# Annual Management Report for Shellfish Fisheries in the Bering Sea/Aleutian Islands Management Area, 2019/20

by

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April 2021

Alaska Department of Fish and Game

**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 <sup>3</sup> /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	≤
,	<i>y</i>	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)	32,
degrees Fahrenheit	°F	Code	FIC	not significant	NS
degrees kelvin	K	id est (that is)	i.e.	null hypothesis	$H_0$
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	Α	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)	1		Code	sample	var
parts per million	ppm	U.S. state	use two-letter		
parts per thousand	ppt,		abbreviations		
1 1	%°		(e.g., AK, WA)		
volts	V				
watts	W				

#### FISHERY MANAGEMENT REPORT NO. 21-06

# ANNUAL MANAGEMENT REPORT FOR SHELLFISH FISHERIES OF THE BERING SEA/ALEUTIAN ISLANDS MANAGEMENT AREA, 2019/20

by
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# **TABLE OF CONTENTS**

	Page
LIST OF TABLES	iii
LIST OF FIGURES	iv
ABSTRACT	1
INTRODUCTION	1
SECTION I: BERING SEA SHELLFISH FISHERIES	3
BRISTOL BAY KING CRAB REGISTRATION AREA T	
Description of Area	
Bristol Bay Red King Crab.	
2019/20 Fishery	
Port Sampling	3
Stock Status	4
BERING SEA KING CRAB REGISTRATION AREA Q	4
Description of Area	4
Saint Matthew Island Section Blue King Crab	4
2019/20 Fishery	
Stock Status	
Pribilof District Golden King Crab	
2019 Fishery	
Fishery Management and Stock Status	
Bering Sea Scarlet King Crab	
Fishery Management and Stock Status	0 6
BERING SEA TANNER CRAB MANAGEMENT DISTRICT	
Description of Area	
Bering Sea Tanner Crab	
2019/20 Fishery East of 166°W Longitude	
2019/20 Fishery West of 166°W Longitude	
Stock Status	
Bering Sea Snow Crab	8
2019/20 Fishery	
Port Sampling	
Stock Status	
Bering Sea Grooved Tanner Crab	
Fishery Management and Stock Status	
Bering Sea Triangle Tanner Crab	
2019 Fishery	
Fishery Management and Stock Status	
NORTH PENINSULA DISTRICT DUNGENESS CRAB	9
Description of District	9

# **TABLE OF CONTENTS (Continued)**

	Page
Dungeness Crab	10
2019 Fishery	
Fishery Management and Stock Status	
BERING SEA WEATHERVANE SCALLOP REGISTRATION AREA Q	10
Description of Area	10
Bering Sea Weathervane Scallop.	10
2019/20 Fishery	
Fishery Management and Stock Status	
BERING SEA MISCELLANEOUS SHELLFISH SPECIES	
Description of District	
2019 Fisheries	
Octopus Fishery Management and Stock Status	
REFERENCES CITED	
TABLES AND FIGURES	
SECTION II: ALEUTIAN ISLANDS SHELLFISH FISHERIES	
ALEUTIAN ISLANDS KING CRAB MANAGEMENT AREA	65
Description of Area	
Aleutian Islands Golden King Crab	
2019/20 Fishery East of 174°W Longitude	
Port Sampling	
Port Sampling	
Fishery Management and Stock Status	66
EASTERN ALEUTIAN TANNER CRAB DISTRICT	67
Description of District	67
Tanner Crab	
2019 Commercial Fishery	
Fishery Management and Stock Status	
Subsistence	
ALEUTIAN DISTRICT DUNGENESS CRAB	
Description of District	
Fishery Management and Stock Status	
DUTCH HARBOR WEATHERVANE SCALLOP REGISTRATION AREA O	
Description of Area  Dutch Harbor Weathervane Scallop	
2019/20 Fishery	
Fishery Management and Stock Status	

# **TABLE OF CONTENTS (Continued)**

	P	age
ALEUT	IAN ISLANDS MISCELLANEOUS SHELLFISH	69
Descript	tion of District	69
	sheries	
	pus	
	ery Management and Stock Status	
	ENCES CITED	
TABLE	S AND FIGURES	71
SECTIO	ON III: BERING SEA/ALEUTIAN ISLANDS COMMUNITY DEVELOPMENT QUOTA AND ADAK	_
COMM	UNITY ALLOCATION SHELLFISH FISHERIES	96
Descrint	tion of Area	96
	n Background	
-	Fishery	
	•	
TABLE	S	99
	LIST OF TABLES	
T 11		
Table		age
1. 2.	Bristol Bay red king crab commercial fishery harvest data, 1966–2019/20.	
3.	Bristol Bay red king crab commercial fishery value and season dates, 1980–2019/20 Bristol Bay red king crab commercial fishery harvest and effort by week, 2019/20	
3. 4.	Bristol Bay red king crab commercial fishery harvest and effort by statistical area, 2019/20.	
4. 5.	Bristol Bay red king crab commercial fishery flarvest and effort by statistical area, 2019/20	
5. 6.	Saint Matthew Island Section blue king commercial fishery harvest data, 1977–2019/20.	
7.	Saint Matthew Island Section blue king commercial fishery value and season dates, 1977–2019/20.	
8.	Pribilof District golden king crab commercial fishery harvest data, 1981/82–2019.	
8. 9.	Pribilof District golden king crab commercial fishery value and season dates, 1991–2019.	
10.	Bering Sea scarlet king crab commercial fishery harvest data, 1995–2019.	
11.	Bering Sea District Tanner crab commercial fishery harvest data, 1968–2019/20.	
12.	Bering Sea District Tanner crab commercial fishery value and season dates, 1974–2019/20	
13.	Bering Sea District rainer crab commercial fishery harvest data, 1977/78–2019/20.	
14.	Bering Sea District snow crab commercial fishery value and season dates, 1980–2019/20.	
15.	Bering Sea District snow crab commercial fishery harvest and effort by week, 2019/20.	
16.	Bering Sea District snow crab commercial fishery harvest and effort by statistical area, 2019/20	
17.	Bering Sea District grooved Tanner crab commercial fishery harvest data, 1992–2019	
18.	Bering Sea District triangle Tanner crab commercial fishery harvest data, 1995–2019.	
19.	North Peninsula District commercial Dungeness crab fishery data, 1992–2019.	
20.	Bering Sea weathervane scallop commercial fishery harvest data, 1987–2019/20.	
21.	Bering Sea commercial octopus incidental harvest in groundfish fisheries, 1995–2019.	
22.	Aleutian Islands golden king crab commercial fishery harvest data, 1981/82–2019/20.	
23.	Aleutian Islands golden king crab commercial fishery value and season dates, 1981/82–2019/20	
24.	Eastern Aleutian Islands golden king crab cost-recovery harvest data and charter length, 2013–2019	
25.	Eastern Aleutian District Tanner crab commercial fishery harvest data, 1973/74–2019.	
26.	Eastern Aleutian District Tanner crab commercial fishery value and season dates, 1973/74–2019	
27.	Subsistence king and Tanner crab harvest from the Eastern Aleutian Islands, west of Scotch Cap Light	
	and east of 168°W long, 1999–2019.	
28.	Aleutian District Dungeness crab commercial fishery data, 1974–2019.	88

# **LIST OF TABLES (Continued)**

Tab	le	Page
29.	Dutch Harbor weathervane scallop commercial fishery harvest data, 1982–2019/20	90
30.		
31.		
	fishery to each group, 2003–2019/20.	100
	LIST OF FIGURES	
Figu		Page
1.	Bristol Bay king crab commercial fishery Registration Area T.	55
2.	Bristol Bay red king crab commercial fishery harvest, catch per unit effort, and number of vessels, 1966–2019/20.	56
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
	J	64
11.	Aleutian Islands king crab commercial fishery Registration Area O.	92
12.	Eastern Aleutian Islands golden king crab commercial fishery harvest, catch per unit effort, and number of vessels, 1981/82–2019/20.	93
13.		
14.		

#### **ABSTRACT**

The Alaska Department of Fish and Game (ADF&G) manages commercial and subsistence shellfish fisheries in the territorial waters and Exclusive Economic Zone (EEZ) of the Bering Sea and Aleutian Islands in the northern Pacific Ocean. This report presents details on commercial and subsistence invertebrate and shellfish fisheries harvest, participation, and value in the Bering Sea and Aleutian Islands (BSAI) areas, excluding king crab fisheries north of Cape Romanzof. In 2019/20, red king crab, golden king crab, snow crab, Tanner crab, and giant Pacific octopus were taken in BSAI fisheries. Current fishery management practices, a summary of the most recent commercial fishery, and general stock status information are presented.

Keywords:

Red king crab *Paralithodes camtschaticus*, golden king crab *Lithodes aequispinus*, scarlet king crab *Lithodes couesi*, snow crab *Chionoecetes opilio*, Tanner crab *C. bairdi*, Dungeness crab *Metacarcinus magister*, giant Pacific octopus *Enteroctopus dofleini*, blue king crab *P. platypus*, grooved Tanner crab *C. tanneri*, triangle Tanner crab *C. angulatus*, Community Development Quota, Crab Rationalization, Individual Fishing Quota, subsistence, guideline harvest level, Bering Sea, Aleutian Islands, North Peninsula, bycatch, confidential interviews, retained catch, species composition sample, size frequencies

#### INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) manages all commercial and subsistence invertebrate and shellfish fisheries occurring in the state waters of Alaska (0–3 nmi) and waters of the Exclusive Economic Zone (EEZ; 3–200 nmi) of the Bering Sea and Aleutian Islands. The Bering Sea (including Bristol Bay) is made up of waters north of Cape Sarichef (54°36′N lat) and west of the Maritime Boundary Agreement Line of 1990, excluding the Norton Sound Section. The Aleutian Islands area includes waters west of the longitude of Scotch Cap Light (164°44.72′W long), east of the Maritime Boundary Agreement Line of 1990, south of Cape Sarichef (58°36′N lat), to 171°W long westward, and south of a line from the latitude 55°30′N. Crab in the Bering Sea north of Cape Romanzof (61°49′N lat), including Norton Sound, are managed by ADF&G's Nome office and are not included in this report. Waters of the Bering Sea and Aleutian Islands (BSAI) support the largest and most valuable commercial crab fisheries in Alaska.

The BSAI is divided into registration areas for king crab management; and districts for Tanner crab, Dungeness crab, and miscellaneous shellfish management. BSAI king and Tanner crab fisheries in the EEZ are managed under a federal fisheries management plan (FMP) that establishes a cooperative management structure deferring king and Tanner crab management to the State of Alaska with federal oversight. Other crab and miscellaneous shellfish fisheries that occur in territorial waters are managed solely under state jurisdiction. Since 2005, most EEZ BSAI crab fisheries are managed under the federal crab rationalization program which resulted in consolidation of harvesting and processing sectors and substantially changed historical fishing practices.

Species commercially harvested during the 2019/20 season in the BSAI include red king crab *Paralithodes camtschaticus*, golden king crab *Lithodes aequispinus*, snow crab *Chionoecetes opilio*, grooved Tanner crab *C. tanneri*, and giant Pacific octopus *Enteroctopus dofleini*. Additionally, a fishery for weathervane scallop *Patinopectin caurinus* occurs in the BSAI which is summarized in a separate report: *Stock Assessment and Fishery Evaluation Report for the Weathervane Scallop Fishery off Alaska* (NPFMC 2019b). Historically, waters of the BSAI have supported commercial harvests of blue king crab *P. platypus*, scarlet king crab *L. couesi*, triangle Tanner crab *C. angulatus*, Dungeness crab *Metacarcinus magister*, green sea urchins

Strongylocentrotus droebachiensis, pandalid shrimp, hair crab Erimacrus isenbeckii, and several species of sea snails. However, fisheries for these species are currently either closed due to low abundance or not currently commercially prosecuted. For additional background on current BSAI shellfish fisheries and information on historical fisheries not covered in this report, refer to Annual management report for shellfish fisheries of the Bering Sea/Aleutian Islands Management Area, 2015/16 (Leon et al. 2017).

In 2019/20, 65 catcher vessels, 2 catcher-processors, and 9 shore-based processors were involved in harvesting and processing shellfish in the BSAI. Shellfish landings totaled approximately 45.0 million pounds.

## SECTION I: BERING SEA SHELLFISH FISHERIES

#### BRISTOL BAY KING CRAB REGISTRATION AREA T

#### **DESCRIPTION OF AREA**

Bristol Bay king crab Registration Area T includes all waters north of Cape Sarichef (54°36′N lat), south of Cape Newenham (58°39′N lat), and east of 168°W long (Figure 1).

#### **BRISTOL BAY RED KING CRAB**

### 2019/20 Fishery

The 2019/20 Bristol Bay red king crab (BBR) fishery opened October 15 with a combined Individual Fishing Quota (IFQ) and Community Development Quota (CDQ) Total Allowable Catch (TAC) of 3,797,000 pounds (Table 1). TAC was allocated by National Marine Fisheries Service (NMFS) as 90% IFQ (3,417,300 pounds) and 10% CDQ (379,700 pounds) with all six of the CDQ groups participating in the harvest of the CDQ allocation. Fifty-six vessels participated in the fishery and harvested 3,791,569 pounds, of which 0.2% was deadloss (Table 1). Despite the regulatory fishing season running through January 15, 99% of the harvest occurred by mid-November, with the last delivery on January 11 (Tables 2 and 3). On average, vessels were active in the fishery for 15 days. Harvesters were paid an initial average exvessel price of \$9.04 per pound. Total exvessel fishery value was estimated to be \$34,208,234 (Table 2).

Total effort for the 2019/20 fishery was 34,458 pot lifts. Catch per unit effort (CPUE) was 15 legal crab per pot, well below the post-rationalization (2005/06–2018/19) average CPUE of 26 (Table 1, Figure 2). Harvest was distributed across 12 ADF&G statistical reporting areas with the highest concentration of harvest (33%) occurring in ADF&G statistical area 645600, northwest of Amak Island (Table 4).

BBR cost recovery was conducted by ADF&G in 2019 with 122,372 pounds (17,187 legal male crab) harvested. The 13-day charter occurred from October 1 to October 13 (Table 5).

## **Port Sampling**

During the 2019/20 BBR fishery, ADF&G personnel and onboard observers sampled red king crab from vessels at shore-based processors in Akutan, Dutch Harbor, King Cove, Kodiak, and Saint Paul Island. Biological data collected on landed red king crab consisted of carapace length, shell condition, and average weight. Confidential interviews, supplemented by daily fishing log records, were conducted with vessel operators to acquire detailed information regarding statistical reporting areas fished, effort, and fishery performance. Data was collected by ADF&G port samplers and onboard observers from 110 of the 116 total landings (IFQ and CDQ) during the 2019/20 BBR fishery. Average weight of sampled crab was 7.1 pounds while average carapace length was 156 mm (Table 1).

#### **Stock Status**

The 2019 NMFS trawl survey of Bristol Bay was conducted in June. Red king crab were caught in 67 of the 136 survey stations within the Bristol Bay management district, with most mature males concentrated in the central section.

Based on 2019 NMFS trawl survey data, immature male biomass decreased 1%, mature male biomass decreased 6%, legal male biomass decreased 25%, and mature female biomass increased 7%, relative to the 2018 trawl survey estimates. Estimated immature male biomass of 6.2 million pounds was below the 20-year average of 20.9 million pounds, estimated mature male biomass of 27.4 million pounds was below the 20-year average of 78.7 million pounds, estimated legal male biomass of 19.8 million pounds was below the 20-year average of 61.8 million pounds, and estimated mature female biomass of 28.9 million pounds was below the 20-year average of 71.5 million pounds (Zacher et al. 2020).

Data from the NMFS trawl survey is incorporated into the length-based analysis (LBA) model with model estimates used by the BBR regulatory harvest strategy to determine the fishery TAC. LBA model results indicated an effective spawning biomass of 28.0 million pounds; therefore, an exploitation rate of 10% was applied to mature male red king crab for a 2019 TAC of 3.797 million pounds. The harvest strategy is found in 5 AAC 34.816 *Bristol Bay red king crab harvest strategy*.

Further information on BBR stock status and federal overfishing levels may be found in the 2019 Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions (NPFMC 2019a).

# BERING SEA KING CRAB REGISTRATION AREA Q

#### **DESCRIPTION OF AREA**

The Bering Sea king crab Registration Area Q southern boundary is a line from 54°36′N lat, 168°W long, to 54°36′N lat, 171°W long, to 55°30′N lat, 171°W long, to 55°30′N lat, 173°30′E long. The northern boundary is the latitude of Point Hope (68°21′N lat). The eastern boundary is a line from 54°36′N lat, 168°W long, to 58°39′N lat, 168°W long, to Cape Newenham (58°39′N lat). The western boundary is the United States–Russia Maritime Boundary Line of 1990 (Figure 3). Area Q is divided into two districts: the Pribilof District, which includes waters south of Cape Newenham; and the Northern District, which includes all waters north of Cape Newenham. The Northern District is subdivided into three sections. The Saint Matthew Island Section includes waters north of Cape Newenham and south of Cape Romanzof (61°49′N lat). The Norton Sound Section includes all waters north of Cape Romanzof, and south of 66°N lat. The Kotzebue Sound Section encompasses all remaining waters of the district. The Norton Sound Section and Kotzebue Sound Section are not addressed in this report.

#### SAINT MATTHEW ISLAND SECTION BLUE KING CRAB

# **2019/20 Fishery**

The 2019/20 Saint Matthew Island Section blue king crab fishery was closed due to the 2019 NMFS trawl survey model-survey estimate of mature male abundance being below the regulatory threshold for opening a fishery (Tables 6 and 7, Figure 4).

#### **Stock Status**

The 2019 NMFS trawl survey of Saint Matthew Island was conducted in July. Blue king crab were caught in 13 of the 56 survey stations within the Saint Matthew Island Section of the Northern District, with most mature males concentrated southeast of the island.

Based on 2019 NMFS trawl survey data, immature male biomass increased 76%, mature male biomass increased 79%, legal male biomass increased 70%, and mature female biomass increased 23%, relative to the 2018 trawl survey estimates. Estimated immature male biomass of 1.7 million pounds was below the 20-year average of 2.2 million pounds, estimated mature male biomass of 6.3 million pounds was below the 20-year average of 7.7 million pounds, estimated legal male biomass of 5.1 million pounds was at the 20-year average of 5.1 million pounds, and estimated mature female biomass of 0.86 million pounds was above the 20-year average of 0.23 million pounds (Zacher et al. 2020). Stock assessment authors attribute increases in trawl survey biomass estimates to movement of crab out of near shore areas and into the trawl survey zone, as opposed to actual increases in abundance. In 2018, NMFS declared the Saint Matthew Island blue king crab stock overfished and began developing a stock rebuilding plan.

ADF&G conducted triennial pot surveys in the Saint Matthew Island Section from 1995 to 2013, with a focus on the nearshore waters with bottom topography unsuitable to trawl surveys. From 2013 to 2018, in response to a request for more detailed information from the stock assessment authors, the survey was conducted on an annual basis. There was no ADF&G pot survey conducted in 2019.

Further information on Saint Matthew Island blue king crab stock status and federal overfishing levels may be found in the 2019 *Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions* (NPFMC 2019a).

#### PRIBILOF DISTRICT GOLDEN KING CRAB

#### 2019 Fishery

The 2019 Pribilof District golden king crab fishery had a GHL of 130,000 pounds and was open January 1, 2018, through December 31, 2018. Two vessels participated in the fishery. Harvest information is confidential (Tables 8 and 9).

### **Fishery Management and Stock Status**

The golden king crab fishery is managed using a guideline harvest level (GHL) based on long-term average harvest. In 2012, the North Pacific Fishery Management Council (NPFMC) established a total-catch overfishing level (OFL) of 200,000 pounds. The 2012 OFL used the relationship of bycatch mortality to retained catch in the Pribilof District golden king crab fishery from 2001–2010 (NPFMC 2011).

An acceptable biological catch of 180,000 pounds was also set in 2012, by applying a 10% buffer on the Tier 5 harvest control rule OFL (NPFMC 2011). For 2015, the acceptable biological catch (ABC) was reduced to 150,000 pounds by employing a 25% buffer on the OFL to account for uncertainty associated with limited stock condition data (NPFMC 2014). The GHL is established by reducing the ABC to account for bycatch mortality of golden king crab in other fisheries.

Stock biomass of golden king crab in the Pribilof Canyon area has been estimated using area-swept extrapolations applied to NMFS slope trawl survey data. Biomass estimates of golden king crab

from the slope survey are highly uncertain, and although they are not currently used in fishery management, they are still considered relevant to discussions of stock status. Survey data suggest biomass of golden king crab in the Pribilof Canyon area is variable. There was no NMFS Bering Sea slope survey conducted in 2019. Results of the 2016 NMFS Bering Sea slope survey show an estimated biomass of 2.89 million pounds (Hoff 2016).

Further information on Pribilof District golden king crab stock status and federal overfishing levels may be found in the 2019 *Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions* (NPFMC 2019a).

#### BERING SEA SCARLET KING CRAB

### 2019 Fishery

No vessels harvested scarlet king crab in the Bering Sea during 2019 (Table 10).

#### **Fishery Management and Stock Status**

In 2007, NMFS amended the FMP and removed Bering Sea scarlet king crab, which transferred sole jurisdiction for the fishery to the state (NPFMC 2007). Onboard observers have been required on most vessels that targeted deepwater crab species since 1994 and have collected information detailing the size and sex composition of the retained and nonretained scarlet king crab and bycatch species. This information is useful when developing management measures for deepwater crab stocks; however, there is currently no harvest strategy.

Stock biomass of scarlet king crab in the Bering Sea has been estimated using area-swept methods applied to NMFS upper continental slope trawl survey data (Hoff 2016). Although biomass estimates of scarlet king crab from the slope survey are available, they are highly uncertain and not currently used in fishery management. There was no NMFS Bering Sea slope survey conducted in 2019. Results of the 2016 NMFS Bering Sea slope survey show an estimated biomass of 0.97 million pounds (Hoff 2016).

### BERING SEA TANNER CRAB MANAGEMENT DISTRICT

#### **DESCRIPTION OF AREA**

The Bering Sea District of Tanner crab Registration Area J includes all waters north of Cape Sarichef (54°36′N lat). The district is divided into the Eastern and Western Subdistricts at 173°W long. The Eastern Subdistrict is further divided into two sections: the Norton Sound Section north of the latitude of Cape Romanzof (61°49′N lat) and east of 168°W long, and the General Section south and west of the Norton Sound Section (Figure 5).

#### BERING SEA TANNER CRAB

The Bering Sea Tanner crab stock is managed as two separate fisheries, east and west of 166°W long, with a separate TAC set for each fishery.

#### 2019/20 Fishery East of 166°W Longitude

The 2019/20 Bering Sea Tanner crab fishery east of 166°W long (EBT) was closed (Tables 11 and 12, Figure 6). Results from the 2019 NMFS trawl survey showed that the mature male biomass estimate east of 166°W long was below the regulatory threshold required to open the fishery;

mature male biomass must be at or above 100 percent of the 1982–2016 average. The harvest strategy is found in 5 AAC 35.508 *Bering Sea District C. bairdi Tanner crab harvest strategy*.

#### **Stock Status**

The 2019 NMFS trawl survey of the eastern Bering Sea was conducted in June and July. Tanner crab were caught in 76 of the 120 survey stations east of 166°W long, with most mature males concentrated in the southwest sections of Bristol Bay (Zacher et al. 2020).

Based on 2019 NMFS trawl survey estimates east of 166°W long, immature male biomass increased 63%, mature male biomass decreased 42%, legal male biomass decreased 38%, and mature female biomass increased 9%, relative to the 2018 trawl survey estimates. Estimated immature male biomass of 9.7 million pounds was below the 20-year average of 21.2 million pounds, estimated mature male biomass of 14.1 million pounds was below the 20-year average of 36.3 million pounds, estimated legal male biomass of 12.2 million pounds was below the 20-year average of 28.5 million pounds, and estimated mature female biomass of 1.4 million pounds was below the 20-year average of 8.1 million pounds (Zacher et al. 2020).

Further information on Tanner crab stock status and federal overfishing levels may be found in the 2019 Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions (NPFMC 2019a).

#### 2019/20 Fishery West of 166°W Longitude

The 2019/20 Bering Sea Tanner crab fishery west of 166°W long (WBT) was closed (Table 11 and 12, Figure 6). Results from the 2019 NMFS trawl survey showed that the mature male biomass estimate west of 166°W long was below the regulatory threshold required to open the fishery; mature male biomass must be at or above 100 percent of the 1982–2016 average. The harvest strategy is found in 5 AAC 35.508 *Bering Sea District C. bairdi Tanner crab harvest strategy*.

#### **Stock Status**

The 2019 NMFS trawl survey of the eastern Bering Sea was conducted in June and July. Tanner crab were caught in 164 of the 255 survey stations west of 166°W long, with most mature males concentrated around the Pribilof Islands (Zacher et al. 2020).

Based on 2019 NMFS trawl survey estimates west of 166°W long, immature male biomass decreased 12%, mature male biomass decreased 59%, legal male biomass decreased 59%, and mature female biomass decreased 4%, relative to the 2018 trawl survey estimates. Estimated immature male biomass of 17.0 million pounds was below the 20-year average of 30.0 million pounds, estimated mature male biomass of 21.6 million pounds was below the 20-year average of 47.8 million pounds, estimated legal male biomass of 19.3 million pounds was below the 20-year average of 39.9 million pounds, and estimated mature female biomass of 9.1 million pounds was below the 20-year average of 11.4 million pounds (Zacher et al. 2020).

Further information on Tanner crab stock status and federal overfishing levels may be found in the 2019 Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions (NPFMC 2019a).

#### **BERING SEA SNOW CRAB**

### **2019/20 Fishery**

The 2019/20 Bering Sea snow crab (BSS) fishery opened October 15 with a combined IFQ and CDQ TAC of 34,019,000 pounds (Table 13). TAC was allocated by NMFS as 90% IFQ (30,617,100 pounds) and 10% CDQ (3,401,900 pounds) with all six of the CDQ groups participating in the harvest of the CDQ allocation. Fifty-nine vessels participated in the fishery and harvested 34,024,553 pounds, of which 1.2% was deadloss (Table 13). Despite the regulatory fishing season running through May 31, most of the harvest occurred January through March, with the last delivery on May 19 (Table 14 and 15). On average, vessels were active in the fishery for 71 days. Harvesters were paid an initial average exvessel price of \$3.15 per pound, the highest BSS exvessel price since the inception of the fishery. Total exvessel fishery value was estimated to be \$105,928,621 (Table 14).

Total effort for the 2019/20 fishery was 188,958 pot lifts. CPUE was 151 legal crab per pot, below the post-rationalization (2005/06–2018/19) average CPUE of 221 (Table 13; Figure 7). Harvest was distributed across 53 ADF&G statistical reporting areas with the highest concentration of harvest (14%) occurring in ADF&G statistical area 715630, southwest of Saint Paul Island (Table 16).

### **Port Sampling**

During the 2019/20 Bering Sea snow crab fishery, ADF&G personnel and onboard observers sampled snow crab from vessels at shore-based processors in Akutan, Dutch Harbor, King Cove, and Saint Paul. Biological data collected on landed snow crab consisted of carapace width, shell condition, and average weight. Confidential interviews, supplemented by daily fishing log records, were conducted with vessel operators to acquire detailed information regarding statistical reporting areas fished, effort, and fishery performance. Data was collected by ADF&G port samplers and onboard observers from 364 of the 373 total landings (IFQ and CDQ) during the 2019/20 Bering Sea snow crab fishery. Average weight of sampled crab was 1.2 pounds and average carapace width was 108 mm (Table 13).

#### **Stock Status**

The 2019 NMFS trawl survey of the eastern Bering Sea was conducted in June and July. Snow crab were caught in 251 of the 375 survey stations of the eastern Bering Sea survey area, with mature males distributed throughout the survey area in waters deeper than 50 meters (Zacher et al. 2020).

Based on 2019 NMFS trawl survey estimates, immature male biomass decreased 38%, mature male biomass increased 16%, legal male biomass increased 35%, and mature female biomass decreased 34%, relative to the 2018 trawl survey estimates. Estimated immature male biomass of 626.5 million pounds was above the 20-year average of 297.8 million pounds, estimated mature male biomass of 120.3 million pounds was below the 20-year average of 148.4 million pounds, estimated legal male biomass of 387.8 million pounds was above the 20-year average of 234.8 million pounds, and estimated mature female biomass of 235.5 million pounds was above the 20-year average of 179.1 million pounds (Zacher et al. 2020).

Further information on snow crab stock status and federal overfishing levels may be found in the 2019 Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions (NPFMC 2019a).

#### BERING SEA GROOVED TANNER CRAB

#### 2019 Fishery

One vessel harvested grooved Tanner crab in the Bering Sea during 2019. Harvest information is confidential (Table 17).

### **Fishery Management and Stock Status**

In 2007, NMFS amended the FMP and removed Bering Sea grooved Tanner crab, which transferred sole jurisdiction for the fishery to the state (NPFMC 2007). Onboard observers have been required on most vessels that targeted deepwater crab species since 1994 and have collected information detailing the size and sex composition of the retained and nonretained grooved Tanner crab and bycatch species. This information is useful when developing management measures for deepwater crab stocks; however, there is currently no harvest strategy.

Stock biomass of grooved Tanner crab in the Bering Sea has been estimated using area-swept methods applied to NMFS upper continental slope trawl survey data (Hoff 2016). Although biomass estimates of grooved Tanner crab from the slope survey are available, they are highly uncertain and not currently used in fishery management. There was no NMFS Bering Sea slope survey conducted in 2019. Results of the 2016 NMFS Bering Sea slope survey show an estimated biomass of 3.81 million pounds in the eastern Bering Sea (Hoff 2016).

#### BERING SEA TRIANGLE TANNER CRAB

#### 2019 Fishery

No vessels harvested triangle Tanner crab in the Bering Sea during 2019 (Table 18).

#### **Fishery Management and Stock Status**

Triangle Tanner crab are currently managed as bycatch only to other nonrationalized fisheries. Stock biomass of triangle Tanner crab in the Bering Sea has been estimated using area-swept methods applied to NMFS upper continental slope trawl survey data (Hoff 2016). Although biomass estimates of triangle Tanner crab from the slope survey are available, they are highly uncertain and not currently used in fishery management. There was no NMFS Bering Sea slope survey conducted in 2019. Results of the 2016 NMFS Bering Sea slope survey show an estimated biomass of 13.5 million pounds in the eastern Bering Sea (Hoff 2016).

In December 2007, NMFS amended the FMP and removed Bering Sea triangle Tanner crab, which provided the state of Alaska with sole jurisdiction over the fishery (NPFMC 2007).

#### NORTH PENINSULA DISTRICT DUNGENESS CRAB

#### **DESCRIPTION OF DISTRICT**

The North Peninsula District for Dungeness crab includes all waters of Registration Area J north of the latitude of Cape Sarichef at 54°36′N lat (Figure 8).

#### **DUNGENESS CRAB**

#### 2019 Fishery

The North Peninsula Dungeness crab fishery opened May 1, 2019. No vessels registered for the 2019 season (Table 19).

#### **Fishery Management and Stock Status**

The North Peninsula Dungeness crab fishery is managed using 3-S management (size, sex, and season). Only male Dungeness crab 6.5 inches (165 mm) or greater in carapace width may be retained from 12:00 noon May 1 to 11:59 PM October 18. No stock assessment is available and limited biological and fishery data have been collected through dockside sampling.

# BERING SEA WEATHERVANE SCALLOP REGISTRATION AREA O

#### **DESCRIPTION OF AREA**

Bering Sea weathervane scallop Registration Area Q is a combination of the Bristol Bay king crab Registration Area T and Bering Sea king crab Registration Area Q (Figure 9).

#### BERING SEA WEATHERVANE SCALLOP

### 2019/20 Fishery

The 2019/20 Bering Sea weathervane scallop fishery opened July 1, 2019 with a GHL of 7,500 pounds of shucked scallop meat. One vessel participated in the fishery and harvested 7,130 pounds of shucked scallop meat (Table 20). All harvest occurred in October, with the remaining GHL unharvested before the fishery closed by regulation on February 15, 2020.

Total effort for the 2019/20 fishery was 365 dredge hours. CPUE was 20 pounds of shucked scallop meat per dredge hour, well below the ten-year average (2009/10–2018/19) average of 36 (Table 20). Harvest was distributed across 2 ADF&G statistical reporting areas, 645530 and 655530, with the highest concentration of harvest (97%) occurring in ADF&G statistical area 655530, northwest of Unimak Island.

### **Fishery Management and Stock Status**

Fishing effort in Bering Sea weathervane scallop Registration Area Q primarily occurs north—northwest of Unimak Island. CPUE of 20 pounds of shucked scallop meat per dredge hour in the 2019/20 season was a time-series low for the fishery and a continuation of overall decline in fishery performance since the 2014/15 season. Area Q contributed substantially to statewide scallop harvest until the 2014/15 season when fishery performance declined rapidly and harvesters reported weak meat condition. Tissue samples collected by fishery observers have shown a high prevalence of an apicomplexan parasite in the Bering Sea beds (NPFMC 2017, 2019b), similar to the apicomplexan seen in Icelandic scallop beds, causing the weak meat condition. Infection in the scallop beds is thought to be the primary driver of poor fishery performance, although other environmental or recruitment factors may contribute. Minimal GHLs have been set since then to monitor the condition of the beds and maintain a source of fishery data.

Area Q has never been surveyed with dredge gear as part of the Statewide Weathervane Scallop Dredge survey. The NMFS annual trawl survey overlaps with the Area Q fishing grounds, but

scallop shell height composition data is not collected. Therefore, the stock is assessed annually using available fishery and observer data. The harvest strategy is found in 5 AAC 38.076 *Alaska Scallop Fishery Management Plan* and 5 AAC 38.078 *State-Waters Weathervane Scallop Management Plan*.

Further information on weathervane scallop stock status and federal overfishing levels may be found in the 2019 *Stock Assessment and Fishery Evaluation Report for the Scallop Fishery off Alaska* (NPFMC 2019b).

#### BERING SEA MISCELLANEOUS SHELLFISH SPECIES

#### **DESCRIPTION OF DISTRICT**

The Bering Sea District of Registration Area J for miscellaneous shellfish includes all waters north of the latitude of Cape Sarichef at 54°36′N lat and east of the United States–Russia Maritime Boundary Line of 1990 (Figure 10).

#### 2019 FISHERIES

#### **Octopus**

In 2019, harvest from state waters was 6,782 pounds from 17 vessels and 84 landings. Harvest from state and federal waters combined was 78,188 pounds from 122 vessels and 485 landings. All reported harvest was incidental to groundfish fisheries. Average exvessel price based on landed weight of octopus in 2019 was \$0.62 per pound (Table 21).

### **Fishery Management and Stock Status**

Octopus are considered a shellfish species under State of Alaska regulation. Limited directed fishing within state waters may occur under the authority of a commissioner's permit; however, octopus are primarily retained as bycatch during state and federal groundfish fisheries. Currently, vessels may retain incidentally caught octopus up to 20% of the weight of the target groundfish species or halibut onboard. Most octopus are retained as bycatch in Pacific cod pot gear fisheries.

Incidental harvest of octopus in the Bering Sea is dominated by giant Pacific octopus *Enteroctopus dofleini*, although at least nine other species of octopus are known to occur in the Bering Sea. Results from the 2019 NMFS Eastern Bering Sea shelf trawl survey estimate octopus (all species) biomass at 13.1 million pounds with 94% of the estimate composed of *E. dofleini*. The 2019 octopus (all species) biomass estimate increased 13% relative to the 2018 estimate and is above the 5-year average (2014–2018) of 10.5 million pounds. Biomass estimates for octopus in the Bering Sea are highly variable and do not necessarily reflect the sizes of octopus caught in fisheries (Ormseth et al. 2020). General knowledge of the stock is limited and there is currently no reliable estimate of octopus biomass (Ormseth et al. 2020).

Further information on octopus stock status and federal overfishing levels may be found in the 2020 Assessment of the Octopus Stock Complex in the Bering Sea and Aleutian Islands (Ormseth et al. 2020).

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**TABLES AND FIGURES** 

Table 1.—Bristol Bay red king crab commercial fishery harvest data, 1966–2019/20.

					Nu	mber of			Average	
Season	GHL/TAC <sup>a,b</sup>	Harvest <sup>a,c</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
1966	_	997,321	ND	9	15	140,554	2,720	52	ND	ND
1967	_	3,102,443	ND	20	61	397,307	10,621	37	ND	ND
1968	_	8,686,546	ND	59	261	1,278,592	47,496	27	ND	ND
1969	_	10,403,283	ND	65	377	1,749,022	98,426	18	ND	ND
1970	_	8,559,178	ND	51	309	1,682,591	96,658	17	ND	ND
1971	_	12,955,776	ND	52	394	2,404,681	118,522	20	ND	ND
1972	_	21,744,924	ND	64	611	3,994,356	205,045	19	ND	ND
1973	_	26,913,636	ND	67	441	4,825,963	194,095	25	5.6	ND
1974	_	42,266,274	ND	104	605	7,710,317	212,915	36	5.5	ND
1975	_	51,326,259	1,639,483	102	592	8,745,294	205,096	43	5.7	ND
1976	_	63,919,728	875,327	141	984	10,603,367	321,010	33	6.0	148
1977	_	69,967,868	730,279	130	1,020	11,733,101	451,273	26	5.9	148
1978	_	87,618,320	1,273,037	162	926	14,745,709	406,165	36	5.9	147
1979	_	107,828,057	3,555,891	236	889	16,808,605	315,226	53	6.4	152
1980	70–120 million	129,948,463	1,858,668	236	1,251	20,845,350	267,292	37	6.2	151
1981	10–100 million	33,372,832	706,489	177	1,013	5,273,530	536,646	10	6.3	151
1982	10–20 million <sup>g</sup>	2,990,082	95,834	89	253	538,925	140,492	4	5.5	145
1983				No Com	mercial Fishe	ery				
1984	2.5–6 million	4,083,612	35,101	89	133	793,046	107,406	7	5.2	142
1985	3–5 million	4,090,305	6,436	125	130	780,791	84,443	9	5.2	142
1986	6–13 million	11,306,084	284,126	157	229	2,083,496	175,753	12	5.4	142
1987	8.5–17.7 million	12,289,067	120,388	230	311	2,122,341	220,971	10	5.8	145
1988	7,500,000	7,361,026	23,537	200	201	1,231,731	146,179	8	6.0	147

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Table 1.—Page 2 of 3.

					Nur	nber of			Average	
Season	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
1989	16,500,000	10,156,849	81,334	207	280	1,667,405	205,528	8	6.1	148
1990	17,100,000	20,443,043	141,067	241	333	3,135,382	262,761	12	6.5	152
1991	18,000,000	17,177,894	119,670	300	325	2,630,446	227,555	12	6.5	152
1992	10,300,000	8,070,129	9,000	280	289	1,201,129	206,815	6	6.7	153
1993	16,800,000	14,587,704	134,314	292	360	2,254,989	254,389	9	6.5	152
1994–1995				No	Commercia	l Fishery				
1996	5,000,000	8,523,114	26,084	197	200	1,266,048	77,081	16	6.7	153
1997	7,000,000	8,911,387	32,012	257	269	1,340,591	91,085	15	6.6	152
1998 <sup>h</sup>	16,400,000	15,003,359	87,978	275	301	2,241,489	145,689	15	6.7	152
1999	10,660,000	11,835,930	44,807	258	284	1,927,105	151,212	13	6.1	148
$2000^{\rm i}$	8,350,000	8,240,644	37,230	244	270	1,272,382	104,056	12	6.5	151
$2001^{\rm i}$	7,150,000	8,523,495	59,973	230	257	1,305,396	66,947	19	6.5	151
$2002^{\mathrm{i}}$	9,270,489	9,666,847	35,122	242	272	1,498,574	72,514	21	6.5	151
$2003^{\rm i}$	15,713,000	15,728,256	230,467	250	296	2,524,506	134,515	19	6.2	149
$2004^{h,i}$	15,424,000	15,447,030	163,750	251	294	2,272,184	97,621	23	6.8	154
$2005/06^{j}$	18,329,000	18,309,335	86,288	89	296	2,732,563	114,944	24	6.7	152
2006/07	15,527,000	15,616,816	118,227	81	213	2,455,618	72,106	34	6.4	151
2007/08	20,383,000	20,366,065	140,384	74	281	3,139,336	113,214	28	6.5	151
2008/09	20,364,000	20,329,402	173,163	78	289	3,066,286	139,937	22	6.6	153
2009/10	16,009,000	15,932,654	122,207	70	233	2,537,221	118,521	21	6.3	150
2010/11	14,839,000	14,833,829	106,874	65	254	2,398,490	131,627	18	6.2	150
2011/12	7,834,000	7,833,594	32,068	62	161	1,279,054	45,166	28	6.1	149
2012/13	7,853,000	7,849,835	30,050	64	141	1,157,364	38,159	30	6.8	154

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Table 1.—Page 3 of 3.

					Nui	mber of			Average	
Season	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
2013/14	8,600,000	8,600,476	62,749	63	156	1,242,705	45,927	27	6.9	155
2014/15	9,986,000	9,987,008	101,241	63	159	1,498,538	58,702	26	6.7	152
2015/16	9,974,000	9,969,964	182,833	64	152	1,497,783	48,008	31	6.7	153
2016/17	8,469,000	8,466,701	41,120	63	148	1,253,967	33,126	38	6.8	154
2017/18	6,601,000	6,600,922	24,880	61	142	964,593	48,242	20	6.8	156
2018/19	4,308,000	4,307,946	27,575	55	121	606,421	30,722	20	7.1	156
2019/20	3,797,000	3,791,569	8,874	56	116	531,329	34,458	15	7.1	156

Note: En dashes indicate harvest limits were not set for this fishery prior to 1980; ND indicates these data were not collected or cannot be derived.

- <sup>a</sup> In pounds.
- b Guideline harvest level (GHL) began in 1980, total allowable catch (TAC) began in 2005/06.
- <sup>c</sup> Deadloss included.
- <sup>d</sup> Number of legal crab per pot lift.
- e Retained catch.
- f Carapace length in millimeters.
- g Inseason revision to 4.7 million pounds.
- <sup>h</sup> Total GHL announced prior to general fishery opening, CDQ GHL adjusted based on general fishery harvest.
- i Includes American Fisheries Act (AFA) harvest data.
- j Crab rationalization begins.

Table 2.—Bristol Bay red king crab commercial fishery value and season dates, 1980-2019/20.

		alue	Se	Season length		
Season	Exvessela	Total	Opened	Closed	Days	
1980	\$0.90	\$115,280,816	09/10/80	10/20/80	41	
1981	\$2.03	\$66,312,676	09/10/81	12/15/81	97	
1982	\$3.20	\$9,261,594	09/10/82	10/10/82	31	
1983		No Comm	ercial Fishery			
1984	\$2.72	\$11,011,950	10/01/84	10/16/84	16	
1985	\$2.90	\$11,843,220	09/25/85	10/02/85	8	
1986	\$4.05	\$44,638,930	09/25/86	10/07/86	13	
1987	\$3.95	\$48,070,777	09/25/87	10/06/87	12	
1988	\$4.85	\$35,610,150	09/25/88	10/02/88	8	
1989	\$4.68	\$47,202,150	09/25/89	10/06/89	12	
1990	\$5.03	\$102,198,044	11/01/90	11/13/90	13	
1991	\$3.00	\$51,174,672	11/01/91	11/08/91	8	
1992	\$5.13	\$41,323,471	11/01/92	11/08/92	8	
1993	\$4.48	\$64,750,431	11/01/93	11/10/93	10	
1994–1995		No Comm	ercial Fishery			
1996	\$4.01	\$34,104,724	11/01/96	11/05/96	5	
1997	\$3.27	\$29,033,365	11/01/97	11/05/97	5	
1998	\$2.60	\$38,852,795	11/01/98	11/6/98 <sup>b</sup>	6	
1999	\$6.23	\$73,473,949	10/15/99	10/20/99 <sup>b</sup>	6	
2000	\$4.82	\$39,542,935	10/16/00	$10/20/00^{b}$	5	
2001	\$4.95	\$41,934,728	10/15/01	10/18/01 <sup>b</sup>	4	
2002	\$6.13	\$59,016,000	10/15/02	$10/18/02^{b}$	4	
2003	\$5.05	\$78,253,116	10/15/03	10/20/03 <sup>b</sup>	6	
2004	\$4.64	\$70,936,658	10/15/04	$10/18/04^{b}$	4	
2005/06 <sup>c</sup>	\$3.85	\$70,086,741	10/15/05	01/15/06	93	
2006/07	\$3.37	\$52,277,156	10/15/06	01/15/07	93	
2007/08	\$4.16	\$84,211,504	10/15/07	01/15/08	93	
2008/09	\$4.97	\$100,222,813	10/15/08	01/15/09	93	
2009/10	\$4.44	\$70,172,988	10/15/09	01/15/10	93	
2010/11	\$6.31	\$92,924,994	10/15/10	01/15/11	93	
2011/12	\$8.91	\$69,479,174	10/15/11	01/15/12	93	
2012/13	\$7.28	\$56,914,521	10/15/12	01/15/13	93	
2013/14	\$6.41	\$54,763,067	10/15/13	01/15/14	93	
2014/15	\$6.05	\$59,849,844	10/15/14	01/15/15	93	

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Table 2.—Page 2 of 2.

	V	alue	Se	ason length	
Season	Exvessela	Total	Opened	Closed	Days
2015/16	\$7.02	\$68,754,179	10/15/15	01/15/16	93
2016/17	\$9.06	\$76,311,556	10/15/16	01/15/17	93
2017/18	\$8.33	\$54,792,098	10/15/17	01/15/18	93
2018/19	\$8.45	\$36,176,631	10/15/18	01/15/19	93
2019/20	\$9.04	\$34,208,234	10/15/19	01/15/20	93

<sup>&</sup>lt;sup>a</sup> Average price per pound.

b CDQ fishery opened after general fishery.

<sup>&</sup>lt;sup>c</sup> Crab rationalization begins.

Table 3.-Bristol Bay red king crab commercial fishery harvest and effort by week, 2019/20.

				Nun		Ave	erage	
Week ending	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>
Oct-19	2,369,622	3,944	46	60	332,871	21,814	15	7.1
Oct-26	561,979	1,681	15	20	79,383	5,254	15	7.1
Nov-2	702,333	3,057	16	26	97,414	5,859	17	7.2
Nov-9	116,488	192	3	8	16,331	667	24	7.1
e	_	_	_	_	_	_	_	_
Jan-4	CF	CF	1	1	CF	CF	CF	CF
Jan-11	CF	CF	1	1	CF	CF	CF	CF
Total	3,791,569	8,874	56	116	531,329	34,458	15	7.1

Note: CF indicates confidential data.

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of retained crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Consecutive weeks with no harvest occurred.

Table 4.-Bristol Bay red king crab commercial fishery harvest and effort by statistical area, 2019/20.

				Nun		Average		
Statistical area	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>
625600	3,110	2	6	8	449	110	4	6.9
625630	20,807	27	6	9	2,852	540	5	7.3
635600	898,553	1,583	40	81	128,898	8,388	15	7.0
635630	422,397	1,059	39	68	59,862	4,527	13	7.1
645600	1,257,937	3,893	50	100	173,746	10,973	16	7.2
645630	1,185,106	2,311	47	86	165,004	9,540	17	7.2
Othere	3,659	0	8	13	518	380	1	7.1
Total	3,791,569	8,874	56	116	531,329	34,458	15	7.1

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Combination of statistical areas (6) in which landings were made by fewer than three vessels.

Table 5.—Bristol Bay red king crab cost-recovery harvest data and charter length, 1990–2019.

				Num	ber of		Av	erage	Charter Length	
Season	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Dates	Days
1990°	80,701	24,540	1	3	9,567	870	16	5.9	08/07-09/07	30
1991°	205,851	12,817	1	2	30,351	518	62	6.4	09/02-10/07	35
1992e	74,089	3,000	1	1	11,213	670	17	6.3	10/08–10/23	15
1993 <sup>e</sup>	53,200	800	1	1	8,384	464	18	6.3	08/20-09/20	31
1994 <sup>e</sup>	93,336	4,500	1	1	14,806	732	21	6.0	09/25-10/25	30
1995 <sup>e</sup>	80,158	2,339	1	2	14,123	564	26	5.5	08/01-08/31	31
1996 <sup>e</sup>	107,955	1,918	1	3	15,390	355	44	6.9	08/01-08/31	31
1997°	154,739	18,040	1	4	21,698	658	37	6.3	07/25-08/21	28
1998 <sup>e</sup>	188,176	32,564	1	2	22,230	738	36	7.0	08/01-08/28	28
1999 <sup>f</sup>	185,944	410	2	4	29,368	1,239	24	6.3	09/25-10/11,10/25-11/10	34
2000e	86,218	347	1	2	14,196	702	20	6.1	09/20-10/04	15
$2001^{\rm f}$	120,435	138	2	3	17,605	597	29	6.8	09/22-10/10, 10/23-11/08	36
$2002^{\rm f}$	96,221	181	2	2	14,528	277	52	6.6	09/23-10/09, 10/17-10/27	27
$2003^{e,g}$	33,817	143	1	1	5,327	584	9	6.4	09/01-10/04	34
$2004^{\rm f}$	201,579	638	2	3	29,733	1,286	23	6.8	10/21-10/25, 10/23-10/31, 10/27-11/01	20
$2005^{\rm f}$	208,828	1,500	1	4	30,585	1,376	22	6.8	11/12–12/02	19
$2006^{\rm f}$	303,867	3,313	1	4	47,215	1,067	44	6.4	09/23-10/23	31
$2007^{\rm f}$	145,619	469	1	4	22,951	734	31	6.3	10/02-10/23	22
2008						No Cost-Re	covery Effort	t		
$2009^{\rm f}$	100,400	463	1	3	15,726	646	24	6.4	09/25-10/12	18
$2010^{\rm f}$	72,787	69	1	3	11,462	556	21	6.4	09/27-10/20	25
$2011^{\rm f}$	118,690	199	1	3	18,963	618	31	6.3	09/30-10/21	21
2012 <sup>f</sup>	134,712	286	3	7	18,388	726	25	7.3	10/09–10/22	14

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Table 5.—Page 2 of 2.

				Num	ber of		Av	erage	Charter Length	
Season	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUEc	Weight <sup>a,d</sup>	Dates	Days
$2013^{\rm f}$	198,158	1,332	1	3	29,568	662	45	6.7	10/01–10/08, 10/12–10/17	14
$2014^{\rm f}$	190,269	940	1	3	27,044	665	41	7.0	10/02–10/21	20
2015 <sup>f</sup>	201,471	1,143	1	3	29,191	755	39	6.9	10/01–10/11, 10/13–10/22	21
$2016^{\rm f}$	183,948	1,107	1	3	27,227	482	56	6.8	10/1–10/10, 10/12–10/19	18
$2017^{\rm f}$	219,509	3,562	1	4	32,621	927	35	6.7	10/01–10/09, 10/11–10/23, 11/02–11/08	29
$2018^{\rm f}$	159,630	2,720	1	4	23,486	1,253	19	6.8	10/02–10/10, 10/11–10/16, 10/19–10/22	19
2019 <sup>f</sup>	122,372	1,096	1	2	17,187	575	30	7.1	10/01–10/13	13

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Bering Sea and Aleutian Islands shellfish research program cost recovery.

f Bering Sea and Aleutian Islands shellfish research and observer program cost recovery.

g Includes 1,222 pounds harvested in the Pribilof District.

Table 6.—Saint Matthew Island Section blue king commercial fishery harvest data, 1977–2019/20.

					Nu	mber of			Average	
Season	GHL/TAC <sup>a,b</sup>	Harvest <sup>a,c</sup>	Deadlossa	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
1977	_	1,202,066	129,148	10	24	281,665	17,370	16	4.3	130
1978	_	1,984,251	116,037	22	70	436,126	43,754	9	4.5	132
1979	_	210,819	56,147	18	25	52,966	9,877	5	4.0	129
1980	_	CF	CF	2	2	CF	CF	CF	CF	CF
1981	_	4,627,761	53,355	31	119	1,045,619	58,550	18	4.4	ND
1982	_	8,844,789	142,973	96	269	1,935,886	165,618	12	4.6	135
1983	8,000,000	9,454,323	828,994	164	235	1,931,990	133,944	14	4.8	137
1984	2–4 million	3,764,592	31,983	90	169	841,017	73,320	11	4.5	135
1985	0.9–1.9 million	2,175,087	2,613	74	95	436,021	46,988	9	5.0	139
1986	0.2–0.5 million	1,003,162	32,560	38	43	219,548	22,073	10	4.6	134
1987	0.6–1.3 million	1,039,779	600	60	61	227,447	28,230	8	4.6	134
1988	0.7–1.5 million	1,236,462	7,760	45	45	280,401	21,678	13	4.4	133
1989	1,700,000	1,166,258	3,754	69	69	247,641	30,803	8	4.7	135
1990	1,900,000	1,725,349	17,416	31	38	391,405	26,264	15	4.4	134
1991	3,200,000	3,372,066	216,459	68	69	726,519	37,104	20	4.6	134
1992	3,100,000	2,475,916	1,836	174	179	545,222	56,630	10	4.5	134
1993	4,400,000	3,003,089	3,168	92	136	630,353	58,647	11	4.8	135
1994	3,000,000	3,764,262	46,699	87	133	827,015	60,860	14	4.6	133
1995	2,400,000	3,166,093	91,041	90	111	666,905	48,560	14	4.7	135
1996	4,300,000	3,078,959	36,892	122	188	660,665	91,085	7	4.7	135
1997	5,000,000	4,649,660	209,490	117	166	939,822	81,117	12	4.9	140
1998	4,099,512	2,968,573	15,554	132	266	635,370	91,826	7	4.7	134
1999–2008/09 <sup>g</sup>					No Commerc	ial Fishery				

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Table 6.—Page 2 of 2.

					Num	ber of			Average	
Season	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
2009/10	1,167,000	460,859	10,484	7	30	103,376	10,697	10	4.5	130
2010/11	1,600,000	1,263,982	10,206	11	70	298,668	29,346	10	4.2	123
2011/12	2,359,000	1,881,322	26,588	18	90	437,862	48,554	9	4.3	126
2012/13	1,630,000	1,616,054	21,052	17	92	379,386	37,065	10	4.3	130
2013/14					No Commerc	cial Fishery				
2014/15	655,000	308,582	5,552	4	26	69,109	10,133	7	4.5	132
2015/16	411,000	106,449	1,439	3	14	24,407	5,475	4	4.4	132
2016/17-2019/20					No Commerc	cial Fishery				

Note: En dashes indicate harvest limits were not set for this fishery prior to 1983; CF indicates confidential data; ND indicates these data were not collected or cannot be derived.

7

<sup>&</sup>lt;sup>a</sup> In pounds.

b Guideline harvest level (GHL) began in 1983, total allowable catch (TAC) began in 2005/06.

<sup>&</sup>lt;sup>c</sup> Deadloss included.

<sup>&</sup>lt;sup>d</sup> Number of legal crab per pot lift.

e Retained catch.

<sup>&</sup>lt;sup>f</sup> Carapace length in millimeters.

g Crab rationalization begins.

Table 7.—Saint Matthew Island Section blue king crab commercial fishery value and season dates, 1977–2019/20.

	V	/alue	Sea	Season length				
Season	Exvessela	Total	Opened	Closed	Days			
1977	\$1.00	\$1,072,918	06/07/77	08/16/77	71			
1978	\$0.95	\$1,774,803	07/15/78	09/03/78	51			
1979	\$0.70	\$108,270	07/15/79	08/24/79	41			
1980	CF	CF	07/15/80	09/03/80	51			
1981	\$0.90	\$4,116,965	07/15/81	08/21/81	38			
1982	\$2.00	\$17,403,632	08/01/82	08/16/82	16			
1983 <sup>b</sup>	\$3.00	\$25,875,987	08/23/83	09/06/83	15			
1984	\$1.50	\$5,598,914	09/01/84	09/08/84	8			
1985	\$1.60	\$3,475,958	09/01/85	09/06/85	6			
1986	\$2.96	\$2,870,927	09/01/86	09/06/86	6			
1987	\$2.73	\$2,833,149	09/01/87	09/05/87	5			
1988	\$3.10	\$3,811,700	09/01/88	09/05/88	5			
1989	\$2.90	\$3,371,233	09/01/89	09/04/89	4			
1990	\$3.42	\$5,844,906	09/01/90	09/07/90	7			
1991	\$2.80	\$8,835,700	09/16/91	09/20/91	5			
1992	\$2.92	\$7,228,333	09/04/92	09/07/92	4			
1993	\$3.05	\$9,159,080	09/15/93	09/21/93	7			
1994	\$4.13	\$15,338,950	09/15/94	09/22/94	8			
1995	\$2.32	\$7,123,102	09/15/95	09/22/95	8			
1996	\$2.21	\$6,712,037	09/15/96	09/16/96	2			
1997	\$2.23	\$9,900,019	09/15/97	09/22/97	8			
1998	\$1.87	\$5,523,187	09/15/98	09/26/98	12			
$1999 – 2008/09^{\rm b}$		No Comm	ercial Fishery					
2009/10	\$2.19	\$985,204	10/15/09	02/01/10	110			
2010/11	\$4.12	\$5,160,670	10/15/10	02/01/11	110			
2011/12	\$4.33	\$8,034,387	10/15/11	02/01/12	110			
2012/13	\$3.77	\$6,008,470	10/15/12	02/01/13	110			
2013/14		No Comm	ercial Fishery					
2014/15	\$3.38	\$1,025,161	10/15/14	02/01/15	110			
2015/16	\$4.03	\$423,508	10/15/15	02/01/16	110			
2016/17-2019/20		No Comm	ercial Fishery					

*Note:* CF = confidential

<sup>&</sup>lt;sup>a</sup> Average price per pound.

<sup>&</sup>lt;sup>b</sup> Crab rationalization begins.

Table 8.–Pribilof District golden king crab commercial fishery harvest data, 1981/82–2019.

					Num	ber of	Average			
Season	GHL <sup>a,b</sup>	Harvest <sup>a,c</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
1981/82	_	CF	CF	2	3	CF	CF	CF	CF	CF
1982/83	_	69,970	570	10	19	15,330	5,252	3	4.6	151
1983/84	_	856,475	20,041	50	115	253,162	26,035	10	3.4	127
1984	_				No Comme	ercial Fishing	Effort			
1985	_	CF	CF	1	1	CF	CF	CF	CF	CF
1986	_				No Comme	ercial Fishing	Effort			
1987	_	CF	CF	2	2	CF	CF	CF	CF	CF
1988	_	CF	CF	1	2	CF	CF	CF	CF	CF
1989	_	CF	CF	2	4	CF	CF	CF	CF	CF
1990-1992	_				No Comme	ercial Fishing	Effort			
1993	_	67,458		5	15	17,643	15,395	1	3.8	ND
1994	_	88,985	730	3	5	21,477	1,845	12	4.1	ND
1995	_	341,908	2950	7	23	82,489	9,551	9	4.1	ND
1996	_	329,009	12,409	6	32	91,947	9,952	9	3.6	ND
1997	_	179,249	5,554	7	23	43,305	4,673	9	4.1	ND
1998	_	35,722	474	3	9	9,205	1,530	6	3.9	ND
1999	200,000	177,108	319	3	9	44,098	2,995	15	4.0	ND
2000	150,000	127,217	4,599	7	19	29,145	5,450	5	4.4	ND
2001	150,000	145,876	8,227	6	14	33,723	4,262	8	4.3	143
2002	150,000	150,434	8,984	8	20	34,860	5,279	7	4.3	144
2003	150,000	CF	CF	3	6	CF	CF	CF	CF	CF
2004	150,000	CF	CF	5	8	CF	CF	CF	CF	CF
2005	150,000	CF	CF	4	8	CF	CF	CF	CF	CF

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Table 8.—Page 2 of 2.

					Number	of			Average	
Season	$\mathrm{GHL}^{\mathrm{a,b}}$	Harvest <sup>a,c</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>	Length <sup>e,f</sup>
2006–2009	150,000			]	No Commercial l	Fishing Effo	ort			
2010	150,000	CF	CF	1	3	CF	CF	CF	CF	CF
2011	150,000	CF	CF	2	4	CF	CF	CF	CF	CF
2012	150,000	CF	CF	1	3	CF	CF	CF	CF	CF
2013	150,000	CF	CF	1	2	CF	CF	CF	CF	CF
2014	150,000	CF	CF	1	1	CF	CF	CF	CF	CF
2015–2016	130,000			1	No Commercial I	Fishing Effo	ort			
$2017^{\rm g}$	130,000	CF	CF	2	6	CF	CF	CF	CF	CF
2018	130,000	CF	CF	1	3	CF	CF	CF	CF	CF
2019	130,000	CF	CF	2	5	CF	CF	CF	CF	CF

Note: En dashes indicate harvest limits were not set for this fishery prior to 1999; CF indicates confidential data; ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> In pounds.

<sup>&</sup>lt;sup>b</sup> Guideline harvest level (GHL) began in 1999.

<sup>&</sup>lt;sup>c</sup> Deadloss included.

<sup>&</sup>lt;sup>d</sup> Number of legal crab per pot lift.

e Retained catch.

f Carapace length in millimeters.

g Includes harvest from one vessel that was incorrectly landed using a T91Q CFEC permit card.

Table 9.-Pribilof District golden king crab commercial fishery value and season dates, 1991-2019.

	Value	;	Season length				
Season	Exvessela	Total	Opened	Closed	Days		
1993	\$2.58	\$173,975	01/01/93	12/31/93	365		
1994	\$3.97	\$350,375	01/01/94	12/31/94	365		
1995	\$2.82	\$955,522	01/01/95	12/31/95	365		
1996	\$2.13	\$674,660	01/01/96	12/31/96	365		
1997	\$2.25	\$391,339	01/01/97	12/31/97	365		
1998	\$1.96	\$68,930	01/01/98	12/31/98	365		
1999	\$2.39	\$421,674	01/01/99	06/10/99	161		
2000	\$3.22	\$395,325	01/01/00	12/31/00	365		
2001	\$3.15	\$433,922	01/01/01	04/15/01	105		
2002	\$3.09	\$436,584	01/01/02	05/14/02	134		
2003	CF	CF	01/01/03	05/01/03	121		
2004	CF	CF	01/01/04	03/12/04	72		
2005	CF	CF	01/01/05	12/31/05	365		
2006	No Commercial F	ishing Effort	01/01/06	12/31/06	365		
2007	No Commercial F	ishing Effort	01/01/07	12/31/07	365		
2008	No Commercial F	ishing Effort	01/01/08	12/31/08	365		
2009	No Commercial F	ishing Effort	01/01/09	12/31/09	365		
2010	CF	CF	01/01/10	12/31/10	365		
2011	CF	CF	01/01/11	12/31/11	365		
2012	CF	CF	01/01/12	12/31/12	365		
2013	CF	CF	01/01/13	12/31/13	365		
2014	CF	CF	01/01/14	12/31/14	365		
2015	No Commercial	Fishing Effort	01/01/15	12/31/15	365		
2016	No Commercial	Fishing Effort	01/01/16	12/31/16	365		
2017	CF	CF	01/01/17	12/31/17	365		
2018	CF	CF	01/01/18	12/31/18	365		
2019	CF	CF	01/01/19	12/31/19	365		

*Note:* CF = confidential.

<sup>&</sup>lt;sup>a</sup> Average price per pound.

Table 10.—Bering Sea scarlet king crab commercial fishery harvest data, 1995–2019.

				Numbe	er of		Ave	rage	Valu	ie
Season	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total
1995	26,684	465	4	25	11,048	24,551	<1	2.4	\$2.45	\$64,237
1996	CF	CF	2	7	CF	CF	CF	CF	CF	CF
1997–2001				No	Commercia	Fishing Effort				
2002	CF	CF	1	4	CF	CF	CF	CF	CF	CF
$2003^{\rm f}$	CF	CF	3	11	CF	CF	CF	CF	CF	CF
$2004^{\rm f}$	CF	CF	2	4	CF	CF	CF	CF	CF	CF
$2005^{\rm f}$	CF	CF	1	1	CF	CF	CF	CF	CF	CF
2006–2016				No	Commercia	Fishing Effort				
$2017^{\rm f,g}$	CF	CF	1	3	CF	CF	CF	CF	CF	CF
2018–2019				No	Commercia	Fishing Effort				

*Note:* CF indicates confidential data; Harvest is bycatch only, therefore, harvest limits are not set for this stock.

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Average price per pound.

f Restricted to incidental harvest during Bering Sea golden king crab and grooved Tanner crab fisheries.

g Includes harvest from one vessel that was incorrectly landed using a T91Q CFEC permit card.

30

Table 11.—Bering Sea District Tanner crab commercial fishery harvest data, 1968–2019/20.

						Nu	mber of			Average	
Season	Locationa	GHL/TACb,c	Harvest <sup>b,d</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>d</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>b,f</sup>	Width <sup>f,g</sup>
1968		_	17,900	ND	ND	7	6,400	1,400	5	2.8	ND
1969		_	1,008,900	ND	ND	131	353,300	29,800	12	2.9	ND
1970		_	1,014,700	ND	ND	66	482,300	16,400	29	2.9	ND
1971		_	166,100	ND	ND	22	61,300	7,300	8	2.7	ND
1972		_	107,761	ND	ND	14	42,061	4,260	10	2.6	ND
1973		=	231,668	ND	ND	44	93,595	15,730	6	2.5	ND
1974		=	5,044,197	ND	ND	69	2,531,825	22,014	115	2.0	ND
1974/75	Southeastern	=	6,504,984	ND	ND	72	2,526,687	32,275	78	2.6	ND
	Pribilofs	_	523,394	ND	ND	8	247,083	3,923	63	2.1	ND
	TOTAL	_	7,028,378	ND	28	80	2,773,770	36,198	77	2.5	ND
1975/76	Southeastern	=	16,643,194	ND	ND	230	6,682,232	106,445	63	2.5	ND
	Pribilofs	_	5,714,913	ND	ND	74	2,273,804	34,761	65	2.5	ND
	TOTAL	-	22,358,107	ND	66	304	8,956,036	141,206	63	2.5	ND
1976/77	Southeastern	_	41,007,736	ND	ND	437	16,089,057	233,667	69	2.6	ND
	Pribilofs	_	10,447,485	ND	ND	104	4,162,451	63,804	65	2.5	ND
	TOTAL	-	51,455,221	ND	83	541	20,251,508	297,471	68	2.5	ND
1977/78	Southeastern	=	53,278,012	ND	ND	706	21,055,527	408,437	52	2.5	ND
	Pribilofs	_	13,152,843	ND	ND	155	5,210,170	107,913	48	2.5	ND
	TOTAL		66,430,855	ND	120	861	26,265,697	516,350	51	2.5	ND
1978/79	Southeastern	=	39,694,205	75,400	ND	758	15,601,891	356,594	44	2.5	ND
	Pribilofs	_	2,852,969	600	ND	59	1,124,627	46,103	24	2.5	ND
	TOTAL	=	42,547,174	76,000	144	817	16,726,518	402,697	42	2.5	153

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Table 11.—Page 2 of 6.

						Nun	nber of			Average	
Season	Locationa	GHL/TACb,c	Harvest <sup>b,d</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>d</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>b,f</sup>	Width <sup>f,g</sup>
1979/80	Southeastern	=	35,724,003	56,446	ND	789	14,329,889	476,410	30	2.5	ND
	Pribilofs	_	890,312	0	ND	15	355,722	12,024	30	2.5	ND
	TOTAL	28–36 million	36,614,315	56,446	152	804	14,685,611	488,434	30	2.5	151
1981	Southeastern	=	26,684,956	97,398	ND	674	10,532,007	496,751	21	2.5	ND
	Pribilofs	_	2,945,536	4,196	ND	87	1,313,951	62,875	21	2.2	ND
	TOTAL	28–36 million	29,630,492	101,594	165	761	11,845,958	559,626	21	2.5	149
1982	Southeastern	-	8,812,302	69,829	ND	539	3,825,433	322,634	12	2.3	ND
	Pribilofs	-	2,196,477	68,330	ND	252	1,005,547	167,465	6	2.2	ND
	TOTAL	12–16 million	11,008,779	138,159	125	791	4,830,980	490,099	10	2.3	149
1983	Northern	-	48,454	167	ND	10	29,578	5,950	5	1.6	ND
	Southeastern	-	4,633,354	52,879	ND	287	1,984,673	192,538	10	2.3	ND
	Pribilofs	-	592,073	6,983	ND	151	272,505	83,528	3	2.2	ND
	TOTAL	5,600,000	5,273,881	60,029	108	448	2,286,756	282,016	8	2.3	149
1984	Southeastern	-	1,099,142	4,688	ND	91	470,181	44,546	11	2.3	ND
	Pribilofs	-	109,081	337	ND	43	46,759	16,811	3	2.3	ND
	TOTAL	7,100,000	1,208,223	5,025	41	134	516,940	61,357	8	2.3	147
1985	Southeastern	-	3,023,193	14,096	38	143	1,266,567	85,926	13	2.4	ND
	Pribilofs	-	13,742	0	15	23	5,934	8,606	1	2.3	ND
	TOTAL	3,000,000	3,036,935	14,096	44	166	1,272,501	94,532	12	2.4	150
1986–1987					No Comm	ercial Fishery					

32

Table 11.—Page 3 of 6.

					Number of					Average	
Season	Location <sup>a</sup>	GHL/TACb,c	Harvest <sup>b,d</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>d</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>b,f</sup>	Width <sup>f,g</sup>
1988	Eastern	=	2,294,997	10,724	102	249	957,318	114,384	8	2.4	ND
	Western				No Commer	rcial Fishing E	Effort				
	TOTAL	5,600,000	2,294,997	10,724	102	249	957,318	114,384	8	2.4	144
1989	Eastern	_	6,982,865	34,664	108	358	2,894,480	183,692	16	2.4	ND
	Western				No Commer	rcial Fishing E	Effort				
	TOTAL	13,500,000	6,982,865	34,664	108	358	2,894,480	183,692	16	2.4	149
1990	Eastern	=	24,529,592	86,603	184	1,016	10,701,363	695,667	15	2.3	ND
	Western	_	17,956	0	15	18	7,975	9,548	1	2.3	ND
	TOTAL	29,500,000	24,547,548	86,603	184	1,034	10,709,338	705,215	15	2.3	148
1990/91	Eastern	42,800,000	40,081,555	210,769	248	1,756	16,608,625	883,391	19	2.4	150
1991/92	Eastern	_	31,742,117	279,741	284	2,316	12,901,364	1,209,180	11	2.5	ND
	Western	-	52,265	0	19	33	22,738	15,779	1	2.3	ND
	TOTAL	32,800,000	31,794,382	279,741	284	2,349	12,924,102	1,224,959	11	2.5	150
1992/93	Eastern	=	34,821,009	346,505	293	2,010	15,074,069	1,151,849	13	2.3	ND
	Western	-	309,823	3,000	70	96	191,796	50,051	4	1.6	ND
	TOTAL	38,100,000 <sup>h</sup>	35,130,832	349,505	294	2,106	15,265,865	1,201,900	13	2.3	148
1993/94	East of 168°W	$10,700,000^{i}$	4,134,529	119,715	285	350	1,699,750	250,826	7	2.4	ND
	163°W to 173°W	$9,100,000^{j,k}$	12,776,371	155,557	261	515	5,539,068	325,963	17	2.3	ND
	TOTAL	19,800,000	16,910,900	275,272	296	865	7,238,818	576,789	13	2.3	151
1994	163°W to 173°W	7,500,000	7,766,886	132,780	183	349	3,351,639	249,536	13	2.3	150
1995	163°W to 173°W	5,500,000	4,233,061	44,523	196	256	1,877,303	247,853	8	2.3	149

33

Table 11.—Page 4 of 6.

						Nur	nber of			Average	
Season	Locationa	GHL/TACb,c	Harvest <sup>b,d</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>d</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>b,f</sup>	Width <sup>f,g</sup>
1996	East of 168°W	$2,200,000^{g(i)}$	811,301	6,149	135	152	341,039	73,522	5	2.4	ND
	163°W to 173°W	6,200,000 <sup>h(j)</sup>	994,776	8,464	192	195	393,257	75,753	5	2.5	ND
	TOTAL <sup>1</sup>	8,400,000	1,806,077	14,613	196	347	734,296	149,275	5	2.5	152
1997–2004					No Comn	nercial Fisher	<b>V</b>				
$2005/06^{\rm m}$	East of 166°W				No Comm	ercial Fishery					
	West of 166°W	1,620,000	952,887	15,174	43	103	443,977	32,389	14	2.1	145
	TOTAL <sup>1</sup>	1,620,000	952,887	15,174	43	103	443,977	32,389	14	2.1	145
2006/07	East of 166°W	1,875,000	1,401,743	9,256	37	63	585,480	29,129	20	2.4	151
	West of 166°W	1,094,000	720,846	19,696	39	78	340,623	28,140	12	2.1	146
	TOTAL <sup>1</sup>	2,969,000	2,122,589	28,952	52	141	926,103	57,269	16	2.3	150
2007/08	East of 166°W	3,445,000	1,582,858	16,117	20	65	685,491	33,515	20	2.3	148
	West of 166°W	2,176,000	523,796	4,676	34	61	241,673	21,938	11	2.2	146
	TOTAL <sup>1</sup>	5,621,000	2,106,654	20,793	41	126	927,164	55,453	17	2.3	148
2008/09	East of 166°W	2,763,000	1,830,031	13,543	22	66	778,898	36,698	21	2.3	150
	West of 166°W	1,537,000	109,552	3,737	42	101	51,471	30,175	2	2.1	147
	TOTAL <sup>1</sup>	4,300,000	1,939,583	17,280	50	167	830,369	66,873	12	2.3	149
2009/10	East of 166°W	1,350,000	1,324,578	8,376	17	51	483,419	16,770	29	2.7	157
	West of 166°W				No Comm	ercial Fishery					
	TOTAL <sup>1</sup>	1,350,000	1,328,356	12,154	41	113	485,963	42,006	12	2.7	157
2010/11-2012/13					No Comn	nercial Fisher	<i>y</i>				

34

Table 11.—Page 5 of 6.

						N	umber of			Average	
Season	Locationa	GHL/TACb,c	Harvest <sup>b,d</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>d</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>b,f</sup>	Width <sup>f,g</sup>
2013/14	East of 166°W	1,463,000	1,456,357	6,254	30	74	710,043	26,468	27	2.1	145
	West of 166°W	1,645,000	1,330,488	22,546	64	261	735,725	131,524	6	1.8	138
	$TOTAL^1$	3,108,000	2,786,845	28,800	66	335	1,445,768	157,992	9	1.9	142
2014/15	East of 166°W	8,480,000	8,450,485	59,788	42	143	4,381,890	87,875	50	1.9	141
	West of 166°W	6,625,000	5,253,942	96,921	58	237	3,140,954	142,820	22	1.7	134
	$TOTAL^1$	15,105,000	13,704,427	156,709	64	380	7,522,844	230,695	33	1.8	138
2015/16	East of 166°W	11,272,000	11,263,562	120,187	49	202	6,000,262	139,171	43	1.9	141
	West of 166°W	8,396,000	8,378,816	52,546	62	247	4,856,156	145,638	33	1.7	135
	$TOTAL^1$	19,668,000	19,642,378	172,733	70	449	10,856,418	284,809	38	1.8	138
2016/17					No Co	ommercial Fis	hery				
2017/18	East of 166°W				No Co	ommercial Fis	hery				
	West of 166°W	2,500,200	2,496,734	16,212	34	91	1,340,230	29,903	45	1.9	139
	$TOTAL^1$	2,500,200	2,497,033	16,249	40	107	1,340,394	33,738	40	1.9	139
2018/19	East of 166°W				No Co	ommercial Fis	hery				
	West of 166°W	2,439,000	2,441,201	40,450	36	101	1,380,990	41,922	33	1.8	137
	TOTAL <sup>1</sup>	2,439,000	2,441,227	40,476	37	111	1,381,008	45,984	30	1.8	137
2019/20					No Co	ommercial Fis	hery				

Note: En dashes indicate harvest limits were not set for these fisheries prior to 1979/80, area specific GHLs were not set prior to 1993/94; ND indicates these data were not collected or cannot be derived.

- <sup>a</sup> From 1974/75 through 1984/85, Bering Sea Tanner crab subdistricts were: Southeastern, Pribilof, and Northern (includes the Norton Sound and General Sections). From 1987/88 through 1992/93, harvest subdistricts were divided east and west of 173°W long. From 1993/94 through 1996/97, fishery east of 168°W long is concurrent with the Bristol Bay red king crab fishery and the fishery from 163°W long to 173°W long is a directed Tanner crab fishery. From 2005/06 to current, the fishery is divided east and west of 166°W long, and harvest east of 163°W long is only allowed as incidental catch during the Bristol Bay red king crab fishery.
- b In pounds.
- <sup>c</sup> Guideline harvest level (GHL), total allowable catch (TAC) began in 2005/06.
- d Deadloss included.
- e Number of legal crab per pot lift.
- f Retained catch.
- g Carapace width in millimeters.
- <sup>h</sup> Initial GHL announcement was 39.2 million pounds. GHL was later adjusted to 38.1 million pounds.
- i GHL for waters east of 163°W long.
- <sup>j</sup> GHL for waters west of 163°W long.
- k Harvest concurrent with the Bristol Bay red king crab fishery was estimated to be well below the GHL and minimal harvest was thought to have occurred west of 163°W long; therefore, the GHL was adjusted to 16.1 million pounds for the directed Tanner crab fishery from 163° to 173°W long.
- Bering Sea District totals include limited tanner crab harvest incidental to the Bering Sea Snow and Bristol Bay Red King crab fisheries. Includes incidental harvest, participation, and effort.
- m Crab rationalization begins.

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Table 12.—Bering Sea District Tanner crab commercial fishery value and season dates, 1974–2019/20.

		Value	Se	ason length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
1974/75	\$0.20	\$1,405,676	07/29/74	06/15/75	322	Southeastern Subdistrict
				06/15/75	322	Pribilof Subdistrict
1975/76	\$0.19	\$4,248,040	08/01/75	07/15/76	350	Southeastern Subdistrict
				07/15/76	350	Pribilof Subdistrict
1976/77	\$0.30	\$15,436,566	08/01/76	07/15/77	349	Southeastern Subdistrict
				07/15/77	349	Pribilof Subdistrict
1977/78	\$0.38	\$25,243,725	09/15/77	06/15/78	274	Southeastern Subdistrict
				06/15/78	274	Pribilof Subdistrict
1978/79	\$0.52	\$22,085,010	11/01/78	05/24/79	205	Southeastern Subdistrict
				05/24/79	205	Pribilof Subdistrict
1979/80	\$0.52	\$19,010,092	11/01/79	05/11/80	193	Southeastern Subdistrict
				05/11/80	193	Pribilof Subdistrict
1981	\$0.58	\$17,126,761	01/15/81	05/07/81	113	Southeastern Subdistrict
				05/07/81	113	Pribilof Subdistrict
1982	\$1.06	\$11,522,857	02/15/82	06/15/82	121	Southeastern Subdistrict
				06/15/82	121	Pribilof Subdistrict
1983	\$1.20	\$6,256,622	02/15/83	06/15/83	121	Northern Subdistrict
				05/22/83	97	Southeastern Subdistrict
				05/22/83	97	Pribilof Subdistrict
1984	\$0.95	\$1,143,038	02/15/84	06/15/84	122	Southeastern Subdistrict
				06/15/84	122	Pribilof Subdistrict
1985	\$1.40	\$4,231,975	01/15/85	06/15/85	152	Southeastern Subdistrict
				06/15/85	152	Pribilof Subdistrict
1986–1987			No Co	ommercial Fis	hery	
1988	\$2.20	\$5,029,284	01/15/88			Eastern Subdistrict
				04/20/88	97	East of 165°W long
				03/29/88	75	West of 165°W long
			01/15/88	03/29/88	75	Western Subdistrict
1989	\$2.99	\$20,772,065	01/15/89			Eastern Subdistrict
				03/26/89	71	East of 165°W long
				05/07/89	113	West of 165°W long
			01/15/89	05/07/89	113	Western Subdistrict

Table 12.—Page 2 of 3.

	7	/alue	Se	eason length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
1990	\$1.97	\$48,253,834	01/15/90			Eastern Subdistrict
				04/09/90	85	East of 165°W long
				04/24/90	100	West of 165°W long
			01/15/90	04/24/90	100	Western Subdistrict
1990/91	\$1.06	\$42,323,199				Eastern Subdistrict
			11/20/90	03/25/91	126	East of 166°W long
			11/20/90	03/25/91	126	West of 166°W long
1991/92	\$1.84	\$58,127,840				Eastern Subdistrict
			11/15/91	03/31/92	138	East of 166°W long
			11/15/91	03/31/92	138	West of 166°W long
1992/93	\$1.96	\$68,296,684	11/15/92			Eastern Subdistrict
				03/31/93	137	East of 166°W long
				03/31/93	137	West of 166°W long
			11/15/92	03/31/93	137	Western Subdistrict
1993/94	\$2.33	\$38,832,369	11/01/93	11/10/93	10	East of 168°W long <sup>b</sup>
			11/20/93	01/01/94	43	163° to 173°W long
1994	\$4.13	\$31,543,340	11/01/94	11/21/94	21	163° to 173°W long
1995	\$4.14	\$17,348,234	11/01/95	11/16/95	16	163° to 173°W long
1996	\$2.50	\$4,471,234	11/01/96	11/05/96	5	East of 168°W long <sup>b</sup>
			11/15/96	11/27/96	13	163° to 173°W long
1997–2004			No Co	mmercial Fi	shery	Č
2005/06°		No Comn	nercial Fisher		•	163° to 166°W long <sup>d</sup>
	\$1.19	\$1,118,129	10/15/05	03/31/06	168	West of 166°W long
2006/07	\$1.31	\$2,742,429	10/15/06	03/31/07	168	163° to 166°W long <sup>d</sup>
				03/31/07	168	West of 166°W long
2007/08	\$1.52	\$3,171,664	10/15/07	03/31/08	169	163° to 166°W long <sup>d</sup>
		. ,		03/31/08	169	West of 166°W long
2008/09	\$1.49	\$2,862,365	10/15/08	03/31/09	168	163° to 166°W long <sup>d</sup>
				03/31/09	168	West of 166°W long
2009/10	\$1.64	\$2,155,355	10/15/09	03/31/10	168	163° to 166°W long <sup>d</sup>
			nercial Fisher			West of 166°W long
2010/11-2012/13				, mmercial Fi	shery	Ü
2013/14	\$2.29	\$6,309,202	10/15/13	03/31/14	168	163° to 166°W long <sup>d</sup>
		· · · · · · · · · · · · · · · · · · ·		03/31/14	168	West of 166°W long

Table 12.—Page 3 of 3.

	V	alue	S	eason length					
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments			
2014/15	\$2.15	\$29,073,491	10/15/14	03/31/15	168	163° to 166°W long <sup>d</sup>			
				03/31/15	168	West of 166°W long			
2015/16	\$2.18	\$42,432,982	10/15/15	03/31/16	169	163° to 166°W long <sup>d</sup>			
				03/31/16	169	West of 166°W long			
2016/17			No Co	mmercial Fi	shery				
2017/18		No Com	mercial Fishe	ery		163° to 166°W long <sup>d</sup>			
	\$3.27	\$8,102,596	10/15/17	03/31/18	168	West of 166°W long			
2018/19		No Com	mercial Fishe	ery		163° to 166°W long <sup>d</sup>			
	\$3.30	\$7,913,588	10/15/18	03/31/19	168	West of 166°W long			
2019/20		No Commercial Fishery							

<sup>&</sup>lt;sup>a</sup> Average price per pound.

b Concurrent with Bristol Bay red king crab fishery.

<sup>&</sup>lt;sup>c</sup> Crab rationalization begins.

d Directed fishery open between 163° and 166°W long. Incidental harvest allowed in entire area east of 166°W long during Bristol Bay red king crab fishery; however, no incidental harvest allowed when the directed fishery is closed.

39

Table 13.—Bering Sea District snow crab commercial fishery harvest data, 1977/78–2019/20.

					Nu	ımber of			Average	
Season	GHL/TAC <sup>a,b</sup>	Harvest <sup>b,c</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>b,e</sup>	Widthe,f
1977/78	_	1,716,124	ND	15	38	1,267,546	13,247	96	1.4	ND
1978/79	_	32,187,039	759,137	102	490	22,118,498	190,746	116	1.5	113
1979/80	_	39,572,668	228,345	134	597	25,286,777	255,102	99	1.6	118
1981	39.5–91 million	52,750,034	2,269,979	153	867	34,415,322	435,742	79	1.5	117
1982	16–22 million	29,355,374	1,092,655	122	803	24,089,562	469,091	51	1.2	109
1983	15,800,000	26,128,410	1,324,466	109	461	23,853,647	287,127	83	1.1	ND
1984	49,000,000	26,813,074	798,795	52	367	24,009,935	173,591	138	1.1	105
1985	98,000,000	66,010,484	1,064,184	75	718	52,908,591	372,045	142	1.2	108
1986	57,000,000	97,684,139	1,378,533	87	990	76,319,307	542,346	141	1.3	110
1987	56,400,000	101,903,388	978,449	103	1,038	81,307,659	616,113	132	1.3	109
1988	110,700,000	134,060,185	3,242,478	171	1,285	105,933,542	747,395	142	1.3	110
1989	132,000,000	148,306,262	1,940,482	169	1,300	112,704,215	665,242	169	1.3	111
1990	139,800,000	161,656,405	1,798,664	189	1,563	128,859,645	912,718	141	1.3	109
1991	315,000,000	328,648,169	3,464,936	219	2,788	265,124,637	1,394,897	190	1.2	110
1992	333,000,000	315,302,034	2,329,852	248	2,763	227,376,582	1,281,796	177	1.4	112
1993	207,200,000	230,754,145	1,577,102	254	1,835	169,531,168	972,118	174	1.4	112
1994	105,800,000	149,792,718	1,799,763	272	1,293	114,810,186	716,524	160	1.3	110
1995	55,700,000	75,309,187	1,291,135	253	870	60,591,399	507,603	119	1.2	109
1996	50,700,000	65,696,173	1,335,372	234	771	52,892,320	520,671	102	1.2	108
1997	117,000,000	119,589,339	2,351,555	226	1,127	100,013,816	754,140	133	1.2	107
1998	234,100,000	252,339,284	3,037,499	230	1,853	193,618,550	930,794	208	1.3	111
1999	196,000,000	194,363,869	1,926,497	241	1,734	151,183,798	945,533	160	1.3	110
2000	28,500,000	33,291,344	353,125	231	315	25,081,681	182,634	137	1.3	111_

Table 13.—Page 2 of 3.

					Nu	mber of			Average	
Season	GHL/TACa,b	Harvest <sup>b,c</sup>	Deadloss <sup>b</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>b,e</sup>	Widthe,f
2001	27,300,000	25,256,384	452,781	207	322	18,612,605	191,200	97	1.4	111
$2002^{\rm g}$	30,820,000	32,633,210	658,456	191	436	25,155,221	326,977	77	1.3	110
$2003^{\rm h}$	25,610,000	28,316,923	680,787	190	285	23,252,904	153,862	151	1.2	107
2004	20,831,000	23,942,373	248,576	189	265	18,669,591	123,709	151	1.3	110
2005	20,932,000	24,892,128	235,479	168	219	17,985,745	73,208	246	1.4	114
$2005/06^{\mathrm{i}}$	37,184,000	36,973,890	357,200	78	350	24,551,986	121,029	203	1.5	117
2006/07	36,566,000	36,355,649	413,743	69	307	29,620,685	89,419	331	1.2	109
2007/08	63,034,000	63,028,036	551,429	78	513	50,327,591	144,110	349	1.3	109
2008/09	58,550,000	58,547,849	434,622	77	487	45,945,092	163,537	281	1.3	110
2009/10	48,017,000	48,014,089	536,688	69	354	35,289,022	137,292	257	1.4	113
2010/11	54,281,000	54,263,200	352,388	68	386	37,758,496	147,478	256	1.4	115
2011/12	88,894,000	88,830,652	637,432	72	724	60,555,105	270,602	224	1.5	115
2012/13	66,350,000	66,254,528	465,522	70	505	47,455,883	225,627	210	1.4	113
2013/14	53,983,000	53,983,286	405,129	70	450	41,926,542	231,614	181	1.3	110
2014/15	67,950,000	67,941,587	596,641	71	543	55,029,818	286,920	192	1.2	110
2015/16	40,611,000	40,611,446	379,167	74	390	29,614,529	217,054	136	1.4	113
2016/17	21,570,000	21,570,915	250,474	63	266	16,412,386	118,548	138	1.3	112
2017/18	18,961,000	18,963,473	172,569	63	261	15,695,007	118,034	133	1.2	108
2018/19	27,581,000	27,578,244	268,204	61	313	22,470,886	127,432	176	1.2	109
2019/20	34,019,000	34,024,553	417,075	59	373	28,626,114	188,958	151	1.2	108

## Table 13.—Page 3 of 3.

Note: En dashes indicate harvest limits were not set for these fisheries prior to 1981; ND indicates these data were not collected or cannot be derived.

- <sup>a</sup> Guideline harvest level (GHL), total allowable catch (TAC) beginning in 2005/06.
- b In pounds.
- <sup>c</sup> Deadloss included.
- <sup>d</sup> Number of legal crab per pot lift.
- e Retained catch.
- f Carapace width in millimeters
- g Total harvest includes 30,919 pounds taken from an unidentified statistical area.
- <sup>h</sup> Includes 181,457 pounds illegally taken in Russian waters.
- i Crab rationalization begins.

42

Table 14.—Bering Sea District snow crab commercial fishery value and season dates, 1980–2019/20.

	Va	lue	Sea	son length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
1979/80	\$0.21	\$8,262,308	11/01/79	08/15/80	289	Bering Sea District state closure
				09/03/80	308	Bering Sea District federal closure
1981	\$0.27	\$13,629,615	01/15/81	09/01/81	230	Bering Sea District closure
1982	\$0.83	\$23,458,057	02/15/82	08/01/82	168	Bering Sea District closure
1983	\$0.38	\$9,425,499	02/15/83	05/22/83	97	Bering Sea District closure south of 57°30'N lat
				08/01/83	168	Bering Sea District closure north of 57°30'N lat
1984	\$0.30	\$7,804,284	02/15/84	08/01/84	169	Bering Sea District closure south of 58°N lat
				08/22/84	190	Bering Sea District closure north of 58°N lat to allow for
						an orderly start to king crab season
1985	\$0.30	\$19,483,890	01/15/85	05/08/85	114	Pribilof Subdistrict closure south of 58°N lat
				08/01/85	199	Bering Sea District closure south of 58°39'N lat
				08/22/85	220	Northern Subdistrict closure to allow for an orderly
						start to king crab season
1986	\$0.55	\$52,721,553	01/15/86	04/21/86	97	Southeastern Subdistrict closure west of 164°W long
				06/01/86	138	Pribilof Subdistrict closure
				08/01/86	199	Northern Subdistrict closure east of 175°W long
				08/24/86	222	Northern Subdistrict closure west of 175°W long
1987	\$0.77	\$77,815,458	01/15/87	04/12/87	88	Southeastern Subdistrict west of 164°W long
						and Pribilof Subdistrict closure
				06/01/87	138	Northern Subdistrict south of 60°30'N lat and
						east of 178°W long closure
				06/22/87	159	Northern Subdistrict north of 60°30'N lat and
						west of 178°W long closure

Table 14.—Page 2 of 4.

	V	alue	Sea	son length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
1988	\$0.83	\$108,645,549	01/15/88	03/29/88	75	Bering Sea District closure
						(Western Subdistrict to assist in an orderly closure)
			05/15/88	06/30/88	47	Western Subdistrict reopen and closure
1989	\$0.77	\$112,144,331	01/15/89	03/26/89	71	Eastern Subdistrict closure
				05/07/89	113	Western Subdistrict closure
1990	\$0.77	\$122,459,171	01/15/90	04/09/90	85	Eastern Subdistrict east of 165°W long closure
				04/24/90	100	Eastern Subdistrict west of 165°W long closure
				06/12/90	149	Western Subdistrict closure
1991	\$0.49	\$158,683,336	01/15/91	05/05/91	111	Eastern Subdistrict closure
				06/23/91	160	Western Subdistrict closure
1992	\$0.59	\$184,951,171	01/15/92	04/22/92	99	Bering Sea District closure
1993	\$0.93	\$212,377,174	01/15/93	03/15/93	60	Bering Sea District closure
1994	\$1.58	\$233,301,131	01/15/94	03/01/94	46	Bering Sea District closure
1995	\$2.44	\$180,489,720	01/15/95	02/17/95	34	Bering Sea District closure
1996	\$1.31	\$84,200,277	01/15/96	02/29/96	46	Bering Sea District closure
1997	\$0.71	\$83,787,925	01/15/97	03/21/97	66	Bering Sea District closure
1998	\$0.55	\$137,642,743	01/15/98	03/20/98	65	Bering Sea District closure
1999	\$0.88	\$169,366,879	01/15/99	03/22/99	67	Bering Sea District closure
2000	\$1.81	\$59,659,349	04/01/00	04/08/00	8	Bering Sea District closure
2001	\$1.49	\$36,833,621	01/15/01	02/14/01	31	Bering Sea District closure
2002	\$1.84	\$58,674,555	01/15/02	02/08/02	25	Bering Sea District closure
2003	\$1.75	\$48,496,278	01/15/03	01/25/03	11	Bering Sea District closure
2004	\$2.04	\$48,359,092	01/15/04	01/23/04	9	Bering Sea District closure

Table 14.—Page 3 of 4.

	V	alue	Sea	ason length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
2005	\$1.79	\$44,144,504	01/15/05	01/20/05	6	Bering Sea District closure
2005/06 <sup>b</sup>	\$1.51	\$55,291,202	10/15/05	05/15/06	213	Eastern Subdistrict closure
				05/31/06	229	Western Subdistrict closure
2006/07	\$1.37	\$49,111,061	10/15/06	05/15/07	213	Eastern Subdistrict closure
				05/31/07	229	Western Subdistrict closure
2007/08	\$1.63	\$102,072,731	10/15/07	05/15/08	214	Eastern Subdistrict closure
				05/31/08	230	Western Subdistrict closure
2008/09	\$1.37	\$79,464,730	10/15/08	05/15/09	213	Eastern Subdistrict closure
				05/31/09	229	Western Subdistrict closure
2009/10	\$1.13	\$53,645,621	10/15/09	05/15/10	213	Eastern Subdistrict closure
				05/31/10	229	Western Subdistrict closure
2010/11	\$2.14	\$115,523,133	10/15/10	05/15/11	213	Eastern Subdistrict closure
				05/31/11	229	Western Subdistrict closure
2011/12	\$1.89	\$166,973,717	10/15/11	05/31/12	230	Eastern Subdistrict east of 171°W long closure
				06/15/12	245	Western and Eastern Subdistricts west of 171°W long closure
2012/13	\$2.02	\$133,088,320	10/15/12	05/15/13	213	Eastern Subdistrict closure
				05/31/13	229	Western Subdistrict closure
2013/14	\$2.15	\$115,438,494	10/15/13	05/15/14	213	Eastern Subdistrict closure
				05/31/14	229	Western Subdistrict closure
2014/15	\$1.67	\$112,275,497	10/15/14	05/15/15	213	Eastern Subdistrict closure
				05/31/15	229	Western Subdistrict closure
2015/16	\$2.01	\$80,936,867	10/15/15	05/15/16	214	Eastern Subdistrict closure
				05/31/16	230	Western Subdistrict closure

Table 14.—Page 4 of 4.

	Va	Value		son length		
Season	Exvessela	Total	Opened	Closed	Days	Location/Comments
2016/17	\$2.72	\$58,026,393	10/15/16	05/15/17	213	Eastern Subdistrict closure
				05/31/17	229	Western Subdistrict closure
2017/18	\$3.00	\$56,464,897	10/15/17	05/15/18	213	Eastern Subdistrict closure
				05/31/18	229	Western Subdistrict closure
2018/19	\$3.00	\$82,036,383	10/15/18	05/15/19	213	Eastern Subdistrict closure
				05/31/19	229	Western Subdistrict closure
2019/20	\$3.15	\$105,928,621	10/15/19	05/15/20	214	Eastern Subdistrict closure
				05/31/20	230	Western Subdistrict closure

a Average price per pound.
 b Crab rationalization begins.

46

Table 15.—Bering Sea District snow crab commercial fishery harvest and effort by week, 2019/20.

				Nun	nber of		Average		
Week ending	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	
Jan 4	858,589	9,848	4	8	721,831	3,599	201	1.2	
Jan 11	1,708,441	11,269	12	14	1,390,440	8,296	168	1.2	
Jan 18	2,096,318	12,923	16	16	1,725,582	10,679	162	1.2	
Jan 25	3,728,723	33,940	32	37	2,964,669	19,024	156	1.3	
Feb 1	3,308,937	35,392	30	37	2,743,109	18,983	145	1.2	
Feb 8	1,719,986	16,987	15	20	1,327,079	8,749	152	1.3	
Feb 15	4,630,785	67,264	43	57	3,981,778	28,735	139	1.2	
Feb 22	2,512,611	26,143	24	31	2,175,366	15,132	144	1.2	
Feb 29	2,369,636	26,402	21	32	2,085,644	14,767	141	1.1	
Mar 7	2,578,855	27,130	25	33	2,277,300	16,120	141	1.1	
Mar 14	2,086,085	18,514	22	29	1,820,327	13,081	139	1.1	
Mar 21	2,303,597	34,927	13	16	2,015,488	11,929	169	1.1	
Mar 28	1,742,953	19,598	12	14	1,459,265	8,064	181	1.2	
Apr 4	975,811	16,092	6	14	756,743	4,480	169	1.3	
Apr 11	786,278	10,197	7	8	639,183	3,938	162	1.2	
Apr 18 and Apr 25 <sup>e</sup>	616,948	50,449	7	7	542,310	3,382	160	1.1	
Total	34,024,553	417,075	59	373	28,626,114	188,958	151	1.2	

*Note:* CF = confidential

<sup>&</sup>lt;sup>a</sup> In pounds.

<sup>&</sup>lt;sup>b</sup> Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Combined harvest and effort for last two weeks of fishery due to confidentiality from limited vessel participation.

47

Table 16.—Bering Sea District snow crab commercial fishery harvest and effort by statistical area, 2019/20.

				Num	ber of		Average		
Statistical area	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	
675530	7,429	73	4	4	6,194	120	51	1.2	
675600	303,687	4,276	16	34	249,906	3,024	82	1.2	
675630	34,660	543	11	17	28,806	600	48	1.2	
685600	269,269	6,754	17	39	229,102	2,681	85	1.2	
685630	1,164,724	12,531	17	46	942,979	9,909	95	1.2	
705600	431	2	5	6	368	65	5	1.2	
705630	15,749	174	8	9	13,392	355	37	1.2	
715600	10,949	110	7	11	9,435	152	62	1.2	
715630	4,771,481	42,287	43	152	4,234,729	29,137	145	1.1	
715700	3,348,613	40,953	38	139	2,896,727	19,709	146	1.2	
715730	3,039,838	42,918	36	110	2,697,789	14,852	181	1.1	
715800	1,620,982	37,466	21	48	1,452,593	9,287	156	1.1	
715830	41,548	552	6	14	35,595	278	128	1.2	
725630	3,047,492	28,804	37	99	2,669,935	15,228	175	1.1	
725700	3,253,423	35,621	39	140	2,812,551	20,067	140	1.2	
725730	3,497,205	40,894	41	121	3,043,518	19,199	158	1.1	
725800	1,145,640	26,935	17	45	998,796	6,881	145	1.1	
725830	71,456	1,209	7	13	62,616	489	128	1.1	
735700	4,742	57	8	10	3,921	110	35	1.2	
735730	495,419	5,641	15	27	379,369	2,798	135	1.3	
735800	476,720	6,495	14	22	387,205	2,872	134	1.2	
735830	71,794	623	7	9	56,317	684	82	1.3	

48

				Nun		Ave	rage	
Statistical area	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>
735900	11,623	106	4	5	8,699	174	49	1.3
745800	31,223	247	6	9	25,231	262	96	1.2
745830	329,788	3,206	8	11	244,077	2,439	100	1.4
745900	626	5	3	4	478	150	3	1.3
745930	132,960	723	7	8	98,454	670	146	1.4
755830	16	0	3	3	13	164	0	1.2
755900	222,243	1,980	6	10	157,195	987	159	1.4
755930	3,876,593	44,290	20	55	2,795,382	16,094	173	1.4
756000	583,252	7,177	14	31	448,907	1,781	252	1.3
765930	265,819	3,314	12	26	199,292	1,171	170	1.3
766000	1,857,301	20,908	14	36	1,419,200	5,925	239	1.3
Other <sup>e</sup>	19,855	203	16	37	17,343	644	27	1.1
Total	34,024,553	417,075	59	373	28,626,114	188,958	151	1.2

<sup>&</sup>lt;sup>a</sup> In pounds.

Table 16.—Page 2 of 2.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Combination of statistical areas (20) in which landings were made by fewer than three vessels.

49

Number of Value Average Weight<sup>a,d</sup> Harvest<sup>a,b</sup> Landings Crabb **CPUE**<sup>c</sup> Season Deadloss<sup>a</sup> Vessels Pots lifted Exvessele Total CF CF CF 1992 CF CF CF CF CF 1 1 1.9 1993 658,796 71,000 18 342,095 35,650 9 \$0.92 \$540,772 6 322,444 30,585 165,365 13,739 2.0 \$773,426 1994 4 12 11 \$2.65 67,329 8 461,401 59,028 \$2.09 \$1,917,197 1995 984,648 51 7 2.1 46,338 10,802 4 \$94,836 1996 3 2.1 95,795 11,120 11 \$1.12 1997-1999 No Commercial Fishing Effort 2000 CF CF CF CF CF CF CF CF 1 1 2001 CF 3 CF CF CF CF 1 CF CF CF 2002 No Commercial Fishing Effort 2003 CF CF CF 1 7 CF CF CF CF CF 2004 CF CF 2 10 CF CF CF CF CF CF CF CF 2005 CF CF 1 1 CF CF CF CF

No Commercial Fishing Effort

No Commercial Fishing Effort

CF

3

Table 17.—Bering Sea District grooved Tanner crab commercial fishery harvest data, 1992–2019.

*Note:* CF = confidential.

2006-2016

2017

2018

2019<sup>f</sup>

CF

CF

CF

CF

1

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Average price per pound.

f Restricted to incidental harvest during Bering Sea golden king crab fishery.

Table 18.—Bering Sea District triangle Tanner crab commercial fishery harvest data, 1995–2019.

				Num	ber of		Ave	erage	Value	e
Season	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total
1995	49,007	14,147	4	26	41,914	22,180	2	1.2	\$1.44	\$50,198
1996	CF	CF	1	6	CF	CF	CF	CF	CF	CF
1997–1999					No Comn					
$2000^{\mathrm{f}}$	CF	CF	1	1	CF	CF	CF	CF	CF	CF
$2001^{\rm f}$	CF	CF	1	3	CF	CF	CF	CF	CF	CF
2002					No Comn	nercial Fishing E	Effort			
$2003^{\rm f}$	CF	CF	1	7	CF	CF	CF	CF	CF	CF
$2004^{\rm f}$	CF	CF	3	13	CF	CF	CF	CF	CF	CF
2005-2016										
$2017^{\rm f}$	CF	CF	1	2	CF	CF	CF	CF	CF	CF
2018-2019					No Comn	nercial Fishing E	Effort			

Note: CF indicates confidential data; Harvest is bycatch only, therefore, harvest limits are not set for this stock.

<sup>&</sup>lt;sup>a</sup> In pounds.

<sup>&</sup>lt;sup>b</sup> Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

<sup>&</sup>lt;sup>d</sup> Retained catch.

<sup>&</sup>lt;sup>e</sup> Average price per pound.

f Restricted to incidental harvest during Bering Sea golden king crab and grooved Tanner crab fisheries.

51

Table 19.-North Peninsula District commercial Dungeness crab fishery data, 1992–2019.

				Num	ber of		Ave	rage	Va	Value	
Season	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total	
1992	CF	CF	1	3	CF	CF	CF	CF	CF	CF	
1993	CF	CF	2	8	CF	CF	CF	CF	CF	CF	
1994	CF	CF	2	13	CF	CF	CF	CF	CF	CF	
1995	134,407	367	6	18	63,732	34,499	4	2.1	\$1.32	\$176,933	
1996	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
1997	CF	CF	1	2	CF	CF	CF	CF	CF	CF	
1998	CF	CF	1	1	CF	CF	CF	CF	CF	CF	
1999					No Com	mercial Fishing Ef	fort				
2000	CF	CF	1	5	CF	CF	CF	CF	CF	CF	
2001					No Com	mercial Fishing Ef	fort				
2002	CF	CF	2	2	CF	CF	CF	CF	CF	CF	
2003					No Com	mercial Fishing Ef	fort				
2004	CF	CF	1	3	CF	CF	CF	CF	CF	CF	
2005	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
2006					No Com	mercial Fishing Ef	fort				
2007	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
2008					No Com	mercial Fishing Ef	fort				
2009	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
2010	795,392	10,414	5	24	391,849	60,985	6	2.0	\$1.73	\$1,358,012	
2011	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
2012	CF	CF	1	2	CF	CF	CF	CF	CF	CF	
2013					No Com	mercial Fishing Ef	fort				
2014	CF	CF	1	4	CF	CF	CF	CF	CF	CF	

Table 19.—Page 2 of 2.

				Number of			Av	erage	Value		
Season	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total	
2015	CF	CF	1	3	CF	CF	CF	CF	CF	CF	
2016	CF	CF	1	6	CF	CF	CF	CF	CF	CF	
2017	CF	CF	1	2	CF	CF	CF	CF	CF	CF	
2018–2019		No Commercial Fishing Effort									

Note: CF indicates confidential data; Harvest limits are not set for this stock.

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Average price per pound.

Table 20.-Bering Sea (Area Q) weathervane scallop commercial fishery harvest data, 1987–2019/20.

			N	lumber of	Meat weight
Season	$\mathrm{GHL}^{\mathrm{a,b}}$	Harvesta	Vessels	Dredge hours	$CPUE^{c}$
1987	_	CF	2	CF	CF
1988	_		No Commer	cial Fishing Effort	
1989	_		No Commer	cial Fishing Effort	
1990	_		No Commer	cial Fishing Effort	
1991	_	CF	2	CF	CF
1992	_		No Commer	cial Fishing Effort	
1993/94	_	605,953	10	ND	ND
1994/95	_	505,439	9	11,113	45
1995/96		N	o Commercial Fis	shery	
1996/97	600,000	150,295	1	2,313	65
1997/98	600,000	97,002	2	2,246	43
1998/99	400,000	96,795	4	2,319	42
1999/00	400,000	164,929	2	3,294	50
2000/01	200,000	205,520	3	3,355	61
2001/02	200,000	140,871	3	3,072	46
2002/03	105,000	92,240	2	2,038	45
2003/04	105,000	42,590	2	1,020	42
2004/05	50,000	10,050	1	275	37
2005/06	50,000	23,220	1	602	39
2006/07	50,000	48,246	1	1,138	42
2007/08	50,000	49,995	2	1,084	46
2008/09	50,000	49,995	1	960	52
2009/10	50,000	48,921	1	1,275	38
2010/11	50,000	50,100	2	972	52
2011/12	50,000	50,275	2	984	51
2012/13	50,000	50,045	1	943	53
2013/14	50,000	49,989	2	1,086	46
2014/15	50,000	12,445	2	525	24
2015/16	7,500	7,500	1	307	24
2016/17	7,500	7,575	1	275	28
2017/18	7,500	7,535	1	316	24
2018/19	7,500	7,540	1	357	21
2019/20	7,500	7,130	1	365	20

Note: En dashes indicate harvest limits were not set for this fishery prior to 1996/97; CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> In pounds of shucked scallop meat.

<sup>&</sup>lt;sup>b</sup> Guideline harvest level (GHL).

<sup>&</sup>lt;sup>c</sup> Pounds of shucked scallop meat per dredge hour.

Table 21.—Bering Sea commercial octopus incidental harvest in groundfish fisheries, 1995–2019.

		State waters			State and fed	eral waters		
_			Whole			Whole	At-sea	Exvessel
Season	Vessels	Landings	pounds	Vessels	Landings	poundsa	discards	value <sup>b</sup>
1995	5	12	2,252	49	135	17,554	5,587	\$0.14
1996	6	10	1,195	63	191	26,343	21,144	\$0.33
1997	3	3	59	44	92	12,202	5,205	\$0.20
1998	4	8	673	47	81	8,204	5,624	\$0.03
1999	2	2	CF	22	56	7,002	6,593	ND
2000	4	6	551	78	272	39,915	23,611	\$0.03
2001	2	3	CF	62	158	49,641	41,215	\$0.03
2002	2	2	CF	68	187	56,078	16,628	\$0.05
2003	4	7	4,064	80	237	122,443	27,780	\$0.63
2004	4	6	4,615	92	279	88,534	25,527	\$0.39
2005	5	19	4,033	80	271	156,381	12,583	\$0.65
2006	6	8	1,004	88	304	93,624	5,310	\$0.63
2007	4	6	1,946	110	375	102,128	37,436	\$0.45
2008	5	7	7,177	82	252	66,742	14,071	\$0.47
2009	1	1	CF	67	144	20,107	7,858	\$0.30
2010	0	0	0	81	201	67,187	35,477	\$0.24
2011	2	3	CF	124	470	193,222	158,042	\$0.21
2012	0	0	0	104	312	48,938	36,780	\$0.34
2013	2	2	CF	100	310	59,351	40,453	ND
2014	0	0	0	121	403	60,445	29,697	\$0.05
2015	3	5	90	131	519	81,685	49,719	\$0.14
2016	1	2	CF	103	465	164,200	85,174	\$0.05
2017	4	7	1,150	119	427	106,883	62,250	\$0.35
2018	16	81	7,927	131	455	105,682	53,158	\$0.35
2019	17	84	6,782	122	485	78,188	31,612	\$0.62

Note: CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> Includes discards.

<sup>&</sup>lt;sup>b</sup> Average price per pound, based on landed weight.

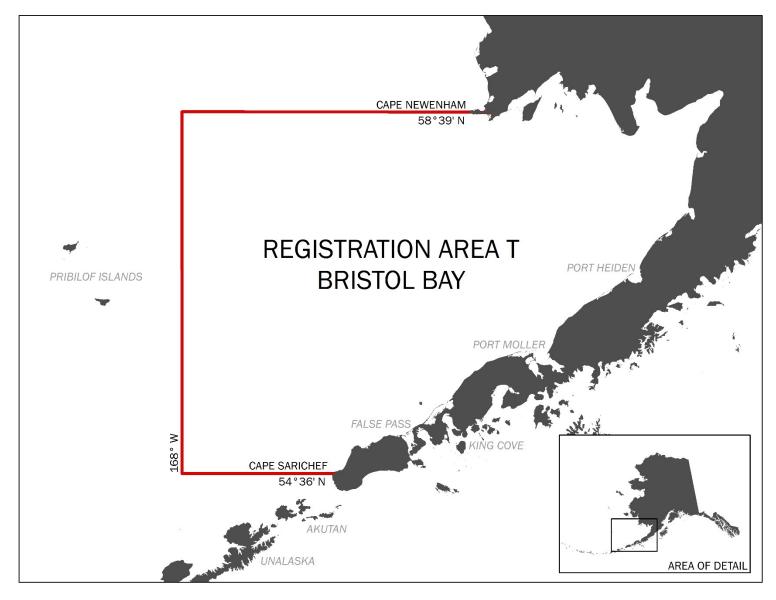


Figure 1.—Bristol Bay king crab commercial fishery Registration Area T.

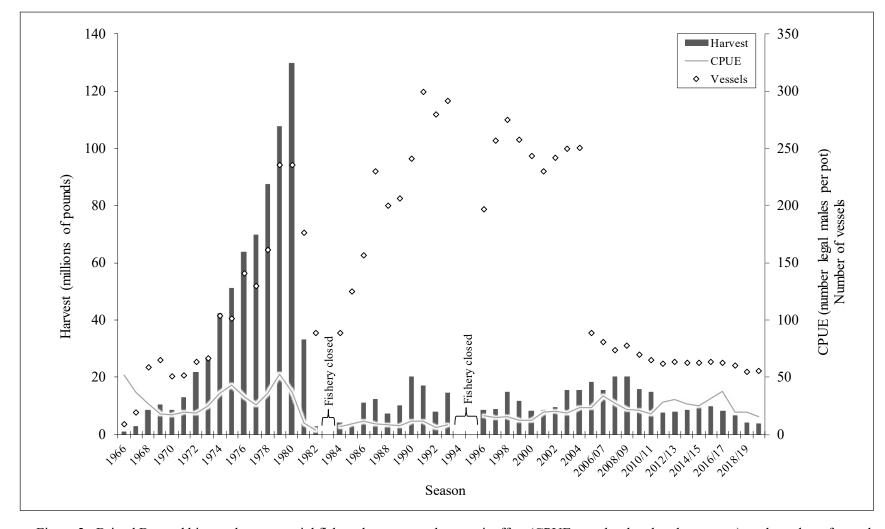


Figure 2.—Bristol Bay red king crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1966–2019/20.

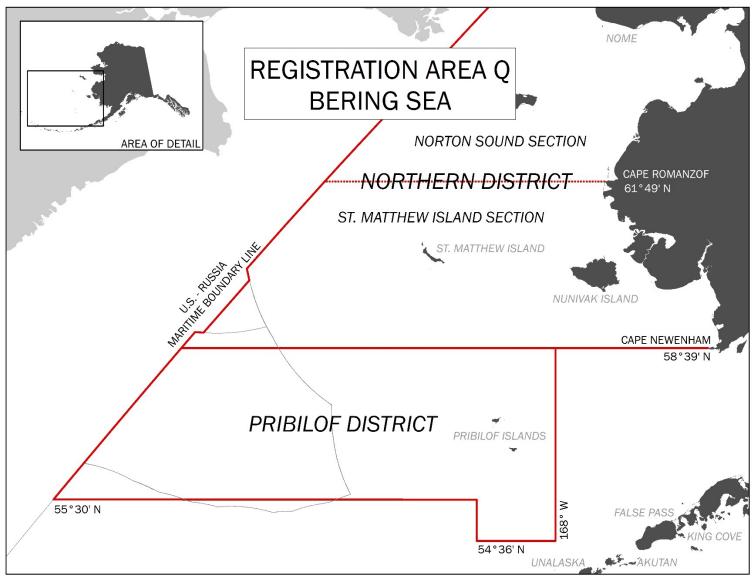


Figure 3.—Bering Sea king crab commercial fishery Registration Area Q.

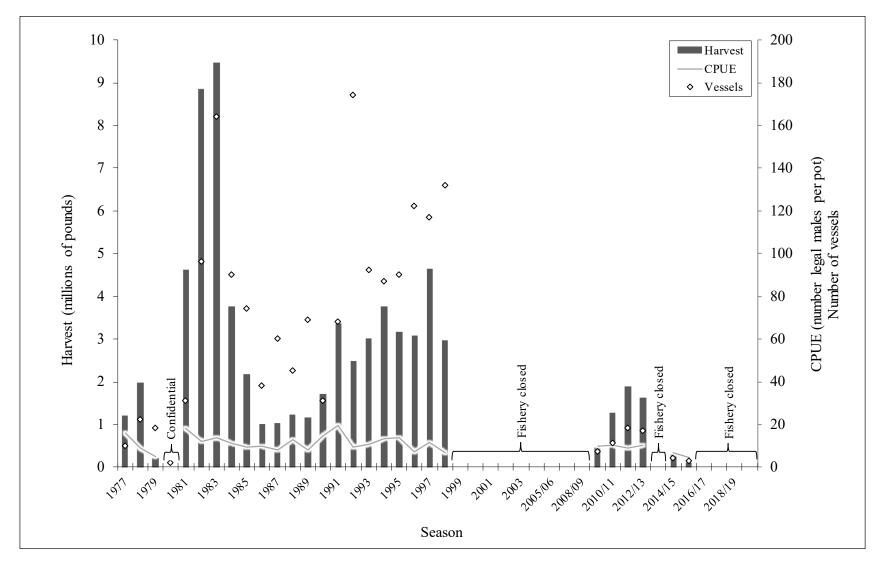


Figure 4.—Saint Matthew Island section blue king crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1977–2019/20.

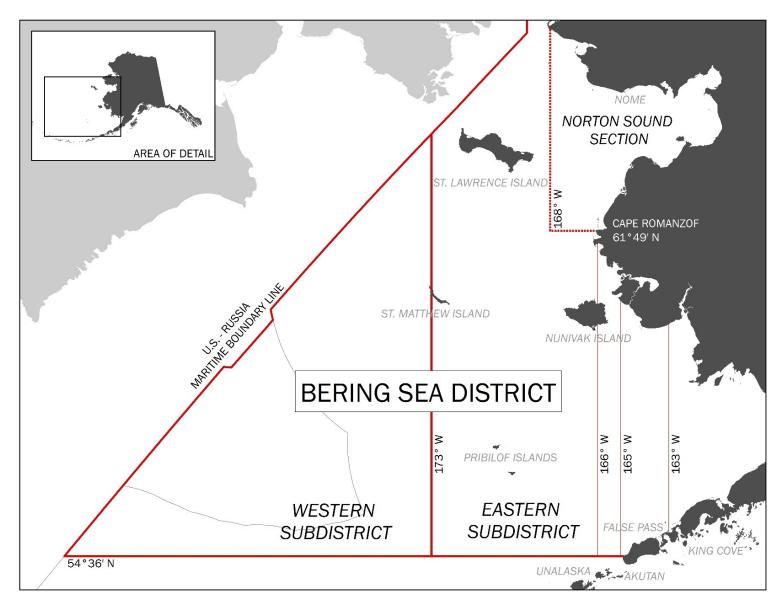


Figure 5.—Bering Sea District Tanner crab commercial fishery Registration Area J including subdistricts and sections.

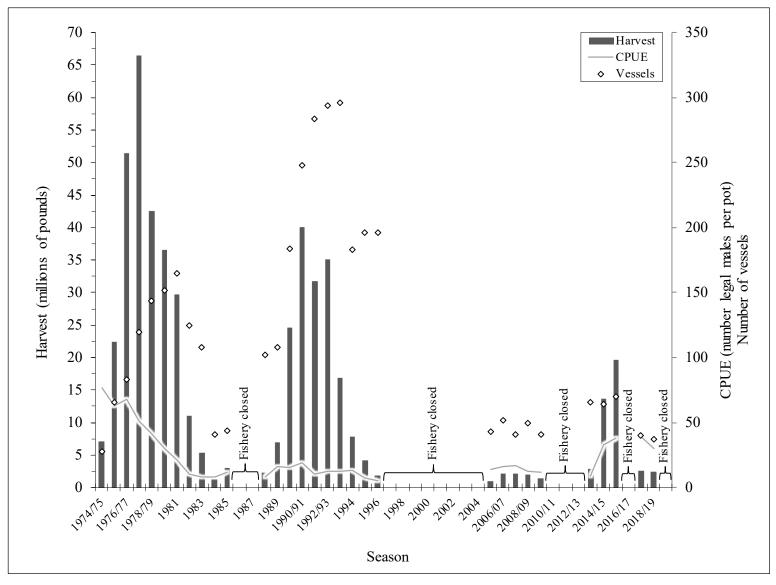


Figure 6.—Bering Sea Tanner crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1974/75–2019/20.

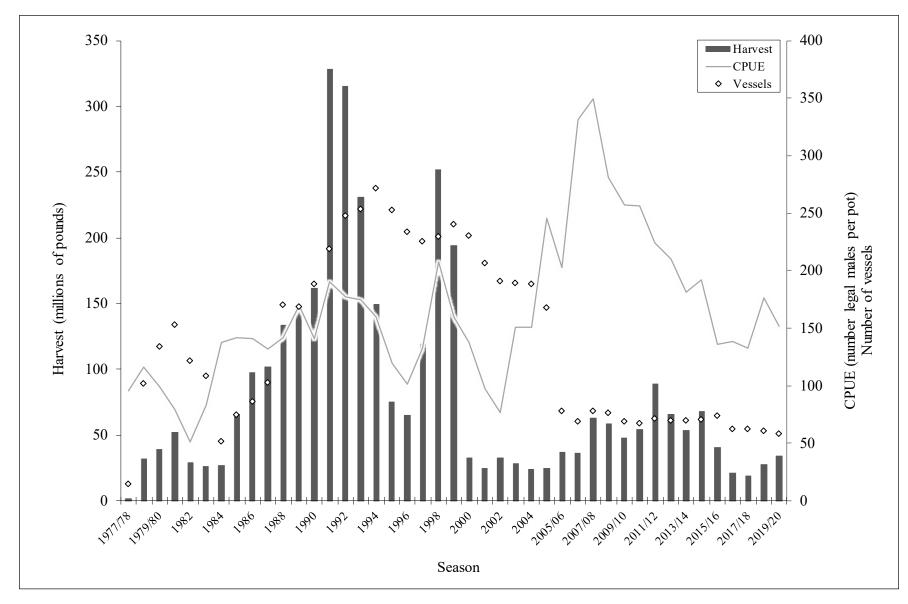


Figure 7.—Bering Sea Snow crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1977/78–2019/20.

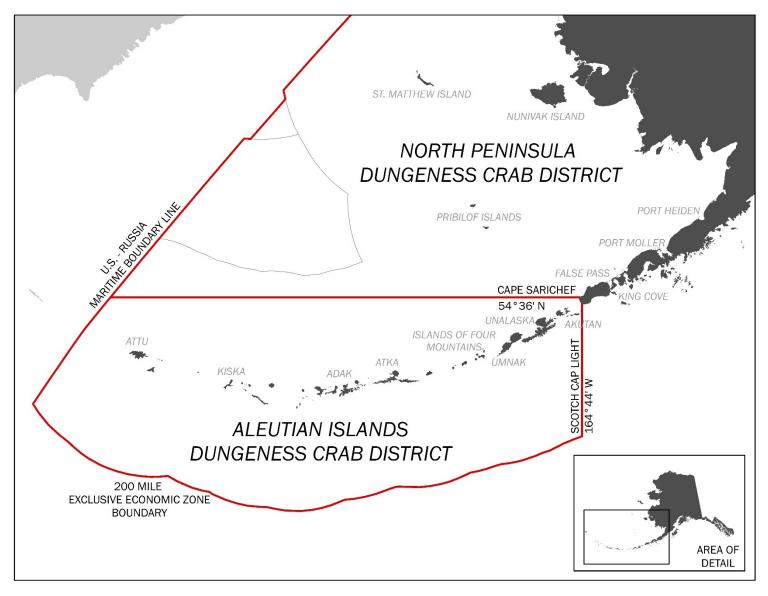


Figure 8.-North Peninsula and Aleutian Islands Dungeness crab Districts of Registration Area J.

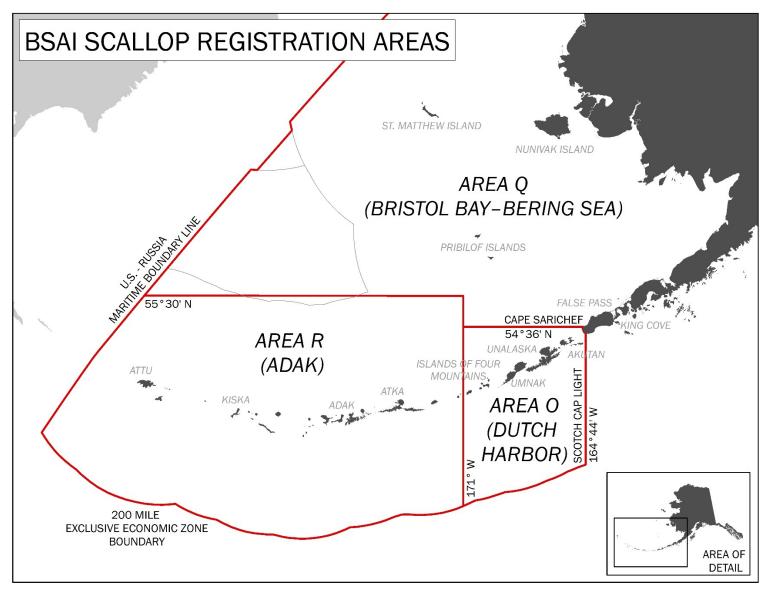


Figure 9.-Bering Sea and Aleutian Islands weathervane scallop Registration Areas.

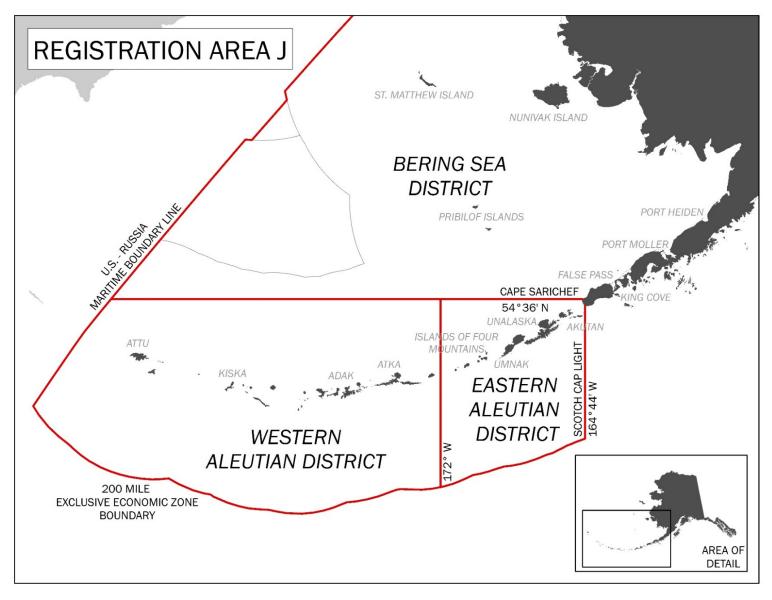


Figure 10.-Bering Sea and Aleutian Islands Tanner crab and miscellaneous shellfish Districts of Registration Area J.

# SECTION II: ALEUTIAN ISLANDS SHELLFISH FISHERIES

## ALEUTIAN ISLANDS KING CRAB MANAGEMENT AREA

## **DESCRIPTION OF AREA**

The Aleutian Islands king crab Registration Area O eastern boundary is the longitude of Scotch Cap Light (164°44.72′W long); the northern boundary is a line from Cape Sarichef (54°36′N lat) to 171°W long, north to 55°30′N lat; and the western boundary the United States—Russia Maritime Boundary Line of 1990 (Figure 11).

## **ALEUTIAN ISLANDS GOLDEN KING CRAB**

The Aleutian Islands golden king crab (AIGKC) stock is managed as two separate fisheries, east and west of 174°W long, with a separate TAC set for each fishery.

## 2019/20 Fishery East of 174°W Longitude

The 2019/20 Aleutian Islands golden king crab fishery east of 174°W long (EAG) opened July 15 with a combined IFQ and CDQ TAC of 4,310,000 pounds (Table 22). TAC was allocated by NMFS as 90% IFQ (3,879,000 pounds) and 10% CDQ (431,000 pounds) with five of the six CDQ groups participating in the harvest of the CDQ allocation. Three vessels participated in the fishery and harvested 4,308,530 pounds, of which 1.2% was deadloss (Table 22). Despite the regulatory fishing season running through April 30, harvest occurred July through January, with the last delivery on January 15 (Table 23). Harvest by statistical week is confidential, and therefore, not shown in tables. On average, vessels were active in the fishery for 111 days. Harvesters were paid an initial average price of \$4.64 per pound, the highest EAG exvessel price since the inception of the fishery. Total exvessel fishery value was estimated to be \$19,740,830 (Table 23).

Total effort for the 2019/20 fishery was 29,675 pot lifts. CPUE was 34 legal crab per pot, above the post-rationalization (2005/06–2018/19) average CPUE of 32 (Table 22, Figure 12). Harvest was distributed across 22 ADF&G statistical reporting areas; harvest by statistical area is confidential and therefore not shown in tables.

EAG cost recovery was conducted by ADF&G in 2019 with 168,245 pounds (38,588 legal male crab) harvested. The 11-day charter occurred from August 28 to September 7 (Table 24).

## **Port Sampling**

During the 2019/20 EAG fishery, ADF&G personnel and onboard observers sampled golden king crab from vessels at shore-based processors in Adak, Akutan, and Dutch Harbor. Biological data collected on landed golden king crab consisted of carapace length, shell condition, and average weight. Confidential interviews, supplemented by daily fishing log records, were conducted with vessel operators to acquire detailed information regarding statistical reporting areas fished, effort, and fishery performance. Data was collected by ADF&G port samplers and onboard observers

from 47 of the 48 total landings (IFQ and CDQ) during the 2019/20 EAG fishery. Average weight of sampled crab was 4.2 pounds while average carapace length was 148 mm (Table 22).

## 2019/20 Fishery West of 174°W Longitude

The 2019/20 Aleutian Islands golden king crab fishery west of 174°W long (WAG) opened July 15 with a combined IFQ and CDQ TAC of 2,870,000 pounds (Table 22). TAC was allocated by NMFS as 90% IFQ (2,583,000 pounds) and 10% Adak Community Allocation (ACA; 287,000 pounds). Three vessels participated in the fishery and harvested 2,840,078 pounds, of which 1.9% was deadloss (Table 22). Harvest occurred throughout the season, with the last delivery on May 12 (Table 23). Harvest by statistical week is confidential and therefore not shown in tables. On average, vessels were active in the fishery for 241 days. Harvesters were paid an initial average price of \$4.50 per pound. Total exvessel fishery value was estimated to be \$12,534,971 (Table 23).

Total effort for the 2019/20 fishery was 42,924 pot lifts. CPUE was 15 legal crab per pot, below the post-rationalization (2005/06–2018/19) average CPUE of 19 (Table 22, Figure 13). Harvest was distributed across 68 ADF&G statistical reporting areas; harvest by statistical area is confidential and therefore not shown in tables.

## **Port Sampling**

During the 2019/20 WAG fishery, ADF&G personnel and onboard observers sampled golden king crab from vessels at shore-based processors in Adak and Dutch Harbor. Biological data collected on landed golden king crab consisted of carapace length, shell condition, and average weight. Confidential interviews, supplemented by daily fishing log records, were conducted with vessel operators to acquire detailed information regarding statistical reporting areas fished, effort, and fishery performance. Data was collected by ADF&G port samplers and onboard observers from 38 of the 44 total landings (IFQ and CDQ) during the 2019/20 WAG fishery. Average weight of sampled crab was 4.4 pounds while average carapace length was 150 mm (Table 22).

#### **Fishery Management and Stock Status**

The AIGKC fishery has historically been managed under a constant-catch harvest strategy with TAC fixed in regulation both east and west of 174°W long (5 AAC 34.612). Only a small portion of the area in which golden king crab are commercially harvested has been surveyed. In 2014, methods testing for an industry cooperative in-fishery survey began. ADF&G personnel are deployed on eastern Aleutian Islands golden king crab fishing vessels and survey pots are sampled on the first pull of the season. Survey efforts are funded by test-fishery funds. The in-fishery survey is still being tested with the goal that the time series of these data will be informative to the new stock assessment model.

Modifications to the harvest strategy made by the Board of Fisheries in 2018 gave the department flexibility to modify the regulatory harvest levels based on the best scientific information available. A stock assessment model for this stock had been in development for some time. The assessment model was first used to set OFL and ABC for this stock for the 2017/18 fishery, but a harvest strategy had not yet been developed to utilize management output quantities for TAC setting. Department scientists have been working with industry to develop a new harvest strategy using model outputs for TAC setting since the adoption of the stock assessment model. A draft of this harvest strategy had been reviewed and was available at the time of TAC setting prior to this

season. The new harvest strategy employing stock assessment model outputs was used to set TACs for the 2019/20 season, as this was the best scientific information available at that time.

Further information on AIGKC stock status and federal overfishing levels may be found in the 2019 Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions (NPFMC 2019a).

## EASTERN ALEUTIAN TANNER CRAB DISTRICT

## **DESCRIPTION OF DISTRICT**

The Eastern Aleutian District (EAD) for Tanner crab encompasses all waters of Registration Area J between the longitude of Scotch Cap Light (164°44′W long), west to 172°W long, and south of the latitude of Cape Sarichef (54°36′N lat; Figure 14).

## TANNER CRAB

## **2019 Commercial Fishery**

The 2019 EAD commercial Tanner crab fishery was closed. The minimum mature male abundance thresholds necessary for a commercial fishery were not met in the Unalaska/Kalekta Bay or Akutan Bay Sections. The Makushin/Skan Bay Section exceeded the minimum mature male abundance threshold, but the calculated GHL was well below the minimum GHL of 35,000 pounds required to open the fishery (Tables 25 and 26).

## **Fishery Management and Stock Status**

The EAD Tanner crab fishery has a total of 300 pots allowed in the fishery with no more than 50 pots per vessel; pots may be operated only from 8:00 AM until 5:59 PM. Vessel length is restricted to 58 feet overall or less in the Unalaska Section. In the remainder of the EAD, vessel length is restricted to 58 feet overall or less when the GHL for Tanner crab is 1,000,000 pounds or less. The EAD Tanner crab fishery was not included in the crab rationalization program and remains an open access fishery. The harvest strategy is found in 5 AAC 35.509 *Eastern Aleutian District Tanner crab harvest strategy*.

In August 2019, Akutan Bay, Unalaska/Kalekta Bay, and Makushin/Skan Bay were surveyed with trawl gear using the ADF&G R/V *Resolution* (Spalinger and Knutson 2020). Total estimated abundance was 5.8 million crab, a 15% decrease from 6.8 million crab in 2018. The legal male abundance estimate of 0.019 million crab represents a decrease of 86% from 0.139 million crab in 2018 and is well below the trawl survey time series average of 0.261 million crab (1990–2018). In 2019, the most notable increase in abundance from the 2018 survey was seen in the Unalaska/Kalekta Bay Section where the estimate of total crab abundance increased 76%.

## **SUBSISTENCE**

## 2019 King and Tanner Fishery

In 2019, ADF&G issued 187 subsistence permits, of which 77, or 41%, were returned. The returned permits account for a reported harvest of 428 Tanner crab and 32 red king crab (Table 27). Harvest of Tanner crab ranged from 0 to 183 crab per permit holder and harvest of red king crab ranged from 0 to 8 crab per permit holder. Subsistence effort was primarily focused in Unalaska Bay. King and Tanner crab harvested in the EAD were taken with pot gear.

## ALEUTIAN DISTRICT DUNGENESS CRAB

#### **DESCRIPTION OF DISTRICT**

The Aleutian District for Dungeness crab includes all waters of Registration Area J west of the longitude of Scotch Cap Light (164°44′W long), south of the latitude of Cape Sarichef (54°35.89′N lat), and east of the United States–Russia Maritime Boundary Line of 1990 (Figure 8).

## 2019 FISHERY

No vessels registered to fish for Dungeness crab in the Aleutian Islands during 2019 (Table 28).

## **Fishery Management and Stock Status**

The Aleutian Islands Dungeness crab fishery is managed using 3-S management (size, sex, and season). Only male Dungeness crab 6.5 inches (165 mm) or greater in carapace width may be retained in the Aleutian District from 12:00 noon May 1 to 11:59 PM October 31. No stock assessment is available and limited biological and fishery data have been collected through dockside sampling. Stock status of Dungeness crab in the Aleutian Islands is unknown, but the resource is believed to be limited by availability of suitable habitat.

## DUTCH HARBOR WEATHERVANE SCALLOP REGISTRATION AREA O

#### **DESCRIPTION OF AREA**

The Dutch Harbor weathervane scallop Registration Area O eastern boundary is the longitude of Scotch Cap Light (164°44.72′W long), the northern boundary is the latitude of Cape Sarichef (54°36′N lat), and the western boundary 171°W long (Figure 9).

## **DUTCH HARBOR WEATHERVANE SCALLOP**

## **2019/20 Fishery**

The 2019/20 Dutch Harbor weathervane scallop fishery opened July 1, 2019, with a GHL of 5,000 pounds of shucked scallop meat on the Bering Sea side of Registration Area O; the Pacific Ocean side was closed. One vessel participated in the fishery and harvested 2,625 pounds of shucked scallop meat (Table 29). All harvest occurred in October, with the remaining GHL unharvested before the fishery closed by regulation on February 15, 2020.

Total effort for the 2019/20 fishery was 130 dredge hours. CPUE was 20 pounds of shucked scallop meat per dredge hour, well below the ten-year average (2009/10–2018/19) average of 55 (Table 29). All harvest came from ADF&G statistical reporting area 685303, north of Umnak Island.

## **Fishery Management and Stock Status**

The Dutch Harbor weathervane scallop Registration Area O is managed by individual scallop beds, one on the Bering Sea side of Umnak Island and the other on the Pacific Ocean side of Unalaska Island. CPUE of 20 pounds of shucked scallop meat per dredge hour from the Bering Sea side in the 2019/20 season was a slight increase from the historically low CPUEs from the previous two seasons, but remains low relative to time series high CPUE of 93 in the 2013/14 season. The Pacific

Ocean side was closed in 2018/19 for a three-year period due to concerns about poor fishery performance and is scheduled to reopen with a monitoring GHL in the 2020/21 season.

Area O has never been surveyed with dredge gear as part of the Statewide Weathervane Scallop Dredge survey, and the Westward Region Large-Mesh Bottom Trawl Survey does not generally overlap with scallop fishing grounds in the area. Therefore, the stock is assessed annually using available fishery and observer data. The harvest strategy is found in 5 AAC 38.076 *Alaska Scallop Fishery Management Plan* and 5 AAC 38.078 *State-Waters Weathervane Scallop Management Plan*.

Further information on weathervane scallop stock status and federal overfishing levels may be found in the 2019 *Stock Assessment and Fishery Evaluation Report for the Scallop Fishery off Alaska* (NPFMC 2019b).

## ALEUTIAN ISLANDS MISCELLANEOUS SHELLFISH

## **DESCRIPTION OF DISTRICT**

The Aleutian Islands District of miscellaneous shellfish Registration Area J includes all waters south of the latitude of Cape Sarichef (54°36′N lat), west of the longitude of Scotch Cap Light (164°44′W long), and east of the United States–Russia Maritime Boundary Line of 1990 (Figure 10).

#### 2019 FISHERIES

## **Octopus**

In 2019, harvest from state waters was 167,465 pounds from 33 vessels and 194 landings. Harvest from state and federal waters combined was 283,128 pounds from 85 vessels and 376 landings. All reported harvest was incidental to groundfish fisheries. Average exvessel value based on landed weight of octopus in 2019 was \$0.50 per pound (Table 30).

#### **Fishery Management and Stock Status**

Octopus are considered a shellfish species under State of Alaska regulation. Limited directed fishing within state waters may occur under the authority of a commissioner's permit; however, octopus are primarily retained as bycatch during state and federal groundfish fisheries. Currently, vessels may retain incidentally caught octopus up to 20% of the weight of the target groundfish species or halibut onboard. Most octopus are retained as bycatch in Pacific pot gear cod fisheries.

Incidental harvest of octopus in the Aleutian Islands is dominated by giant Pacific octopus, *Enteroctopus dofleini*, although at least six other species of octopus are known to occur in the Aleutian Islands. There was no NMFS Aleutian Islands trawl survey conducted in 2019. Results from the 2018 NMFS Aleutian Islands trawl survey estimate octopus (all species) biomass at 5.0 million pounds with 98% of the estimate composed of *E. dofleini*. The 2018 octopus (all species) biomass estimate decreased 41% relative to the 2016 estimate. Biomass estimates for octopus in the Aleutian Islands are highly variable and do not necessarily reflect the sizes of octopus caught in fisheries (Ormseth et al. 2020). General knowledge of the stock is limited and there is currently no reliable estimate of octopus biomass (Ormseth et al. 2020).

Further information on octopus stock status and federal overfishing levels may be found in the 2020 Assessment of the Octopus Stock Complex in the Bering Sea and Aleutian Islands (Ormseth et al. 2020).

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- Ormseth, O. A., Conners, M. E., K. Aydin, and C. Conrath. 2020. Assessment of the octopus stock complex in the Bering Sea and Aleutian Islands. [In] Stock assessment and fishery evaluation report of the Bering Sea/Aleutian Islands regions. North Pacific Fishery Management Council, Anchorage.
- NPFMC (North Pacific Fishery Management Council). 2019a. Stock assessment and fishery evaluation report for the king and Tanner crab fisheries of the Bering Sea and Aleutian Islands regions: 2019 crab SAFE. North Pacific Fishery Management Council, Anchorage.
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- Spalinger, K., and M. Knutson. 2020. Large-mesh bottom trawl survey of crab and groundfish: Kodiak, Chignik, South Peninsula, and Eastern Aleutian management districts, 2019. Alaska Department of Fish and Game, Fishery Management Report No. 20-16, Anchorage.

# **TABLES AND FIGURES**

Table 22.—Aleutian Islands golden king crab commercial fishery harvest data, 1981/82–2019/20.

						Number of				Average	
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vessels <sup>d</sup>	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>
1981/82	East of 172°W	_	115,715	8,752	6	16	22,666	2,906	8	5.1	158
	West of 172°W	_	1,194,046	22,064	14	76	217,700	24,627	9	5.5	160
	TOTAL	_	1,309,761	30,816	ND	92	240,366	27,533	9	5.4	ND
1982/83	East of 172°W	_	1,184,971	47,479	49	136	227,471	29,369	8	5.2	158
	West of 172°W	_	8,006,274	220,743	99	501	1,509,001	150,103	10	5.3	158
	TOTAL	_	9,191,245	268,222	ND	637	1,736,472	179,472	10	5.3	ND
1983/84	East of 172°W	_	1,810,973	45,268	47	132	328,353	29,595	11	5.5	ND
	West of 172°W	_	8,128,029	171,021	157	1,002	1,534,909	226,798	7	5.3	ND
	TOTAL	_	9,939,002	216,289	ND	1,134	1,863,262	256,393	7	5.3	ND
1984/85	East of 171°W	_	1,521,142	70,362	13	67	327,440	24,044	14	4.6	161
	West of 171°W	_	4,141,052	130,377	38	107	863,367	77,049	11	4.8	157
	TOTAL	_	5,662,194	200,739	ND	174	1,190,807	101,093	12	4.8	ND
1985/86	East of 171°W	_	1,733,878	25,223	11	59	364,097	31,322	12	4.8	156
	West of 171°W	_	11,024,759	197,753	53	386	2,452,216	205,279	12	4.5	151
	TOTAL	_	12,758,637	222,976	ND	445	2,816,313	236,601	12	4.5	ND
1986/87	East of 171°W	_	1,869,180	9,510	17	71	400,389	37,585	11	4.7	ND
	West of 171°W	_	12,869,564	276,741	62	528	2,940,238	395,435	7	4.4	150
	TOTAL	_	14,738,744	286,251	ND	599	3,340,627	433,020	8	4.4	ND
1987/88	East of 171°W	_	1,388,983	25,060	23	77	301,227	42,867	7	4.6	150
	West of 171°W	_	7,868,022	167,110	57	380	1,873,349	263,863	7	4.2	147
	TOTAL	_	9,257,005	192,170	ND	457	2,174,576	306,730	7	4.3	ND

Table 22.–Page 2 of 6.

						Nun	nber of			Average	
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vesselsd	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>
1988/89	East of 171°W	_	1,546,113	23,960	21	57	323,783	41,371	8	4.8	154
	West of 171°W	_	9,080,929	125,500	73	455	2,164,650	280,556	8	4.2	149
	TOTAL	_	10,627,042	149,460	76	512	2,488,433	321,927	8	4.3	ND
1989/90	East of 171°W	_	1,852,249	17,421	13	70	424,067	43,346	10	4.4	151
	West of 171°W	_	10,169,803	99,866	65	505	2,478,846	314,457	8	4.1	149
	TOTAL	_	12,022,052	117,287	68	575	2,902,913	357,803	8	4.1	ND
1990/91	East of 171°W	_	1,699,675	42,800	16	67	391,135	53,592	7	4.3	148
	West of 171°W	_	5,250,687	176,583	13	167	1,312,116	161,222	8	4.0	145
	TOTAL	_	6,950,362	219,383	23	234	1,703,251	214,814	8	4.1	ND
1991/92	East of 171°W	_	1,516,779	45,100	11	56	352,803	43,231	8	4.3	148
	West of 171°W	_	6,185,362	96,848	16	206	1,494,595	191,626	8	4.1	145
	TOTAL	_	7,702,141	141,948	19	258	1,847,398	234,857	8	4.2	ND
1992/93	East of 171°W	_	1,404,452	37,200	10	46	337,559	38,348	9	4.2	148
	West of 171°W	_	4,886,745	104,215	18	128	1,190,769	164,873	7	4.1	147
	TOTAL	_	6,291,197	141,415	22	174	1,528,328	203,221	8	4.1	ND
1993/94	East of 171°W	_	915,460	7,324	4	14	217,788	22,490	10	4.2	149
	West of 171°W	_	4,635,683	165,358	21	148	1,179,742	212,164	6	3.9	148
	TOTAL	_	5,551,143	172,682	21	162	1,397,530	234,654	6	4.0	ND
1994/95	East of 171°W	_	1,750,481	35,938	14	46	384,405	67,587	6	4.6	148
	West of 171°W	_	6,378,030	242,190	34	247	1,539,866	319,006	5	4.1	150
	TOTAL		8,128,511	278,128	35	293	1,924,271	386,593	5	4.2	ND

Table 22.–Page 3 of 6.

						Nun	nber of			Average	
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vesselsd	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>
1995/96	East of 171°W	1,500,000	1,993,980	65,156	17	42	431,867	65,030	7	4.6	150
	West of 171°W	5–6 million	4,966,426	248,226	25	141	1,150,466	227,991	5	4.3	147
	TOTAL	_	6,960,406	313,382	28	183	1,582,333	293,021	5	4.4	ND
1996/97	East of 174°W	3,200,000	3,290,862	185,203	14	71	731,909	113,460	6	4.5	ND
	West of 174°W	2,700,000	2,524,910	75,506	13	99	602,968	99,267	6	4.2	ND
	TOTAL	5,900,000	5,815,772	260,709	18	166	1,334,877	212,727	6	4.4	147
1997/98	East of 174°W	3,200,000	3,501,055	131,481	13	74	780,610	106,403	7	4.5	147
	West of 174°W	2,700,000	2,444,628	79,564	9	96	569,550	86,811	7	4.3	148
	TOTAL	5,900,000	5,945,683	211,045	15	167	1,350,160	193,214	7	4.4	147
1998/99	East of 174°W	3,000,000	3,247,863	82,113	14	55	740,011	83,378	9	4.4	148
	West of 174°W	2,700,000	1,694,030	21,218	3	44	410,018	35,975	11	4.1	146
	TOTAL	5,700,000	4,941,893	103,331	16	99	1,150,029	119,353	10	4.3	147
1999/00	East of 174°W	3,000,000	3,069,886	67,574	15	60	709,332	79,129	9	4.3	147
	West of 174°W	2,700,000	2,768,902	104,852	15	113	676,558	107,040	6	4.1	147
	TOTAL	5,700,000	5,838,788	172,426	16	168	1,385,890	186,169	7	4.2	147
2000/01	East of 174°W	3,000,000	3,134,079	55,999	15	50	704,702	71,551	10	4.4	147
	West of 174°W	2,700,000	2,884,682	53,158	12	100	705,613	101,239	7	4.1	145
	TOTAL	5,700,000	6,018,761	109,157	17	149	1,410,315	172,790	8	4.3	146
2001/02	East of 174°W	3,000,000	3,178,652	50,030	19	45	730,030	62,639	12	4.4	147
	West of 174°W	2,700,000	2,740,054	43,519	9	90	686,738	105,512	7	4.0	145
	TOTAL	5,700,000	5,918,706	93,549	21	134	1,416,768	168,151	8	4.2	146

Table 22.–Page 4 of 6.

						Nun	nber of			Average	
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vesselsd	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>
2002/03	East of 174°W	3,000,000	2,821,851	55,425	19	43	643,886	52,042	12	4.4	148
	West of 174°W	2,700,000	2,640,604	32,101	6	73	664,823	78,979	8	4.0	146
	TOTAL	5,700,000	5,462,455	87,526	22	116	1,308,709	131,021	10	4.2	147
2003/04	East of 174°W	3,000,000	2,977,055	76,006	18	37	643,074	58,883	11	4.6	149
	West of 174°W	2,700,000	2,688,773	49,321	6	60	676,633	66,236	10	4.0	146
	TOTAL	5,700,000	5,665,828	125,327	21	96	1,319,707	125,119	11	4.3	147
2004/05	East of 174°W	3,000,000	2,886,817	43,576	19	32	637,536	34,848	18	4.5	148
	West of 174°W	2,700,000	2,688,234	43,560	6	51	685,465	56,846	12	3.9	146
	TOTAL	5,700,000	5,575,051	87,136	22	83	1,323,001	91,694	14	4.2	147
$2005/06^{h}$	East of 174°W	3,000,000	2,866,602	26,962	7	39	623,966	24,569	25	4.6	151
	West of 174°W	2,700,000	2,653,716	30,873	3	47	639,370	30,116	21	4.2	148
	TOTAL	5,700,000	5,520,318	57,835	8	82	1,263,336	54,685	23	4.4	149
2006/07	East of 174°W	3,000,000	2,992,010	34,594	6	38	650,588	26,195	25	4.6	152
	West of 174°W	2,700,000	2,270,332	22,344	4	37	527,737	26,110	20	4.3	150
	TOTAL	5,700,000	5,262,342	56,938	7	74	1,178,325	52,305	23	4.5	150
2007/08	East of 174°W	3,000,000	2,989,997	21,558	4	42	633,253	22,653	28	4.7	153
	West of 174°W	2,700,000	2,518,103	24,870	3	39	600,595	29,950	20	4.2	149
	TOTAL	5,700,000	5,508,100	46,428	5	76	1,233,848	52,603	23	4.5	151
2008/09	East of 174°W	3,150,000	3,144,423	25,525	3	37	666,947	24,466	27	4.7	151
	West of 174°W	2,835,000	2,535,661	25,292	3	42	587,661	26,200	22	4.3	148
	TOTAL	5,985,000	5,680,084	50,817	5	79	1,254,608	50,666	25	4.5	149

Table 22.–Page 5 of 6.

						Nun	nber of			Average	
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vesselsd	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>
2009/10	East of 174°W	3,150,000	3,150,474	33,284	3	39	679,886	26,298	26	4.6	152
	West of 174°W	2,835,000	2,761,813	40,311	3	41	628,332	26,489	24	4.4	150
	TOTAL	5,985,000	5,912,287	73,595	5	80	1,308,218	52,787	25	4.5	150
2010/11	East of 174°W	3,150,000	3,148,188	71,519	3	35	670,981	25,851	26	4.7	153
	West of 174°W	2,835,000	2,820,661	39,727	3	38	626,246	29,944	21	4.5	149
	TOTAL	5,985,000	5,968,849	111,246	5	73	1,297,227	55,795	23	4.6	151
2011/12	East of 174°W	3,150,000	3,150,374	24,184	3	41	668,828	17,915	37	4.7	151
	West of 174°W	2,835,000	2,814,042	39,147	3	40	616,118	26,326	23	4.6	148
	TOTAL	5,985,000	5,964,416	63,331	5	81	1,284,946	44,241	29	4.6	149
2012/13	East of 174°W	3,310,000	3,315,115	79,434	3	45	687,666	20,827	33	4.8	153
	West of 174°W	2,980,000	2,952,644	55,627	4	36	672,916	32,716	21	4.4	150
	TOTAL	6,290,000	6,267,759	135,061	6	81	1,360,582	53,543	25	4.6	151
2013/14	East of 174°W	3,310,000	3,302,061	29,932	3	42	699,078	20,687	34	4.7	151
	West of 174°W	2,980,000	2,970,514	92,980	3	34	686,883	41,835	16	4.3	152
	TOTAL	6,290,000	6,272,575	122,912	5	76	1,385,961	62,522	22	4.5	151
2014/15	East of 174°W	3,310,000	3,307,016	29,676	3	33	693,474	16,406	42	4.8	152
	West of 174°W	2,980,000	CF	CF	2	44	CF	CF	CF	CF	148
	TOTAL	6,290,000	CF	CF	5	77	CF	CF	CF	CF	150
2015/16	East of 174°W	3,310,000	3,302,480	53,160	3	34	717,864	18,481	39	4.6	152
	West of 174°W	2,980,000	CF	CF	2	50	CF	CF	CF	CF	147
	TOTAL	6,290,000	CF	CF	5	84	CF	CF	CF	CF	150

Table 22.—Page 6 of 6.

						Number of				Average			
Season	Location	GHL/TACa,b	Harvest <sup>a,c</sup>	Deadlossa	Vesselsd	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>e</sup>	Weight <sup>a,f</sup>	Length <sup>f,g</sup>		
2016/17	East of 174°W	3,310,000	3,307,162	65,366	4	38	753,332	23,401	32	4.4	152		
	West of 174°W	2,235,000	2,236,651	88,769	3	37	543,796	38,118	14	4.1	148		
	TOTAL	5,545,000	5,543,813	154,135	5	75	1,297,128	61,519	21	4.3	150		
2017/18	East of 174°W	3,310,000	3,308,185	54,253	4	40	768,120	24,617	31	4.3	150		
	West of 174°W	2,235,000	2,234,723	58,077	3	41	519,051	30,885	17	4.3	150		
	TOTAL	5,545,000	5,542,908	112,330	5	81	1,287,171	55,502	23	4.3	150		
2018/19	East of 174°W	3,856,000	3,854,105	49,918	3	47	896,184	24,481	37	4.3	149		
	West of 174°W	2,500,000	2,501,344	52,921	3	36	578,221	29,156	20	4.3	151		
	TOTAL	6,356,000	6,355,449	102,839	5	83	1,474,405	53,637	27	4.3	150		
2019/20	East of 174°W	4,310,000	4,308,530	53,608	3	48	1,018,876	29,675	34	4.2	148		
	West of 174°W	2,870,000	2,840,078	54,529	3	44	649,832	42,924	15	4.4	150		
	TOTAL	7,180,000	7,148,608	108,137	5	92	1,668,708	72,599	23	4.3	149		

Note: En dashes indicate harvest limits were not set for these fisheries prior to 1995/96, overall harvest limit was not set in 1996/97; CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> In pounds.

<sup>&</sup>lt;sup>b</sup> Guideline harvest level (GHL), total allowable catch (TAC) from 2005/06 forward.

<sup>&</sup>lt;sup>c</sup> Deadloss included.

d Many vessels fished both east and west of 174° W long, thus total number of vessels reflects the entire Aleutian Islands.

e Number of legal crab per pot lift.

f Carapace length in millimeters.

g Crab rationalization begins.

h Retained catch.

Table 23.—Aleutian Islands golden king crab commercial fishery value and season dates, 1981/82-2019/20.

		Va	lue	Se	eason length	
Season	Location	Exvessela	Total	Opened	Closed	Days
1981/82	East of 172°W	\$2.05	\$219,274	11/01/81	01/15/82	76
	West of 172°W	\$2.06	\$2,414,283	11/01/81	06/15/82	227
1982/83	East of 172°W	\$3.00	\$3,412,476	11/01/82	02/15/83	107
	West of 172°W	\$3.01	\$23,434,448	11/01/82	04/15/83	166
1983/84	East of 172°W	\$3.05	\$5,385,400	11/01/83	02/15/84	107
	West of 172°W	\$2.92	\$23,234,463	11/10/83	04/15/84	158
1984/85	East of 171°W	\$1.35	\$1,958,553	07/01/84	02/15/85	230
	West of 171°W	\$2.00	\$8,021,350	11/10/84	07/08/85	241
1985/86	East of 171°W	\$2.00	\$3,417,310	07/01/85	10/31/85	123
	West of 171°W	\$2.50	\$27,067,515	11/01/85	08/15/86	288
1986/87	East of 171°W	\$2.85	\$5,300,060	07/01/86	12/31/86	184
	West of 171°W	\$3.00	\$37,778,469	11/01/86	08/15/87	288
1987/88	East of 171°W	\$2.85	\$3,887,181	07/01/87	09/02/87	64
	West of 171°W	\$3.00	\$23,102,736	11/01/87	08/15/88	289
1988/89	East of 171°W	\$3.07	\$4,672,313	09/01/88	12/04/88	95
	West of 171°W	\$3.37	\$30,181,208	11/01/88	08/15/89	288
1989/90	East of 171°W	\$3.63	\$6,668,081	09/01/89	02/15/90	168
	West of 171°W	\$3.39	\$34,140,693	11/01/89	08/15/90	288
1990/91	East of 171°W	\$3.34	\$5,530,986	09/01/90	11/09/90	70
	West of 171°W	\$3.08	\$15,644,967	11/01/90	08/15/91	288
1991/92	East of 171°W	\$2.00	\$2,943,358	09/01/91	11/15/91	76
	West of 171°W	\$3.18	\$19,338,288	11/01/91	08/15/92	289
1992/93	East of 171°W	\$2.86	\$3,906,365	09/01/92	11/17/92	78
	West of 171°W	\$3.62	\$17,299,699	11/01/92	08/15/93	288
1993/94	East of 171°W	\$4.57	\$4,154,668	09/01/93	03/01/94	182
	West of 171°W	\$2.50	\$11,175,813	11/01/93	08/15/94	288
1994/95	East of 171°W	\$3.94	\$6,757,257	09/01/94	10/28/94	58
	West of 171°W	\$3.35	\$20,536,409	11/01/94	08/15/95	288
1995/96	East of 171°W	\$2.58	\$4,983,453	09/01/95	10/09/95	39
	West of 171°W	\$2.27	\$10,715,103	11/01/95	08/15/96	289
1996/97	East of 174°W	\$2.20	\$6,835,280	09/01/96	12/25/96	116
	West of 174°W	\$2.23	\$5,463,529	09/01/96	08/31/97	365

Table 23.—Page 2 of 3.

		Va	llue	Se	eason length	
Season	Location	Exvessela	Total	Opened	Closed	Days
1997/98	East of 174°W	\$2.25	\$7,581,682	09/01/97	11/24/97	85
	West of 174°W	\$2.15	\$5,087,987	09/01/97	08/31/98	365
1998/99	East of 174°W	\$1.88	\$5,952,446	09/01/98	11/07/98	68
	West of 174°W	\$2.02	\$3,377,002	09/01/98	08/31/99	365
1999/00	East of 174°W	\$3.28	\$9,853,086	09/01/99	10/25/99	55
	West of 174°W	\$3.11	\$8,284,343	09/01/99	08/14/00	349
2000/01	East of 174°W	\$3.51	\$10,806,859	08/15/00	09/24/00	41
	West of 174°W	\$3.07	\$8,682,694	08/15/00	05/28/01	287
2001/02	East of 174°W	\$3.30	\$10,324,453	08/15/01	09/10/01	27
	West of 174°W	\$3.15	\$8,487,366	08/15/01	03/30/02	228
2002/03	East of 174°W	\$3.33	\$9,199,835	08/15/02	09/07/02	24
	West of 174°W	\$3.50	\$9,117,906	08/15/02	03/08/03	206
2003/04	East of 174°W	\$3.47	\$10,065,228	08/15/03	09/08/03	25
	West of 174°W	\$3.83	\$10,109,101	08/15/03	02/06/04	176
2004/05	East of 174°W	\$3.18	\$9,039,137	08/15/04	08/29/04	15
	West of 174°W	\$3.29	\$8,706,763	08/15/04	01/03/05	142
2005/06 <sup>b</sup>	East of 174°W	\$2.51	\$7,117,132	08/15/05	05/15/06	274
	West of 174°W	\$2.12	\$5,549,420	08/15/05	05/15/06	274
2006/07	East of 174°W	\$1.71	\$5,070,070	08/15/06	05/15/07	274
	West of 174°W	\$1.32	\$2,978,071	08/15/06	05/15/07	274
2007/08	East of 174°W	\$2.14	\$6,365,457	08/15/07	05/15/08	275
	West of 174°W	\$1.79	\$4,454,290	08/15/07	05/15/08	275
2008/09	East of 174°W	\$3.42	\$10,678,756	08/15/08	05/15/09	274
	West of 174°W	\$1.91	\$4,791,631	08/15/08	05/15/09	274
2009/10	East of 174°W	\$1.98	\$6,174,304	08/15/09	05/15/10	274
	West of 174°W	\$1.96	\$5,322,370	08/15/09	05/15/10	274
2010/11	East of 174°W	\$3.03	\$9,315,401	08/15/10	05/15/11	274
	West of 174°W	\$3.53	\$9,803,355	08/15/10	05/15/11	274
2011/12	East of 174°W	\$3.80	\$11,880,146	08/15/11	05/15/12	275
	West of 174°W	\$3.72	\$10,313,779	08/15/11	05/15/12	275
2012/13	East of 174°W	\$3.47	\$11,218,989	08/15/12	05/15/13	274
	West of 174°W	\$3.30	\$9,554,574	08/15/12	05/15/13	274

Table 23.—Page 3 of 3.

		Va	lue	Se	eason length	
Season	Location	Exvessela	Total	Opened	Closed	Days
2013/14	East of 174°W	\$3.48	\$11,376,784	08/15/13	05/15/14	274
	West of 174°W	\$3.50	\$10,081,665	08/15/13	05/15/14	274
2014/15	East of 174°W	\$3.34	\$10,936,484	08/15/14	05/15/15	274
	West of 174°W	CF	CF	08/15/14	05/15/15	274
2015/16	East of 174°W	\$3.64	\$11,815,476	08/01/15	04/30/16	274
	West of 174°W	CF	CF	08/01/15	04/30/16	274
2016/17	East of 174°W	\$4.52	\$14,660,890	08/01/16	04/30/17	273
	West of 174°W	\$4.50	\$9,664,768	08/01/16	04/30/17	273
2017/18	East of 174°W	\$3.59	\$11,691,725	08/01/17	04/30/18	273
	West of 174°W	\$3.67	\$7,997,779	08/01/17	04/30/18	273
2018/19	East of 174°W	\$4.50	\$17,118,842	08/01/18	04/30/19	273
	West of 174°W	\$4.49	\$10,987,299	08/01/18	04/03/19	273
2019/20	East of 174°W	\$4.64	\$19,740,830	07/15/19	04/30/20	291
	West of 174°W	\$4.50	\$12,534,971	07/15/19	04/30/20	291

Note: CF indicates confidential data.

<sup>&</sup>lt;sup>a</sup> Average price per pound.

<sup>&</sup>lt;sup>b</sup> Crab rationalization begins.

Table 24.—Eastern Aleutian Islands golden king crab cost-recovery harvest data and charter length, 2013–2019.

				Numl	per of		Ave	erage	Charter Length		
Season	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Dates	Days	
2013	106,978	1,344	1	1	21,142	701	30	5.1	09/09-09/17	9	
2014	119,005	894	1	1	25,590	596	43	4.7	09/07-09/17	11	
2015	202,169	3,756	1	1	45,740	895	51	4.4	09/08-09/17	10	
2016	172,367	3,448	1	1	40,651	1,069	38	4.2	08/28-09/07	11	
2017	156,244	3,339	1	1	34,490	899	38	4.5	09/05-09/16	12	
2018	180,137	5,312	1	1	44,152	1,072	41	4.1	09/04-09/14	11	
2019	168,245	2,682	1	1	38,588	1,323	29	4.4	08/28-09/07	11	

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

Table 25.–Eastern Aleutian District Tanner crab commercial fishery harvest data, 1973/74–2019.

						Nuı	nber of		Av	erage
Season	Location	GHL <sup>a,b</sup>	Harvest <sup>a,c</sup>	Deadlossa	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weighta,e
1973/74	_	_	498,836	ND	6	14	210,539	ND	60	2.4
1974/75	_	_	CF	CF	2	2	CF	CF	CF	CF
1975/76	_	_	534,295	ND	8	13	219,166	4646	47	2.4
1976/77	_	_	1,239,569	ND	12	35	544,755	9640	57	2.3
1977/78	_	_	2,494,631	ND	15	198	1,104,631	29855	37	2.3
1978/79	_	_	1,280,115	ND	20	174	542,081	18618	29	2.4
1979/80	_	_	886,487	ND	18	107	352,819	18040	20	2.5
1981	_	_	654,514	ND	29	119	264,238	21771	12	2.5
1982	_	_	739,694	ND	31	138	332,260	30109	11	2.2
1983	_	_	547,830	ND	23	107	250,774	22168	11	2.2
1984	_	_	239,585	ND	16	91	104,761	11069	9	2.3
1985	_	_	181,407	60	7	56	78,930	6295	13	2.3
1986	_	_	167,339	400	8	37	73,187	10244	7	2.3
1987	_	_	162,097	115	8	65	72,098	5915	12	2.2
1988	_	_	309,918	2,000	20	130	129,478	11011	12	2.4
1989	_	_	326,196	2,300	12	108	144,593	14615	10	2.3
1990	_	_	155,648	0	10	75	68,859	6858	10	2.3
1991	_	_	50,038	0	5	27	21,511	1849	12	2.3
1992	_	_	98,703	0	4	29	42,096	2963	14	2.3
1993	_	_	118,609	0	7	34	51,441	3530	15	2.3
1994	_	_	166,080	40	8	119	71,760	6303	11	2.3
1995-2002				No Co	mmercial Fi	shery				
$2003^{\rm f}$			15,138	9	3	10	6,695	191	35	2.3

Table 25.—Page 2 of 3.

						Num	ber of		Av	erage
Season	Location	$\mathrm{GHL}^{\mathrm{a,b}}$	Harvest <sup>a,c</sup>	Deadlossa	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weighta,e
2004	Unalaska Bay	47,219	CF	CF	10	48	CF	CF	CF	CF
	Makushin/Skan Bay	87,891	CF	CF	6	13	CF	CF	CF	CF
	TOTAL	135,110	CF	CF	14 <sup>g</sup>	61	CF	CF	CF	CF
2005	Unalaska Bay	35,304	34,022	0	25	79	14,249	696	20	2.4
2006	Makushin/Skan Bay	87,241	CF	CF	10	32	CF	CF	CF	CF
2007	Akutan Bay	35,000	CF	CF	3	7	CF	CF	CF	CF
	Unalaska Bay	49,000	CF	CF	12	41	CF	CF	CF	CF
	TOTAL	84,000	CF	CF	13 <sup>g</sup>	47	CF	CF	CF	CF
2008	Unalaska Bay	60,000	CF	CF	11	48	CF	CF	CF	CF
2009	Akutan Bay	35,000	CF	CF	1	2	CF	CF	CF	CF
	Makushin/Skan Bay	35,000	CF	CF	1	3	CF	CF	CF	CF
	Unalaska Bay	58,000	CF	CF	10	83	CF	CF	CF	CF
	TOTAL	128,000	CF	CF	11 <sup>g</sup>	88	CF	CF	CF	CF
2010	Akutan Bay	45,000	CF	CF	3	3	CF	CF	CF	CF
	Unalaska Bay	74,000	CF	CF	7	63	CF	CF	CF	CF
	TOTAL	119,000	CF	CF	8 <sup>g</sup>	66	CF	CF	CF	CF
2011	Akutan Bay	35,000	CF	CF	2	3	CF	CF	CF	CF
	Makushin/Skan Bay	35,000	CF	CF	3	4	CF	CF	CF	CF
	TOTAL	70,000	CF	CF	$3^{g}$	7	CF	CF	CF	CF
2012	Makushin/Skan Bay	35,000	CF	CF	1	6	CF	CF	CF	CF
2013	Unalaska Bay	35,000	CF	CF	6	28	CF	CF	CF	CF
2014				No Com	mercial Fishe	ery				
2015	Makushin/Skan Bay	35,000	CF	CF	1	5	CF	CF	CF	CF

Table 25.—Page 3 of 3.

						Numl	Average			
Season	Location	GHL <sup>a,b</sup>	Harvest <sup>a,c</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>c</sup>	Pots lifted	CPUE <sup>d</sup>	Weight <sup>a,e</sup>
2016	Makushin/Skan Bay	35,000	CF	CF	1	4	CF	CF	CF	CF
2017				No Comm	nercial Fisher	ry				
2018	Makushin/Skan Bay	35,000	CF	CF	2	8	CF	CF	CF	CF
2019				No Comn	nercial Fisher	ry				

Note: En dashes indicate harvest limits and fishery management sections were not established for this fishery prior to 2004; CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

- <sup>a</sup> In pounds.
- <sup>b</sup> Guideline harvest level (GHL).
- <sup>c</sup> Deadloss included beginning 1980.
- d Number of legal crab per pot lift.
- e Retained catch.
- <sup>f</sup> January/February survey (fish ticket harvest code 15, exploratory shellfish harvest).
- <sup>g</sup> Vessel(s) participated in multiple sections.

Table 26.–Eastern Aleutian District Tanner crab commercial fishery value and season dates, 1973/74–2019.

		Valı	ue	Season length			
Season	Location	Exvessela	Total	Opened	Closed	Days	
1973/74	_	ND	ND	10/01/73	07/31/74	304	
1974/75	_	CF	CF	01/18/74	10/15/75	636	
1975/76	_	\$0.20	\$106,859	01/20/75	10/15/76	635	
1976/77	_	\$0.30	\$371,871	11/07/76	06/15/77	221	
1977/78	_	\$0.38	\$947,960	11/01/77	06/15/78	227	
1978/79	_	\$0.52	\$665,660	11/01/78	06/15/79	227	
1979/80	_	\$0.52	\$460,973	11/01/79	06/15/80	228	
1981	_	\$0.58	\$379,618	01/15/81	06/15/81	152	
1982	_	\$1.25	\$924,618	02/15/82	06/15/82	121	
1983	_	\$1.20	\$657,396	02/15/83	06/15/83	121	
1984	_	\$0.98	\$234,793	02/15/84	06/15/84	122	
1985	_	\$0.96	\$174,093	01/15/85	06/15/85	152	
1986	_	\$1.66	\$277,119	01/15/86	06/15/86	152	
1987	_	\$2.03	\$328,823	01/15/87	06/15/87	152	
1988	_	\$2.18	\$671,261	01/15/88	04/10/88	87	
1989	_	\$2.72	\$880,997	01/15/89	05/07/89	113	
1990	_	\$1.97	\$306,627	01/15/90	04/09/90	85	
1991	_	\$1.25	\$62,548	01/15/91	03/31/91	76	
1992	_	\$2.07	\$204,315	01/15/92	03/31/92	77	
1993	_	\$1.70	\$201,635	01/15/93	03/31/93	76	
1994	_	\$2.11	\$350,344	01/15/94	03/31/94	76	
1995–2003		No Co	mmercial Fishery	•			
2004	Unalaska Bay	CF	CF	01/15/04	01/19/04	5	
	Makushin/Skan Bay	CF	CF	01/15/04	02/03/04	20	
2005	Unalaska Bay	\$2.58	\$87,777	01/15/05	01/18/05	4	
2006	Makushin/Skan Bay	CF	CF	01/15/06	01/21/06	7	
2007	Akutan Bay	CF	CF	01/15/07	03/31/07	76	
	Unalaska Bay	CF	CF	01/15/07	01/19/07	5	
2008	Unalaska Bay	CF	CF	01/15/08	01/29/08	15	
2009	Akutan Bay	CF	CF	01/15/09	03/31/09	76	
	Makushin/Skan Bay	CF	CF	01/15/09	03/31/09	76	
	Unalaska Bay	CF	CF	01/15/09	02/11/09	28	
2010	Akutan Bay	CF	CF	01/15/10	03/31/10	76	
	Unalaska Bay	CF	CF	01/15/10	02/10/10	27	

Table 26.—Page 2 of 2.

		Value	e	Seas	Season length		
Season	Location	Exvessela	Total	Opened	Closed	Days	
2011	Akutan Bay	CF	CF	01/15/11	03/31/11	76	
	Makushin/Skan Bay	CF	CF	01/15/11	03/18/11	63	
2012	Makushin/Skan Bay	CF	CF	01/15/12	02/10/12	27	
2013	Unalaska Bay	CF	CF	01/15/13	01/26/13	12	
2014		No Cor	mmercial Fishery				
2015	Makushin/Skan Bay	CF	CF	01/15/15	02/13/15	30	
2016	Makushin/Skan Bay	CF	CF	01/15/16	02/21/16	38	
2017		No Cor	mmercial Fishery				
2018	Makushin/Skan Bay	CF	CF	01/15/18	03/31/18	76	
2019		No Cor	mmercial Fishery				

*Note*: En dashes indicate fishery management sections were not established for this fishery prior to 2004; CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> Average price per pound.

Table 27.–Subsistence king and Tanner crab harvest from the Eastern Aleutian Islands, west of Scotch Cap Light and east of 168°W long, 1999–2019.

_		Permits		Harvest <sup>a</sup>			
Year	Number issued <sup>b</sup>	Number returned	Percent returned	King crab reported	Tanner crab reported		
1999	179	80	45%	787	1,432		
2000	193	137	71%	523	916		
2001	200	153	77%	1,149	1,703		
2002	231	179	77%	1,080	2,451		
2003	229	160	70%	387	4,600		
2004	225	144	64%	225	4,714		
2005	241	182	76%	866	5,447		
2006	256	185	72%	1,796	1,439		
2007	203	122	60%	1,359	1,542		
2008	290	177	61%	1,212	853		
2009	273	154	56%	639	2,045		
2010	283	117	41%	142	2,315		
2011	256	119	46%	185	1,476		
2012	342	134	39%	229	2,436		
2013	266	117	44%	606	2,081		
2014	249	113	45%	236	1,953		
2015	222	111	50%	73	1,570		
2016	257	115	45%	100	2,243		
2017	205	99	48%	29	1,395		
2018	182	127	70%	22	663		
2019	187	77	41%	32	428		
1999–2019 Average	237	133	57%	556	2,081		

<sup>&</sup>lt;sup>a</sup> Reported harvest, in number of crab, from waters surrounding Unalaska Island.

<sup>&</sup>lt;sup>b</sup> Includes permits issued for both shellfish and salmon.

88

Table 28.-Aleutian District Dungeness crab commercial fishery data, 1974–2019.

				Num	ber of		A	verage	Value	
Season	Harvest <sup>a,b</sup>	Deadlossa	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total
1974	60,517	ND	3	13	24,459	3,399	7	2.5	ND	ND
1975	CF	CF	1	3	CF	CF	CF	CF	CF	CF
1976–1977			No Commercial Fishing Effort		rt					
1978	CF	CF	2	9	CF	CF	CF	CF	CF	CF
1979	CF	CF	1	4	CF	CF	CF	CF	CF	CF
1980-1981/82				N	o Commerc	ial Fishing Effo	rt			
1982/83	CF	CF	2	9	CF	CF	CF	CF	CF	CF
1983/84	CF	CF	2	14	CF	CF	CF	CF	CF	CF
1984/85	91,739	ND	4	50	40,128	13,555	3	2.3	\$1.33	\$122,013
1985/86	17,830	0	4	19	8,590	1,706	5	2.1	ND	ND
1986/87	CF	CF	2	9	CF	CF	CF	CF	CF	CF
1987/88	26,627	0	6	43	13,247	2,987	4	2	\$0.95	\$25,296
1988/89	22,915	4	6	45	10,956	2,599	4	2.1	\$0.81	\$18,558
1989/90	11,124	0	4	31	5,165	2,078	2	2.2	\$0.91	\$10,123
1990/91	17,482	117	3	11	8,379	1,345	6	2.1	\$1.20	\$20,838
1991/92	7,412	0	4	14	3,654	732	5	2	\$1.25	\$9,265
1992/93	5,649	0	4	13	2,854	555	5	2	\$0.83	\$4,689
1993/94	7,531	10	5	12	3,448	797	4	2.2	\$0.78	\$5,866
1994/95				N	o Commerc	ial Fishing Effo	rt			
1995/96	CF	CF	2	2	CF	CF	CF	CF	CF	CF
1996/97				N	o Commerc	ial Fishing Effo	rt			
1997/98	CF	CF	2	4	CF	CF	CF	CF	CF	CF
1998/99-2000/01				N	o Commerc	ial Fishing Effo	rt			

Table 28.–Page 2 of 2.

				Number of			A	verage	Valu	e
Season	Harvest <sup>a,b</sup>	Deadloss <sup>a</sup>	Vessels	Landings	Crab <sup>b</sup>	Pots lifted	CPUE <sup>c</sup>	Weight <sup>a,d</sup>	Exvessele	Total
2001/02	CF	CF	1	1	CF	CF	CF	CF	CF	CF
2002/03	CF	CF	1	1	CF	CF	CF	CF	CF	CF
2003/04-2004/05				No	o Commer	cial Fishing Eff	ort			
2005/06	CF	CF	1	1	CF	CF	CF	CF	CF	CF
2006/07-2014				No	o Commer	cial Fishing Eff	ort			
2015	CF	CF	$1^{\mathrm{f}}$	1	CF	CF	CF	CF	CF	CF
2016–2019				No Commercial Fishing Effort						

Note: CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> In pounds.

b Deadloss included.

<sup>&</sup>lt;sup>c</sup> Number of legal crab per pot lift.

d Retained catch.

<sup>&</sup>lt;sup>e</sup> Average price per pound.

f Harvested from a dock.

Table 29.—Dutch Harbor (Area O) weathervane scallop commercial fishery harvest data, 1982–2019/20.

			N	umber of	Meat weight
Season	$\mathrm{GHL}^{\mathrm{a,b}}$	Harvest <sup>a</sup>	Vessels	Dredge hours	CPUE°
1982	-	62,105	5	ND	ND
1983	-		No Commo	ercial Fishing Effort	
1984	_		No Commo	ercial Fishing Effort	
1985	-	547,164	2	ND	ND
1986	-	406,642	5	ND	ND
1987	-	CF	2	CF	CF
1988	-	CF	1	CF	CF
1989	-	CF	1	CF	CF
1990	-	CF	1	CF	CF
1991	_	CF	1	CF	CF
1992	-	CF	1	CF	CF
1993/94	170,000	39,346	3	ND	ND
1994/95	170,000	1,931	3	81	24
1995/96	170,000	26,950	1	1,047	26
1996/97	170,000		No Commo	ercial Fishing Effort	
1997/98	170,000	5,790	1	160	36
1998/99	110,000	46,432	4	941	49
1999/00	110,000	6,465	1	278	23
2000/01-2001/02			No Comme	ercial Fishery	
2002/03	10,000	6,000	1	184	33
2003/04-2007/08			No Comme	ercial Fishery	
2008/09	10,000	10,040	1	225	45
2009/10	10,000	6,080	1	104	58
2010/11	10,000	5,640	1	83	68
2011/12	10,000	5,570	1	77	72
2012/13	5,000	5,100	1	64	80
2013/14	5,000	5,225	1	56	93
2014/15	5,000	5,160	1	73	71
2015/16	10,000	5,040	1	157	32
2016/17	10,000	5,050	1	104	49
2017/18	10,000	285	1	24	12
2018/19	5,000	325	1	24	14
2019/20	5,000	2,625	1	130	20

*Note*: En dashes indicate harvest limits were not established for this fishery prior to 1993/94; CF indicates confidential data, ND indicates these data were not collected or cannot be derived.

<sup>&</sup>lt;sup>a</sup> In pounds of shucked scallop meat.

<sup>&</sup>lt;sup>b</sup> Guideline harvest level (GHL) began in 1993/94, total allowable catch (TAC) began in 2005/06.

<sup>&</sup>lt;sup>c</sup> Pounds of shucked scallop meat per dredge hour.

Table 30.-Aleutian Islands commercial octopus incidental harvest in groundfish fisheries, 1996-2019.

		State water	rs	State and federal waters							
Season	Vessels	Landings	Whole pounds <sup>a</sup>	Vessels	Landings	Whole pounds <sup>a</sup>	At-sea discards	Exvessel value <sup>b</sup>			
1996°	26	87	36,292	68	281	97,085	29,925	\$0.39			
1997	19	44	22,431	61	235	98,497	22,880	\$0.33			
1998°	16	44	18,375	46	195	54,979	22,554	\$0.05			
1999	32	76	87,420	60	268	152,075	36,292	\$0.32			
2000	24	37	5,911	69	286	71,957	49,832	\$0.17			
2001	19	47	7,120	69	254	99,521	67,936	\$0.02			
2002	12	21	3,063	56	199	96,586	68,752	\$0.02			
2003	27	89	102,104	69	329	288,020	27,011	\$0.55			
2004°	38	135	151,205	76	459	998,731	97,750	\$0.62			
2005°	22	82	57,552	53	336	439,500	37,163	\$0.50			
2006	33	114	133,182	64	346	454,847	92,777	\$0.46			
2007	31	96	46,346	70	295	102,291	13,895	\$0.39			
2008°	26	45	35,480	56	151	142,938	24,713	\$0.40			
2009	13	21	8,782	41	91	28,038	5,192	\$0.23			
2010	21	48	42,376	54	184	168,964	96,533	\$0.20			
2011	13	17	8,187	53	204	209,636	181,825	\$0.23			
2012	18	58	14,917	57	182	76,141	38,129	\$0.12			
2013	20	129	50,309	50	202	116,103	16,671	\$0.01			
2014	16	136	65,637	56	293	212,019	48,664	\$0.26			
2015	17	84	41,258	69	288	168,133	36,229	\$0.26			
2016	21	89	36,128	93	386	158,482	36,900	\$0.18			
2017	15	124	114,445	86	350	171,380	27,350	\$0.03			
2018°	28	165	185,615	93	395	494,093	30,617	\$0.51			
2019	33	194	167,465	85	376	283,128	43,505	\$0.50			

<sup>&</sup>lt;sup>a</sup> Includes discards.

<sup>&</sup>lt;sup>b</sup> Average price per pound, based on landed weight.

<sup>&</sup>lt;sup>c</sup> Includes directed octopus harvest from Commissioner's permit fishery.

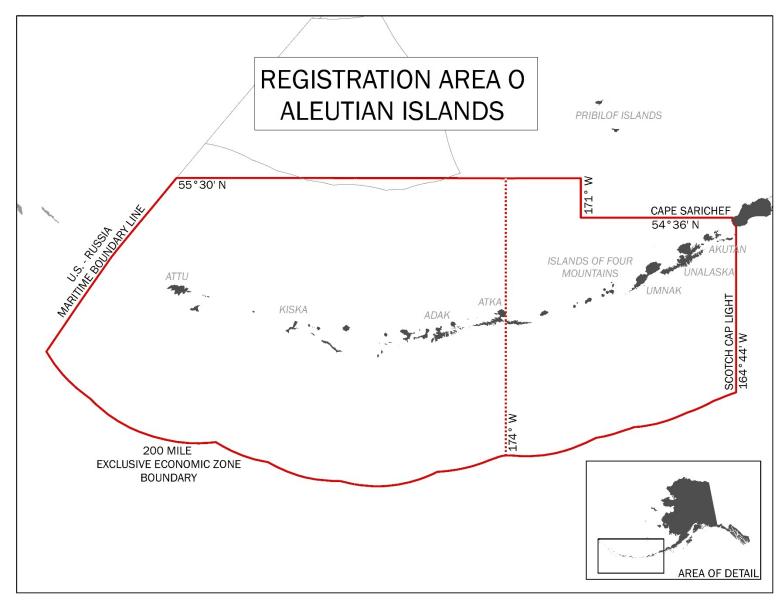


Figure 11.-Aleutian Islands king crab commercial fishery Registration Area O.

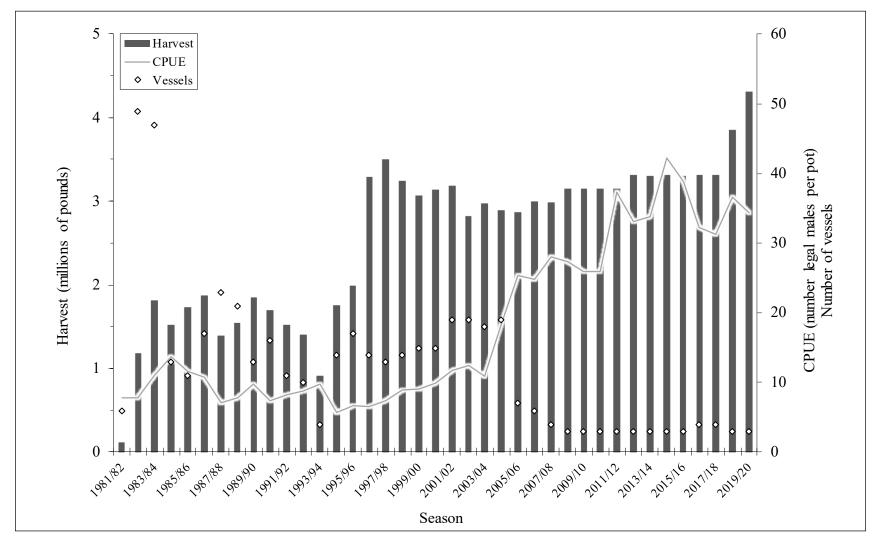


Figure 12.—Eastern Aleutian Islands golden king crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1981/82–2019/20.

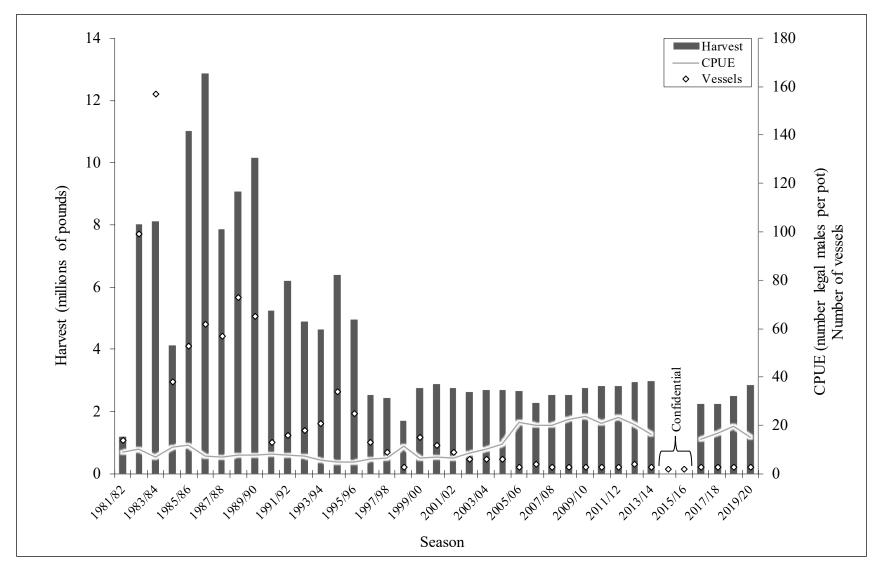


Figure 13.—Western Aleutian Islands golden king crab commercial fishery harvest, catch per unit effort (CPUE; number legal males per pot), and number of vessels, 1981/82–2019/20.

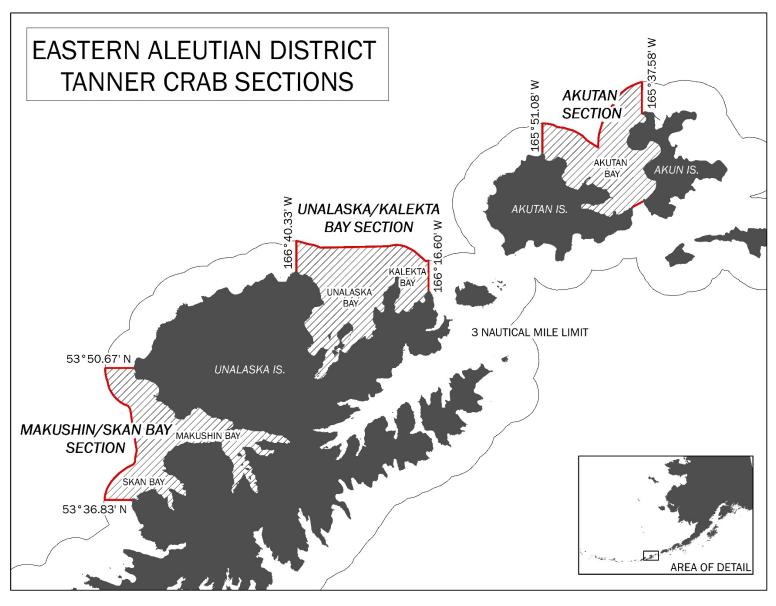


Figure 14.–Eastern Aleutian District Tanner crab sections of Registration Area J.

# SECTION III: BERING SEA/ALEUTIAN ISLANDS COMMUNITY DEVELOPMENT QUOTA AND ADAK COMMUNITY ALLOCATION SHELLFISH FISHERIES

#### **DESCRIPTION OF AREA**

Bering Sea Community Development Quota (CDQ) crab fisheries occur within the state waters of Alaska (0–3 nmi) and the Exclusive Economic Zone (EEZ; 3–200 nmi) north of Cape Sarichef (54°36′N lat), south of Cape Prince of Wales (65°49′N lat), and east of the U.S.–Russia Maritime Boundary Line, including waters of Bristol Bay. For CDQ crab fisheries, managed by the Alaska Department of Fish and Game (ADF&G) Dutch Harbor office, Cape Romanzof (61°49′N lat) is the northern boundary (Figures 1, 3, and 5).

Aleutian Islands CDQ and Adak Community Allocation (ACA) crab fisheries encompass state waters of Alaska (0–3 nmi) and waters of the Exclusive Economic Zone (EEZ; 3–200 nmi). The CDQ crab fisheries eastern boundary is the longitude of Scotch Cap Light (164°44′W long), the northern boundary from Cape Sarichef (54°36′N lat) to 171°W long, then north to 55°30′N lat, and the western boundary the U.S.–Russia Maritime Boundary Agreement Line. The ACA fishery occurs west of 174°W long (Figure 11).

## PROGRAM BACKGROUND

The Alaska Board of Fisheries (BOF) adopted regulations for BSAI king and Tanner crab CDQ fisheries in 1997, and the first CDQ crab fisheries took place in 1998. With the implementation of crab rationalization in 2005, the BOF adopted regulations to implement changes to the CDQ management program (5 AAC 39.690), including the addition of Aleutian Islands crab fisheries to the CDQ crab program. ADF&G manages the CDQ crab fisheries with federal oversight.

Sixty-five western Alaska coastal communities aligned into six CDQ organizations, collectively referred to as CDQ groups. The groups are as follows: Aleutian Pribilof Island Community Development Association (APICDA), Bristol Bay Economic Development Corporation (BBEDC), Central Bering Sea Fishermen's Association (CBSFA), Coastal Villages Region Fund (CVRF), Norton Sound Economic Development Corporation (NSEDC), and Yukon Delta Fisheries Development Association (YDFDA).

CDQ groups are nonprofit entities, which may have for-profit subsidiaries. Uses of CDQ funds vary widely between groups but often include fishing-related investments, scholarships, training, employment services, and other projects that are intended to benefit the communities and regions the CDQ groups represent. Some groups purchase equity in fishing vessels that harvest crab in both CDQ and individual fishing quota (IFQ) fisheries.

Each of the six CDQ groups participates in at least one CDQ fishery every year, although each group does not necessarily have an allocation for each fishery (Table 31). Groups may choose not to participate or transfer their allocation to another group. This report addresses all CDQ crab

fisheries histories and allocations except the Norton Sound CDQ red king crab fishery, which is managed by ADF&G's Arctic-Yukon-Kuskokwim Region.

In conjunction with the changes to the CDQ program during crab rationalization, the BOF adopted regulations for an Adak Community Allocation (ACA) Western Aleutian Islands golden king crab fishery. The program was established to benefit the community of Adak, who formed the Adak Community Development Corporation (ACDC). ACDC is a nonprofit entity that represents the community of Adak and has a board of directors elected by the residents of Adak. The ACA crab allocation is not a CDQ fishery, as Adak is not a CDQ community. ACDC must submit a comprehensive plan to the Alaska Department of Commerce, Community, and Economic Development on the intended use of the ACA funds derived from harvesting the ACA golden king crab. The funds are intended for fisheries-related purposes and other projects to benefit the community of Adak.

The ACA is set at 10% of the TAC of the Western Aleutian Islands (west of 174°W long) golden king crab fishery. This fishery opened for the first time in August 2005.

## **CURRENT FISHERY**

CDQ groups are required to submit preseason fishery plans to ADF&G prior to each CDQ crab fishery. Fishery plans include information such as participating vessels and their contact information, intended delivery locations, and the group's allocation including quota transfers to other CDQ entities. Almost all CDQ harvest is taken concurrently with IFQ harvest. Fishing parties generally use the same gear to harvest IFQ and CDQ crab.

## **TABLES**

Table 31.—Community Development Quota (CDQ) and Adak Community Allocation (ACA) program percent allocation by fishery to each group, 2003–2019/20.

			Percent a	allocation by g	group <sup>a</sup>		
Fishery	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA	ACDC
Bristol Bay red king crab	17	19	10	18	18	18	0
Pribilof red & blue king crab	0	0	100	0	0	0	0
St. Matthew blue king crab	50	12	0	12	14	12	0
Norton Sound red king crab	0	0	0	0	50	50	0
Eastern Bering Sea Tanner crab	10	19	19	17	18	17	0
Western Bering Sea Tanner crab	10	19	19	17	18	17	0
Bering Sea snow crab	8	20	20	17	18	17	0
Aleutian Islands red king crab (west of 179°W long) <sup>b</sup>	8	18	21	18	21	14	0
Eastern Aleutian Islands golden king crab (east of 174°W long) <sup>b</sup>	8	18	21	18	21	14	0
Western Aleutian Islands golden king crab (west of 174°W long)	0	0	0	0	0	0	100_

<sup>&</sup>lt;sup>a</sup> APICDA (Aleutian Pribilof Island Community Development Association).

BBEDC (Bristol Bay Economic Development Corporation).

CBSFA (Central Bering Sea Fishermen's Association).

CVRF (Coastal Villages Region Fund).

NSEDC (Norton Sound Economic Development Corporation).

YDFDA (Yukon Delta Fisheries Development Association).

ACDC (Adak Community Development Corporation).

b Aleutian Islands red king crab west of 179°W long and Eastern Aleutian Islands golden king crab east of 174°W long were not part of the CDQ program until the initiation of crab rationalization in the 2005/06 season.