pot gear season closed when GHL was attained				
	November 10 - Allocation rollover; pot gear season reopened f	ollowing federal CGOA B-season			
	closure; gear limits and exclusive vessel registr	ation removed			
2015	Fishery Dates:				
	February 23–March 24	March 4-December 31			
	Management Actions:				
	March 24 - Pot gear season closed when GHL was attained				
2016	Fishery Dates:				
	February 8–February 26	March 3–December 31			
	Management Actions:				
	February 26 - Pot gear season closed when GHL was attained				
2017	Fishery Dates:				
	March 2–September 1	March 15–December 31			
	Management Actions:				
	September 1 - Pot gear season closed to coordinate with parallel	el B-season opening			
	-continued-	0			

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	Pot gear	Jig gear					
2018	Fishery Dates:						
	February 21–March 23	January 1–December 31					
	Management Actions:						
	March 3 - Pot gear season closed for vessels greater than 58 ft in overall length when the harvest cap for vessels greater than 58 ft in overall length was attained						
	March 23 - Pot gear season closed when GHL was attained						
2019	Fishery Dates:						
	February 3–February 15	March 12–December 16					
	October 12–December 16						
	Management Actions:						
	February 11 - Pot gear season closed for vessels greater than 58 ft in overall length when the harvest cap for vessels greater than 58 ft in overall length was attained						
	February 15 - Pot gear season closed when GHL was attained						
	October 12 - Allocation rollover; pot gear season reopened						
	December 16 - Pot and jig gear seasons closed when GHL was attained						
2020	Fishery Dates:						
	February 24–March 11	January 1–December 31					
	November 23–December 31						
	Management Actions:						
	March 11 - Pot gear season closed when GHL was attained						
	October 1 - Exclusive vessel registration for jig gear removed						
	November 23 - Allocation rollover; pot gear season reopened						
	December 29 - Gear limits removed						
2021	Fishery Dates:						
	January 29–February 27	January 1–December 31					
	Management Actions:						
	February 18 - Pot gear season closed for vessels greater than 58 ft in overall length when the harvest						
	February 18 - Pot gear season closed for vessels greater than 58	cap for vessels greater than 58 ft in overall length was attained					
		Č					

Table 13.-Chignik Area state-waters Pacific cod guideline harvest level (GHL), effort, harvest in pounds, and value, by gear type, 1997–2021.

Year	Gear	GHL	Vessels	Landings	Harvest <sup>a</sup>	% of GHL harvested	Price per pound <sup>b</sup>	Exvessel value
1997	Jig	5,949,174°	4	14	35,002	19.1%	\$0.18	\$6,300
	Pot	3,949,174	10	60	1,098,970	19.170	\$0.18	\$197,815
1998	Jig	5,680,652°	11	59	167,283	98.7%	\$0.18	\$30,111
	Pot	3,080,032	32	236	5,440,796	98.770	\$0.17	\$924,935
1999	Jig	9 205 294c	11	56	218,408	79.20/	\$0.32	\$69,891
	Pot	8,205,384°	32	396	6,207,176	78.3%	\$0.29	\$1,800,081
2000	Jig	1,008,119	5	12	38,453	3.8%	\$0.31	\$11,920
	Pot	5,712,673	20	151	1,756,305	30.7%	\$0.30	\$526,892
2001	Jig	894,691	13	55	277,411	31.0%	\$0.27	\$74,901
	Pot	5,069,916	15	124	2,371,243	46.8%	\$0.26	\$616,523
2002	Jig	733,346	14	59	324,199	44.2%	\$0.20	\$64,840
	Pot	4,155,625	12	139	3,903,320	93.9%	\$0.20	\$780,664
2003	Jig	671,308	16	106	433,067	64.5%	\$0.28	\$121,259
	Pot	3,804,076	15	151	4,034,504	106.1%	\$0.26	\$1,048,971
2004	Jig	1,035,897	14	53	141,697	13.7%	\$0.24	\$34,007
	Pot	5,870,083	17	244	5,608,763	95.5%	\$0.23	\$1,290,016
2005	Jig	638,842	9	44	136,948	21.4%	\$0.24	\$32,868
	Pot	5,749,576	15	206	5,650,595	98.3%	\$0.25	\$1,412,649
2006	Jig	730,587	2	4	CF	CF	CF	CF
	Pot	6,575,284	12	202	3,439,521	52.3%	\$0.34	\$1,169,437
2007	Jig	730,587	0	0	0	0.0%	ND	ND
	Pot	6,575,284	16	241	5,700,861	86.7%	\$0.45	\$2,565,387
2008	Jig	731,127	2	3	CF	CF	CF	CF
	Pot	6,580,145	23	262	6,838,934	103.9%	\$0.56	\$3,829,803
2009	Jig	608,054	1	1	CF	CF	CF	CF
	Pot	5,472,488	11	122	5,679,676	103.8%	\$0.24	\$1,363,122
2010	Jig	946,042	2	24	CF	CF	CF	CF
	Pot	8,514,379	15	160	9,153,719	107.5%	\$0.24	\$2,196,893
2011	Jig	1,038,135	10	45	224,400	21.6%	\$0.32	\$71,808
	Pot	9,343,213	23	199	10,122,456	108.3%	\$0.32	\$3,239,186
2012	Jig	1,098,398	6	15	266,639	24.3%	\$0.30	\$79,992
	Pot	9,885,583	20	189	10,229,969	103.5%	\$0.35	\$3,580,489

Table 13.—Page 2 of 2.

						% of GHL	Price	Exvessel
Year	Gear	GHL	Vessels	Landings	Harvesta	harvested	per pound <sup>b</sup>	value
2013	Jig	950,788	0	0	0	0.0%	ND	ND
	Pot	8,557,088	19	191	8,712,190	101.8%	\$0.25	\$2,178,048
2014	Jig	1,024,322	2	3	CF	CF	CF	CF
	Pot	9,218,894	12	154	9,593,269	104.1%	\$0.28	\$2,686,115
2015	Jig	1,182,890	2	6	CF	CF	CF	CF
	Pot	10,646,013	17	207	10,248,382	96.3%	\$0.27	\$2,767,063
2016	Jig	951,251	0	0	0	0.0%	ND	ND
	Pot	8,561,255	10	192	8,482,544	99.1%	\$0.28	\$2,375,112
2017	Jig	852,243	1	2	CF	CF	CF	CF
	Pot	7,670,189	10	101	3,253,854	42.4%	\$0.32	\$1,041,233
2018	Jig	156,598	0	0	0	0.0%	ND	ND
	Pot	1,409,384	3	19	1,413,366	100.3%	\$0.46	\$650,148
2019	Jig	147,898	0	0	0	0.0%	ND	ND
	Pot	1,331,085	5	24	1,388,727	104.3%	\$0.52	\$722,138
2020	Jig	106,053	0	0	0	0.0%	ND	ND
	Pot	954,478	4	14	980,178	102.7%	\$0.39	\$382,269
2021	Jig	263,428	1	1	CF	CF	CF	CF
	Pot	2,370,849	4	29	2,344,095	98.9%	\$0.34	\$796,992

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. ND = No Data. CF = Confidential; data are confidential when fewer than 3 vessels participated.

<sup>&</sup>lt;sup>a</sup> Harvest may include landings made after allocation rollovers.

<sup>&</sup>lt;sup>b</sup> Price per pound calculated from whole fish pounds sold, excluding bait and meal.

<sup>&</sup>lt;sup>c</sup> Total GHL; no GHL allocation by gear type during 1997–1999 seasons.

Table 14.—Pacific cod effort and harvest in pounds by statistical area, from the Chignik Area state-waters season, 2021.

Statistical area	Vessels	Landingsa	Harvest <sup>b</sup>
585531	3	14	945,674
Other <sup>c</sup>	3	15	1,398,421
Total	4	29	2,344,095

Notes: Weights reported in whole fish pounds. Discards at sea excluded. Chignik Area state-waters statistical areas for groundfish can be found in Appendix B2.

- <sup>a</sup> Landings may involve multiple statistical areas.
- <sup>b</sup> Harvest is from pot gear only.
- <sup>c</sup> A total of 3 statistical areas combined due to confidentiality.

Table 15.—Chignik Area state-waters Pacific cod fishery dates and management actions, by gear type, 1997–2021.

	Pot gear	Jig gear						
1997	Fishery Dates:							
	April 15–June 15	April 15–June 15						
	August 1–December 31	August 1-December 31						
	Management Actions:							
	August 1 - Pot and jig gear seasons reopened to harvest rema	aining GHL						
	October 31 - Vessel size limit, gear limits, and exclusive ves	sel registration removed						
1998	Fishery Dates:							
	April 1–April 26	April 1–April 26						
		May 20-December 31						
	Management Actions:							
	April 26 - Pot and jig gear seasons closed when pot GHL wa	s attained						
	May 20 - Jig gear season reopened							
1999	Fishery Dates:							
	April 15–September 1	April 15–September 1						
	October 5–December 31	October 5–December 31						
	Management Actions:							
	September 1 - Pot and jig gear seasons closed for parallel B season							
	October 5 - Pot and jig gear seasons reopened following federal CGOA B-season closure							
	October 31 - Vessel size limit, gear limits and exclusive vess	sel registration removed						
2000	Fishery Dates:							
	April 15–December 31	April 15–December 31						
	Management Actions:							
	October 31 - Vessel size limit and gear limits removed							
2001	Fishery Dates:							
	March 11–December 31	March 11–December 31						
	Management Actions:							
	October 31 - Vessel size limit and gear limits removed							
2002	Fishery Dates:							
	March 1–December 31	March 1–December 31						
	Management Actions:							
	October 31 - Vessel size limit and gear limits removed							
2003	Fishery Dates:							
	March 1–April 11	March 1–June 4						
	Management Actions:							
	April 11 - Pot gear season closed when GHL was attained							
	June 4 - Jig gear season closed when GHL was attained							

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	Pot gear	Jig gear						
2004	Fishery Dates:							
	March 1–May 13	March 1–December 31						
	August 15-December 31							
	Management Actions:							
	May 13 - Pot gear season closed when GHL was attained							
	August 15 - Allocation rollover; pot gear season reopened							
	October 31 - Vessel size limit and gear limits removed							
2005	Fishery Dates:							
	March 1–May 10	March 1–December 31						
	August 15–December 31							
	Management Actions:							
	May 10 - Pot gear season closed when GHL was attained							
	August 15 - Allocation rollover; pot gear season reopened							
	October 31 - Vessel size limit and gear limits removed							
2006	Fishery Dates:							
	March 1-September 1 March 1-September 1							
	Management Actions:							
	August 15 - Allocation rollover							
	September 1 - Pot and jig gear seasons closed for parallel B s	eason						
2007	Fishery Dates:							
	March 1-September 1	March 1-September 1						
	Management Actions:							
	August 15 - Allocation rollover							
	September 1 - Pot and jig gear seasons closed for parallel B s	eason						
2008	Fishery Dates:							
	March 1–April 17	March 1-September 1						
	August 15–September 1	October 5-December 31						
	October 5–December 31							
	Management Actions:							
	April 17 - Pot gear season closed when GHL was attained							
	August 15 - Allocation rollover; pot gear season reopened							
	September 1 - Pot and jig gear seasons closed for parallel B s	eason						
	October 5 - Pot and jig gear seasons reopened following feder	ral CGOA B-season closure						
	November 4 - Vessel size limit and gear limits removed							

Table 15.—Page 3 of 5.

	Pot gear	Jig gear						
2009	Fishery Dates:							
	March 1-April 8	March 1-September 1						
	August 15–September 1	October 3–December 31						
	October 3–December 31							
	Management Actions:							
	April 8 - Pot gear season closed when GHL was attained	ed						
	August 15 - Allocation rollover; pot gear season reoper							
	September 1 - Pot and jig gear seasons closed for paral							
	October 3 - Pot and jig gear seasons reopened following	g federal CGOA B-season closure						
2010	Fishery Dates:							
	March 1–April 6	March 1–September 1						
	August 15–September 1	September 13–December 31						
	September 13–December 31							
	Management Actions:							
	April 6 - Pot gear season closed when GHL was attained							
	August 15 - Allocation rollover; pot gear season reopened							
	September 1 - Pot and jig gear seasons closed for parallel B season							
	September 13 - Pot and jig gear seasons reopened follo	owing federal CGOA B-season closure						
2011	Fishery Dates:							
	March 1-March 17	March 1–September 1						
	August 15–September 1	October 9–December 31						
	October 9–December 31							
	Management Actions:							
	March 17 - Pot gear season closed when GHL was attained							
	August 15 - Allocation rollover; pot gear season reopened							
	September 1 - Pot and jig gear seasons closed for parallel B season							
	October 9 - Pot and jig gear seasons reopened following	g federal CGOA B-season closure						
2012	Fishery Dates:							
	March 7–March 28	March 15–June 10						
	October 12–December 31	June 29–December 31						
	Management Actions:							
	March 28 - Pot gear season closed when GHL was attained							
	June 10 - Jig gear seasons closed for parallel B season							
	June 29 - Jig gear season reopened following federal CGOA jig B season-closure							
	October 12 - Allocation rollover; pot gear season reope B-season closure	ened following federal CGOA pot						
2013	Fishery Dates:							
	March 7-March 29	March 15-December 31						
	Management Actions:							
	March 29 - Pot gear season closed when GHL was atta	ined						

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	Pot gear	Jig gear
2014	Fishery Dates:	
	March 1–March 19	March 15-December 31
	August 15–October 7	
	Management Actions:	
	March 19 - Pot gear season closed when GHL was attained	
	August 15 - Allocation rollover; pot gear season reopened	
	October 7 - Pot gear seasons closed for parallel B season	
2015	Fishery Dates:	
	March 1–March 23	March 15–December 31
	August 15–December 31	
	Management Actions:	
	March 23 - Pot gear season closed when GHL was attained	
	August 15 - Allocation rollover; pot gear season reopened	
2016	Fishery Dates:	
	March 1–April 16	March 15–December 31
	August 15–December 31	
	Management Actions:	
	April 16 - Pot gear season closed when GHL was attained	
	August 15 - Allocation rollover; pot gear season reopened	
2017	Fishery Dates:	
	March 2–December 31	March 15–December 31
	Management Actions:	
	August 15 - Allocation rollover	
2018	Fishery Dates:	
	March 2–March 24	March 15–December 31
	August 15–December 31	
	Management Actions:	
	March 24 - Pot gear season closed when GHL was attained	
2010	August 15 - Allocation rollover; pot gear season reopened	
2019	Fishery Dates:	M 115 D 1 21
	March 1–March 13	March 15–December 31
	August 15–October 30	
	Management Actions:	
	March 13 - Pot gear season closed when GHL was attained August 15 - Allocation rollover; pot gear season reopened and	gear limits removed
2020		gear milits removed
ZUZU	Fishery Dates: March 1–March 13	March 15–December 31
	August 15–December 31	Match 13—December 31
	_	
	Management Actions:  March 13 Pot gear season closed when GHI was attained	
	March 13 - Pot gear season closed when GHL was attained August 15 - Allocation rollover; pot gear season reopened	
	August 13 - Amocation follover, pot gear season reopened	

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	Pot gear	Jig gear
2021	Fishery Dates:	
	March 1–April 9	March 15-December 31
	August 15–December 31	
	Management Actions:	
	April 9 - Pot gear season closed when GHL was attained	
	August 15 - Allocation rollover; pot gear season reopened and s	gear limits removed

*Notes*: GHL = Guideline Harvest Level. CGOA = Central Gulf of Alaska.

Table 16.—South Alaska Peninsula Area state-waters Pacific cod guideline harvest level (GHL), effort, harvest in pounds, and value, by gear type, 1997–2021.

Year	Gear	GHL	Vessels	Landings	Harvest <sup>a</sup>	% of GHL harvested	Price per pound <sup>b</sup>	Exvessel value
1997	Jig	0.404.7600	43	178	349,468	100.20/	\$0.17	\$59,410
	Pot	9,424,762°	51	469	9,097,805	100.2%	\$0.19	\$1,728,583
1009	Li.	1 252 205	20	126	428 220	32.4%	¢0.16	
1998	Jig Pot	1,352,205 7,662,497	29 49	126 309	438,320 8,192,803	32.4% 106.9%	\$0.16 \$0.17	\$70,131
	Pot	7,002,497	49	309	8,192,803	100.9%	\$0.17	\$1,392,777
1999	Jig	1,953,737	25	166	706,952	36.2%	\$0.29	\$205,016
	Pot	11,071,174	52	388	11,115,028	100.4%	\$0.26	\$2,889,907
2000	Jig	2,273,517	28	145	757,953	33.3%	\$0.28	\$212,227
	Pot	12,883,263	65	505	14,286,151	110.9%	\$0.30	\$4,285,845
2001	Jig	2,017,230	69	417	3,402,427	168.7%	\$0.24	\$816,582
2001	Pot	11,430,968	55	311	10,421,593	91.2%	\$0.25	\$2,605,398
2002	Jig	1,857,257	63	318	2,045,894	110.2%	\$0.24	\$491,015
	Pot	10,524,455	49	276	10,669,572	101.4%	\$0.21	\$2,240,610
2003	Jig	1,703,071	65	413	3,633,007	213.3%	\$0.27	\$980,912
	Pot	9,650,736	41	191	7,927,656	82.1%	\$0.27	\$2,140,467
2004	Jig	1,869,244	51	317	1,671,461	89.4%	\$0.23	\$384,436
	Pot	10,592,385	43	277	10,770,980	101.7%	\$0.23	\$2,477,325
2005								
2005	Jig Dot	1,729,196	40	262	1,230,517	71.2%	\$0.25 \$0.25	\$307,629
	Pot	9,798,776	39	267	10,206,340	104.2%	\$0.25	\$2,551,585
2006	Jig	2,220,193	12	36	99,552	4.5%	\$0.36	\$35,839
	Pot	12,581,092	43	350	11,640,183	92.5%	\$0.36	\$4,190,466
2007	Jig	2,220,193	14	59	254,178	11.4%	\$0.47	\$119,464
	Pot	12,581,092	46	406	12,423,973	98.8%	\$0.47	\$5,839,267
2008	Jig	2,143,885	52	310	1,401,011	65.3%	\$0.57	\$798,576
2000	Pot	12,148,683	48	390	11,901,039	98.0%	\$0.56	\$6,664,582
2009	Jig	1,783,016	26	185	1,093,382	61.3%	\$0.23	\$251,478
	Pot	10,103,758	47	329	10,500,742	103.9%	\$0.26	\$2,730,193
2010	Jig	2,288,812	34	294	2,315,081	101.1%	\$0.25	\$578,770
	Pot	12,969,933	38	240	12,973,186	100.0%	\$0.25	\$3,243,297
2011	Jig	2,511,616	42	271	2,443,043	97.3%	\$0.28	\$684,052
,	Pot	14,232,492	49	280	14,363,262	100.9%	\$0.29	\$4,165,346
2012								
2012	Jig Dot	2,317,499	48	345	1,989,884	85.9% 101.8%	\$0.34 \$0.34	\$676,561 \$4.544.741
	Pot	13,132,496	53	299	13,366,884	101.8%	\$0.34	\$4,544,741

Table 16.—Page 2 of 2.

Year	Gear	GHL	Vessels	Landings	Harvest <sup>a</sup>	% of GHL harvested	Price per pound <sup>b</sup>	Exvessel value
2013	Jig	2,338,002	38	281	2,198,511	94.0%	\$0.27	\$593,598
2013	Pot	13,248,680	37	248	13,384,834	101.0%	\$0.27	\$3,613,905
2014	Jig	3,248,563	39	295	3,143,144	96.8%	\$0.28	\$880,080
	Pot	18,408,522	38	321	18,805,994	102.2%	\$0.29	\$5,453,738
2015	Jig	3,839,549	35	323	2,215,841	57.7%	\$0.27	\$598,277
	Pot	21,757,443	42	436	21,651,744	99.5%	\$0.28	\$6,062,488
2016	Jig	4,018,222	17	121	430,479	10.7%	\$0.27	\$116,229
	Pot	22,769,927	38	498	22,390,711	98.3%	\$0.27	\$6,045,492
2017	Jig	3,600,321	7	24	54,935	1.5%	\$0.31	\$17,030
	Pot	20,401,820	42	546	20,141,256	98.7%	\$0.31	\$6,243,789
2018	Jig	801,791	17	84	390,736	48.7%	\$0.41	\$160,202
	Pot	4,543,482	25	99	4,958,500	109.1%	\$0.42	\$2,082,570
2019	Jig	757,247	21	82	358,447	47.3%	\$0.48	\$172,055
	Pot	4,291,067	24	93	4,716,527	109.9%	\$0.47	\$2,216,768
2020	Jig	318,686	15	94	375,110	117.7%	\$0.40	\$150,044
	Pot	1,805,887	19	54	1,676,128	92.8%	\$0.42	\$703,974
2021	Jig	792,267	18	124	637,494	80.5%	\$0.39	\$248,623
	Pot	4,489,514	28	89	4,053,162	90.3%	\$0.41	\$1,661,796

Notes: Weights reported in whole fish pounds. Discards at sea excluded.

<sup>&</sup>lt;sup>a</sup> Harvest may include landings made after allocation rollovers.

<sup>&</sup>lt;sup>b</sup> Price per pound calculated from whole fish pounds sold, excluding bait and meal.

<sup>&</sup>lt;sup>c</sup> Total GHL; no GHL allocation by gear type during 1997 season.

Table 17-Pacific cod effort and harvest in pounds by statistical area from the South Alaska Peninsula Area statewaters season, 2021.

Statistical area	Vessels	Landingsa	Harvest
605502	12	38	1,455,276
625401	5	16	856,819
595502	3	7	433,966
635434	3	7	379,267
635432	3	5	303,578
605504	14	67	295,145
605507	11	44	283,006
625501	3	8	244,634
615508	3	6	42,120
605501	3	5	16,742
Other <sup>b</sup>	10	29	380,103
Total	44	213	4,690,656

Notes: Weights reported in whole fish pounds. Discards at sea excluded. South Alaska Peninsula Area state-waters statistical areas for groundfish can be found in Appendix B3.

<sup>&</sup>lt;sup>a</sup> Some landings include multiple statistical areas.

<sup>&</sup>lt;sup>b</sup> Total of 12 statistical areas combined due to confidentiality.

Table 18.—South Alaska Peninsula Area state-waters Pacific cod fishery dates and management actions, by gear type, 1997–2021.

	Pot gear	Jig gear				
1997	Fishery Dates:					
	April 4–December 22	April 4–December 22				
	Management Actions:					
	October 31 - Vessel size limit, gear limits, and exclusive ve	ssel registration removed				
	December 22 - Pot and jig gear seasons closed when GHL v	vas attained				
1998	Fishery Dates:					
	March 10-April 16	March 10-December 31				
	Management Actions:					
	April 16 - Pot gear season closed when GHL was attained					
1999	Fishery Dates:					
	March 15-April 11	March 15–December 31				
	October 31–December 31					
	Management Actions:					
	April 11 - Pot gear season closed when GHL was attained					
	October 31 - Allocation rollover; reopened pot gear season					
	November 10 - Gear limits removed					
2000	Fishery Dates:					
	March 11-April 8	March 11-September 19				
	Management Actions:					
	April 8 - Pot gear season closed when GHL was attained					
	September 19 - Jig gear season closed when GHL was attain	ned				
2001	Fishery Dates:					
	March 6–April 13	March 6–June 12				
	Management Actions:					
	April 13 - Pot gear season closed when GHL was attained					
	June 12 - Jig gear season closed when GHL was attained					
2002	Fishery Dates:					
	March 5–March 24	March 5-April 26				
	Management Actions:					
	March 24 - Pot gear season closed when GHL was attained					
	April 26 - Jig gear season closed when GHL was attained					
2003	Fishery Dates:					
	February 24–March 11	February 24–April 22				
	Management Actions:					
	March 11 - Pot gear season closed when GHL was attained					
	April 22 - Jig gear season closed when GHL was attained					

Table 18.–Page 2 of 4.

	Pot gear	Jig gear
2004	Fishery Dates:	
	March 2–March 24	March 2–April 14
	Management Actions:	
	March 24 - Pot gear season closed when GHL was attained	
	April 14 - Jig gear season closed when GHL was attained	
2005	Fishery Dates:	
	March 3–March 24	March 3–September 1
	Management Actions:	
	March 24 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2006	Fishery Dates:	
	March 9–March 29	March 9-September 1
	April 4–April 7	
	Management Actions:	
	March 29 - Pot gear season closed when GHL was expected	to be attained
	April 4 - Pot gear season reopened	
	April 7 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2007	Fishery Dates:	
	March 15–April 17	March 15–September 1
	Management Actions:	
	April 17 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2008	Fishery Dates:	
	March 7–April 1	March 7–September 1
	Management Actions:	
	April 1 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2009	Fishery Dates:	
	March 4–April 4	March 4–September 1
	Management Actions:	
	April 4 - Pot gear season closed when GHL was attained	
	September 1 - Jig gear season closed for parallel B season	
2010	Fishery Dates:	
	March 5–March 23	March 5–May 27
	Management Actions:	-
	March 23 - Pot gear season closed when GHL was attained	
	May 27 - Jig gear season closed when GHL was attained	

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	Pot gear	Jig gear						
2011	Fishery Dates:							
	February 25–March 11	February 25–April 26						
	Management Actions:							
	March 11 - Pot gear season closed when GHL was attained							
	April 26 - Jig gear season closed when GHL was attained							
2012	Fishery Dates:							
	March 7–March 22	March 21–June 10						
	Management Actions:							
	March 21 - Jig gear season opened; weather delay March 19	9–20						
	March 22 - Pot gear season closed when GHL was attained							
	June 10 - Jig gear season closed for parallel B season							
2013	Fishery Dates:							
	March 9–March 22	March 15-July 16						
	Management Actions:							
	March 9 - Pot gear season opened; weather delay March 7 a	and 8						
	March 22 - Pot gear season closed when GHL was attained							
	July 16 - Jig gear season closed for parallel B season							
2014	Fishery Dates:							
	March 7–March 24	March 20-May 16						
	Management Actions:							
	March 20 - Jig gear season opened; weather delay March 1:	5–19						
	March 24 - Pot gear season closed when GHL was attained							
	May 16 - Jig gear season closed for parallel B season							
2015	Fishery Dates:							
	March 7–March 31	March 18-December 31						
	Management Actions:							
	March 18 - Jig gear season opened; weather delay March 15–18							
	March 31 - Pot gear season closed when GHL was attained							
2016	Fishery Dates:							
	March 7–September 1	March 15–December 31						
	Management Actions:							
	September 1 - Pot gear season closed to coordinate with pa	rallel B-season opening						
2017	Fishery Dates:							
	March 7–September 1	March 17-December 31						
	Management Actions:							
	September 1 - Pot gear season closed to coordinate with par	rallel B-season opening						

Table 18.–Page 4 of 4.

	Pot gear	Jig gear				
2018	Fishery Dates:					
	March 10–March 17	March 16–June 4				
	Management Actions:					
	March 10 - Pot gear season opened; weather delay March 7	_9				
	March 16 - Jig gear season opened; weather delay March 15					
	March 17 - Pot gear season closed when GHL was attained					
	June 4 - Jig gear season closed when GHL was attained					
2019	Fishery Dates:					
	March 7–March 13	March 13-April 22				
	Management Actions:					
	March 13 - Pot gear season closed when GHL was attained					
	April 22 - Jig gear season closed when GHL was attained					
2020	Fishery Dates:					
	March 7–March 27	January 1–December 31				
	Management Actions:					
	March 27 - Pot gear season closed when GHL was attained					
2021	Fishery Dates:					
	March 9–March 15	March 15-December 31				
	Management Actions:					
	March 9 - Pot gear season opened; weather delay March 7	and 8				
	March 15 - Pot gear season closed when GHL was attained					

*Note*: GHL = Guideline Harvest Level.

Table 19.-Kodiak, Chignik, and South Alaska Peninsula Areas black rockfish regulatory development and management actions, 1997–2021.

Year	Regulation
Pre-1997	<ul> <li>Black rockfish managed by NMFS</li> </ul>
1997	<ul> <li>NPFMC removed black rockfish from Pelagic Shelf Rockfish Group</li> </ul>
	- State-waters managed separately from federal waters: Kodiak Area GHL established at 170,000 pounds; Chignik Area and SAP Area Eastern
	District GHLs established at 100,000 pounds
1998	<ul> <li>State assumed management authority from NMFS for black rockfish in the Exclusive Economic Zone</li> </ul>
	<ul> <li>Kodiak and Chignik Areas and SAP Eastern District established as non-exclusive registration areas</li> </ul>
	<ul> <li>Kodiak Area divided into seven districts each with separate GHLs</li> </ul>
1999	<ul> <li>Kodiak Area Northeast District GHL reduced from 25,000 pounds to 20,000 pounds</li> </ul>
2003	- Kodiak Area: regulation stating that vessels may not be concurrently registered for black rockfish and Pacific cod established
	<ul> <li>Kodiak Area trip limit established at 5,000 pounds per five days</li> </ul>
	- Chignik Area designated superexclusive registration area
	- Chignik Area divided into 3 management districts
2004	<ul> <li>Kodiak Area Westside District GHL reduced from 30,000 pounds to 20,000 pounds</li> </ul>
2005	- SAP Area Eastern District divided into 3 management sections
	- Kodiak Area incidental trip limit of 2,500 pounds established for vessels fishing during other directed jig groundfish fisheries in Kodiak Area
	<ul> <li>Kodiak Area logbooks mandated</li> </ul>
2006	<ul> <li>SAP Area Eastern District GHL reduced from 100,000 pounds to 75,000 pounds</li> </ul>
2007	<ul> <li>Kodiak Area Northeast, Afognak, and Southeast Districts incidental trip limit reduced from 2,500 pounds to 1,000 pounds</li> </ul>
2011	- Kodiak Area Rockfish Management Plan revised: incidental trip limits repealed and replaced with bycatch percentages established by EO; trip
	limit increased from 5,000 to 7,000 pounds after August 14 by EO; reporting requirements and trip limits for catcher processors established
2012	<ul> <li>Kodiak Area Southwest and Mainland District GHLs eliminated; harvest as bycatch only</li> </ul>
2014	<ul> <li>Kodiak Area Westside District GHL reduced from 20,000 pounds to 10,000 pounds</li> </ul>
2015	<ul> <li>Kodiak Area Afognak District GHL reduced from 35,000 pounds to 30,000 pounds</li> </ul>
2020	<ul> <li>Kodiak Area gear limit increased from 5 to 6 mechanical jig machines</li> </ul>
2021	<ul> <li>Kodiak Area Northeast District GHL reduced from 20,000 pounds to 10,000 pounds</li> </ul>
	- Kodiak Area Southeast District GHL increased from 30,000 pounds to 40,000 pounds

Notes: NMFS = National Marine Fisheries Service. NPFMC = North Pacific Fishery Management Council. GHL = Guideline Harvest Level. SAP = South Alaska Peninsula. EO = Emergency Order.

Table 20.–Kodiak, Chignik, and South Alaska Peninsula Areas black rockfish guideline harvest level (GHL), harvest in pounds, and fishery closure date, by district, 2021.

			Harvest	-	Directed fishery		
Area/District	GHL	Directed	Bycatch	Totala	closure date		
Kodiak Area							
Afognak	30,000	26,774	378	27,152	December 31		
Northeast	10,000	CF	2,235	2,235	July 2		
Eastside	30,000	26,290	3,602	29,892	September 27		
Southeast	40,000	19,493	CF	19,493	December 31		
Southwest	Bycatch only	0	0	0	NA		
Westside	10,000	CF	CF	CF	December 31		
Mainland	Bycatch only	0	0	0	NA		
Total <sup>a</sup>	120,000	72,557	6,215	78,772			
Chignik Area							
Sutwik Island	$45,000^{\rm b}$	CF	0	CF	December 31		
Chignik Bay	$45,000^{\rm b}$	0	0	0	December 31		
Mitrofania	$45,000^{\rm b}$	0	0	0	December 31		
Total	100,000	CF	0	CF			
South Alaska Penin	South Alaska Peninsula Area						
Eastern	75,000	CF	CF	CF	December 31		

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels or processors participated. NA = Not Applicable.

<sup>&</sup>lt;sup>a</sup> Totals do not include confidential data.

<sup>&</sup>lt;sup>b</sup> District harvest cap.

Table 21.–Kodiak Area black rockfish jig effort, guideline harvest level (GHL), harvest in pounds, and value, 1990–2021.

					Price per	Exvessel
Yeara	Vessels	Landings	GHL	Harvest	pound <sup>b</sup>	value
1990	2	8	NA	CF	CF	NA
1991	55	317	NA	782,133	\$0.25	\$195,533
1992	34	167	NA	476,623	\$0.24	\$114,390
1993	14	58	NA	105,244	\$0.24	\$25,259
1994	23	126	NA	116,724	\$0.37	\$43,188
1995	33	183	NA	311,455	\$0.44	\$137,040
1996	43	167	NA	301,798	\$0.46	\$138,827
1997	50	297	NA	221,664	\$0.38	\$84,232
1998	64	348	190,000	196,548	\$0.33	\$64,861
1999	70	300	185,000	128,008	\$0.42	\$53,763
2000	72	260	185,000	245,891	\$0.44	\$108,192
2001	36	168	185,000	213,629	\$0.50	\$106,815
2002	25	123	185,000	196,166	\$0.43	\$84,351
2003	33	90	185,000	84,237	\$0.36	\$30,325
2004	37	124	185,000	122,180	\$0.39	\$47,650
2005	23	85	175,000	116,726	\$0.40	\$46,690
2006	25	97	175,000	123,443	\$0.42	\$51,846
2007	21	96	175,000	135,386	\$0.41	\$55,508
2008	17	91	175,000	132,325	\$0.53	\$70,132
2009	18	90	175,000	122,136	\$0.41	\$50,076
2010	12	74	175,000	103,630	\$0.39	\$40,416
2011	21	67	175,000	124,900	\$0.39	\$48,711
2012	19	53	135,000	80,940	\$0.42	\$33,995
2013	20	62	135,000	141,226	\$0.44	\$62,139
2014	17	74	125,000	109,053	\$0.46	\$50,164
2015	26	120	125,000	112,340	\$0.45	\$50,553
2016	45	192	120,000	132,181	\$0.50	\$66,091
2017	20	91	120,000	108,269	\$0.54	\$58,465
2018	8	65	120,000	107,725	\$0.44	\$47,399
2019	12	72	120,000	109,899	\$0.89	\$97,810
2020	12	67	120,000	117,306	\$0.79	\$92,672
2021	15	62	120,000	87,634	\$1.00	\$87,634

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated. NA = Not Applicable.

<sup>&</sup>lt;sup>a</sup> Prior to 1998, black rockfish were managed by the National Marine Fisheries Service (NMFS).

<sup>&</sup>lt;sup>b</sup> Price per pound based on whole fish pounds sold, excluding bait and meal.

Table 22.—Chignik Area black rockfish jig effort, guideline harvest level (GHL) harvest in pounds, and value, 1990–2021.

					Price per	Exvessel
Yeara	Vessels	Landings	GHL	Harvest	pound <sup>b</sup>	value
1990	0	0	NA	0	ND	ND
1991	0	0	NA	0	ND	ND
1992	0	0	NA	0	ND	ND
1993	0	0	NA	0	ND	ND
1994	0	0	NA	0	ND	ND
1995	5	6	NA	25,125	\$0.49	\$12,311
1996	11	25	NA	201,825	\$0.36	\$72,657
1997	9	39	NA	80,741	\$0.23	\$18,570
1998	10	30	100,000	87,712	\$0.28	\$24,559
1999	10	30	100,000	11,305	\$0.25	\$2,826
2000	7	14	100,000	95,572	\$0.43	\$41,096
2001	13	33	100,000	102,316	\$0.41	\$41,950
2002	7	15	100,000	81,015	\$0.41	\$33,216
2003	10	40	100,000	46,598	\$0.42	\$19,571
2004	6	26	100,000	99,122	\$0.27	\$26,763
2005	7	16	100,000	49,721	\$0.40	\$19,888
2006	2	4	100,000	CF	CF	CF
2007	2	7	100,000	CF	CF	CF
2008	1	4	100,000	CF	CF	CF
2009	2	2	100,000	CF	CF	CF
2010	1	5	100,000	CF	CF	CF
2011	1	1	100,000	CF	CF	CF
2012	1	1	100,000	CF	CF	CF
2013	0	0	100,000	0	ND	ND
2014	1	1	100,000	CF	CF	CF
2015	0	0	100,000	0	ND	ND
2016	1	1	100,000	CF	CF	CF
2017	1	5	100,000	CF	CF	CF
2018	0	0	100,000	0	ND	ND
2019	0	0	100,000	0	ND	ND
2020	1	4	100,000	CF	CF	CF
2021	1	2	100,000	CF	CF	CF

Notes: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated. NA = Not Applicable. ND = No Data.

<sup>&</sup>lt;sup>a</sup> Prior to 1998, black rockfish were managed by the National Marine Fisheries Service (NMFS).

<sup>&</sup>lt;sup>b</sup> Price per pound based on whole fish pounds sold, excluding bait and meal.

Table 23.—South Alaska Peninsula Area Eastern District black rockfish jig effort, guideline harvest level (GHL), harvest in pounds, and value, 1990–2021.

Vaara	Vagaala	Landinas	GHL	Homiost	Price per	Exvessel
Yeara	Vessels	Landings		Harvest	pound <sup>b</sup>	value
1990	0	0	NA	0	ND	ND
1991	1	1	NA	CF	CF	CF
1992	0	0	NA	0	ND	ND
1993	0	0	NA	0	ND	ND
1994	0	0	NA	0	ND	ND
1995	8	49	NA	120,745	\$0.33	\$39,846
1996	19	78	NA	150,188	\$0.25	\$37,547
1997	9	32	NA	109,076	\$0.34	\$37,086
1998	6	18	100,000	84,145	\$0.29	\$24,402
1999	9	38	100,000	55,308	\$0.41	\$22,676
2000	20	73	100,000	94,797	\$0.35	\$33,179
2001	30	82	100,000	101,605	\$0.36	\$36,578
2002	9	30	100,000	102,114	\$0.29	\$29,613
2003	4	6	100,000	5,267	\$0.21	\$1,106
2004	15	24	100,000	8,925	\$0.26	\$2,321
2005	11	26	100,000	57,732	\$0.35	\$20,206
2006	3	8	75,000	7,015	\$0.37	\$2,596
2007	2	9	75,000	CF	CF	CF
2008	0	0	75,000	0	ND	ND
2009	3	3	75,000	705	\$0.25	\$176
2010	1	1	75,000	CF	CF	CF
2011	1	2	75,000	CF	CF	CF
2012	0	0	75,000	0	ND	ND
2013	2	4	75,000	CF	CF	CF
2014	0	0	75,000	0	ND	ND
2015	1	1	75,000	CF	CF	CF
2016	5	13	75,000	77,321	\$0.40	\$30,928
2017	3	21	75,000	45,127	\$0.40	\$18,051
2018	5	14	75,000	24,449	\$0.40	\$9,780
2019	4	8	75,000	15,916	\$0.45	\$7,162
2020	2	4	75,000	CF	CF	CF
2021	0	0	75,000	0	ND	ND

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated. NA = Not Applicable. ND = No Data.

<sup>&</sup>lt;sup>a</sup> Prior to 1998, black rockfish were managed by the National Marine Fisheries Service (NMFS).

<sup>&</sup>lt;sup>b</sup> Price per pound based on whole fish pounds sold, excluding bait and meal.

Table 24.–Kodiak, Chignik, and South Alaska Peninsula Areas lingcod harvest in pounds, by gear type, 1988–2021.

Year	Jig	Longline	Pot	Trawl	Totala
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	28,058	32,024	45,420	105,538
2008	1,518	31,637	21,278	466,826	521,259
2009	373	28,112	3,614	65,182	97,281
2010	812	31,204	1,935	33,594	67,545
2011	123	25,045	14,962	82,323	122,454
2012	297	18,815	69,657	69,683	158,453
2013	0	14,341	19,222	29,166	62,729
2014	0	11,285	23,949	34,148	69,382
2015	0	5,098	12,822	44,669	62,589
2016	CF	5,200	6,838	36,532	48,570
2017	CF	4,837	3,376	16,715	24,928
2018	CF	8,571	662	37,222	46,455
2019	154	4,197	CF	34,843	39,194
2020	157	4,816	1,550	34,854	41,377
2021	1,064	6,635	437	32,639	40,775

*Notes*: Weights reported in whole fish pounds. Discards at sea excluded. CF = Confidential; data are confidential when fewer than 3 vessels participated.

<sup>&</sup>lt;sup>a</sup> Total does not include confidential data.

Table 25.—Central Gulf of Alaska (CGOA) and Western Gulf of Alaska (WGOA) walleye pollock fishery dates, 2016–2021.

2021	2020	2019	2018	2017	2016	NMFS area
Jan 20-Apr 14	Jan 20–Feb 23	Jan 20–Feb 10	Jan 21–Feb 14	Jan 20–Jan 29	Jan 20–Jan 27	CGOA
Sep 1-Nov 1	Mar 9–Mar 10	Mar 10-Mar 11	Mar 10-Mar 10	Mar 11–May 11	Jan 29-Mar 10	Area 630
	Mar 10-Mar 11	Aug 25-Sep 30	Aug 25-Sep 30	Sep 6-Sep 30	Mar 10-Mar 13	
	Aug 25-Sep 30	Oct 1-Nov 1	Oct 1-Oct 31	Oct 1-Oct 31	Aug 25-Sep 30	
	Oct 1-Oct 17				Oct 1–Nov 1	
Jan 20-May 31	Jan 20–Feb 19	Jan 20–Feb 8	Jan 20–Feb 23	Jan 20-Mar 10	Jan 20-Mar 10	CGOA
Sep 1-Nov 1	Mar 10-Mar 18	Mar 10-Mar 21	Mar 10-Mar 23	Mar 10-May 30	Mar 10-May 24	Area 620
	Aug 25-Sep 30	Aug 25-Sep 30	Aug 25-Sep 1	Sep 4–Sep 30	Aug 27-Sep 29	
	Oct 1-Oct 20	Oct 1-Nov 1	Oct 1–Oct 7	Oct 2-Oct 31	Oct 2-Oct 31	
	Oct 27-Oct 29					
Sep 1-Oct 15	Mar 9–Mar 10	Jan 20-Mar 6	Jan 20–Feb 25	Jan 20–Feb 11	Jan 20–Jan 28	WGOA
	Mar 10-Mar 14	Mar 10-Mar 29	Mar 10-Mar 12	Mar 23-Apr 13	Mar 12-Mar 28	Area 610
	Aug 25-Sep 3	Aug 25-Sep 8	Aug 25-Sep 3	Aug 25–Sep 27	Aug 25-Sep 29	
	Oct 1–Oct 6	Oct 1-Oct 8	Oct 1-Oct 13	Oct 1-Oct 31	Oct 1-Nov 1	
	Oct 27-Oct 29					

*Notes*: NMFS = National Marine Fisheries Service.

Table 26.—Central Gulf of Alaska (CGOA) walleye pollock effort and harvest, in millions of pounds, 1995–2021.

_			Federa	al waters	State	waters	Total	Discards
Year	Vessels	Landings	Harvest	% of Total	Harvest	% of Total	harvest	at sea
1995	108	810	65.04	87.9	8.98	12.1	74.02	1.25
1996	84	904	36.07	71.6	14.28	28.4	50.35	1.57
1997	107	1,528	83.37	68.7	37.91	31.3	121.28	1.91
1998	119	1,702	136.18	65.9	70.46	34.1	206.64	0.40
1999	101	1,293	107.75	72.7	40.36	27.3	148.12	0.52
2000	60	1,108	101.63	95.8	4.45	4.2	106.09	0.53
2001	74	1,160	69.00	79.4	17.88	20.6	86.88	0.29
2002	72	838	40.17	56.7	30.73	43.3	70.90	0.15
2003	61	730	55.30	77.0	16.56	23.0	71.86	0.17
2004	57	772	54.99	63.5	31.64	36.5	86.64	0.36
2005	53	820	79.13	76.9	23.77	23.1	102.90	0.29
2006	48	988	68.61	71.0	28.07	29.0	96.69	0.16
2007	42	894	53.87	74.2	18.77	25.8	72.65	0.28
2008	47	990	48.89	68.4	22.59	31.6	71.48	1.02
2009	43	821	35.05	65.3	18.66	34.7	53.71	0.62
2010	50	1,028	77.71	76.7	23.60	23.3	101.31	0.98
2011	56	1,061	110.15	90.5	11.59	9.5	121.74	1.67
2012	70	1,262	126.37	82.0	27.66	18.0	154.03	1.62
2013	66	1,385	157.05	85.9	25.73	14.1	182.78	3.00
2014	63	1,768	256.13	92.0	22.23	8.0	278.37	1.05
2015	60	1,746	243.92	83.4	48.46	16.6	292.38	0.96
2016	62	1,415	210.70	86.2	33.85	13.8	244.55	0.54
2017	54	1,503	283.95	96.8	9.30	3.2	293.25	1.37
2018	60	1,435	246.28	94.5	14.34	5.5	260.63	2.28
2019	59	1,279	180.05	92.9	13.83	7.1	193.88	2.25
2020	62	1,171	163.46	92.3	13.67	7.7	177.12	1.51
2021	52	926	156.25	94.9	8.45	5.1	164.70	1.71

Notes: Harvest reported in whole fish pounds. Discards at sea excluded from all columns except the Discards at sea column.

Table 27.—Western Gulf of Alaska (WGOA) walleye pollock effort and harvest, in millions of pounds, 1995–2021.

			Federal waters			State waters		Discards
Year	Vessels	Landings	Harvest	% of Total	Harvest	% of Total	harvest	at sea
1995	92	351	43.36	66.0	22.32	34.0	65.69	0.84
1996	56	319	20.83	40.0	31.23	60.0	52.06	0.77
1997	84	333	42.56	68.1	19.90	31.9	62.47	0.71
1998	84	362	27.31	41.6	38.40	58.4	65.70	0.12
1999	80	432	24.86	47.1	27.96	52.9	52.82	0.25
2000	49	419	9.99	21.1	37.34	78.9	47.33	0.11
2001	51	548	17.53	26.0	50.00	74.0	67.53	0.07
2002	45	316	19.46	51.0	18.69	49.0	38.14	0.21
2003	41	262	16.86	45.5	20.18	54.5	37.04	0.12
2004	32	350	19.89	39.1	30.97	60.9	50.86	0.08
2005	36	502	34.36	50.6	33.50	49.4	67.85	0.12
2006	38	499	20.54	38.2	33.25	61.8	53.80	0.18
2007	38	413	18.03	47.3	20.12	52.7	38.15	0.05
2008	29	340	21.55	65.8	11.20	34.2	32.75	0.00
2009	35	309	9.74	31.8	20.93	68.2	30.68	0.11
2010	38	561	23.83	41.8	33.22	58.2	57.05	0.06
2011	35	502	21.34	47.4	23.64	52.6	44.98	0.15
2012	45	696	16.47	27.4	43.68	72.6	60.15	0.31
2013	40	402	7.23	43.0	9.58	57.0	16.81	0.17
2014	34	586	16.76	58.3	12.00	41.7	28.75	0.36
2015	33	790	45.34	72.0	17.67	28.0	63.01	0.04
2016	39	1155	98.42	73.2	35.97	26.8	134.39	0.14
2017	42	785	99.24	91.6	9.10	8.4	108.34	0.52
2018	36	554	57.03	84.9	10.14	15.1	67.17	0.72
2019	36	382	43.33	90.2	4.68	9.8	48.01	0.27
2020	33	319	33.58	80.5	8.12	19.5	41.70	0.16
2021	34	325	32.13	82.5	6.81	17.5	38.94	0.23

Notes: Harvest reported in whole fish pounds. Discards at sea excluded from all columns except the Discards at sea column.

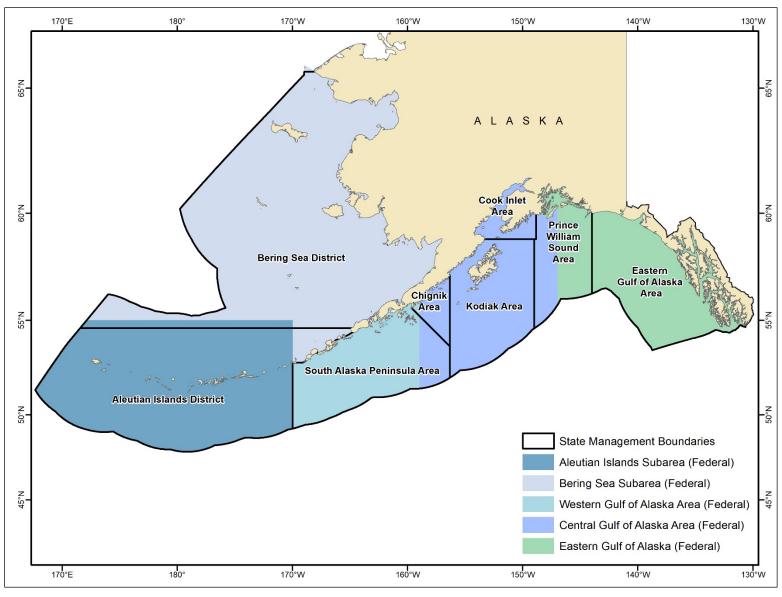


Figure 1.—Alaska Department of Fish and Game and National Marine Fisheries Service groundfish management areas.

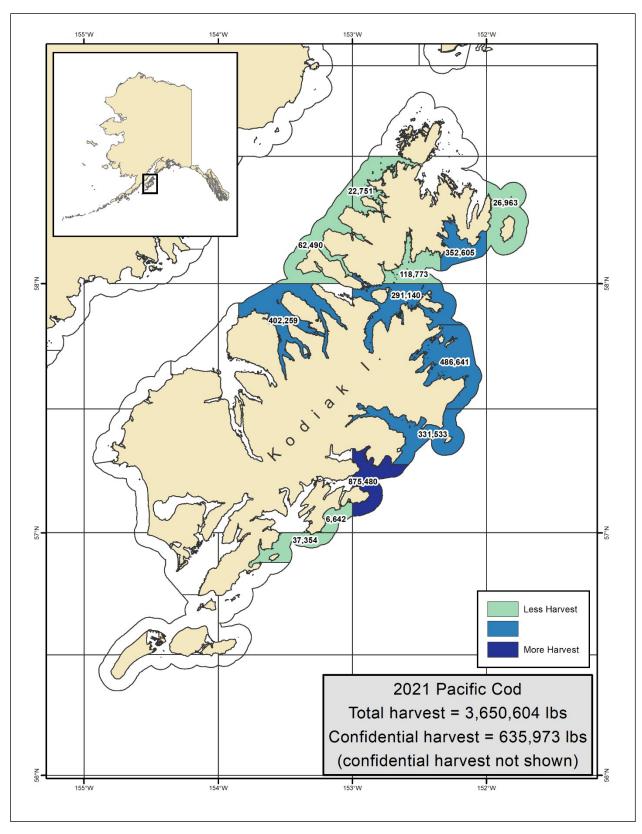


Figure 2.-Kodiak Area state-waters Pacific cod harvest, in pounds, by statistical area, 2021.

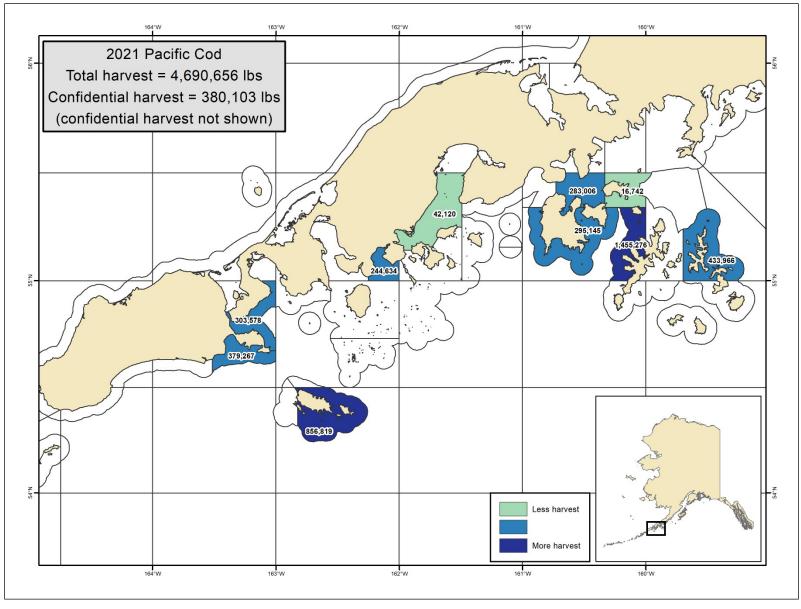


Figure 3.-South Alaska Peninsula Area state-waters Pacific cod harvest, in pounds, by statistical area, 2021.

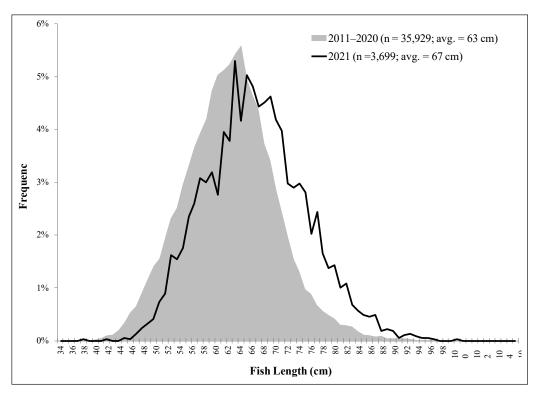


Figure 4.-Kodiak Area Pacific cod length frequency from state-waters fisheries,2011–2021.

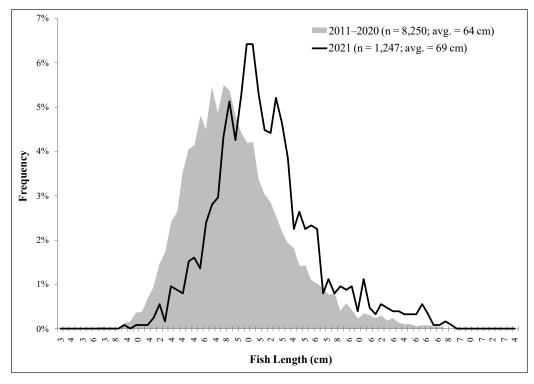


Figure 5.-Chignik Area Pacific cod length frequency from state-waters fisheries, 2011-2021.

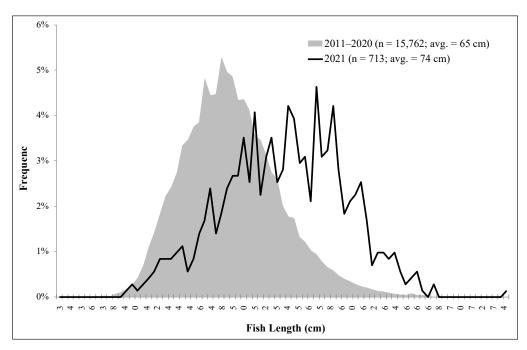


Figure 6.—South Alaska Peninsula Area Pacific cod length frequency from state-waters fisheries, 2011–2021.

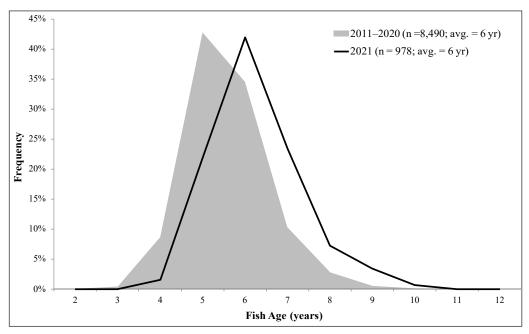


Figure 7.–Kodiak Area Pacific cod age composition from the state-waters fisheries, 2011–2021.

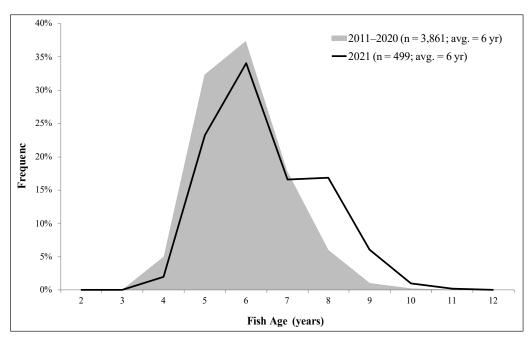


Figure 8.—Chignik Area Pacific cod age composition from the state-waters fisheries,2011—2021.

Note: No age data for 2014.

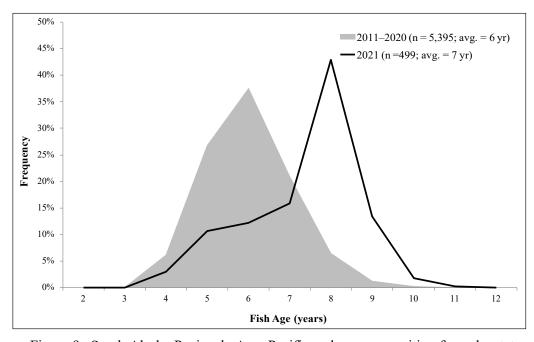


Figure 9.—South Alaska Peninsula Area Pacific cod age composition from the statewaters fisheries, 2011–2021.

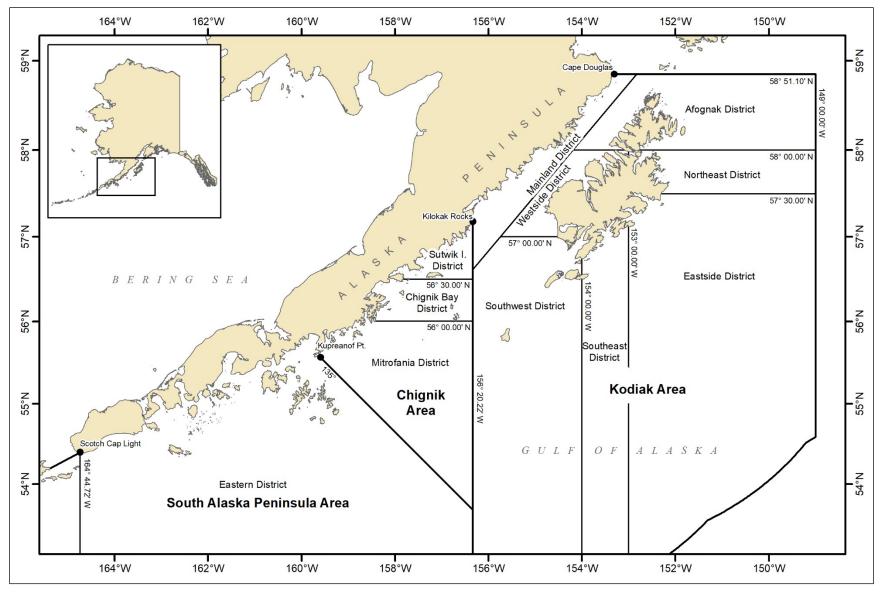


Figure 10.-Kodiak, Chignik, and South Alaska Peninsula black rockfish management areas and districts.

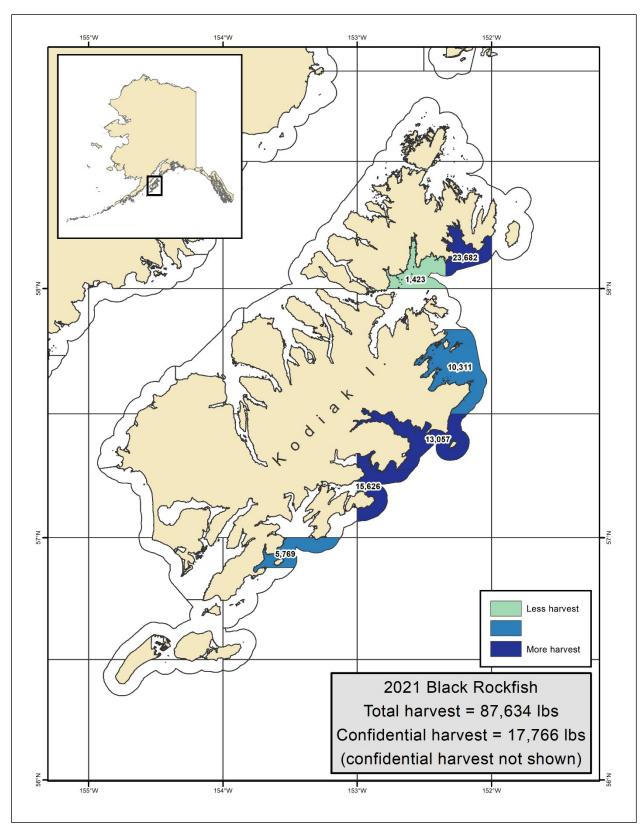


Figure 11.-Kodiak Area black rockfish harvest, in pounds, by statistical area, 2021.

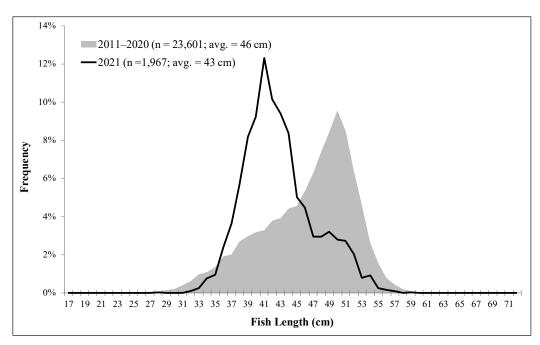


Figure 12.-Kodiak Area black rockfish length frequency from directed fisheries, 2011-2021.

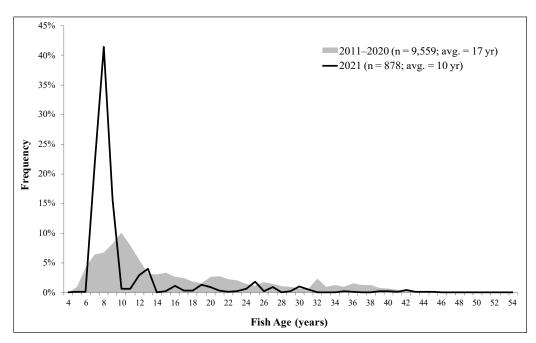


Figure 13.-Kodiak Area black rockfish age composition from directed fisheries, 2011-2021.

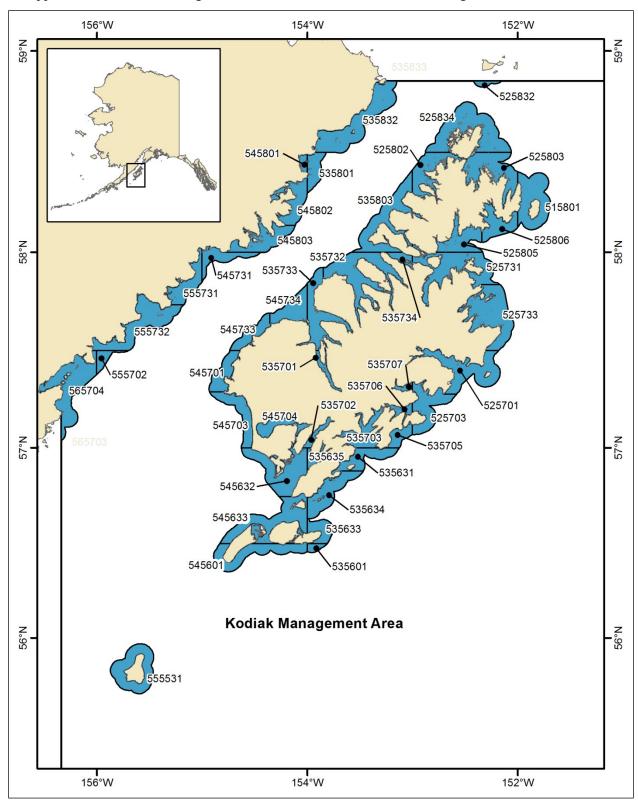
## APPENDIX A. FREQUENTLY USED ACRONYMS AND KEYWORDS

Appendix A1.-Frequently used acronyms and keywords.

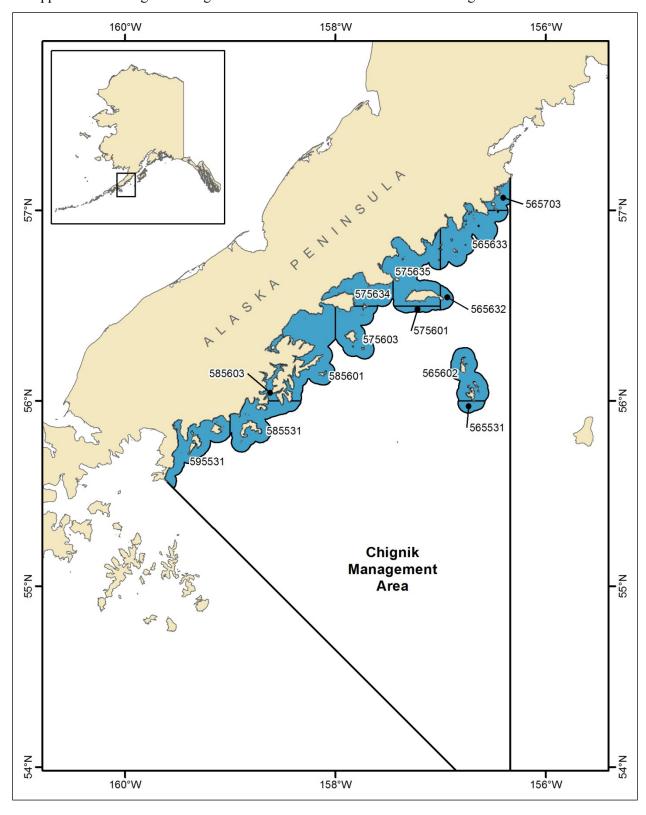
Acronym	Definition
ABC	Acceptable Biological Catch, stock specification as set by NPFMC on an annual basis
ADF&G	Alaska Department of Fish and Game
BOF	Alaska Board of Fisheries
BSAI	Bering Sea-Aleutian Islands Area, state management area or federal management area
CGOA	Central Gulf of Alaska, federal management areas 620 and 630
EEZ	Exclusive Economic Zone, federal waters 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 affect regulatory change
FFP	Federal Fisheries Permit
GHL	Guideline Harvest Level
GOA	Gulf of Alaska
LLP	Federal License Limitation Program
mt	Metric ton $(1 \text{ mt} = 2,204.6 \text{ lb})$
NMFS	National Marine Fisheries Service
NPFMC	North Pacific Fishery Management Council
OAL	Overall length
Parallel fishery	Fishery occurring 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
SAP	South Alaska Peninsula
SSL	Steller sea lion
State waters	Territorial sea from 0 to 3 nautical miles offshore
State-waters fishery	Fishery occurring from 0 to 3 nautical miles open under Alaska Board of Fisheries regulations 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

## APPENDIX B. KODIAK, CHIGNIK, AND SOUTH ALASKA PENINSULA MANAGEMENT AREAS STATE-WATERS STATISTICAL AREAS FOR GROUNDFISH

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



Appendix B2.-Chignik Management Area state-waters statistical areas for groundfish.



Appendix B3.—South Alaska Peninsula Management Area state-waters statistical areas for groundfish.

