

Fishery Management Report No. 18-06

**Annual Management Report for Groundfish Fisheries
in the Bering Sea–Aleutian Islands Management Area,
2016**

by

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and

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February 2018

Alaska Department of Fish and Game

Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H_A
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, χ^2 , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient	
milliliter	mL	west	W	(multiple)	R
millimeter	mm	copyright	©	correlation coefficient (simple)	r
		corporate suffixes:		covariance	cov
Weights and measures (English)		Company	Co.	degree (angular)	$^\circ$
cubic feet per second	ft ³ /s	Corporation	Corp.	degrees of freedom	df
foot	ft	Incorporated	Inc.	expected value	E
gallon	gal	Limited	Ltd.	greater than	>
inch	in	District of Columbia	D.C.	greater than or equal to	≥
mile	mi	et alii (and others)	et al.	harvest per unit effort	HPUE
nautical mile	nmi	et cetera (and so forth)	etc.	less than	<
ounce	oz	exempli gratia	e.g.	less than or equal to	≤
pound	lb	(for example)		logarithm (natural)	ln
quart	qt	Federal Information Code	FIC	logarithm (base 10)	log
yard	yd	id est (that is)	i.e.	logarithm (specify base)	log ₂ , etc.
		latitude or longitude	lat or long	minute (angular)	'
Time and temperature		monetary symbols (U.S.)	\$, ¢	not significant	NS
day	d	months (tables and figures): first three letters	Jan, ..., Dec	null hypothesis	H_0
degrees Celsius	°C	registered trademark	®	percent	%
degrees Fahrenheit	°F	trademark	™	probability	P
degrees kelvin	K	United States (adjective)	U.S.	probability of a type I error (rejection of the null hypothesis when true)	α
hour	h	United States of America (noun)	USA	probability of a type II error (acceptance of the null hypothesis when false)	β
minute	min	U.S.C.	United States Code	second (angular)	"
second	s	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard deviation	SD
				standard error	SE
Physics and chemistry				variance	
all atomic symbols				population sample	Var var
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 18-06

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THE BERING SEA–ALEUTIAN ISLANDS MANAGEMENT AREA, 2016**

by

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ABSTRACT

This report summarizes 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 Bering Sea–Aleutian Islands Area (BSAI). State-waters groundfish fisheries included in this report are sablefish *Anoplopoma fimbria*, black rockfish *Sebastes melanops*, Pacific cod *Gadus macrocephalus*, and dark rockfish *Sebastes ciliatus*. For parallel fisheries in the BSAI, ADF&G adopts most seasons, bycatch limits, and allowable gear types in the adjacent exclusive economic zone (EEZ) established by the National Marine Fisheries Service.

Key words: Bering Sea-Aleutian Islands Area, Bering Sea District, Aleutian Islands District, Dutch Harbor Subdistrict, BSAI, sablefish, *Anoplopoma fimbria*, black rockfish, *Sebastes melanops*, parallel season, Exclusive Economic Zone, EEZ, National Marine Fisheries Service, NMFS, Pacific cod, *Gadus macrocephalus*, dark rockfish, *Sebastes ciliatus*

INTRODUCTION

Commercial groundfish fisheries within state waters (0–3 nmi) are managed by the Alaska Department of Fish and Game (ADF&G) under regulations developed by the Alaska Board of Fisheries (BOF). Commercial groundfish fisheries in the exclusive economic zone (EEZ; 3–200 nmi) off Alaska are managed by National Marine Fisheries Service (NMFS) under guidelines developed by the North Pacific Fishery Management Council (NPFMC) authorized by the Magnuson–Stevens Fishery Conservation and Management Act (MSA; DOC 2007).

Many commercially important groundfish species occur in both state waters and the EEZ. Each year, ADF&G issues an emergency order that establishes parallel groundfish seasons, adopting federal regulations except when superseded by state regulations, including season dates, gear types, bycatch limits, and inseason management actions in adjacent EEZ fisheries managed by NMFS. State of Alaska and NMFS additionally coordinate state and federal closed waters for Steller sea lion and coral garden protection areas.

The Bering Sea–Aleutian Islands Area (BSAI) includes all territorial waters of the Bering Sea and waters of the North Pacific Ocean adjacent to the Aleutian Islands west of 170° W long. The BSAI is further divided into districts; the Bering Sea District includes all BSAI waters north of the latitude of Cape Sarichef and the Aleutian Islands District includes all waters of the BSAI south of the latitude of Cape Sarichef (Figure 1). Each state-waters groundfish fishery has unique fishery management boundaries described in this report. ADF&G actively manages five state-waters groundfish fisheries in the Bering Sea-Aleutian Islands Area. State-waters directed fisheries include Aleutian Islands sablefish *Anoplopoma fimbria*, Aleutian Islands black rockfish *Sebastes melanops*, Aleutian Islands Subdistrict Pacific cod *Gadus macrocephalus*, and Dutch Harbor Subdistrict Pacific cod *G. macrocephalus*.

Groundfish harvests in this report are based on the ADF&G fish ticket database as of May 2017 and reflect the most recent additions and corrections to that database.

ALEUTIAN ISLANDS SABLEFISH FISHERY

The Aleutian Islands state-waters sablefish fishery includes all state waters of the Aleutian Islands District of the BSAI and the Western District of the South Alaska Peninsula Area, encompassing all state waters south of the latitude of Cape Sarichef (54°36' N lat) and west of the longitude of Scotch Cap Light (164°44' W long; Figure 2).

BACKGROUND

The federal individual fishing quota (IFQ) program for sablefish was established in 1995. The Alaska Department of Law determined harvest of sablefish in state waters could not be limited to IFQ holders, therefore, state-waters sablefish fisheries were established in areas where historical harvest of sablefish was sufficient to allow for a manageable fishery. All vessels harvesting sablefish in state waters must be registered with ADF&G, including those vessels harvesting IFQ or Community Development Quota (CDQ) sablefish. All harvest taken from state waters accrues to the guideline harvest level (GHL), regardless of whether or not harvest is accounted for in a federal fishery.

A GHL of 400,000 pounds was established for the 1995 Aleutian Islands state-waters sablefish fishery based on average sablefish harvest in state waters for the previous four years, or approximately 5% of the combined federal BSAI sablefish total allowable catches (TAC) from 1991 to 1994 (Jackson et al. 1996). ADF&G annually reviews the NMFS sablefish stock assessment and sets the Aleutian Islands state-waters sablefish GHL at approximately 5% of the combined federal BSAI TAC. From 1995 to 2016, GHLs ranged from 250,000 pounds to 660,000 pounds, with highest GHLs between 2003 and 2008 (Table 1). The GHL was achieved each season from 1996 through 2002 and has not been fully harvested since. Harvest ranged from a low of 78,688 pounds in 2016 to a high of 477,970 pounds in 2002. Aleutian Islands state-waters sablefish average price per pound was lowest in 1998 at \$2.18 per pound and highest in 2011 at \$7.65 per pound. Total fishery value peaked in 2011 at \$1.0 million (Table 1).

Season dates for the state-waters fishery were initially set concurrent with the federal IFQ season, from March 15 to November 15. In 2001, the BOF modified the state-waters season opening date to May 15 to provide opportunity for small vessels to take advantage of potentially better weather conditions. Season dates were again modified by the BOF in 2013 to coincide with the federal IFQ season to allow for sablefish harvest inside state waters during the entire IFQ season (Table 1).

From 1995 to 2000, all groundfish gear types were allowed during the state-waters fishery. In 2001, longline, pot, jig, and hand troll became the only legal gear types. Since 1995, vessels using longline gear account for the majority of the harvest (Table 2). Use of pot gear increased through the early 2000s, but has declined since 2009 and now accounts for a small amount of the harvest. Although trawl is not a legal gear type, bycatch in trawl fisheries has accounted for a portion of the fishery harvest since 1995.

2016 FISHERY

The 2016 Aleutian Islands state-waters sablefish GHL was 298,503 pounds, a decrease of 14% from the 2015 GHL (Table 1). Season dates were concurrent with the IFQ season; March 14 through November 7. Fishery harvest was 78,699 pounds taken by 13 vessels (Table 1). Vessels using longline gear accounted for 68% of the harvest; pot and trawl harvest is confidential (Table 2). Participants in federal fisheries accounted for 92% of the harvest. Average exvessel value was \$4.77 per pound for a total fishery exvessel value of \$251,832 (Table 1).

STATUS OF STOCK

From 1978 to 1994, longline surveys were conducted cooperatively between the United States and Japan. The survey initially covered only the Gulf of Alaska but was expanded in 1980 to

portions of the Aleutian Islands. In 1987, NMFS began an independent annual survey of the upper continental slope, using the same survey design as the Japanese–U.S. cooperative survey. In 1996 and 1997, the survey was expanded to include biennial sampling of the Aleutian Islands and eastern Bering Sea. In addition to data from longline surveys, information from NMFS Gulf of Alaska trawl surveys as well as fishery harvest information is evaluated in the stock assessment. Harvest from the Aleutian Islands state-waters sablefish fishery is included in the stock assessment and causes an overestimate of biomass by about 1%; however, the stock assessment authors consider this a negligible amount compared to high statistical variation in other data used in the stock assessment. Sablefish spawning biomass is projected to decline through 2019 and then increase assuming average recruitment is achieved in the future (Hanselman et al. 2016). Recruitment was previously considered above average for the 2008 year class; however, the 2008 year class currently appears to be approximately 30% above average, potentially affecting current recruitment. From 2015 to 2016, age 4+ biomass estimates by area indicated a decrease in the Bering Sea of 26% and a 4% decrease in the Aleutian Islands (Hanselman et al. 2016).

ALEUTIAN ISLANDS BLACK ROCKFISH FISHERY

The Aleutian Islands black rockfish fishery includes all state waters of the Aleutian Islands District of the BSAI and the Western District of the South Alaska Peninsula Area, encompassing all state waters south of the latitude of Cape Sarichef (54°36' N lat) and west of the longitude of Scotch Cap Light (164°44' W long; Figure 3). The fishery is further divided into the Akutan, Unalaska, and Western sections with the Akutan and Unalaska sections further divided into subsections (Figure 4).

BACKGROUND

A state-waters directed fishery for nearshore pelagic shelf rockfish in the eastern Aleutian Islands was established in December 1994. The State of Alaska's pelagic shelf rockfish definition includes black *Sebastes melanops*, blue *S. mystinus*, widow *S. entomelas*, yellowtail *S. flavidus*, dusky *S. variabilis*, and dark *S. ciliatus*¹ rockfish. In the eastern Aleutian Islands, black, dusky, and dark rockfish are the only pelagic shelf rockfish species known to be present in state waters.

The Aleutian Islands pelagic shelf rockfish fishery was established in response to local public inquiry requesting a state-managed rockfish fishery. Black rockfish were formerly included in the federal "other rockfish" assemblage, which was a bycatch-only fishery. State management of pelagic shelf rockfish was established in the eastern Aleutian Islands in two sections; a section in state waters around Unalaska, Sedanka, and Unalga islands and the other in state waters around Akutan and Akun islands. A GHL of 100,000 pounds was established from 1994 - 1998 with 50,000 pounds for each area (Table 3). Handlines and mechanical jigging machines were established as the only legal gear types.

In 1998, the NPFMC passed Amendment 46 to the GOA groundfish Fishery Management Plan (FMP), removing black rockfish from the GOA FMP, and thereby delegating management in the GOA EEZ to the State of Alaska. Black rockfish in the BSAI EEZ remain under federal

¹ In March of 2008, the BOF modified the definition of pelagic shelf rockfish by splitting out the species commonly known as dusky *S. ciliatus* into 2 groups: dusky *S. variabilis* and dark *S. ciliatus*.

management. The Aleutian Islands pelagic rockfish fishery was modified to a black rockfish fishery, and the area was expanded to include all state waters south of Cape Sarichef and west of Scotch Cap Light. Federal waters of the Pacific Ocean between Scotch Cap Light and 170° W long are managed by ADF&G; however, there is no GHL for federal waters. The Akutan and Unalaska sections GHLS were set at 40,000 pounds each and 20,000 pounds for the newly created Western Section (all state waters of the Pacific Ocean and Bering Sea west of 168° W long).

In 1999, ADF&G reduced the Akutan and Unalaska section GHLS from 40,000 pounds to 35,000 pounds due to concern of localized depletion of the black rockfish stock around Akutan Island and the eastern part of Unalaska Island (Table 3). The GHL for the Western Section remained at 20,000 pounds. In 2000, the Akutan and Unalaska sections were divided into subsections, each with a separate GHL to distribute fishing effort (Figure 4, Table 4). Subsection GHLS were based on potential black rockfish habitat as determined by the amount of coastline.

Very little directed effort for black rockfish occurred in recent years, with one or fewer vessels targeting black rockfish each year (Table 3). Most black rockfish harvest has come from the Akutan Section since the inception of the fishery. The Western Section accounts for less than 1% of overall black rockfish harvest since the section was opened, all of which was harvested incidentally by trawl and longline gear.

2016 FISHERY

The GHL in 2016 was 90,000 pounds; 35,000 pounds were available in both the Akutan and Unalaska sections and 20,000 pounds were available in the Western Section (Table 4). The waters from the south end of Green Bight to Talus Point have been closed since 2000 due to concerns of localized depletion and remained closed for the 2016 fishery.

Fishermen may retain up to 5% black rockfish as bycatch from other directed state-waters and federal groundfish fisheries. Five vessels harvested black rockfish in 2016 for a total of 377 lbs (Table 3).

STATUS OF STOCK

Black rockfish in the Aleutian Islands are managed conservatively because ADF&G does not conduct surveys and because the species is long-lived and slow-growing. ADF&G established a dockside sampling program for black rockfish in 1999. Information obtained through this program provides ADF&G with basic biological data that may assist in future management decisions and stock status determinations.

Dockside samplers have obtained black rockfish lengths and otoliths from commercial fisheries, sport fishermen, independent sampling in Unalaska Bay, and from chartered survey vessels in the Aleutian Islands. Samples were obtained in 1997, 1999, 2000, 2002, 2004 through 2006, and 2011. No black rockfish sampling has occurred since 2011 (Table 5).

Aleutian Islands black rockfish age and length data indicate a wide range of cohorts were present in the sampled population suggesting population levels are stable. Sample sizes ranged between 9 and 531, with the majority of samples coming from Akutan Island. Based on available data, the average age of black rockfish sampled in the Aleutian Islands ranged between 9 and 18 years and the average length of black rockfish sampled in the Aleutian Islands ranged between 41 and 47 cm (Table 5).

ALEUTIAN ISLANDS DARK ROCKFISH FISHERY

STATUS OF STOCK

In 2009, Amendment 73 was added to the BSAI groundfish FMP, and Amendment 77 was added to the GOA groundfish FMP (NOAA 2008). These amendments removed dark rockfish from the federal FMPs, thereby extending the State of Alaska's authority for dark rockfish in the EEZ of both the BSAI and GOA. In the BSAI, there is no directed dark rockfish fishery. Bycatch of dark rockfish is limited to 20% of the directed target species onboard a vessel. Dark rockfish harvest in 2016 totaled 7,511 pounds.

ALEUTIAN ISLANDS SUBDISTRICT STATE-WATERS PACIFIC COD FISHERY

HISTORICAL BACKGROUND

In February 2006, the BOF approved regulations for a state-waters Pacific cod fishery in the Aleutian Islands Subdistrict (AIS) west of 170° W long (Figure 5). The *Aleutian Islands Subdistrict Pacific Cod Management Plan* (5 AAC 28.647) was adopted by emergency regulation to provide the community of Adak with economic opportunities. Prior to 2006, Pacific cod harvest in the Aleutian Islands District was exclusively managed under parallel rules.

The AIS state-waters Pacific cod GHL is set at 27% of the federal AI TAC. Prior to 2016, AIS state-waters Pacific cod GHL was divided across two seasons, A season (before June 10) and B season (June 10 and after). Starting in 2016, the AIS state-waters Pacific cod was managed as one season. Regulatory changes to the AIS state-waters Pacific cod fishery from 2006 through 2016 are provided in Appendix 1.

Annual A season GHGs ranged from a low of 8.1 million pounds to a high of 14.5 million pounds in 2012 (Table 6). A season harvest has reached the GHG three years (2006, 2007, and 2010) since the inception of the fishery. Duration of the A season for the first four seasons was seven to nine days; subsequent seasons lasted from mid to late March through early June, with up to a week closed in early April to coincide with the federal/parallel catcher-vessel trawl B season (Table 7). Beginning in 2012, the A season opened January 1 in waters between 175° W and 178° W long with vessel length limits of 60 feet or less overall length (OAL) for trawl, pot, and jig gear and 58 feet or less OAL for vessels using longline gear.

During the 2006 through 2008 A seasons, trawl gear accounted for the vast majority of harvest, whereas in subsequent A seasons, pot gear use increased (Table 8). Vessel participation during the A season was highest during the first three years of the fishery, at 26 to 30 vessels. From 2009 through 2012, A season participation ranged from 3 to 22 vessels (Table 6). Peak A season exvessel value was \$4.5 million in 2008, when the average price per pound was \$0.63 (Table 6).

Initial B season GHGs have ranged from 3.5 million pounds in 2007 and 2008 to 6.2 million pounds in 2012 (Table 6). Including rollovers from the A season, B season GHGs have averaged 6.6 million pounds. The B season GHG was reached only in the 2007 and 2008 seasons. Average B season harvest from 2006 through 2012 was 1.5 million pounds. The majority of B season harvest is taken by vessels using pot gear, followed by longline and jig gear (Table 8). Participation during the B season is typically less than 10 vessels, with the exception of 2007 and

2008 when 12 and 18 vessels participated, respectively (Table 6). Peak B season exvessel value was \$1.8 million in 2008, when the average price per pound was \$0.57.

2016 FISHERY

The AIS state-waters Pacific cod 2016 GHL of 10,476,259 (Table 6). The season opened at noon on January 1 in waters between 175° W long and 178° W long to vessels 60 feet or less OAL using trawl, pot, and jig gear and vessels 58 feet or less OAL using longline gear (Table 7). All state waters west of 170° W long opened on March 13 at 12:00 noon to trawl vessels 100 feet or less OAL, pot vessels 125 feet or less OAL, and jig and longline vessels 58 feet or less OAL. The opening occurred upon closure of the Aleutian Islands parallel Pacific cod season on March 13 at 12:00 noon. Six vessels participated in the 2016 AIS state-waters Pacific cod fishery (Table 6); harvest is confidential. The 2016 season remained open until the regulatory closure on December 31 (Table 7).

DUTCH HARBOR SUBDISTRICT STATE-WATERS PACIFIC COD FISHERY

HISTORICAL BACKGROUND

The Dutch Harbor Subdistrict (DHS) state-waters Pacific cod fishery was established by the BOF in October 2013. The DHS state-waters Pacific cod GHL was originally set at 3% of the federal BSAI ABC. For the 2014 and 2015 seasons the subdistrict included waters of the Bering Sea–Aleutian Islands groundfish management area east of 167° W long, west of 164° W long and south of 55° 30' N lat (Figure 6). In 2016, regulations were adopted that changed GHL calculations and subdistrict boundaries (Appendix 2). The DHS state-waters Pacific cod GHL is now set at 6.4% of the federal Bering Sea subarea ABC. The subdistrict now includes waters of the Aleutian Islands District east of 170° W long and the state waters of the Bering Sea District that are west of 164° W long, east of 170° W long, and south of 55° 30' N lat, except that the waters of the Dutch Harbor Subdistrict south of 53° 06.11' N lat are closed to taking Pacific cod during a state-waters season.

The DHS state-waters Pacific cod season opens seven days after closure of the initial BSAI parallel Pacific cod season for catcher vessels less than 60 feet OAL using longline and pot gear. Vessels participating in the DHS state-waters Pacific cod season are limited to a maximum of 58 feet OAL and the only allowable gear type is pot gear. Vessels are limited to 60 pots and buoy tags are required. DHS state-waters Pacific cod fishery is an exclusive registration area. During the DHS state-waters Pacific cod season, current NMFS Steller sea lion protection measures applicable to vessels using pot gear are in effect.

2016 FISHERY

The 2016 DHS state-waters Pacific cod season opened on February 12 with a GHL of 35,979,072 pounds (Table 9). The fishery was closed on April 22 with 99% of the GHL harvested. Twenty-four vessels participated in the 11-week fishery. Average vessel length was 57 feet OAL. Harvest was distributed throughout most of the registration area, with 84% coming from waters around Unimak Island and 8% around Unalaska, Akutan, and Akun islands. Fishermen were paid an average of \$0.28 per pound for a total exvessel fishery value of \$9.85 million.

GROUNDFISH HARVEST FROM PARALLEL SEASONS IN THE BERING SEA–ALEUTIAN ISLANDS AREA

Each year, by emergency order, ADF&G establishes parallel groundfish seasons that mirror federal fisheries managed by NMFS. ADF&G generally mirrors seasons, closed waters, bycatch limits, and legal gear types of the adjacent federal waters, unless superseded by state regulations.

Parallel fisheries occur for Pacific cod *Gadus macrocephalus*, walleye pollock *Gadus chalcogrammus*, Atka mackerel *Pleurogrammus monopterygius*, Pacific ocean perch *Sebastes alutus*, shortraker rockfish *Sebastes borealis*, roughey rockfish *Sebastes aleutianus*, sharpchin rockfish *Sebastes zacentrus*, northern rockfish *Sebastes polyspinis*, Greenland turbot *Reinhardtius hippoglossoides*, arrowtooth flounder *Atheresthes stomias*, rock sole *Lepidopsetta bilineata*, yellowfin sole *Limanda aspera*, flathead sole *Hippoglossoides elassodon*, an aggregated rockfish species complex, and an aggregated flatfish species complex. Walleye pollock and Pacific cod were the largest parallel fisheries in the BSAI by volume in 2016 (Table 10). BSAI parallel Pacific cod harvest was 7.1 million pounds in 2016. BSAI parallel walleye pollock harvest was 5.9 million pounds in 2016.

Steller sea lion protection measures during a parallel season mirror NMFS closure areas, except in state waters between 175° W long and 178° W long during a parallel Pacific cod season, the Steller sea lion protection measures reflect those in place prior to 2011 (5 AAC 28.087(b)(3)). During a parallel fishery in these waters, no vessel using longline gear may be more than 58 feet OAL, and all other vessels may be no larger than 60 feet OAL.

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TABLES AND FIGURES

Table 1.—Aleutian Islands state-waters sablefish fishery GHL, harvest, effort, value, and season dates, 1995–2016.

Year	GHL ^a	Harvest ^a	Vessels	Landings	Average price per pound ^b	Fishery value ^c	Season dates		Season duration ^d
							Opened	Closed	
1995	400,000	269,220	35	59	\$2.96	\$0.50	03/15/95	11/15/95	245
1996	280,000	401,463	35	67	\$2.54	\$0.64	03/15/96	07/26/96	133
1997	270,000	317,562	37	75	\$3.55	\$0.71	03/15/97	07/20/97	127
1998	270,000	254,578	38	101	\$2.18	\$0.35	03/15/98	11/15/98	245
1999	250,000	279,778	24	38	\$2.69	\$0.47	03/15/99	08/16/99	154
2000	400,000	446,560	28	59	\$3.04	\$0.86	03/15/00	07/15/00	122
2001	425,000	464,241	31	99	\$2.85	\$0.79	05/15/01	08/08/01	85
2002	460,000	477,970	24	59	\$2.95	\$0.88	05/15/02	07/16/02	62
2003	630,000	473,426	39	102	\$3.58	\$0.92	05/15/03	11/15/03	184
2004	660,000	323,969	26	67	\$2.69	\$0.47	05/15/04	11/15/04	184
2005	550,000	203,498	25	67	\$2.79	\$0.27	05/15/05	11/15/05	184
2006	640,000	177,935	16	63	\$3.55	\$0.42	05/15/06	11/15/06	184
2007	638,000	269,282	21	65	\$3.49	\$0.54	05/15/07	11/15/07	184
2008	584,000	156,293	25	56	\$3.89	\$0.41	05/15/08	11/15/08	184
2009	542,000	279,510	26	70	\$4.92	\$0.64	05/15/09	11/15/09	184
2010	535,000	209,064	28	67	\$5.86	\$0.79	05/15/10	11/15/10	184
2011	523,000	200,640	28	78	\$7.65	\$1.00	05/15/11	11/15/11	184
2012	472,000	222,691	29	98	\$5.95	\$0.84	05/15/12	11/15/12	184
2013	442,000	223,379	18	54	\$4.42	\$0.62	05/15/13	11/07/13	176
2014	347,000	161,022	16	47	\$5.33	\$0.54	03/08/14	11/07/14	244
2015	346,000	151,609	15	44	\$5.81	\$0.56	03/14/15	11/07/15	238
2016	298,503	78,699	13	37	\$4.77	\$0.25	03/19/16	11/07/16	233

Note: GHL = guideline harvest level. Fishery value not exact due to differences in pricing and grading of landed catch at the dock.

^a In whole fish pounds, 2006 to present does not include discards at sea.

^b Price per pound of landed weight; 2006 to present only includes fish sold for human consumption.

^c Fishery value based on landed weight, in millions of dollars; 2006 to present includes human consumption and fish meal.

^d In days.

Table 2.—Aleutian Islands state-waters sablefish fishery harvest by gear type, 1995–2016.

Year	Longline	Trawl ^a	Pot	Total
1995	227,917	41,303	0	269,220
1996	401,429	26	8	401,463
1997	312,506	20	5,036	317,562
1998	252,398	2,180	0	254,578
1999	272,240	6,268	1,270	279,778
2000	446,112	0	448	446,560
2001	439,612	210	24,419	464,241
2002	456,632	1,126	20,212	477,970
2003	426,679	270	46,477	473,426
2004	273,807	129	50,033	323,969
2005	182,348	58	21,092	203,498
2006	128,764	1,207	47,964	177,935
2007	190,174	4,255	78,127	272,556
2008	114,152	0	32,589	146,741
2009	272,061	CF	CF	279,795
2010	202,517	CF	CF	209,505
2011	218,552	0	36,036	254,588
2012	216,579	CF	CF	225,322
2013	209,817	CF	CF	223,649
2014	161,643	CF	CF	163,150
2015	151,608	CF	CF	151,609
2016	53,513	CF	CF	78,699

Note: Harvest shown in whole fish pounds, CF = confidential.

^a Trawl is not a legal gear type.

Table 3.—Aleutian Islands state-waters black rockfish fishery total harvest statistics and economic performance, 1994–2016.

Year	GHL ^a	Harvest ^a	Vessels	Landings	Average price per pound ^b	Fishery value ^c
1994 ^{de}	100,000	0	0	0	\$0	\$0
1995 ^{de}	100,000	CF	10	CF	CF	CF
1996 ^{de}	100,000	CF	12	CF	CF	CF
1997 ^{de}	100,000	102,746	8	18	\$0.34	\$35,000
1998 ^e	100,000	CF	5	31	CF	CF
1999 ^e	90,000	20,889	6	41	\$0.35	\$7,200
2000	90,000	CF	2	CF	CF	CF
2001	90,000	CF	4	11	CF	CF
2002	90,000	CF	6	27	CF	CF
2003	90,000	2,308	5	8	CF	CF
2004	90,000	1,639	10	28	CF	CF
2005	90,000	6,014	7	19	\$0.36	\$1,319
2006	90,000	CF	2	CF	CF	CF
2007	90,000	CF	4	7	CF	CF
2008	90,000	CF	4	5	CF	CF
2009	90,000	CF	2	CF	CF	CF
2010	90,000	2,088	4	4	\$0	\$0
2011	90,000	3,926	6	7	CF	CF
2012	90,000	11,712	5	6	CF	CF
2013	90,000	CF	2	CF	CF	CF
2014	90,000	1,985	4	6	CF	CF
2015	90,000	2,365	3	4	CF	CF
2016	90,000	377	5	6	\$0	\$0

Note: GHL = guideline harvest level, CF = confidential.

- ^a In whole fish pounds. Harvest includes all fishery removals including discards at sea and personal use.
- ^b Price per pound landed weight.
- ^c Fishery value based on landed weight.
- ^d Totals include black and dusky rockfish. In the early years of the fishery, dusky rockfish may have been misidentified as black rockfish; therefore, harvest totals include both species.
- ^e Due to reporting changes this data is historical data that cannot be replicated.

Table 4.–Aleutian Islands state-waters black rockfish fishery guideline harvest level (GHL) in whole pounds, by section and subsection for the 2016 season.

Section	Subsection	GHL (pounds)
Akutan	Akutan Island	10,000
	Akun Island	10,000
	Rootok Island	5,600
	Tigalda Island	9,400
	Total	35,000
Unalaska	Unalaska Bay/Wislow	3,000
	Cape Kalekta/Unalga	
	Island	3,600
	West Unalaska	12,850
	South Unalaska	12,300
	Beaver Inlet/Sedanka	
Island	3,250	
	Total	35,000
Western	No Subsections	20,000

Table 5.—Aleutian Islands black rockfish age (from otoliths) and length data, 1997–2011.

Year	Sample location	Sample size	Age ^a		Length ^b	
			Average	Range	Average	Range
1997	Unalaska Island	9	17.1	11 to 32	43.9	35 to 49
1998		-	-	-	-	-
1999	Unalaska Island	92	15.9	8 to 30	45.3	37 to 51
2000	Unalaska Island	10	8.8	7 to 10	41.0	37 to 45
2001		-	-	-	-	-
2002	Akutan Island	531	16.5	4 to 52	45.8	26 to 54
2003		-	-	-	-	-
2004	Akutan Island	287	19	5 to 41	43.6	20 to 56
2005	Akutan Island	244	11	2 to 28	40.7	16 to 56
2006	Unalaska Island	27	13.8	6 to 29	45.1	38 to 52
2007		-	-	-	-	-
2008		-	-	-	-	-
2009		-	-	-	-	-
2010		-	-	-	-	-
2011	Akutan/Akun Island	65	19.4	7 to 46	45.6	37 to 50
	Akutan/Rootok Island	40	16.3	9 to 35	44.3	35 to 56
	Unalaska Bay	35	17.9	9 to 35	47.2	42 to 56

^a In years.

^b In centimeters.

Table 6.—Aleutian Islands Subdistrict state-waters Pacific cod fishery harvest, effort, and value, 2006–2016.

Year	Season	Initial GHL ^a	Harvest ^a	Vessels	Landings	Average price per pound ^b	Fishery value ^c
2006	A season	8,981,540	8,502,781	26	68	\$0.23	\$1.3
	B season	3,849,232 ^d	351,414	5	19	\$0.38	\$1.4
	TOTAL	12,830,772	8,854,195	30 ^e	87	\$0.31	\$2.7
2007	A season	8,148,202	8,229,931	27	97	\$0.45	\$3.6
	B season	3,492,086 ^f	3,409,070	12	106	\$0.52	\$1.7
	TOTAL	11,640,288	11,639,001	39 ^e	203	\$0.49	\$5.3
2008	A season	8,148,202	7,477,507	30	116	\$0.63	\$4.5
	B season	3,492,086 ^g	4,241,692	18	77	\$0.57	\$1.8
	TOTAL	11,640,288	11,719,199	45 ^e	193	\$0.61	\$6.3
2009	A season	8,425,981	5,537,886	22	50	NA	NA
	B season	3,611,135 ^g	CF	5	47	CF	CF
	TOTAL	12,037,116	CF	27	97	CF	CF
2010	A season	8,055,608	7,959,515	16	84	\$0.25	\$1.6
	B season	3,452,404 ^g	826,170	3	4	\$0.32	\$1.1
	TOTAL	11,508,012	8,785,685	16 ^e	88	\$0.29	\$2.7
2011	A season	10,879,701	CF	3	4	CF	CF
	B season	4,662,729 ^g	CF	4	16	CF	CF
	TOTAL	15,542,430	595,289	6 ^e	20	CF	CF
2012	A season	14,537,132	11,462,339	21	201	\$0.31	\$3.6
	B season	6,230,200 ^g	878,688	7	25	CF	CF
	TOTAL	20,767,332	12,341,027	26 ^e	226	CF	CF
2013	A season	14,213,056	CF	12	CF	CF	CF
	B season	6,091,310 ^g	CF	1	CF	CF	CF
	TOTAL	20,304,366	10,563,646	13	151	CF	CF
2014	A season	12,504,712	CF	8	133	CF	CF
	B season	5,359,162 ^g	0	0	0	\$0.00	\$0.0
	TOTAL	17,863,874	CF	8	133	CF	CF
2015	A season	12,620,583	CF	2	CF	CF	CF
	B season	5,408,821 ^g	0	0	0	\$0.00	\$0.0
	TOTAL	18,029,404	CF	2	CF	CF	CF
2016		10,476,259 ^h	CF	6	39	CF	CF

Note: CF = Confidential

^a In whole fish pounds.

^b Price per pound of landed weight.

^c Fishery value based on landed weight, in millions of dollars.

^d ADF&G made 3.5 million pounds of the GHL available to National Marine Fisheries Service effective on September 1.

^e Some vessels participated in both seasons.

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^f Overage from the A season was deducted from the B season GHL. Initial GHL shown.

^g A season GHL was not fully harvested, remaining A season GHL rolled over into B season GHL; initial GHL shown.

^h Regulation changed to only one season for Aleutian Island Subdistrict state-waters Pacific cod.

Table 7.—Aleutian Islands Subdistrict state-waters Pacific cod season length and dates, 2006–2016.

Year	Season	Location	Season dates		Season Duration ^a
			Opened	Closed	
2006	A season	West of 170° W long	03/15/06	03/24/06	9
	B season	West of 170° W long	06/10/06	09/01/06	83
2007	A season	West of 170° W long	03/16/07	03/23/07	7
	B season	West of 170° W long	06/10/07	09/01/07	83
		West of 170° W long	10/01/07	12/03/07	63
2008	A season	West of 170° W long	03/10/08	03/18/08	8
	B season	West of 170° W long	06/10/08	07/09/08	29
2009	A season	West of 170° W long	03/25/09	04/01/09	7
		West of 170° W long	04/07/09	06/09/09	63
	B season	West of 170° W long	06/10/09	09/01/09	83
2010	A season	West of 170° W long	03/16/10	06/04/10	80
	B season	West of 170° W long	06/10/10	09/01/10	83
		West of 170° W long	11/15/10	12/31/10	46
2011	A season	West of 170° W long	03/30/11	04/01/11	2
		West of 170° W long	04/05/11	06/09/11	65
	B season	West of 170° W long	06/10/11	09/01/11	83
		West of 170° W long	10/25/11	12/31/11	67
2012	A season	175° to 178° W long	01/01/12	06/09/12	160
		West of 170° W long	03/04/12	04/01/12	28
		West of 170° W long	04/15/12	06/09/12	55
	B season	West of 170° W long	06/10/12	09/01/12	83
2013	A season	175° to 178° W long	01/01/13	06/09/13	159
		West of 170° W long	03/15/13	04/01/13	17
	B season	West of 170° W long	06/10/13	09/01/13	83
2014	A season	175° to 178° W long	01/01/14	06/09/14	159
		West of 170° W long	03/15/14	06/09/14	86
	B season	West of 170° W long	06/10/14	12/31/14	204
2015	A season	175° to 178° W long	01/01/15	06/09/15	159
		West of 170° W long	03/03/15	06/09/15	98
	B season	West of 170° W long	06/10/15	12/31/15	204
2016		175° to 178° W long	01/01/16	12/31/16	365
		West of 170° W long	03/13/16	12/31/16	293

^a In days.

Table 8.—Aleutian Islands Subdistrict state-waters Pacific cod fishery harvest in whole pounds by gear type, 2006–2016.

Year	Season	Longline	Trawl	Pot	Jig	Total
2006	A season	CF	7,053,035	CF	0	8,502,781
	B season	76,462	0	274,952	0	351,414
2007	A season	0	6,998,224	1,231,707	0	8,229,931
	B season	CF	0	2,383,163	CF	3,409,070
2008	A season	CF	6,130,304	CF	0	7,477,507
	B season	362,410	0	3,786,710	92,572	4,241,692
2009	A season	CF	1,295,595	3,879,737	CF	5,537,886
	B season	CF	0	0	CF	CF
2010	A season	0	4,899,783	3,059,731	0	7,959,515
	B season	CF	0	CF	0	826,170
2011	A season	0	CF	CF	0	CF
	B season	CF	0	CF	0	CF
2012	A season	CF	5,983,213	CF	0	11,462,339
	B season	274,856	0	555,369	48,462	878,688
2013	A season	0	CF	CF	0	CF
	B season	CF	0	0	0	CF
2014	A season	0	CF	CF	0	CF
	B season	0	0	0	0	0
2015	A season	0	CF	0	0	CF
	B season	0	0	0	0	0
2016		0	CF	0	0	CF

Note: CF = confidential.

Table 9.—Dutch Harbor Subdistrict state-waters Pacific cod fishery harvest, effort, value, and season dates, 2014–2016.

Year	GHL ^a	Harvest ^a	Vessels	Landings	Average price per pound ^b	Fishery value ^c	Season dates		Season duration ^d
							Opened	Closed	
2014	17,863,874	17,666,510	16	205	\$0.29	\$5.01	02/11/14	09/01/14	202
2015	18,029,404	17,636,103	14	183	\$0.28	\$4.76	02/09/15	03/31/15	50
2016	35,979,072	35,519,920	24	421	\$0.26	\$9.85	02/12/16	04/22/16	70

Note: GHL = guideline harvest level.

^a In whole fish pounds

^b Price per pound of landed weight of fish sold for human consumption.

^c Fishery value based on landed weight, in millions of dollars.

^d Days.

Table 10.—Bering Sea-Aleutian Islands Area parallel fishery number of vessels and landings, harvest by gear type, and at-sea discards, by species, 1995–2016.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Pacific cod								
1995	146	1,030	12,240,195	1,990,938	5,486,619	773,895	20,491,646	47,630
1996	157	956	5,760,550	444,538	11,540,368	407,811	18,153,267	104,680
1997	104	378	809,297	1,465,696	2,064,358	208,326	4,547,676	15,988
1998	110	400	3,975,738	4,128,807	3,624,994	210,316	11,939,854	75
1999	129	500	8,963,780	1,444,465	7,105,630	281,754	17,795,629	4,978
2000	161	573	5,369,957	3,604,038	6,523,840	102,903	15,600,739	16,654
2001	129	403	7,035,831	3,973,338	3,145,956	172,405	14,327,530	8,468
2002	111	369	13,768,587	481,119	1,887,114	351,404	16,488,224	3,493
2003	111	450	13,456,640	841,821	4,928,807	144,477	19,371,745	13,358
2004	117	568	12,247,656	1,841,934	4,616,764	461,553	19,167,907	33,153
2005	92	381	4,056,390	2,526,537	3,116,586	233,947	9,933,460	11,595
2006	107	349	2,470,193	1,238,093	2,998,600	141,285	6,848,171	51,423
2007	109	337	3,924,415	1,401,829	1,507,579	180,322	7,014,145	23,405
2008	108	372	2,526,207	2,542,514	4,582,253	327,512	9,978,486	19,875
2009	81	224	1,659,521	690,143	3,697,654	27,693	6,075,011	12,266
2010	80	308	3,247,752	2,106,124	4,949,276	736,802	11,039,954	12,990
2011	81	278	311,666	1,500,220	2,333,841	946,814	5,092,541	15,856
2012	63	204	163,562	2,413,244	1,577,736	186,731	4,341,273	4,994
2013	57	188	92,961	2,660,883	605,520	23,983	3,383,347	24,039
2014	34	231	106,441	7,865,970	1,186,530	1,324	9,160,264	19,505
2015	67	258	2,630,870	4,065,759	1,672,730	61,735	8,431,094	25,682
2016	57	159	2,220,049	1,820,888	3,014,448	62,247	7,117,632	26,705

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Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Walleye pollock								
1995	37	59	28,180,359	0	170	0	28,180,529	232,153
1996	40	63	20,753,566	0	96,368	0	20,849,933	468,102
1997	31	61	18,539,560	0	0	2,165	18,541,725	197,347
1998	47	92	13,385,826	6,114	1,274	0	13,393,213	154,466
1999	18	32	1,466,815	CF	CF	0	1,467,967	41,944
2000	34	50	3,647,819	5,824	2,792	0	3,656,434	5,145
2001	47	71	5,460,805	27,481	781	0	5,489,068	51,487
2002	28	49	11,172,229	CF	CF	0	11,172,548	68,374
2003	38	85	10,940,817	CF	CF	0	10,943,496	2,869
2004	50	138	20,138,475	9,402	120	0	20,147,997	61,923
2005	28	51	5,306,986	CF	CF	0	5,308,435	1,068
2006	37	54	2,904,468	CF	CF	0	2,914,527	23,032
2007	38	90	6,228,344	CF	CF	0	6,228,704	41,568
2008	31	58	5,852,028	CF	CF	0	5,859,027	256
2009	30	65	16,958,999	CF	CF	0	16,959,350	8,432
2010	28	72	9,264,496	3,037	0	0	9,267,534	1,161
2011	31	56	7,492,409	27,972	45	0	7,520,426	10,055
2012	39	68	2,351,121	39,114	93	752	2,391,080	19,099
2013	25	47	5,846,951	9,827	7	0	5,856,785	14,717
2014	23	56	3,005,535	30,811	687	0	3,037,033	14,803
2015	41	158	14,783,901	13,954	4,304	0	14,802,159	15,431
2016	41	108	5,884,127	9	2,156	0	5,886,292	332

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Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Atka mackerel								
1995	11	14	270,939	0	58	0	270,997	169,479
1996	8	13	25,654	CF	CF	0	26,220	76,820
1997	3	4	CF	0	CF	0	17,621	89
1998	5	7	2,581	CF	CF	0	2,690	8,586
1999	4	5	408,716	CF	CF	0	408,738	125,739
2000	6	7	145,410	0	216	0	145,626	25,204
2001	12	13	27,070	CF	CF	0	29,430	37,690
2002	13	19	3,793	CF	CF	0	3,793	22,533
2003	25	71	13,371	0	4,294	0	17,665	23,367
2004	32	99	133,390	CF	CF	0	133,402	42,477
2005	11	27	67,875	0	0	0	67,875	10,726
2006	8	14	120,372	CF	CF	0	120,400	91,034
2007	21	40	791,619	0	0	0	791,619	954
2008	13	25	1,383,111	0	0	0	1,383,111	174,052
2009	11	16	485	CF	CF	0	524	1,044
2010	19	39	131,747	CF	CF	0	132,088	1,924
2011	12	20	81,598	0	39	0	81,637	11,343
2012	19	34	309,229	289	101	0	309,619	53,576
2013	4	5	234	0	18	0	252	4,117
2014	5	6	268,509	0	120	0	268,629	410
2015	14	18	826,670	0	78	26	826,774	18,772
2016	11	15	1,851,205	0	2	0	1,851,207	58,449

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Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Pacific ocean perch								
1995	10	16	10,226	0	0	0	10,226	23,657
1996	17	25	13,225	0	0	0	13,225	55,559
1997	9	12	2,213	CF	CF	0	5,907	4,625
1998	18	30	85,704	0	0	0	85,704	9,409
1999	4	5	CF	CF	CF	0	23,442	20,640
2000	3	3	CF	CF	0	0	420	4,310
2001	4	6	4,989	0	0	0	4,989	2,093
2002	10	10	3,291	0	0	0	3,291	3,375
2003	18	42	18,375	0	0	0	18,375	1,002
2004	25	65	3,246	0	0	0	3,246	5,310
2005	9	25	56,004	0	0	0	56,004	1,494
2006	13	22	42,245	CF	CF	0	42,251	2,258
2007	33	78	265,499	CF	CF	0	265,533	25,696
2008	17	35	145,478	0	0	0	145,478	24,820
2009	15	33	8,895	0	0	0	8,895	1,804
2010	12	34	19,641	CF	0	0	19,763	3,521
2011	13	25	112,492	38	0	0	112,530	143
2012		20	44	2,210,431	0	0	0	2,210,431
2013	7	25	1,522,527	1,600	0	0	1,524,127	36,936
2014	5	21	489,916	1,697	0	0	491,613	21,875
2015	19	63	1,078,867	923	0	0	1,079,790	36,043
2016	11	23	903,502	0	0	20	903,522	18,728

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Table 10.–Page 5 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Shortraker and roughey rockfish								
1995	16	19	CF	11,295	0	CF	11,496	2,584
1996	22	27	CF	10,102	0	CF	10,765	0
1997	14	17	CF	6,532	0	CF	6,766	1,559
1998	4	9	CF	2,738	0	CF	4,470	0
1999	7	10	CF	2,952	0	CF	3,020	7,084
2000	15	21	0	10,272	0	0	10,272	3,234
2001	21	34	0	7,524	CF	CF	7,660	797
2002	5	5	CF	339	CF	0	345	710
2003	7	8	CF	334	CF	0	644	1,199
2004	13	22	245	2,685	CF	CF	2,988	365
2005	8	9	CF	690	0	CF	724	490
2006	13	16	CF	2,895	CF	0	3,700	1,365
2007	15	29	852	6,265	0	0	7,116	5,835
2008	12	17	217	3,607	0	0	3,824	1,673
2009	13	17	517	5,066	0	0	5,583	468
2010	18	32	794	11,053	0	0	11,847	1,342
2011	16	28	180	7,085	0	0	7,265	667
2012	12	29	9,934	3,708	0	0	13,642	13,677
2013	11	26	4,659	9,970	0	0	14,629	8,364
2014	12	20	529	12,202	0	0	12,731	4,180
2015	8	11	1,633	107	0	0	1,740	4,832
2016	10	19	76	11,676	0	35	11,787	1,502

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Table 10.–Page 6 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Sharpchin and northern rockfish								
1995	2	4	CF	0	0	0	CF	1,862
1996	4	5	1,945	0	0	0	1,945	55,822
1997	0	0	0	0	0	0	0	0
1998	1	1	CF	0	0	0	CF	9,136
1999	2	3	CF	0	0	0	CF	19,076
2000	5	6	243	0	CF	CF	327	23,414
2001	1	1	0	CF	0	0	CF	20,308
2002	5	6	1,922	CF	CF	0	1,993	6,466
2003	14	17	1,669	CF	CF	0	1,679	24,658
2004	25	48	13,191	0	0	0	13,191	23,701
2005	6	7	287	0	0	0	287	18,667
2006	5	10	178	0	0	0	178	4,563
2007	11	21	25,749	0	0	0	25,749	7,536
2008	7	12	78,584	0	0	0	78,584	16,857
2009	7	7	83	0	0	0	83	2,056
2010	19	45	5,812	3,286	0	0	9,098	9,080
2011	8	12	4,415	0	0	0	4,415	19
2012	17	26	5,516	0	0	0	5,516	5,821
2013	5	8	26,695	11	0	0	26,706	6,567
2014	5	6	11,287	0	0	0	11,287	1,101
2015	11	15	54,234	0	0	0	54,234	3,954
2016	13	18	69,541	0	0	30	69,571	5,298

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Table 10.–Page 7 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Other rockfish								
1995	30	55	CF	24,872	CF	CF	24,933	2,195
1996	30	54	66	43,613	CF	CF	43,769	140
1997	26	51	CF	19,113	0	CF	19,865	1,333
1998	34	98	883	25,590	0	0	26,473	4,730
1999	24	35	1,756	16,525	CF	CF	18,326	7,687
2000	27	59	0	43,934	CF	CF	44,042	7,919
2001	38	105	CF	56,931	130	CF	57,063	5,268
2002	33	74	182	56,052	0	339	56,574	1,105
2003	42	116	474	57,647	550	0	58,671	4,045
2004	43	128	2,697	34,978	CF	CF	37,798	1,316
2005	36	87	437	25,554	CF	CF	26,017	781
2006	26	66	1,255	15,210	259	0	16,724	3,133
2007	33	90	8,420	21,513	CF	CF	30,259	3,279
2008	46	91	2,213	30,914	CF	CF	33,128	3,914
2009	50	108	2,459	26,342	0	0	28,801	1,493
2010	42	95	1,639	27,750	0	0	29,389	2,067
2011	40	83	4,242	20,844	0	0	25,086	852
2012	45	98	12,584	28,213	1	133	40,932	7,324
2013	24	54	1,383	23,058	0	0	24,441	4,211
2014	24	56	5,412	14,733	4,545	5	24,695	3,549
2015	33	111	17,098	12,790	2,517	137	32,542	1,218
2016	34	83	29,392	8,677	624	11	38,704	4,253

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Table 10.–Page 8 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Greenland turbot								
1995	17	26	174,262	107,109	0	0	281,372	4,837
1996	32	48	735	170,135	0	0	170,870	5,508
1997	23	44	1,298	84,420	0	0	85,718	8,949
1998	26	81	1,022	338,314	0	0	339,336	0
1999	15	28	CF	73,225	CF	0	85,021	1,587
2000	19	37	CF	109,079	CF	0	110,607	15,109
2001	29	68	CF	149,819	CF	0	151,722	843
2002	14	34	CF	45,303	CF	0	46,020	670
2003	13	31	CF	50,590	CF	0	51,141	3,175
2004	17	29	CF	15,378	CF	0	15,992	2,324
2005	6	9	CF	6,238	CF	0	6,494	1,643
2006	15	22	2,112	17,984	0	0	20,096	1,852
2007	9	13	36,170	CF	CF	0	64,630	1,443
2008	10	13	358	6,783	0	0	7,141	1,026
2009	6	7	CF	CF	0	0	7,464	599
2010	7	12	87	7,113	0	0	7,200	1,324
2011	5	8	41	6,792	0	0	6,833	780
2012	5	11	1,213	10,078	0	0	11,291	1,310
2013	6	13	1,066	19,835	0	0	20,901	2,511
2014	2	9	0	CF	0	0	CF	912
2015	2	2	0	CF	0	0	CF	1,410
2016	3	8	0	0	0	0	0	1,115

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Table 10.–Page 9 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Arrowtooth flounder								
1995	10	16	2,111	CF	CF	0	2,121	18,681
1996	15	24	7,724	CF	CF	0	7,759	26,757
1997	8	17	15,075	CF	CF	0	15,141	5,806
1998	9	17	14,897	CF	CF	0	15,514	15,658
1999	5	10	220,813	741	0	0	221,555	531,072
2000	10	12	2,496	CF	CF	0	11,121	15,389
2001	19	33	674	CF	CF	0	3,251	34,055
2002	15	29	15,090	CF	CF	0	15,227	22,493
2003	36	72	23,828	CF	CF	0	24,305	21,782
2004	39	110	77,206	CF	CF	0	80,907	53,434
2005	24	48	28,083	CF	CF	0	28,748	9,650
2006	32	45	8,119	CF	CF	0	13,363	18,860
2007	23	52	112,740	CF	CF	0	130,676	9,720
2008	16	36	29,181	CF	CF	0	32,671	6,510
2009	23	62	106,387	CF	CF	0	108,422	11,958
2010	26	60	87,222	6,662	0	0	93,884	44,852
2011	20	33	157,515	321	0	0	157,836	26,821
2012	25	41	76,014	0	1	305	76,320	108,481
2013	18	25	28,345	0	0	0	28,345	115,728
2014	8	12	1,935	1,203	0	0	3,138	8,449
2015	15	49	33,252	0	0	0	33,252	37,399
2016	14	18	3,476	0	3	4	3,483	60,513

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Table 10.–Page 10 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Rock sole								
1995	8	10	4,056	CF	CF	0	4,162	48,408
1996	13	20	3,107	0	0	0	3,107	118,601
1997	7	12	5,880	0	0	0	5,880	58,033
1998	7	9	2,181	0	0	0	2,181	133,355
1999	4	6	2,181	0	0	0	2,181	209,046
2000	19	27	43,952	CF	CF	0	43,977	50,277
2001	14	27	7,708	CF	CF	0	7,723	132,203
2002	7	9	8,984	0	0	0	8,984	152,306
2003	22	66	75,160	0	0	0	75,160	131,402
2004	31	71	17,830	CF	CF	0	17,976	270,276
2005	14	22	10,052	CF	CF	0	10,385	40,399
2006	21	35	12,235	CF	CF	0	12,508	86,730
2007	33	86	7,202	CF	CF	0	7,234	68,030
2008	24	55	23,067	CF	CF	0	23,077	42,931
2009	21	29	12,994	0	0	0	12,994	25,827
2010	30	100	116,429	CF	0	0	116,436	193,160
2011	20	32	325,221	0	0	0	325,221	26,984
2012	36	108	294,997	0	133	0	295,130	105,132
2013	14	15	13,863	0	0	0	13,863	62,317
2014	12	29	258,190	0	307	0	258,497	85,299
2015	24	61	259,427	0	154	0	259,581	86,542
2016	15	31	210,230	1	771	0	211,002	31,849

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Table 10.–Page 11 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Yellowfin sole								
1995	4	4	CF	0	CF	0	192	2,865
1996	6	8	16,008	CF	CF	0	16,038	71,964
1997	3	3	CF	0	CF	0	16	CF
1998	5	7	828	0	52	0	880	8,891
1999	2	3	34,778	0	0	0	34,778	21,910
2000	1	1	CF	0	CF	0	CF	1,115
2001	3	3	CF	0	CF	0	23	61,296
2002	1	1	CF	0	CF	0	CF	27,072
2003	4	5	29	CF	CF	0	31	24,990
2004	6	10	108	CF	CF	0	609	1,237
2005	9	11	220	CF	CF	0	329	4,412
2006	5	5	88	0	0	0	88	950
2007	4	6	23	CF	CF	0	133	5,492
2008	4	4	CF	0	CF	0	641	CF
2009	1	1	CF	0	CF	0	CF	CF
2010	5	5	17,738	0	0	0	17,738	18,600
2011	7	8	5,935	0	0	0	5,935	4,103
2012	6	7	8,018	0	0	0	8,018	9,205
2013	3	3	55	0	4	0	59	225
2014	3	3	2,857	0	0	0	2,857	14,202
2015	5	8	7,642	0	22	0	7,664	804
2016	6	6	2,559	2	143	0	2,704	128

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Table 10.–Page 12 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Flathead sole								
1995	7	11	816	CF	CF	0	829	1,290
1996	16	24	5,877	0	0	0	5,877	64,413
1997	6	14	16,898	0	0	0	16,898	10,434
1998	12	23	12,847	CF	CF	0	12,850	29,037
1999	5	11	19,129	0	0	0	19,129	59,068
2000	15	18	4,867	0	81	0	4,948	6,268
2001	16	22	2,723	0	11	0	2,734	18,861
2002	21	29	11,082	CF	CF	0	11,096	59,128
2003	25	42	5,435	CF	CF	0	5,467	29,527
2004	35	85	10,155	CF	CF	0	10,523	17,964
2005	25	41	5,394	0	47	0	5,441	4,226
2006	20	29	5,606	CF	CF	0	5,831	8,165
2007	24	48	28,093	0	79	0	28,172	10,713
2008	13	27	23,835	0	0	0	23,835	940
2009	24	51	12,212	CF	CF	0	12,215	1,535
2010	18	43	46,607	0	0	0	46,607	6,334
2011	22	39	149,873	0	0	0	149,873	24,800
2012	17	27	10,330	0	0	0	10,330	5,875
2013	18	24	15,499	0	0	0	15,499	7,001
2014	10	13	37,474	21	34	0	37,529	11,628
2015	24	50	27,938	0	168	0	28,106	2,113
2016	25	42	4,729	1	1717	0	6,447	2,281

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Table 10.–Page 13 of 13.

Year	Vessels	Landings	Harvest ^{a, b}				Total	At-sea discards ^a
			Trawl	Longline	Pot	Jig/hand troll		
Other flatfish								
1995	10	16	317	0	357	0	674	CF
1996	16	24	6,603	0	0	0	6,603	33,067
1997	10	24	7,579	0	0	0	7,579	23,338
1998	21	39	11,303	CF	CF	0	11,495	49,145
1999	7	10	36,071	0	0	0	36,071	10,334
2000	6	6	245	CF	CF	0	286	2,766
2001	6	9	159	CF	CF	0	163	21,077
2002	13	17	2,496	0	0	0	2,496	3,007
2003	18	37	3,167	CF	CF	0	3,174	1,667
2004	26	68	9,406	0	0	0	9,406	4,948
2005	15	32	7,691	0	0	0	7,691	3,801
2006	16	23	2,333	CF	CF	0	2,339	12,887
2007	14	40	80,018	0	0	0	80,018	6,171
2008	23	53	70,044	CF	CF	0	70,057	2,895
2009	20	38	64,886	CF	CF	0	64,951	CF
2010	17	37	96,785	0	0	0	96,785	11,701
2011	21	31	17,272	0	0	0	17,272	6,816
2012	13	20	28,529	0	0	0	28,529	13,102
2013	9	15	6,986	0	0	0	6,986	1,758
2014	3	3	8,496	0	0	0	8,496	8,269
2015	12	32	8,865	0	0	0	8,865	55,617
2016	13	28	52	0	817	0	869	23,149

^a In whole fish pounds.

^b Discards at sea not included.

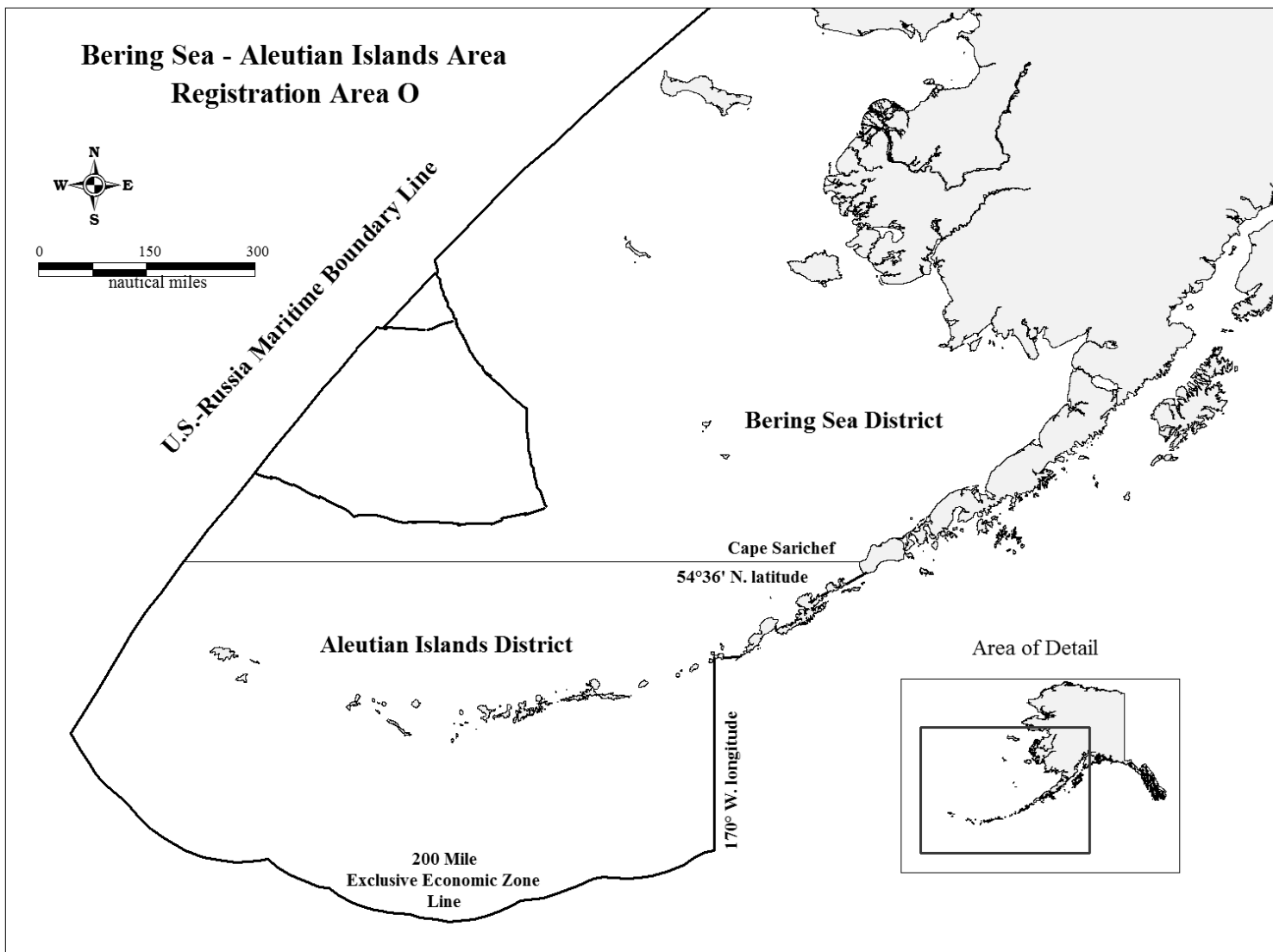


Figure 1.—Bering Sea-Aleutian Islands Area for groundfish management.

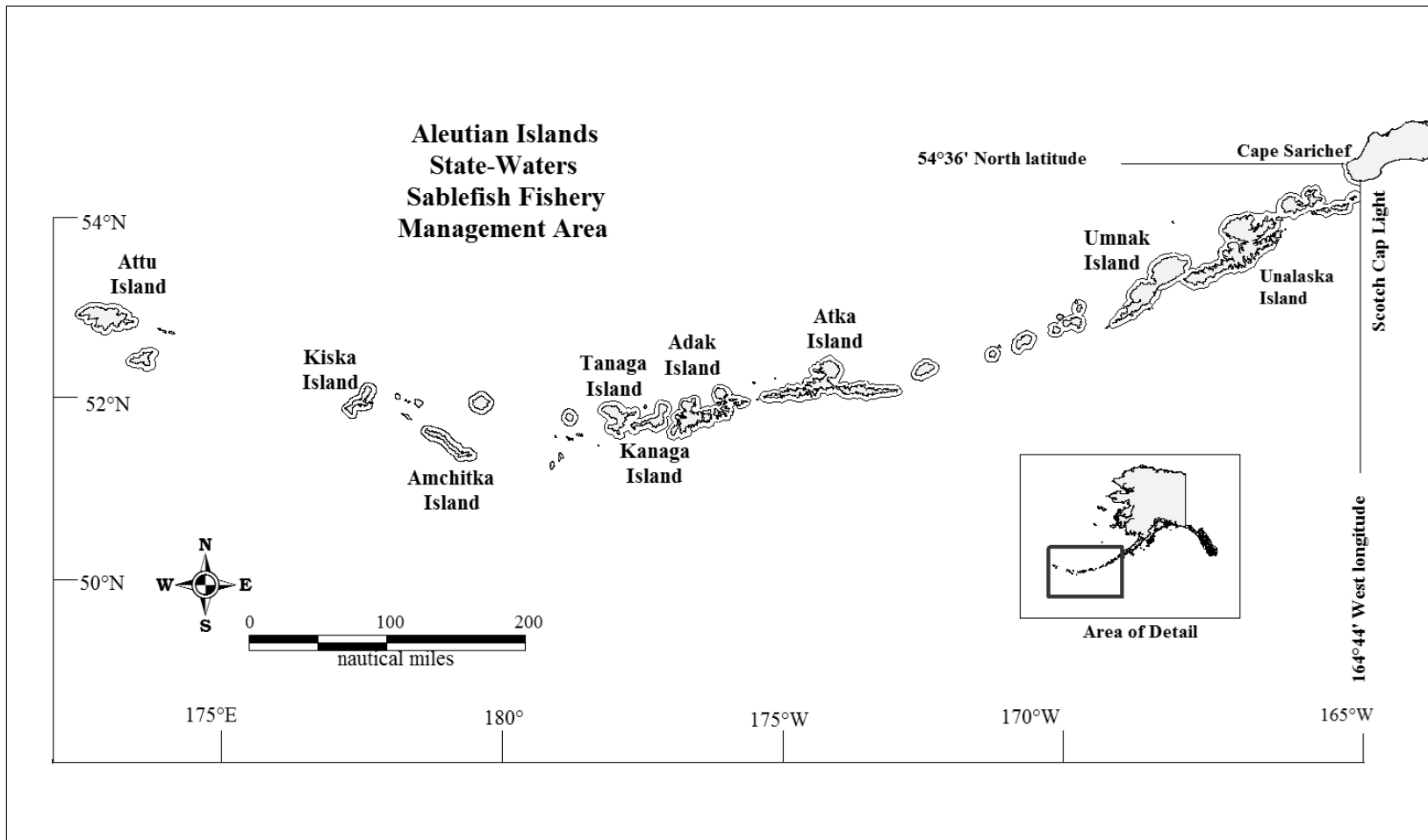


Figure 2.—Aleutian Islands state-waters sablefish fishery management area.

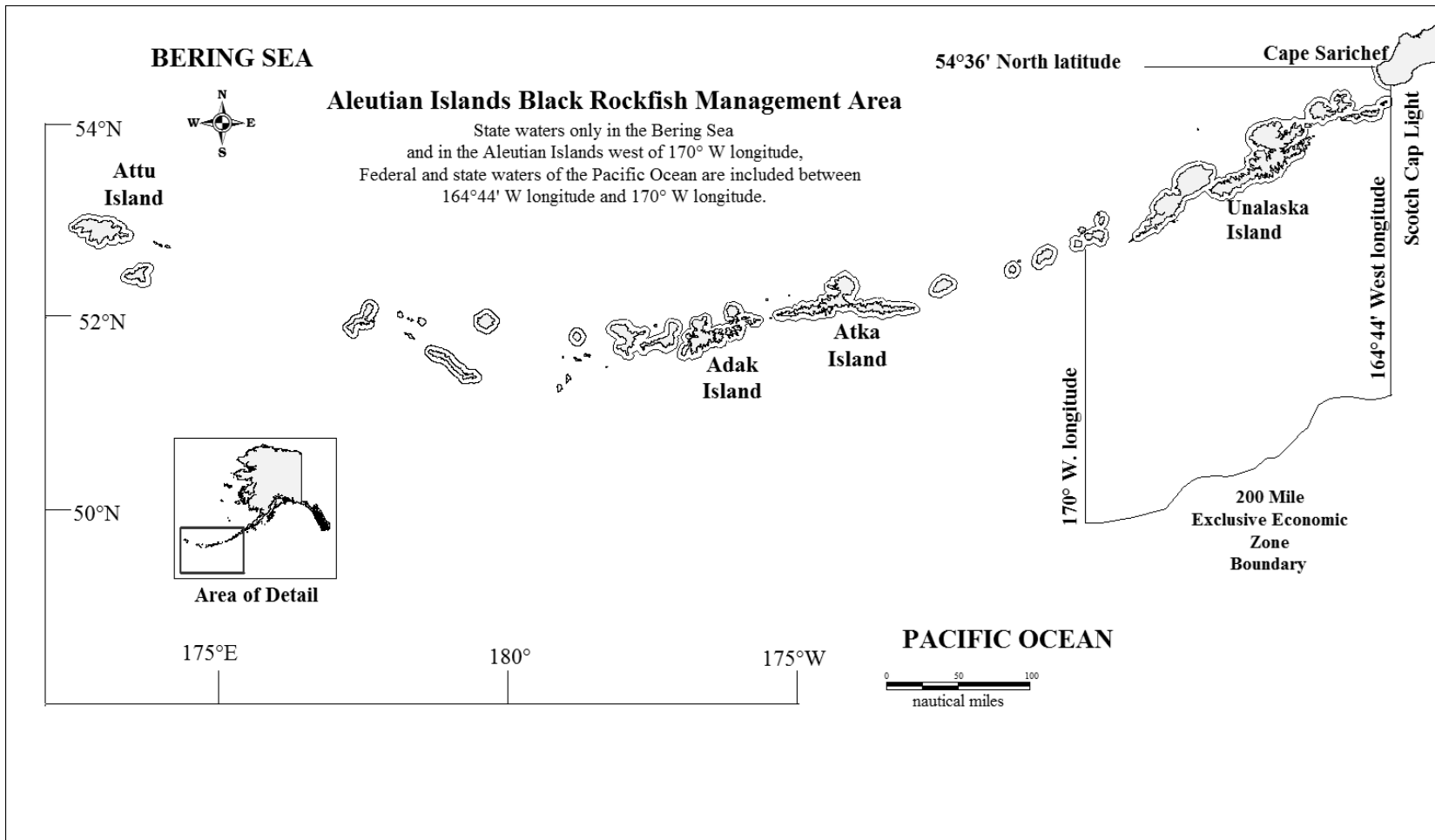


Figure 3.—Aleutian Islands state-waters black rockfish management area.

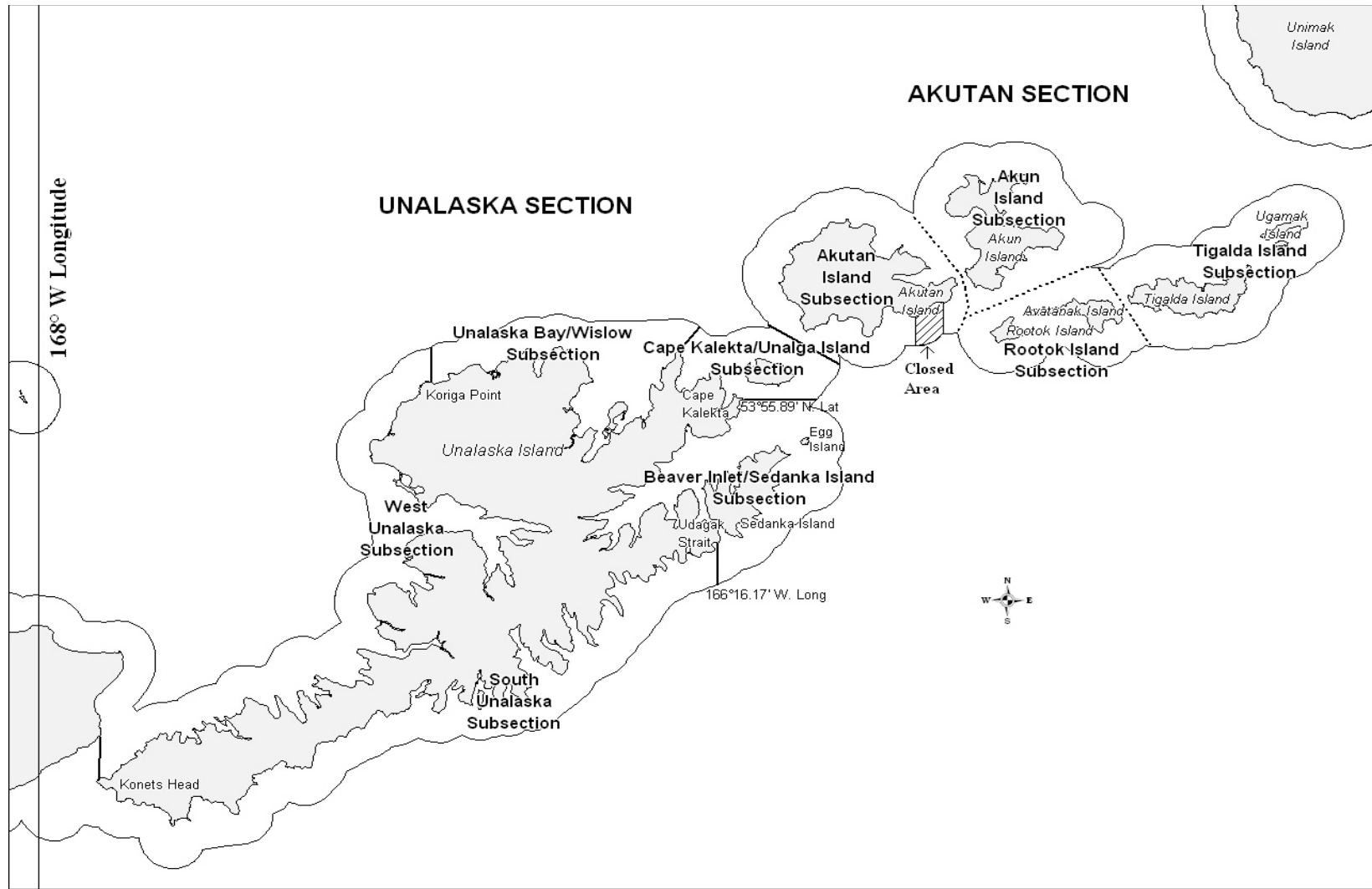


Figure 4.–Management boundaries for the Aleutian Islands state-waters black rockfish fishery.

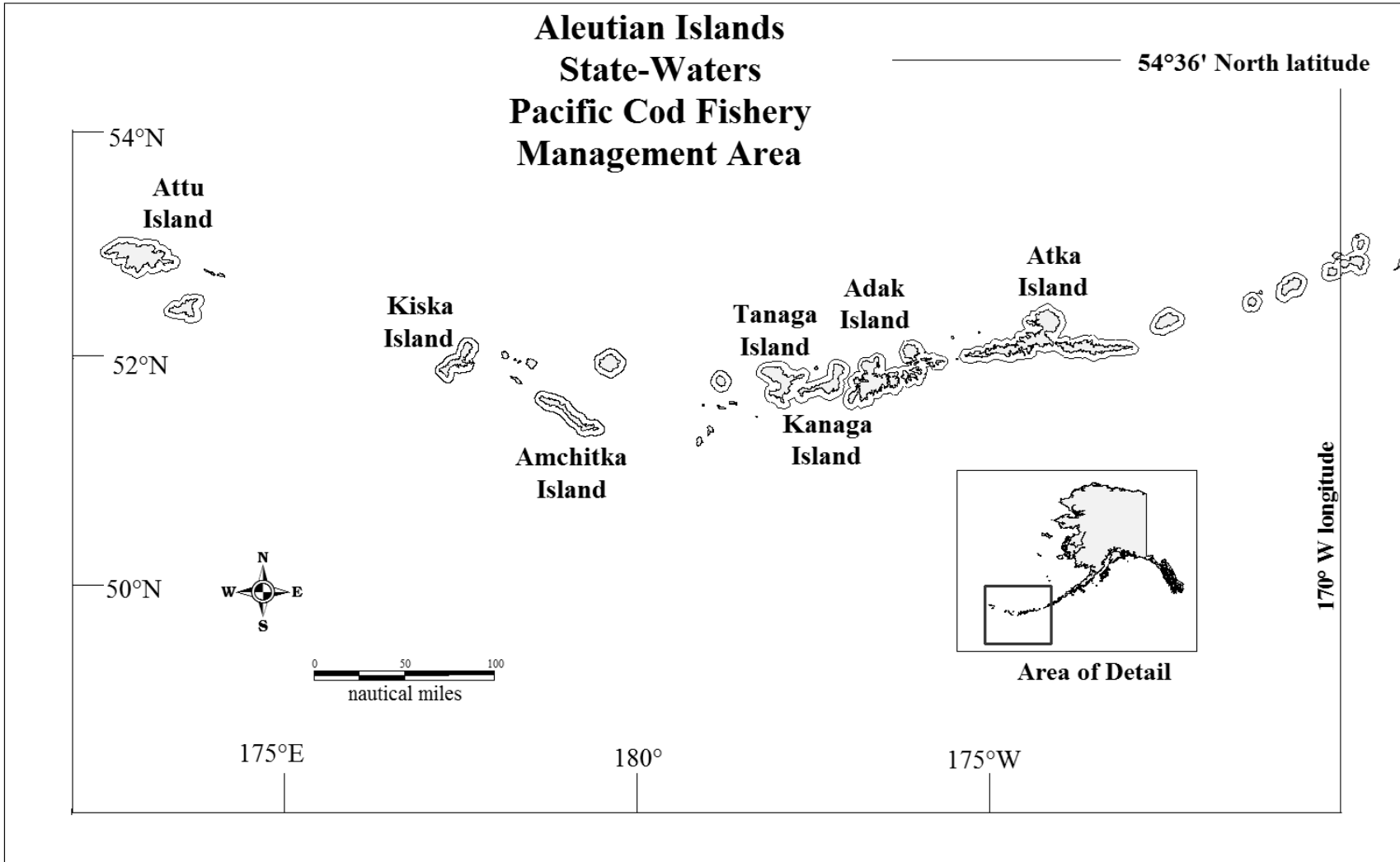


Figure 5.—Aleutian Islands Subdistrict state-waters Pacific cod fishery management area.

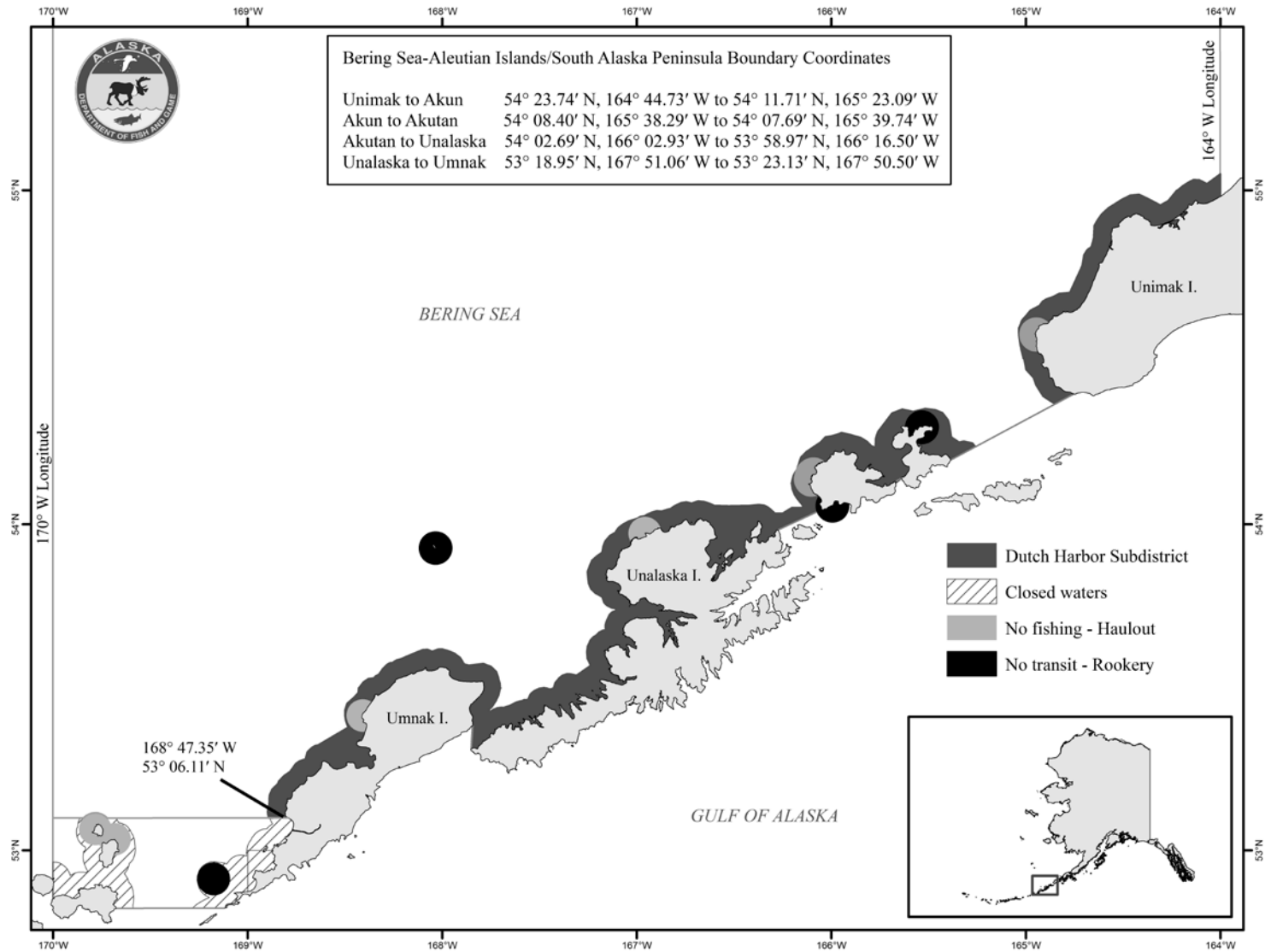


Figure 6.–Dutch Harbor Subdistrict state-waters Pacific cod fishery management area.

**APPENDIX A. ALEUTIAN ISLANDS SUBDISTRICT STATE-
WATERS PACIFIC COD FISHERY MANAGEMENT PLAN
REGULATIONS BY SEASON**

Appendix A1.–Aleutian Islands District state-waters Pacific cod fishery management plan regulatory modifications by season.

2006

- GHL established at 3% of federal BSAI ABC
- No more than 70% of GHL may be available before or after June 10
- Season opened on or after March 15, at the conclusion of the parallel catcher-vessel trawl A season
- Gear types: non-pelagic trawl, longline, jig, pot, and hand troll
- Adak vessel length and gear restriction zones in place (trawl and longline gear could not be used from May 1 – Sept 15, unless operating in the 60 ft and under vessel size limitation zones near Adak Island)
- Daily vessel harvest limit of 150,000 lb, vessel trip limit of 300,000 lb
- Mandatory Pacific cod retention, with proceeds from overage forfeited to state
- Daily vessel reporting
- Management plan sunset provision for Dec 31, 2007
- Closed areas: NMFS Steller sea lion areas, Aleutian Islands Habitat Conservation Area, coral gardens
- Provision for allowing unharvested state-waters Pacific cod to be utilized by NMFS

2007

- Vessel length limits: pot 125 ft or less, trawl 100 ft or less, longline and jig 58 ft or less
- Adak vessel length and gear restriction zones repealed from state-waters fishery management plan
- Vessel trip limit reduced to 150,000 pounds
- Prior to June 10 defined as A season and after June 10 as B season
- Season opening and closure dates: state-waters A season opens 4 days after closure of federal catcher-vessel trawl A season, closure of state-waters season during federal BSAI catcher-vessel trawl B season on April 1, and closure of state-waters season during federal BSAI catcher-vessel pot season for vessels 60 feet or greater OAL on September 1
- Regulation allowing unharvested state-waters Pacific cod to be utilized by NMFS repealed
- Management plan sunset provision repealed

2008

- No regulatory changes for the 2008 season

2009

- Vessel length for B season limited to less than 60 feet OAL for all gear types

2010

- Pot vessels less than 125 feet allowed to participate in the B season after August 1

2011

- No regulatory changes for the 2011 season

2012

- State-waters between 175° W long and 178° W long open January 1 and remain open until GHL is reached or June 9, whichever occurs first
 - When only waters between 175° W long and 178° W long are open, vessels using non-pelagic trawl, pot, and jig gear are limited to 60 feet or less OAL and vessels using longline gear are limited to 58 feet or less OAL
 - All state waters of the Aleutian Islands District west of 170° W long open 4 days after the parallel BSAI Pacific cod catcher-vessel trawl fishery closes, or on March 15, whichever occurs first
- Steller sea lion closure for federal/parallel fishery modified
 - With the exception of within 3 nautical miles of Kanaga Island/Ship Rock (51°46.70' N, 177°20.72' W), state-waters season continued to use those in place prior to 2011

2013

- No regulatory changes for the 2013 season

2014

- Clarification of rollover provisions between A and B season
 - Clarification of bycatch provisions
 - Clarification to registration requirements during concurrent state and federal Pacific cod seasons
 - Update of Steller sea lion and essential fish habitat closed area references
-

2015

- No regulatory changes for the 2015 season
-

2016

- Fishery changed to just one season
 - GHL established at 27% of federal AI ABC
-

Note: Regulatory changes are shown according to the first season they went into effect.

Appendix A2.–Dutch Harbor District state-waters Pacific cod fishery management plan regulatory modifications by season.

2014

- GHL established at 3% of federal BSAI ABC
 - Season opens at noon seven days following the closure of the federal BSAI hook-and –line/pot catcher vessel less than 60 feet in overall length sector
 - Gear types: pots; no more than 60 pots may be operated from a vessel
 - Vessel may not be longer than 58 feet in overall length
 - Mandatory Pacific cod retention, with proceeds from overage forfeited to state
 - Daily vessel reporting
 - Closed areas: NMFS Steller sea lion areas, Aleutian Islands Habitat Conservation Area, coral gardens
-

2015

- No regulatory changes for the 2015 season
-

2016

- GHL increased to 6.4% of federal BS ABC
 - Expanded western fishing boundary to 170°W long
-