Fishery Management Report No. 07-07

The 2006 Triennial Aleutian Islands Golden King Crab Survey

by

Leslie J. Watson

March 2007

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

FISHERY MANAGEMENT REPORT NO. 07-07

THE 2006 TRIENNIAL ALEUTIAN ISLANDS GOLDEN KING CRAB SURVEY

by

Leslie J. Watson
Alaska Department of Fish and Game, Division of Commercial Fisheries, Kodiak

March 2007

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

The Division of Sport Fish Fishery Management Reports series was established in 1989 for the publication of an overview of Division of Sport Fish management activities and goals in a specific geographic area. Since 2004, the Division of Commercial Fisheries has also used the Fishery Management Report series. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Fishery Management Reports are available through the Alaska State Library and on the Internet: http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm. This publication has undergone regional peer review.

Leslie J. Watson,
Alaska Department of Fish and Game, Division of Commercial Fisheries,
211 Mission Road, Kodiak, AK 99615, USA

This document should be cited as:
Watson, L. J. 2007. The 2006 triennial Aleutian Islands golden king crab survey. Alaska Department of Fish and Game, Fishery Management Report No. 07-07, Anchorage.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES (Continued)

LIST OF APPENDICES

ABSTRACT

A longline pot survey for golden king crabs *Lithodes aequispinus* was conducted near Yunaska Island in the Aleutian Islands area east of 174º00' W longitude in July and August 2006 aboard the FV *Ocean Olympic*. A total of 73 longline stations and 730 pots were fished for a total catch of 21,668 golden king crabs. Fourteen percent were legal-sized males, 35% were sublegal-sized males, 25% were mature females, and 26% were immature females. Depth, fishing location, date, and substrate type were recorded for each pot set. Pot catches were enumerated to species; for golden king crabs, shell condition, carapace length (CL), legal size status, and reproductive condition of females were recorded. A total of 6,659 golden king crabs were tagged and released on station; 2,799 legal males, 2,436 sublegal males ≥ 90-mm CL, and 1,424 females ≥ 90-mm CL. Comparative catches by sex and size groupings for 62 stations that were fished in common during the 1997, 2000, 2003, and 2006 triennial surveys are discussed. Size distributions for 78 scarlet king crabs *Lithodes couesi*, 106 grooved Tanner crabs *Chionoecetes tanneri*, and commercially-important groundfish species are also reported.

Key words: golden king crab, *Lithodes aequispinus*, Aleutian Islands, pot survey, distribution, relative abundance, tagging, scarlet king crab, *Lithodes couesi*, grooved Tanner crab, *Chionoecetes tanneri*

INTRODUCTION

The economic importance of the Aleutian Islands golden king crab *Lithodes aequispinus* fishery is significant, with 177.6 million pounds landed between the 1981/1982 and 2004/2005 seasons at an exvessel value of $490.6 million (Bowers et al. 2005). Despite the value of the fishery, knowledge of golden king crab abundance, distribution, and basic life history parameters remains limited. Without periodic baseline survey data for monitoring population trends, impacts on the golden king crab stock from fishery removals, fishing practices, and management measures have been difficult to evaluate.

In the absence of stock abundance surveys, the Alaska Department of Fish and Game (ADF&G) and the National Marine Fisheries Service (NMFS) have opportunistically collected biological data on golden king crabs during commercial fisheries as reviewed by Blau et al. (1996). In 1991, the Alaska Department of Fish and Game conducted its first systematic survey of golden king crabs in portions of the former Dutch Harbor and Adak king crab management areas, which provided information on the depth distribution of male and female crabs, their size frequency profiles, and growth-per-molt information (Blau 1992; Blau and Pengilly 1994). Approximately 1,250 legal male crabs were tagged during that survey and recoveries were monitored by at-sea observers and ADF&G dockside samplers in the subsequent 1991/1992 Dutch Harbor and Adak commercial fisheries. While recoveries of tagged crabs provided valuable data on adult growth characteristics, estimation of harvest rates within those fisheries was precluded due to incomplete tag recovery monitoring.

Triennial pot-based surveys of the Aleutian Islands golden king crab stock were incorporated into the long-term research plans for Bering Sea/Aleutian Islands (BS/AI) crab stocks in 1995. These surveys were initiated to establish a time series database for detecting population trends and identifying species life history parameters. In 1997, a standard survey grid composed of 183 stations located between 52°00' and 53°00' N latitude and 169°00' and 173°00' W longitude was established based upon the historic concentration of fishing effort in that area (Watson and Blau 1997). The first three triennial surveys were conducted in 1997, 2000, and 2003 near Yunaska and Amukta Islands (Blau et al. 1998; Watson and Gish 2002; and Watson 2004). This general survey locale lies within the area where most of the golden king crab harvests have occurred between the 1996/1997 and 2004/2005 fishery seasons.

A combined total of 27,486 golden king crabs were tagged and released during the three triennial surveys with a total of 3,595 recoveries documented from recaptures in subsequent commercial fisheries. Analysis of the resulting mark-recapture data has been the primary means of estimating natural mortality rates of male crabs (Siddeek et al. 2002, 2005) and determining growth increments and molting periodicity of male and female crabs (Watson et al. 2002).

Areas east and west of 174º W longitude have been managed separately since 1996, with a guideline harvest level (GHL) of 3.2 million pounds for the area east of 174º W longitude for the 1996/97 and 1997/98 seasons (Morrison and Gish 1997). From the 1998/99 through the current season, the Total Allowable Catch (TAC), which replaced the GHL designation for this area has been 3.0 million pounds (Bowers 1998).

An effective golden king crab tag recovery program in the Aleutian Islands fishery has been made possible through the implementation of regulations, passed by the Alaska Board of Fisheries (BOF) in 1995, which expanded observer coverage to include all participating vessels (Morrison and Gish 1997). Prior to that action, observers were required on at-sea processors and catcher-processors only. The 100% observer coverage requirement provided an incentive to continue the golden king crab tagging program during the triennial surveys by presenting an opportunity to recover tagged crabs through daily monitoring of individual vessel catches. Under the newly-implemented Crab Rationalization Program in 2005, individual catcher-only vessels are now required to carry an observer for 50% of their harvests during each of three fishing "trimesters" (August 15 – November 15, November 16 – February 15, and February 16 – May 15) while catcher-processor vessels are required to carry an observer for 100% of their harvests (5AAC 39.645; ADF&G 2005). The impact of a reduction in observer coverage on the quantity of recovered, tagged crabs and the quality and amount of recovery data reported from the 2005/2006 Aleutian Islands golden king crab fishery is yet to be determined.

This report describes the location, design, methods, and results for the 2006 triennial survey of Aleutian Islands golden king crabs, with comparisons to the 1997, 2000, and 2003 surveys and comments on abundance trends within the survey area. An analysis of recoveries during the 1997/98 through 20006/07 commercial fisheries of crabs tagged and released during the four triennial surveys will be presented in a separate report.

OBJECTIVES

Prioritized objectives of the 2006 project were to:

1. Obtain a relative stock abundance index (pot survey catch per unit effort) of male and female golden king crabs between 52°15' and 53°00' N latitude and 170°00' and 171°30' W longitude in the Aleutian Islands Area 'O' during the summer of 2006.
2. Estimate harvest rates for mature male golden king crabs using recovery rates calculated from recaptured tagged crabs during the 2006/2007 Aleutian Islands commercial fishing season.
3. Estimate spatial apportionment of fishing mortality, movement of crabs between seasons, and growth of male and female golden king crabs using recapture data collected in the 2006/2007 and 2007/2008 Aleutian Islands commercial fisheries.
4. Obtain biological data from all commercially important crab and fish species encountered during the survey.

5. Evaluate catch per pot data against temperature and depth measurements made at stations where temperature and depth data are available to determine if relationships exist between crab catches at various temperature and depth strata.

Objectives 2 and 3 will be addressed in the companion report as noted at the end of the Introduction section.

METHODS

The 31-day survey was conducted aboard the chartered 50.6-m (166-ft) FV *Ocean Olympic*, a commercial longline crab-pot-fishing vessel from 3 July to 3 August, 2006. The 31-day charter began and ended in Dutch Harbor with a captain, engineer, and three crewmen. Department staff included L. Watson (crew leader), R. Burt (assistant crew leader), and fishery biologists S. Byersdorfer, K. Renfro, and M. Salmon.

SURVEY DESIGN

The 2006 survey station grid was within the area between 52°15' – 53°00' N latitude and 170°00 – 171°30' W longitude and covered 1,825 nmi^2 of known golden king crab habitat. The station array consisted of 61 core and 11 secondary stations, and one low-priority station, each spaced 5 nmi apart north-to-south and east-to-west (Figure 1). Each station was sampled using 10 pots spaced 100-fm apart on a longline, with a target soak time of 60 h (2½ days) per pot. Eighty-five identical king crab pots measuring 7' x 7' x 34" supplied by ADF&G were used. Each pot was webbed with #92 nylon twine with a stretch mesh of 2¾" and had two opposing 8" x 36" tunnel eye openings installed with inward facing plastic fingers to reduce escapement of captured crabs from the pot. Each pot was baited with one gallon of frozen chopped Pacific herring *Clupea pallasi*.

Station and sequential pot number, set date and time, lift date and time, bottom type (rock, sand, silt, mud or gravel), latitude and longitude, and gear performance were recorded for each pot set. Survey itinerary and pot sampling methods are detailed in Watson and Burt (2006).

CATCH SAMPLING

The contents of each pot fished were enumerated to provide catch per unit effort data for golden king crabs, scarlet king crabs *Lithodes couesi*, and grooved Tanner crabs *Chionoecetes tanneri*, and to determine species composition of other captured biota. All sampled crabs were measured, assessed for shell condition, and examined for macroscopically evident diseases. Carapace length (CL) of golden and scarlet king crabs was measured from the posterior margin of the right eye orbit to the midpoint of the rear margin of the carapace (Wallace et al. 1949). Carapace width (CW) of *Chionoecetes* crabs was measured across the carapace at the widest part perpendicular to the medial line, with the tips of the calipers reaching inside the lateral spines (Jadamec et al. 1999). Legal size status and shell age were assessed for each sampled crab and documented as described in Watson and Burt (2006). Legal male golden king crabs are defined as those crabs $\geq$152-mm (6-in) carapace width outside the lateral spines. Sublegal males are crabs measuring less than 6 inches carapace width outside lateral spines.

Female golden king, scarlet king, and grooved Tanner crabs were assessed for clutch condition, clutch fullness, egg color, and egg development. For the 2006 survey, clutch fullness categories were changed to: trace to 1/8 full, 1/4 full, 1/2 full, 3/4 full, and 100% full (Watson and Burt 2006). Prior to this survey, clutch fullness categories were: 1-29% full, 30-59% full, 60-89% full, and 89-100% full. Egg color was determined by matching clutch color to a standard color chart

developed by ADF&G in spring, 2006. Mature female crabs were primarily identified by the presence of eggs or empty egg cases on the pleopodal setae or by the matted condition of the setae.

All captured golden king crabs, scarlet king crabs, and grooved Tanner crabs were sampled for recording measurements and other biological data with the exception that sublegal males <121-mm CL female golden king crabs were subsampled for data recording when a large number of crabs were captured at a station. Subsampling of large pot catches was done only when sampling the full pot contents would either impact crab vitality on deck or the vitality of crabs in subsequent pots in the water, or unnecessarily delay overall survey progress.

All other captured invertebrates and fish were identified to species, if possible, and counted and documented to characterize overall catch composition of sampled pots. Fork length (FL) measurements to the nearest cm were recorded for commercially important species such as Greenland turbot *Reinhardtius hippoglossoides*, Pacific halibut *Hippoglossus stenolepis*, Pacific cod *Gadus macrocephalus*, sablefish *Anoplopoma fimbria*, Atka mackerel *Pleurogrammus monopterygius*, and rockfish *Sebastes* sp. and *Sebastalobus* sp. Complete pot sampling methods are detailed in Watson and Burt (2006).

TAGGING STRATEGY

Male and female golden king crabs ≥90 mm CL that were free of parasitic barnacles *Briarosaccus callosus* and severe recent injury were selected for tagging. Crabs were tagged through the isthmus muscle (Gray 1965) using fluorescent pink Floy® tags with fluorescent green tabs numbered 'K' 7,762 through 'K' 14,435. Tagging priority and goals by sex and legal/size classes were as follows: 1) 100% of the captured legal size and sublegal males ≥ 121-mm CL; 2) 50% of the sublegal males ≥ 90-mm CL and ≤ 120-mm CL; and 3) 25% of the females ≥ 90-mm CL.

OCEAN BOTTOM TEMPERATURE DATA COLLECTION

Bottom temperature (ºC) and depth profiles were obtained during the survey by placing a submersible probe in a single pot within each 10-pot station. Four Brancker® model TDR-2050/2051 probes that recorded temperature and depth were deployed along with three Brancker® model XR-420-CTD probes that recorded conductivity (salinity), temperature, and depth. Units were programmed to record temperatures every 10 minutes. Each probe was encased in a titanium housing to protect it from the extreme depths of some of the surveyed stations. At the end of the survey, temperature-depth data were downloaded from the probes to a computer for later analysis.

COMPARISON OF THE 1997, 2000, 2003, AND 2006 SURVEY DATA SETS

Total catch, catch per unit effort (CPUE), and tagged crab data for golden king crabs are from the 62 stations that were fished in common in each survey year to afford direct comparisons of these data. However, specific data from any station fished in any survey year may also be referenced, and will be specified at that time.

RESULTS

A total of 729 pots from 73 stations (Figure 1) were fished at an average depth of 204 fathoms (373 m) with an average soak time of 2.6 days. The first stations were set July 5, 2006 and the last stations were pulled August 2, 2006 (Appendix A). Strong tides and currents at the start of

the survey and technical difficulties with the radio beacon detection unit resulted in loss of survey time such that four low-priority stations (71, 73, 93, and 115) could not be sampled. Loss of survey time also precluded resampling of several stations located in the passes between the Bering Sea and the Gulf of Alaska that were fished during extreme tide and current conditions at the start of the survey. Pots from station 12 were not retrievable due to prolonged gear submergence over a 15-day period. When the station pots were finally retrieved, catches were not wholly enumerated due to unsafe on-deck working conditions. However, 62 legal males were counted from station 12 pots; these crabs are not included in survey results because of the excessive 15-day soak period of the pots. One pot was lost of the 730 that were deployed.

GOLDEN KING CRABS

2006 Survey

Golden king crabs were captured at 69 of the 73 stations (Appendix A); none were captured at stations 44, 60, 74, and 96.

Catch and Distribution

A total of 3,065 legal-sized males, 7,550 sublegal-sized males, 11,050 females, and 3 hermaphroditic crabs were caught during the survey (Table 1). Higher numbers of male and female golden king crabs were captured north of Amukta, Chagulak, and Yunaska Islands on the Bering Sea side of the Aleutian Chain compared to catches on the Pacific Ocean side (Figure 2). Survey catches of recruit legal-sized male crabs outnumbered post-recruit males by a ratio of 1.5:1 (Table 1). Catches of sublegal-sized male crabs <121-mm CL were nearly four times higher than catches of sublegal male crabs $\geq$121-mm CL. Mature and immature female crabs were captured in nearly equal numbers.

Distribution and relative abundance by station for legal males, sublegal males, and females are shown in Figures 3 and 4, respectively. Of all sex/size groupings, sublegal males were more widely distributed across the surveyed area than any other grouping. Mature females were most abundant northwest of Yunaska Island. Immature females dominated female catches at 4 stations northwest of Amukta Island and at 2 stations northeast of Yunaska Island.

Most (569) of the survey pots were fished between 100 and 300 fathoms and were of highest concentration (210 pots) in the 100-149 fathom depth range (Tables 2, 3, and 4). The overall survey CPUE for legal males was 4.3 crabs per pot with a peak CPUE of 7.2 crabs per pot in the 200-249 fathom depth range (Table 2 and Figure 5). The overall survey CPUE for sublegal males was 10.4 crabs per pot with a peak CPUE of 48 crabs per pot in the 350-399 fathom depth range (Table 3 and Figure 5). Survey-wide, female CPUE was 15.2 crabs per pot with a peak CPUE of 51.3 crabs per pot in the 350-399 fathom depth range (Table 4 and Figure 6).

Size Distributions

Legal male crabs ranged in size from 128-mm CL to 190-mm CL around a large, skewed-right mode at 145-mm CL in the legal male size distribution (Figure 7). Sublegal males ranged in size from 28-mm CL to 145-mm CL, with a small mode at 45-mm CL, a large mode at 70-mm CL, and large, wide mode centered at 115-mm CL that indicates two less distinct modes at 105-mm CL and 130-mm CL (Figure 7). Legal and sublegal males overlapped in size between 128-mm CL and 145-mm CL, and percent legal size was closest to 50% at 136-mm CL (Table 5). Mature female crabs ranged in size from 84-mm CL to 152-mm CL around a single large mode at 120-

mm CL; immature females ranged in size from 20-mm CL to 137-mm CL, with a small mode at 45-mm CL, a large mode at 70-mm CL, and a medium sized mode centered at 100-mm CL (Figure 8).

Shell Condition and Incidence of Disease or Parasitism

The dominant shell condition of surveyed crabs was new-shell; 90% of the legal male crabs and 99% of the sublegal and female crabs were assessed in new-shell condition (Table 6). Two hundred eighty-six (9.3%) legal male golden king crabs were identified in 'leatherback' condition and most of those (208) were old-shell or very old-shell crabs. Seventeen sublegal male crabs were identified as 'leatherbacks' and most (15) were in old-shell condition. No females were found in 'leatherback' condition. The incidence of chitinoclastic shell disease "shell rust") was low, affecting 3.9% of the legal males, 1% of the sublegal males, and 1.5% of the females. Low rates of parasitic barnacle *Briarosaccus callosus* infestations were noted in sublegal males (0.6%) and females (0.3%); no legal males were observed to have *B. callosus* infestations.

Capture-related mortality was low. No legal males died as a result of capture, 0.2% of the sublegal males died, and 0.1% of the captured females died. Capture-related injuries were relatively high; 9.5% of the legal males, 6.1% of the sublegal males, and 3.1% of the females were injured in the capture process. Torn or crushed leg segments were the most common injury, usually as a result of a leg caught in pot mesh as the pot was tilted to shake crabs onto the sorting table. The second most common injury was to the rostrum and likely was the result of hitting the sorting table when the pot was emptied.

Female Reproductive Condition

Thirty-six percent of the captured females had clean pleopodal setae, indicating that those crabs were either immature and had never hatched an egg clutch or were mature but had molted without mating prior to capture; all were scored as immature crabs. Mature females with matted setae accounted for 16% of the females in survey catches. Of the 3,756 ovigerous females examined, 55.8% carried eyed eggs, 40.5% had uneyed eggs, and 3.7% were observed with hatching embryos (Table 7). Of the 140 females with hatching clutches of eggs, most (125) were observed with trace-to-1/4-full clutch fullness, indicating that these females were nearing complete hatching. However, the remaining 15 hatching-clutch females were noted with 50-to-100 percent clutch sizes, indicative that hatching had begun recently. Survey-wide, most (64.5%) of the ovigerous females had 1/2-full clutch fullness scores, with few (3%) dead eggs apparent within clutches. Egg color was primarily orange-to-dark orange (65.6%), and of these, two-thirds were uneyed, indicative of early embryo development. Tan colored eggs (34.4%) indicated that embryo development was advanced, particularly when coupled with the fact that 87.9% of these eggs were eyed.

Tagged Crab Releases

A total of 6,659 golden king crabs were tagged and released on the survey (Tables 1 and 8). Ninety-one percent of the legal males, 90% of the sublegal males ≥ 121-mm CL, 17% of the sublegal males 90-mm to 120-mm CL, and 13% of the females ≥ 90-mm CL that were captured during the survey were tagged. Release distribution of tagged crabs is shown in Figures 9, 10, and 11. The 2006/2007 Aleutian Islands commercial golden king crab fishery opened on August 15, 2006, and remains in progress at this time. Details of commercial fishery recoveries of tagged

crabs released during the 2006 triennial survey will be reported along with an analysis of all golden king crab releases and recoveries dating back to the 1997 survey in a future report.

Comparison of the 1997, 2000, 2003, and 2006 Surveys

A combined total of 10,856 legal males, 71,105 sublegal males, and 79,160 females were captured from a total of 3,023 pots during the four triennial surveys (Appendices B, C, D, and E). The 1997 and 2000 surveys were 35 days in length as compared to the 30-day 2003 survey and the 31-day 2006 survey. Area coverage in the 2003 survey (2,100 nmi^2) exceeded that of the 1997 (1,775 nmi^2), 2000 (1,725 nmi^2), and 2006 (1,825 nmi^2) surveys. The average number of soak days for survey gear was longest in 1997 (3.5 days) and shortest in 2003 (2.0 days). Average depths fished were nearly identical in 1997 (205 fm), 2000 (205 fm), and 2006 (204 fm) surveys as compared to the 183-fm average in the 2003 survey. The fishing gear described under Methods – Survey Design was used in all four surveys. Total catch, catch per unit effort (CPUE), and number of golden king crabs tagged by sex and survey year for all stations fished is summarized in Appendices B, C, D, and E. Data from the 1997, 2000, and 2003 surveys are referenced from the 'Adak97', 'Aleu2000', and 'Aleu2003' data bases as of September 29, 2006.

Catch and Distribution

Sixty-two stations were fished in common on the 1997, 2000, 2003, and 2006 surveys (Figure 12). The 62 in-common stations accounted for 87% of the stations fished in 1997, 90% in 2000, 74% in 2003, and 85% of those fished in 2006. Unless otherwise noted, information presented below reflects descriptive comparisons among the four surveys only for the 62 stations fished in common.

Catch rates of legal male crabs in the 62 in-common stations declined from 4.6 per pot in 1997 to 3.1 and 2.9 crabs per pot in 2000 and 2003, respectively, but increased to 4.2 crabs per pot in the 2006 survey. Catch rates declined at a much higher rate for sublegal males, from a high of 51.4 crabs per pot in 1997 to a survey low of 11.8 in 2006. Female catch rates declined very sharply from 60.1 crabs per pot in 1997 to a survey low of 11.9 crabs per pot in 2003, and increased slightly to 16.8 in 2006. Comparative CPUE and catch distribution of legal, sublegal, and female golden king crabs is shown in Figures 13, 14, and 15, respectively.

The highest catch at a single station from the 62 in-common stations for legal males was 362 in 2006; highest catches for the other three surveys was 291, 150, and 131 in 1997, 2000, and 2003, respectively (Appendix B). Peak catches of sublegal male crabs was uniformly high in the first three surveys, at 2,756, 2,898, and 2,831 crabs in the 1997, 2000, and 2003 surveys (Appendix C). In 2006, however, the peak catch of sublegal males had dropped to just 685 crabs. The highest single-station catches of females were in 1997 (2,436) and 2000 (2,963) (Appendix D). Lower catches of females were made in 2003 (1,756) and in 2006 (1,353). Highest total golden king crab catches were made at station 25 during the 1997 and 2000 surveys, with catches of 4,915 and 5,886 crabs, respectively (Appendix E). The total crab catch in 2003 was slightly less, when 4,640 crabs were captured at station 40. The highest catch in the 2006 survey was much lower, with 1,772 crabs captured at station 21.

Catch per pot by depth zone data presented below is from all stations fished in each survey year. Where necessary, the data were expanded to reflect the total number of crabs caught at pots where catches were subsampled. The catch per pot (CPUE) of legal male golden king crabs was highest in the 250-299 fathom zone in 1997 and 2000 at 11.6 and 7.5 crabs per pot, respectively

(Figure 5). In 2003, the legal male peak CPUE was 4.6 crabs per pot in the 350-399 fm zone, but CPUE in the 200-249 fm zone was nearly as high at 4.0 crabs per pot. In 2006, the peak CPUE of legal males was 7.2 crabs in the 200-249 fathom range. Among the four surveys, legal male CPUE values were generally lowest at depths greater than 350 fathoms.

Sublegal male CPUE was highest in the 400-449 fm zone in 1997 (119.3 crabs per pot) and 2000 (162.0 crabs per pot) (Figure 5). Similarly high catches in 1997 were noted in the 350-399 fm group (111.4 crabs per pot) and at 450-499 fm (102.3 crabs per pot). In 2003, sublegal male CPUE was uniformly less than 20 crabs per pot in all depth zones, with the exception of the 300-349 fathom zone where the catch per pot was 105.1 crabs. The 2006 sublegal male catch per pot was very low across all depth zones, with modest peaks of 48.0 and 43.6 crabs per pot in the 350-399 fm and 400-449 fm zones, respectively.

Catch trends for females by depth group generally mirrored that of sublegal males (Figure 6). Females were most numerous in the 400-449 fm zone in 1997 (118.4 crabs per pot) and 2000 (195.8 crabs per pot). Similarly high catches in 1997 were noted in the 350-399 fm group (114.7 crabs per pot) and at 450-499 fm (103.2 crabs per pot). In 2003, female CPUE was uniformly less than 20 crabs per pot in all depth zones, with the exception of the 300-349 fathom zone where the catch per pot was 87.5 crabs. The 2006 female catch per pot was also low across all depth zones, with modest peaks of 51.3 and 45.7 crabs per pot in the 350-399 fm and 400-449 fm zones, respectively.

Size Distributions

Size distribution data presented below is from all stations fished in each survey year. Where necessary, the data were expanded to reflect the total number of crabs caught at pots where catches were subsampled. Legal male golden king crab carapace length distributions were similar across all four surveys, with a single large mode centered at 140-mm CL, although legal males were larger in the 2006 survey (mode at 145-mm CL) (Figure 16). Length distributions of sublegal males indicated small modes centered at 40-mm CL to 45-mm CL in the 1997, 2000, and 2006 surveys; the smallest sublegal male mode in 2003 was at 60-mm CL (Figure 16). Sublegal male modes at 70-mm CL to 75-mm CL were evident in all survey catches. In 2003, a large mode was evident at 90-mm CL. Among the larger sublegal males, a prominent mode at 105-mm CL was evident in both the 1997 and 2000 surveys. The largest sublegal males in all surveys were centered at 125-mm CL to 130-mm CL.

Female size trends were similar in the 1997 – 2003 surveys, with modes centered at 110-mm CL; as was the case with legal-sized males, females in the 2006 survey were larger, with a mode centered at 120-mm CL (Figure 17). At sizes less than 85-mm CL, large modes centered at 70-mm CL were evident in the 2000 and 2006 surveys as compared to smaller modes at 60-mm CL and 80-mm CL in the 1997 survey. Small modes at 45-mm CL were evident in the 1997, 2000, and 2006 surveys for both sublegal males and females, but crabs of this size are likely not fully recruited to the gear and may therefore be under-represented in survey catches.

Shell Condition and Incidence of Disease or Parasitism

Data presented below is from all stations fished in each survey year. Where necessary, the data were expanded to reflect the total number of crabs caught at pots where catches were subsampled. Overall shell conditions for all sex-size classes of golden king crabs were similar among the four surveys, with new-shell crabs dominating survey catches (Table 6). The

percentage of legal males in new-shell condition was highest in 2000 (96%) and lowest in 2006 (90.2%). New-shelled sublegal male and female crabs accounted for over 99% of sampled crabs in each survey. The number of legal male golden king crabs in 'leatherback' condition declined from 101 crabs in 1997 to 75 crabs in 2003, but quadrupled in 2006 to 286 crabs. Few sublegal male crabs in 'leatherback' condition have been observed in survey catches and have ranged from a low of 3 animals in 1997 to a high of 28 in 2003. 'Leatherback' females have rarely been found in survey catches; only 2 were observed during the 2000 survey.

The incidence of chitinoclastic shell disease ("shell rust") was 3.9% in legal-sized males captured in 2006 was slightly lower in sublegal males and females at a rate of less than 2% in the 2000 – 2006 surveys. Infestations of the parasitic barnacle *B. callosus* were very high in males (273) and females (209) sampled during the 1997 survey. A single legal male was noted with *B. callosus* in 2000, and none were observed in either the 2003 or 2006 surveys. Relative frequency of occurrence of *B. callosus* infestations in sublegal males and females in the 2000 - 2006 was low, averaging just 0.5% of crabs sampled in survey catches.

Capture-related mortality has only been recorded in the last two surveys, with rates below 1% for all golden king crabs.

Female Reproductive Condition

The percentage of immature females (clean pleopodal setae) declined from a high of 65% in 1997 to a low of 45% in 2003. Mature females with matted setae were similar in 2003 and 2006 survey catches, at 15% and 16%, respectively. Lower percentages of females with matted setae were observed in 1997 (10.5%) and 2000 (12%). Changes in the percentage of ovigerous females among the four surveys was notable, from a low of 34.5% in 1997 increasing to a high of 53.2% in the 2006 survey. Egg clutch characteristics were comparable in the 1997 and 2000 surveys, with most females bearing 100% clutches of orange, uneyed eggs (Table 7). In 2003, most of the females (64.7%) had clutches that were 60% to 89% full, and bore orange uneyed eggs. Clutch size scoring criteria were changed prior to the 2006 survey. Nonetheless, overall clutch fullness in ovigerous females captured in 2006 was notably lower, with 64.5% of those crabs carrying 1/2 full clutches. The number of females with hatching clutches was highest (5.2%) during the 2003 survey and lowest (1.9%) in the 2000 survey.

2006 Survey Catch Composition

There were 210 taxa identified in survey pots, including the predominant golden king crab catch (Table 9). Occurrence of other commercial crab species included 78 scarlet king crabs (34 legal males, 9 sublegal males, and 35 females), one female hair crab, and 106 grooved Tanner crabs (9 legal males, 63 sublegal males, and 34 females). The number of different species caught by subgroup was: 4 skates, 5 flatfish, 2 grenadiers, 4 sculpins, 4 snailfish, and 7 rockfish. Highest catches of commercially-important fish species included 984 Pacific halibut, 461 sablefish, 860 Pacific cod, 20 rougheye rockfish *Sebastes aleutianus*, and 16 Atka mackerel. The number of different invertebrate species captured by subgroup included 40 corals, 7 worms, 5 amphipods, 3 isopods, 5 shrimps, 17 snails, 30 sea stars, 25 sponges, and 10 bryozoans.

2006 Fish Length Distributions

A total of 2,596 commercially-important fishes were measured from survey catches. Pacific halibut (n = 966) ranged in size from 48 cm to 180 cm and averaged 94 cm in length (Figure 18). The average size of 210 measured arrowtooth flounder *Atheresthes stomias* was 66 cm, with a

range of 32 cm to 155 cm (Figure 19). Greenland turbot (n = 49) ranged in size from 67 cm to 119 cm and averaged 88 cm in length (Figure 19). The average size of 854 Pacific cod was 75 cm, with a range of 52 cm to 109 cm (Figure 20). Sablefish (n = 458) ranged in size from 37 cm to 108 cm and averaged 64 cm in length (Figure 20).

Lesser numbers of other commercial species were captured and measured; data presented here includes the number measured followed by the average size: Kamchatka flounder *Atheresthes evermanni* (n = 1, 70 cm), Dover sole *Microstomas pacificus* (n = 3, 52 cm), Atka mackerel (n = 14, 41 cm), shortspine thornyhead *Sebastolobus alascanus* (n = 15, 44 cm), rougheye rockfish (n = 20, 45 cm), shortraker rockfish *Sebastes borealis* (n = 2, 50 cm), Pacific ocean perch *Sebastes alutus* (n = 2, 43 cm), and northern rockfish *Sebastes polyspinus* (n = 1, 43 cm).

Ocean Bottom Temperatures - 1997, 2000, 2003, and 2006 Surveys

Bottom temperatures were obtained at 69 of the 73 stations fished during the 2006 survey, at average depths ranging from 80 fm to 465 fm (Table 10). Temperatures ranged from a minimum of 2.3ºC at 420 fms (768 m) to a maximum of 5.3ºC at 98 fms (180 m). The average ocean bottom temperature for the survey was 4.0ºC, with a decrease in temperatures as depth increased. The lowest temperatures were recorded during the 2000 and 2006 surveys at 2.3ºC and the highest temperatures were recorded in 1997 and 2003, at 6.4ºC and 5.9ºC, respectively (Figure 21). Despite the variation in minimum and maximum temperature values between survey years, the average temperature in all four survey years was similar at 3.9ºC in 2000, 4.0ºC in 2003 and 2006, and 4.2ºC in 1997.

ACKNOWLEDGEMENTS

I thank the captain, John Steel, engineers Kurt Olson and Dave Malsch, and deckhands Todd Barnert and Jack Foley of the FV *Ocean Olympic* for the safe deployment and retrieval of survey gear during the cruise. Their outstanding assistance in catch sampling was much appreciated; without their help, much less data would have been gathered. I am grateful to my assistant crew leader, Ryan Burt, who ensured that deck operations were efficient and safe, and who also took the mantle of crew leader for the last week of the survey. I thank survey biologists Susie Byersdorfer, Kevin Renfro, and Melissa Salmon for their fine efforts towards a productive and enjoyable survey. Rachel Alinsunurin assisted with presurvey logistics; Savanna Kochuten and Tammy Chisum are also acknowledged for entering the survey data. Lynn Mattes, Jan Rumble, and Melissa Salmon provided reviews of this report. Lastly, a special thanks to Doug Pengilly, Westward Region regional research supervisor, for keeping track of our journey via email, and all of his efforts to secure and maintain funding for this project. Funding of the 2006 survey, data entry, analysis, and production of this report from National Oceanic and Atmospheric Administration Awards NA05NMF4371036 and NA04NMF4370715 is gratefully acknowledged.

REFERENCES CITED

ADF&G (Alaska Department of Fish and Game). 2005. 2005-2006 commercial king and tanner crab fishing regulations. Alaska Department of Fish and Game, Juneau.

Blau, S. F. 1992. Project operational plan for the 1991 Aleutian Islands golden (brown) king crab survey. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K92-29, Kodiak.

Blau, S. F., and D. Pengilly. 1994. Findings from the 1991 Aleutian Islands golden king crab survey in the Dutch Harbor and Adak management areas including analysis of recovered tagged crabs. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K94-35, Kodiak.

Blau, S. F., D. Pengilly, and D. A. Tracy. 1996. Distribution of golden king crabs by sex, size, and depth zones in the eastern Aleutian Islands, Alaska. Pages 167-185 [*In*] High latitude crabs: biology, management, and economics. University of Alaska Sea Grant, AK-SG-96-02, Fairbanks.

Blau, S. F., L. J. Watson, and I. Vining. 1998. The 1997 Aleutian Islands golden king crab survey. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K98-30, Kodiak.

Bowers, F. R. 1998. Annual management report for the shellfish fisheries of the Aleutian Islands. [*In*]*:* Annual management report for the shellfish fisheries of the Westwards Region, 1996. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K98-30, Kodiak.

Bowers, F. R., K. L. Bush, M. Schwenzfeier, J. Barnhart, M. Bon, M. E. Cavin, Jr., S. Coleman, B. Failor-Rounds, K. Milani, and M. Salmon. 2005. Annual management report for the commercial and subsistence shellfish fisheries of the Aleutian Islands, Bering Sea and the Westward Region's shellfish observer program, 2004. Alaska Department of Fish and Game, Fishery Management Report No. 05-51, Anchorage.

Gray, G.W., Jr. 1965. Tags for marking king crabs. Progressive Fish Culturist 27:221-227.

Jadamec, L. S., W. E. Donaldson, and P. Cullenberg. 1999. Biological field techniques for *Chionoecetes* crabs. University of Alaska Sea Grant, AK-SG-99-02, Fairbanks.

Morrison, R., and R. K. Gish. 1997. Annual management report for the shellfish fisheries of the eastern Aleutian area. [*In*]: Annual management report for the shellfish fisheries of the Westward Region, 1996. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K97-41, Kodiak.

Siddeek, M. S. M., L. J. Watson, S. F. Blau, and H. Moore. 2002. Estimating natural mortality of king crabs from tag recapture data. Pages 51-75 [*In*] A. J. Paul, E. G. Dawe, R. Elner, G. S. Jamieson, G. H. Kruse, R. S. Otto, B. Sainte-Marie, T. C. Shirley, and D. Woodby, editors. Crabs in cold water regions: biology, management, and economics. University of Alaska Sea Grant, AK-SG-02-01, Fairbanks.

Siddeek, M. S. M., D. R. Barnard, L. J. Watson, and R. K. Gish. 2005. A modified catch-length analysis model for golden king crab (*Lithodes aequispinus*) stock assessment in the eastern Aleutian Islands. Pages 783 – 805 [*In*] G. H. Kruse, V. F. Gallucci, D. E. Hay, R. I. Perry, R. M. Peterman, T. C. Shirley, P. D. Spencer, B. Wilson, and D. Woodby, editors. Fisheries assessment and management in data-limited situations. University of Alaska Sea Grant, AK-SG-05-02, Fairbanks.

Wallace, M. M., C. J. Pertuit, and A. R. Hvatum. 1949. Contribution to the biology of the king crab (*Paralithodes camstchatica*) Tilesius. U.S. Department of the Interior, Fish and Wildlife Service, Fishery Leaflet No. 340.

Watson, L. J, and S. F. Blau. 1997. Project operational plan for the 1997 Aleutian Islands golden king crab tagging survey. Alaska Department of Fish and game, Division of Commercial Fisheries, Regional Information Report 4K97-39, Kodiak.

Watson, L. J., D. Pengilly, and S. F. Blau. 2002. Growth and molting of golden king crabs *Lithodes aequispinus* in the eastern Aleutian Islands, Alaska. Pages 169-187 [*In*] A.J. Paul, E.G. Dawe, R. Elner, G.S. Jamieson, G.H. Kruse, R.S. Otto, B. Sainte-Marie, T.C. Shirley, and D. Woodby editors. Crabs in cold water regions: biology, management, and economics. University of Alaska Sea Grant, AK-SG-02-01, Fairbanks.

REFERENCES CITED (Continued)

Watson, L. J., and R. K. Gish. 2002. The 2000 Aleutian Islands golden king crab survey and recoveries of tagged crabs in the 1997 – 1999 and 2000 – 2002 fishing seasons. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K02-6, Kodiak.

Watson, L. J. 2004. The 2003 triennial Aleutian Islands golden king crab survey and comparisons to the 1997 and 2000 surveys (revised October 17, 2005). Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K04-42, Kodiak.

Watson, L. J., and R. Burt. 2006. Project operational plan for the 2006 Aleutian Islands golden king crab tagging survey and tagged crab recovery program. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K06-7, Kodiak.

TABLES AND FIGURES

Table 1.–Golden king crab catch, catch per unit effort (CPUE), and tagging summary by sex and size category from the 2006 Aleutian Islands survey.

Sex/Size Category	Total Catch Number	Total Catch Percent	Catch Per Unit Effort (CPUE)	Number Tagged
Legal Male				
Recruit	1,847	60.3	2.6	1,695
Post-Recruit	1,218	39.7	1.7	1,104
Total:	3,065	-	4.3	2,799
Sublegal Male				
<121-mm CL	5,993	79.4	8.3	1,046
≥121-mm CL	1,552	20.6	2.2	1,390
Not Recorded	5	<0.01	0.0	0
Total:	7,550	-	10.5	2,436
Female				
Mature	5,508	49.8	7.6	1,161
Immature	5,531	50.1	7.6	262
Unknown	11	0.1	<0.1	1
Total:	11,050	-	15.2	1,424
Hermaphrodites	3	-	<0.01	0
Grand Total:	21,668	-	29.7	6,659

Table 2.–Legal male golden king crab catch and catch per unit effort (CPUE) by 50-fathom depth grouping from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

Depth	Number of Pots				Total Catch				CPUE			
(fathoms)	1997	2000	2003	2006	1997	2000	2003	2006	1997	2000	2003	2006
50-99	68	70	68	60	118	131	112	288	1.7	1.9	1.7	4.8
100-149	210	195	307	210	776	423	547	977	3.7	2.2	1.8	4.7
150-199	138	148	178	129	536	346	511	302	3.9	2.3	2.9	2.3
200-249	99	89	146	100	693	434	578	720	7.0	4.9	4.0	7.2
250-299	59	138	165	130	686	1032	437	673	11.6	7.5	2.7	5.2
300-349	50	10	10	40	181	23	6	57	3.6	2.3	0.6	1.4
350-399	30	49	19	30	6	68	87	18	0.2	1.4	4.6	0.9
400-449	30	29	0	30	16	45	-	30	0.5	1.6	-	1.0
450-499	19	0	0	0	0	-	-	-	0.0	-	-	-
Totals	703	728	893	729	3,012	2,502	2,278	3,065	4.3	3.4	2.6	4.3

Table 3.–Sublegal male golden king crab catch and catch per unit effort (CPUE) by 50-fathom depth grouping from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

Depth	Number of Pots				Total Catch				CPUE			
(fathoms)	1997	2000	2003	2006	1997	2000	2003	2006	1997	2000	2003	2006
50-99	68	70	68	60	1,840	2,685	547	872	27.1	38.4	8.0	14.5
100-149	210	195	307	210	4,251	4,133	1,371	1,283	20.2	21.2	4.5	6.1
150-199	138	148	178	129	2,486	1,697	792	802	18.0	11.5	4.5	6.2
200-249	99	89	146	100	7,968	1,983	1,820	446	80.5	22.3	12.5	4.5
250-299	59	138	165	130	3,052	3,606	3,217	997	51.7	26.1	19.5	7.7
300-349	50	10	10	40	4,282	121	1,051	881	85.6	12.1	105.1	22.0
350-399	30	49	19	30	3,341	3,009	81	959	111.4	61.4	4.3	48.0
400-449	30	29	0	30	3,579	4,699	-	1,309	119.3	162.0	-	43.6
450-499	19	0	0	0	1,944	-	-	-	102.3	-	-	-
Totals	703	728	893	729	32,743	21,933	8,879	7,550	46.6	30.1	9.9	10.4

Table 4.–Female golden king crab catch and catch per unit effort (CPUE) by 50-fathom depth grouping from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

Depth	Number of Pots				Total Catch				CPUE			
(fathoms)	1997	2000	2003	2006	1997	2000	2003	2006	1997	2000	2003	2006
50-99	68	70	68	60	2,733	2,632	730	916	40.2	37.6	10.7	15.3
100-149	210	195	307	210	7,716	5,050	1,591	3,932	36.7	25.9	5.2	18.7
150-199	138	148	178	129	5,612	2,563	1,143	927	40.7	17.3	6.4	7.2
200-249	99	89	146	100	7,088	1,055	1,669	1,021	71.6	11.9	12.3	10.2
250-299	59	138	165	130	1,890	2,192	1,944	1,047	32.0	15.9	11.8	8.1
300-349	50	10	10	40	3,559	118	875	872	71.2	11.9	87.5	21.8
350-399	30	49	19	30	3,441	3,307	13	1,025	114.7	67.5	0.7	51.3
400-449	30	29	0	30	3,551	5,678	-	1,370	118.4	195.8	-	45.7
450-499	19	0	0	0	1,960	-	-	-	103.2	-	-	-
Totals	703	728	893	729	37,550	22,595	7,965	11,110	53.4	31.0	8.9	15.2

Table 5.–Size overlap of sublegal and legal male golden king crabs from the 2006 Aleutian Islands survey.

Carapace Length[a] (mm)	Number of Crabs		Total Sampled	Percent Legal
	Sublegal	Legal		
128	104	1	105	1.0
129	110	1	111	0.9
130	97	0	97	0.0
131	84	7	91	7.7
132	84	10	94	10.6
133	95	14	109	12.8
134	86	32	118	27.1
135	85	50	135	37.0
136	66	64	130	49.2
137	37	64	101	63.4
138	35	87	122	71.3
139	16	102	118	86.4
140	18	109	127	85.8
141	6	98	104	94.2
142	3	121	124	97.6
143	3	131	134	97.8
144	2	128	130	98.5
145	1	145	146	99.3
Totals	932	1,164	2,096	-

[a] All male crabs <128-mm carapace length were of sublegal carapace width (<6.5 inches); all male crabs >145-mm carapace width were of legal carapace width (≥6.5 inches).

Table 6.–Shell condition of golden king crabs from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys; data presented is from all stations fished in each survey year.

Shell Condition Category	1997[a]		2000[b]		2003[c]		2006	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
				Legal Males				
New	2,941	92.2	2,402	96.0	2,163	95.0	2,766	90.2
Old	236	7.4	95	3.8	114	5.0	293	9.6
Very Old	13	0.4	5	0.2	1	<0.01	6	0.2
Total	3,190	-	2,502	-	2,278	-	3,065	-
				Sublegal Males				
New	32,579	99.5	21,823	99.5	8,817	99.3	7,506	99.4
Old	131	0.4	110	0.5	61	0.7	42	0.6
Very Old	33	0.1	0	0.0	1	<0.01	1	<0.01
Not Recorded	0	0.0	0	0.0	0	0.0	1	<0.01
Total	32,743	-	21,933	-	8,879	-	7,550	-
				Females				
New	37,182	100.0	22,572	99.9	7,952	99.8	11,045	99.9
Old	10	<0.01	23	0.1	13	0.2	4	0.1
Very Old	0	0.0	0	0.0	0	0.0	0	0.0
Not Recorded	0	0.0	0	0.0	0	0.0	1	<0.01
Total	37,192	-	22,595	-	7,965	-	11,050	-

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.
[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.
[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.

Table 7.–Clutch and egg characteristics for ovigerous female golden king crabs captured in the 1997, 2000, 2003, and 2006 Aleutian Islands surveys; data presented is from all stations fished in each survey year.

	1997[a]		2000[b]		2003[c]			2006[d]	
Characteristic	Number	Percent	Number	Percent	Number	Percent	Characteristic	Number	Percent
Clutch Size							**Clutch Size**		
1-29% full	483	5.3	203	2.7	400	10.0	Trace to 1/4 full	616	16.4
30-59% full	409	4.5	181	2.4	783	19.6	1/2 full	2,425	64.5
60-89% full	1,264	13.9	1,152	15.4	2,579	64.7	3/4 full	671	17.9
90-100% full	6,916	76.2	5,965	79.5	226	5.7	100% full	44	1.2
Not Recorded	0	-	1	0.0	0	-	Not Recorded	0	-
Total	9,072	-	7,502	-	3,988	-	Total	3,756	-
Egg Development							**Egg Development**		
Uneyed	5,380	59.3	4,711	62.8	1,758	44.1	Uneyed	1,521	40.5
Eyed	3,402	37.5	2,648	35.3	2,021	50.7	Eyed	2,094	55.8
Hatching	290	3.2	143	1.9	209	5.2	Hatching	140	3.7
Total	9,072	-	7,502	-	3,988	-	Total	3,756	-
Egg Color							**Egg Color**		
Tan	2,168	23.9	2,033	27.1	1,205	30.2	Tan	1,291	34.4
Yellow	0	-	0	-	0	-	Yellow	1	0.0
Orange	6,904	76.1	5,461	72.8	2,783	69.8	Orange	2,463	65.6
Purple	0	-	8	0.1	0	-	Purple	0	-
Pink	0	-	0	-	0	-	Pink	1	0.0
Total	9,072	-	7,502	-	3,988	-	Total	3,756	-
Dead Eggs							**Dead Eggs**		
Not Apparent	8,464	93.3	7,396	98.6	3,958	99.2	Not Apparent	3,642	97.0
<20%	544	6.0	98	1.3	29	0.7	<20%	102	2.7
>20%	64	0.7	8	0.1	1	0.0	>20%	12	0.3
Total	9,072	-	7,502	-	3,988	-	Total	3,756	-

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.
[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.
[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.
[d] Clutch fullness scoring criteria changed in May, 2006 and instituted for the 2006 Aleutian Islands golden king crab survey.

Table 8.–Releases of tagged golden king crabs from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

Sex/Size Category	Survey Year				Total
	1997	2000	2003	2006	
Legal Males	2,943	2,011	2,213	2,799	9,966
Sublegal Males	4,678	5,767	3,961	2,436	16,842
Females	2,136	2,192	1,585	1,424	7,337
Totals	9,757	9,970	7,759	6,659	34,145

Table 9.–Catch composition of survey pots from the 2006 Aleutian Islands survey.

NMFS Code	Common Name	Scientific Name	Number
400	skate unid.	Rajidae	2
455	mud skate	*Bathyraja taranetzi*	1
475	commander skate	*Bathyraja lindbergi*	3
480	whiteblotched skate	*Bathyraja maculata*	25
10110	arrowtooth flounder	*Atheresthes stomias*	235
10112	Kamchatka flounder	*Atheresthes evermanni*	1
10115	Greenland turbot	*Reinhardtius groenlandicus*	52
10120	Pacific halibut	*Hippoglossus stenolepis*	984
10180	Dover sole	*Microstomas pacificus*	3
20510	sablefish	*Anoplopoma fibria*	461
20720	searcher	*Bathymaster signatus*	1
21200	grenadier unid.	Macrouridae	1
21230	giant grenadier	*Albatrossia pectoralis*	101
21300	sculpin unid.	Cottidae	1
21341	darkfin sculpin	*Malacocottus zonurus*	30
21347	yellow Irish lord	*Hemilepidotus jordani*	60
21354	spectacled sculpin	*Triglops scepticus*	4
21720	Pacific cod	*Gadus macrocephalus*	860
21921	Atka mackerel	*Pleurogrammus monopterygius*	16
22170	lumpsucker unid.	Cyclopterinae	1
22200	snailfish unid.	Liparidinae	1
22217	cherry snailfish	*Allocareproctus jordani*	3
22228	blackfin snailfish	*Careproctus cypselurus*	1
22272	combed snailfish	*Allocareproctus kallaion*	1
24110	twoline eelpout	*Bothrocara brunneum*	6
30020	shortpine thornyhead	*Sebastolobus alascanus*	15
30040	rockfish unid.	*Sebastes* sp.	1
30050	rougheye rockfish	*Sebastes aleutianus*	20
30060	Pacific ocean perch	*Sebastes alutus*	2
30420	northern rockfish	*Sebastes polyspinus*	2
30576	shortraker rockfish	*Sebastes borealis*	3
30630	Sebastes rockfish unid.	*Sebastes* sp.	1
40011	hydroid unid.		25
40012	champagne flute hydroid	*Bonneviella* sp. A	30
40028	ostrich plume hydroid	*Aglaophenia* sp.	14
40500	jellyfish unid.	Scyphozoa	20
41100	soft coral unid.	Alcyonacea	1
41105	purple soft coral	*Anthothela grandiflora*	6
41201	raspberry soft coral	*Gersimia* sp.	1
41300	mushroom coral	*Anthomastus* sp.	21
41521	Pacific red tree coral	*Primnoa pacifica*	1
41570	Swiftia coral unid.	*Swiftia* sp.	2
41571	Pacific red sea fan	*Swiftia pacifica*	1
41582	Kamchatka coral	*Paragorgia arborea*	5
41595	Kool's candelabrum gorgonian coral	*Cryogorgia koolsae*	2

-continued-

Table 9.–Page 2 of 5.

NMFS Code	Common Name	Scientific Name	Number
41605	sugar coral	*Parastenella* sp. A	1
41700	Calcigorgia coral unid.	*Calcigorgia* sp.	1
41701	pink sea fan	*Calcigorgia spiculifera*	7
41750	encrusting coral unid.	*Clavularia* sp.	2
41751		*Clavularia* sp. cf. *evagorgiacrustans*	3
41752	encrusting stolen coral	*Clavularia incrustans*	1
43000	sea anemone unid.	Actiniaria	10
43030	Stomphia anemone unid.	*Stomphia* sp.	1
44000	stony coral unid.	Scleractinia	1
44020	Caryophyllia cup coral unid.	*Caryophyllia* sp.	17
44030	Stylaster hydrocoral unid.	*Stylaster* sp.	24
44031	pink hydrocoral	*Stylaster verrilli*	3
44036	capped hydrocoral	*Crypthelia trophostega*	9
44037	common hydrocoral	*Stylaster campylecus*	5
44039	compressed hydrocoral	*Stylaster moseleyana*	3
44040	Rosy-undulate hydrocoral	*Cyclohelia lamellata*	2
44041	Cyclohelia coral unid.	*Cyclohelia* sp.	15
44045	Alaskan hydrocoral	*Stylaster alaskanus*	1
44053	thick lamellar hydrocoral	*Stylaster* sp. B	1
44061	grooved hydrocoral	*Distichopora borealis*	12
44075	superb thouarella	*Thouarella superba*	2
44081	Errinopora coral unid.	*Errinopora* sp.	20
44083	Plumarella coral unid.	*Plumarella* sp.	30
44087	Thouarella coral unid.	*Thouarella* sp.	18
44089	Fanellia coral unid.	*Fanellia* sp.	20
44092	purple sea fan	*Muriceides nigra*	13
44093	Muriceides coral unid.	*Muriceides* sp.	3
44094	Amphilaphis coral unid.	*Amphilaphis* sp.	4
44096	pinnate amphilaphis coral	*Amphilaphis* sp. 2	3
44097	loose-branched amphilaphis coral	*Amphilaphis* sp. 3	7
44098	Arthrogorgia coral unid.	*Arthrogorgia* sp.	3
44099	Utimoni's armored sea fan	*Arthrogorgia utimonii*	2
44103	long-polyp sea fan	*Muriceides* sp. cf. *cylindrica*	13
50000	polychaete worm unid.	Polychaeta	1
50001	worm unid.		1
50205	porcupine worm	*Euphrosine multibranchiata*	1
54030	hermit or tiger worm	*Cheilonereis cyclurus*	2
56312	depressed scale worm	*Eunoe depressa*	13
56313	thorny scale worm	*Eunoe senta*	1
58001	ice-cream cone worm	*Pectinaria granulata*	2
60100	amphipod unid.	Amphipoda	1
60105	speckled amphipod	*Eusirus cuspidatus*	1
60107	smooth northern amphipod	*Stegocephalus inflatus*	1
60116	bladed amphipod	*Paramphithoe polyacantha*	1

-continued-

Table 9.–Page 3 of 5.

NMFS Code	Common Name	Scientific Name	Number
60117	sonic amphipod	*Paramphithoe* sp. 1	3
62001	spiky arcturid isopod	*Arcturus* sp. 1	4
62002	spiny arcturid isopod	*Arcturus* sp. 2	3
62020	gravel isopod	*Saduria entomon*	1
66000	shrimp unid.		1
66033	yellowleg pandalid	*Pandalus tridens*	2
66060	Aleutian pandalopsis	*Pandalopsis aleutica*	3
66203	spiny lebbeid	*Lebbeus groenlandicus*	9
66601	sculptured shrimp	*Sclerocrangon boreas*	4
68550	grooved Tanner crab	*Chionoecetes tanneri*	106
68578	Pacific lyre crab	*Hyas lyratus*	3
69010	hermit crab unid.	Paguridae	2
69121	purple hermit crab	*Elassochirus cavimanus*	2
69300	scarlet king crab	*Lithodes couesi*	78
69310	golden king crab	*Lithodes aequispinus*	21,728
69336	scaled crab	*Placetron wosnessenskii*	3
69400	hair crab	*Erimacrus isenbeckii*	1
69900	sea spider unid.	Pycnogonidae	3
69910	giant sea spider unid.	*Colossendeis* sp.	4
69920	big sea spider unid.	*Nymphon* sp.	2
70122	white veiled chiton	*Placiphorella pacifica*	6
71025	Tritonia nudibranch unid.	*Tritonia* sp.	4
71500	gastropod unid.	Gastropoda	4
71535	Aleutian moon snail	*Cryptonatica aleutica*	1
71710	Colus snail unid.	*Colus* sp.	1
71730	oblique whelk	*Colus aphelus*	2
71778	Baxter's beringius	*Beringius* sp. A	9
71782	golden beringius	*Beringius* sp. C	3
71800	Neptune snail unid.	*Neptunea* sp.	1
71820	Pribiloff whelk	*Neptunea pribiloffensis*	17
71888	Vesteraalen neptune	*Neptunea* sp. B	1
72500	Oregon triton	*Fusitriton oregonensis*	15
72752	ladder whelk	*Buccinum scalariforme*	3
72764	oval whelk	*Bathybuccinum ovulum*	1
72765	costate whelk ?	*Buccinum* sp. A	1
72781		*Buccinum* sp. G	1
72790	Alaska volute	*Arctomelon stearnsii*	18
72792	ribbed volute	*Arctomelon tamikoae*	1
74311	Arctic hiatella	*Hiatella arctica*	1
78010	octopus unid.	Octopodidae	1
78020		*Octopus* sp.	1
78403	giant octopus	*Octopus dofleini*	13
80000	starfish unid.	Asteroidea	12
80159	Asteriidae unid.	Asteriidae	2

-continued-

Table 9.–Page 4 of 5.

NMFS Code	Common Name	Scientific Name	Number
80200	blackspined sea star	*Pedicellaster magister*	5
80535	lined blood star	*Henricia* sp. A	1
80540	blood star unid.	*Henricia* sp.	9
80543	ridged blood star	*Henricia aspera*	3
80544	blood sea star	*Henricia leviuscula*	6
80547	weak mesh blood star	*Henricia asthenactis*	6
80549	spiny blood star	*Henricia multispina*	5
80551	Odontohenricia blood star	*Odontohenricia* sp.	1
80553	pale toothed blood star	*Odontohenricia* sp. B	1
80630	Hippasteria spiny star	*Hippasteria* sp.	1
80631	Kurile spiny star	*Hippasteria kurilensis*	4
80632	armored spiny star	*Hippasteria armata*	4
80634	pale spiny star	*Hippasteria* sp. B	1
80730	orange cookie star	*Ceramaster patagonicus*	1
80733	stellate cookie star	*Ceramaster stellatus*	3
81060	northern sun star	*Solaster endeca*	2
81067	remarkable sun star	*Solaster* sp. A	1
81068	beautiful sun star	*Solaster* sp. C	1
81069	serpent sun star	*Solaster* sp. D	2
81090	rose sea star unid.	*Crossaster* sp.	1
81093	white rose sea star	*Crossaster* sp. A	2
81095	common rose sea star	*Crossaster papposus*	1
81310	slime star unid.	*Pteraster* sp.	1
81312	rough cushion star	*Pteraster temnochiton*	1
81313	northern slime star	*Pteraster* sp. A	1
81315	tessellated slime star	*Pteraster tesselatus*	1
81840	grainy white cookie star	*Cladaster validus*	2
81910	fragile sea star	*Cheiraster dawsoni*	2
82510	green sea urchin	*Strongylocentrotus droebachiensis*	44
82771	common northern feather star	*Florometra asperrima*	7
83000	brittlestar unid.	Ophiuroidea	4
83020	basketstar	*Gorgonocephalus eucnemis*	31
83311	hidden scale brittlestar	*Ophiura cryptolepis*	1
83320	notched brittlestar	*Ophiura sarsi*	1
83340	great armored brittlestar	*Stegophiura ponderosa*	1
83343	nine-armored brittlestar	*Ophiocantha enneactis*	1
83400	ubiquitous brittlestar	*Ophiopholis aculeata*	18
85213	dwarf armored sea cucumber	*Psolus* sp. A	3
91000	sponge unid.	Porifera	52
91030	clay pipe sponge	*Aphrocallistes vastus*	1
91039	Mycale sponge	*Mycale* sp.	2
91040	tree sponge	*Mycale loveni*	1
91045	ginseng sponge	*Coelospaeridae* sp. A	8
91046	soccer ball sponge	*Geodia mesotriaena*	2

-continued-

Table 9.–Page 5 of 5.

NMFS Code	Common Name	Scientific Name	Number
91054	lampshade sponge	*Mycale bellabellensis*	2
91057	scapula sponge		15
91062	soft brown sponge	*Myxilla brunnea*	1
91064	firm finger sponge	*Plicatellopsis amphiscula*	3
91066	spud sponge	*Histodermella* sp. A	19
91068	leafy yellow sponge	*Leucosolenia blanca*	11
91089	rough china hat sponge	*Neoesperiopsis infundibula*	9
91091	Neoesperiopsis sponge	*Neoesperiopsis* sp.	1
91093	firm fingered sponge	*Neoesperiopsis digitata*	14
91110	Flugel's nipple sponge	*Polymastia flugeli*	2
91113	prolific nipple sponge	*Polymastia* sp. A	9
91226	green papillate sponge	*Latrunculia* sp. A	16
91235	funnel sponge	*Phakellia cribose*	1
91255	lattice sponge	*Melonchela clathrata*	1
95000	bryozoan unid.	Bryozoa	19
95006	eastern fork branched bryozoan	*Leieschara orientalis*	3
95015	lacy bryozoan	*Phydolopora pacifica*	1
95017	spiral bryozoan	*Bugula californica*	19
95030	leafy bryozoan	*Flustra serrulata*	1
95036	smooth leather bryozoan	*Alcyonidium pedunculatum*	13
95037	medusa bryozoan	*Alcyonidium* sp. A	5
95050	flattened bryozoan	*Porella compressa*	2
95101	jointed bryozoan	*Microporina borealis*	26
95105	fan bryozoan	*Dendrobeania* sp.	26
98000	tunicate unid.	Ascidiceae	13
98082	sea potato	*Styela rustica*	1
98084	hexagonal tunicate	*Styela* sp. B	1
98205	sea peach	*Halocynthia aurantium*	1
99981	baseball sponge	*Craniella cranium*	7
99982	furry ball sponge	*Craniella spinosa*	9
99983	spiky ball sponge	*Tetilla* sp.	2
99985	spiny ball sponge	*Tetilla sigmoanchoratum*	1
99987	puffball sponge unid.	*Craniella* sp.	1

Table 10.–Ocean bottom temperatures at select stations fished during the 2006 Aleutian Islands golden king crab survey.

Station	Dates	Depth		Temperature °C		
		Fathoms	Meters	Average	Minimum	Maximum
96	7/25-7/28	80	146	4.7	4.5	5.0
38	7/16-7/18	89	164	4.5	4.3	4.7
39	7/18-7/20	90	164	4.2	3.7	4.6
37	7/14-7/18	93	171	4.4	4.0	4.7
44	7/9-7/11	98	180	4.4	3.9	5.3
23	7/14-7/16	103	190	4.4	3.8	4.5
142	7/21-7/23	104	190	4.2	4.0	4.7
123	7/31-8/2	105	192	4.8	4.5	5.0
22	7/14-7/17	106	193	4.4	4.2	4.7
3	7/5-7/8	113	207	4.0	3.9	4.6
29	7/6-7/9	120	219	4.1	3.9	4.8
16	7/6-7/8	122	224	4.0	3.9	4.7
60	7/27-7/29	128	235	4.5	3.8	5.1
59	7/29-7/31	128	235	4.6	4.3	4.9
143	7/23-7/25	131	239	4.4	4.2	4.7
160	7/21-7/23	135	247	4.3	4.1	4.5
124	7/31-8/2	137	250	4.8	4.4	5.1
30	7/6-7/8	138	253	4.2	3.9	4.8
24	7/12-7/14	139	255	4.1	3.4	4.4
122	7/24-7/26	139	255	4.4	4.0	4.7
97	7/25-7/28	146	267	4.5	3.4	4.9
74	7/28-7/29	150	275	4.4	3.9	5.0
15	7/5-7/7	150	275	4.0	3.9	4.2
21	7/14-7/18	152	277	4.4	4.0	4.6
10	7/11-7/14	158	289	4.0	3.6	4.4
95	7/28-7/30	160	293	4.5	3.6	5.0
119	7/20-7/23	161	295	4.1	3.2	4.6
98	7/25-7/28	161	295	4.1	3.1	4.7
161	7/23-7/25	165	301	4.5	4.2	4.7
43	7/8-7/11	166	304	4.2	3.7	5.2
116	7/28-7/30	166	304	4.5	4.0	4.7
46	7/29-7/31	167	305	4.4	4.2	5.0
11	7/11-7/14	178	325	3.9	3.4	4.4
141	7/22-7/24	180	328	4.1	3.7	4.4
45	7/9-7/16	183	335	4.1	3.7	4.8
120	7/23-7/25	185	338	4.1	3.0	4.7
92	7/19-7/21	194	355	4.5	4.0	4.9
75	7/26-7/29	199	364	4.2	3.5	4.5
61	7/27-7/29	201	368	4.3	4.1	4.6
159	7/22-7/24	211	386	4.2	3.7	4.5
28	7/8-7/10	219	401	3.9	3.4	4.7
118	7/22-7/24	221	404	3.8	3.4	4.6

-continued-

Table 10.–Page 2 of 2.

Station	Dates	Depth		Temperature °C		
		Fathoms	Meters	Average	Minimum	Maximum
56	7/17/-7/19	222	405	4.0	3.3	4.7
147	7/31-8/2	230	420	4.1	3.9	4.2
94	7/28-7/30	244	446	3.7	3.4	4.4
70	7/18-7/21	254	464	4.1	3.3	4.6
2	7/5-7/7	258	472	3.7	3.3	3.9
140	7/29-7/31	260	476	3.8	3.4	4.2
69	7/30-8/1	267	488	4.1	3.8	4.5
121	7/25-7/27	269	494	3.7	2.9	4.6
55	7/16-7/18	281	514	4.1	3.7	4.5
114	7/30-8/1	283	518	4.0	3.8	4.2
58	7/18-7/24	287	526	3.3	2.6	4.1
72	7/18-7/20	288	527	3.6	3.2	4.2
42	7/10-7/13	294	537	3.4	2.4	4.0
145	7/25-7/27	297	544	3.8	3.6	4.2
40	7/18-7/20	298	546	3.7	3.1	4.6
91	7/30-8/1	305	559	3.8	3.7	4.1
27	7/8-7/11	306	560	3.6	3.2	4.2
146	7/31-8/2	314	575	3.8	3.7	4.0
57	7/19-7/21	317	580	3.3	2.7	4.1
139	7/29-7/31	320	585	3.5	3.3	3.7
9	7/14-7/17	345	630	3.5	3.3	3.9
144	7/25-7/27	364	665	3.3	2.8	4.2
14	7/7-7/10	365	667	3.3	2.8	3.9
41	7/10-7/16	387	707	2.9	2.5	3.6
26	7/8-7/10	420	768	2.9	2.3	3.3
25	7/10-7/12	434	795	3.2	2.4	4.3
1	7/11-7/14	465	850	3.1	2.8	3.5

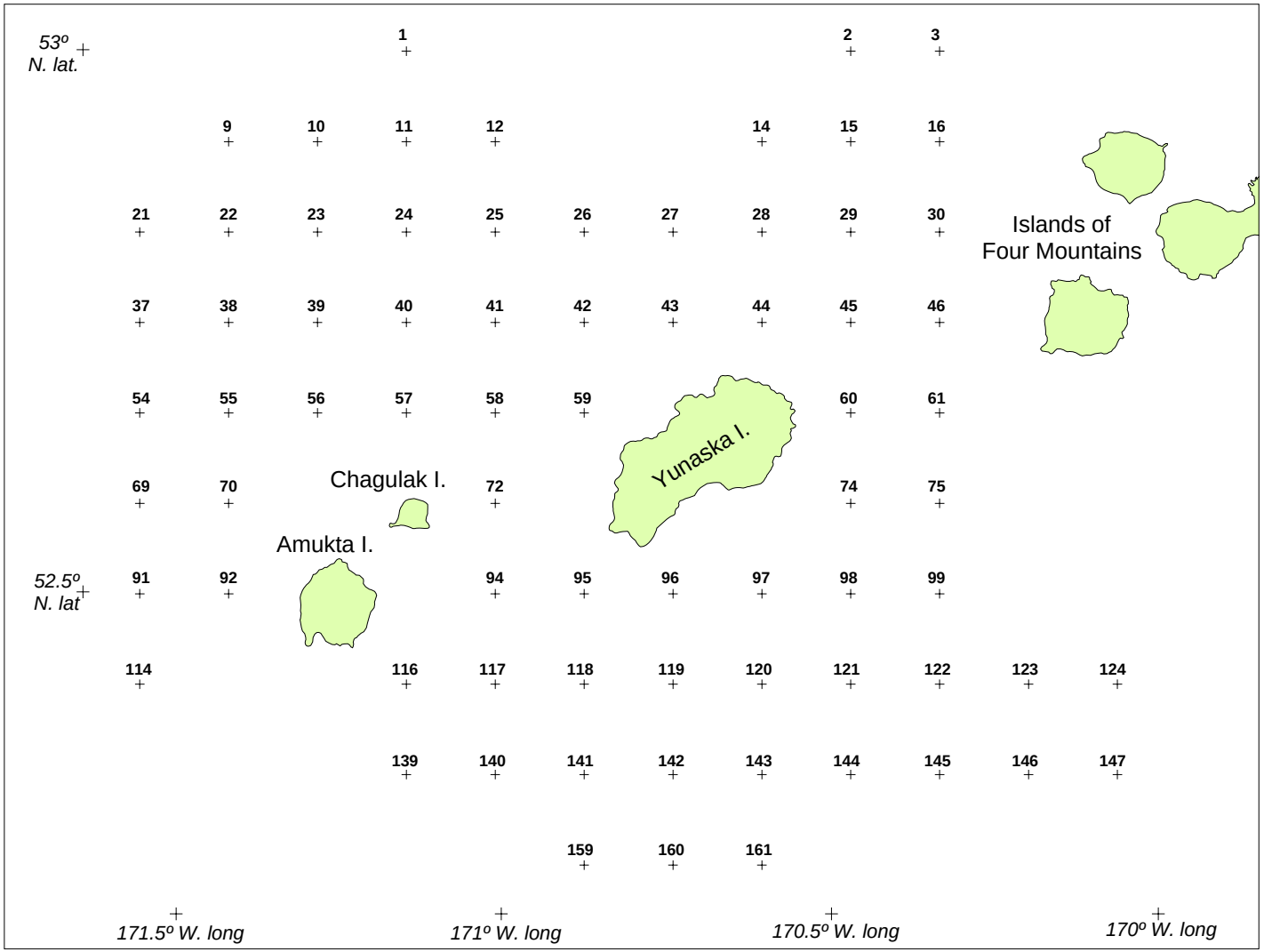

Figure 1.–Survey area and mid-point station locations for the 73 stations fished during the 2006 Aleutian Islands golden king crab survey.

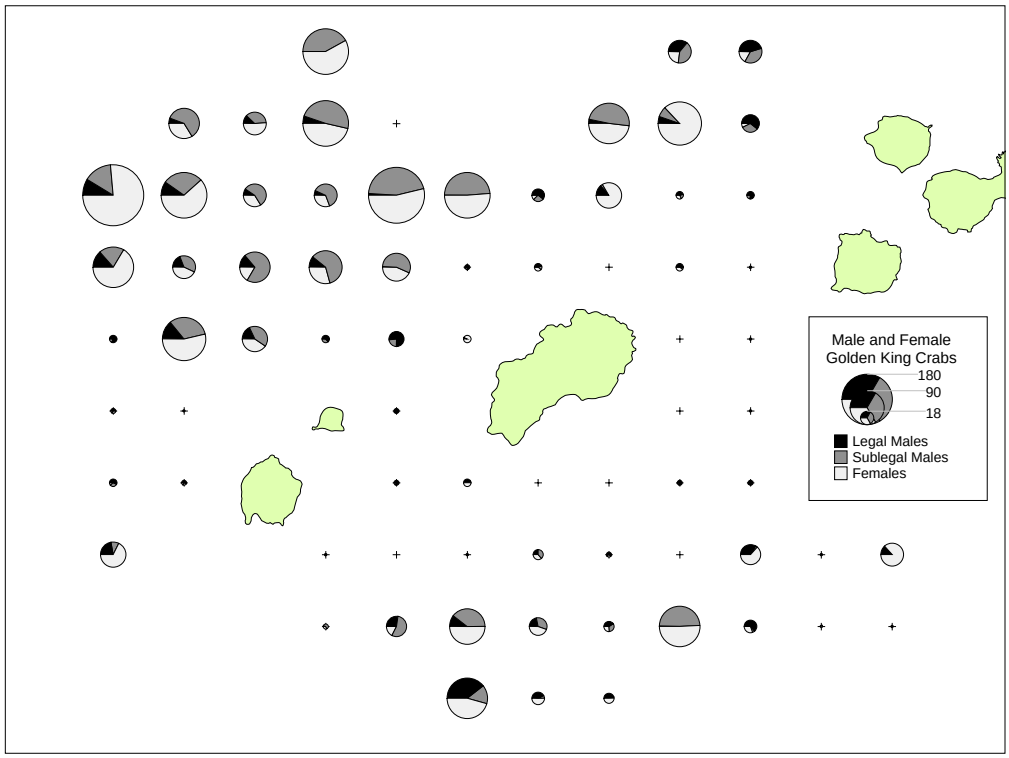

Figure 2.–Male and female golden king crab catch per unit effort (CPUE) by station on the 2006 Aleutian Islands survey.

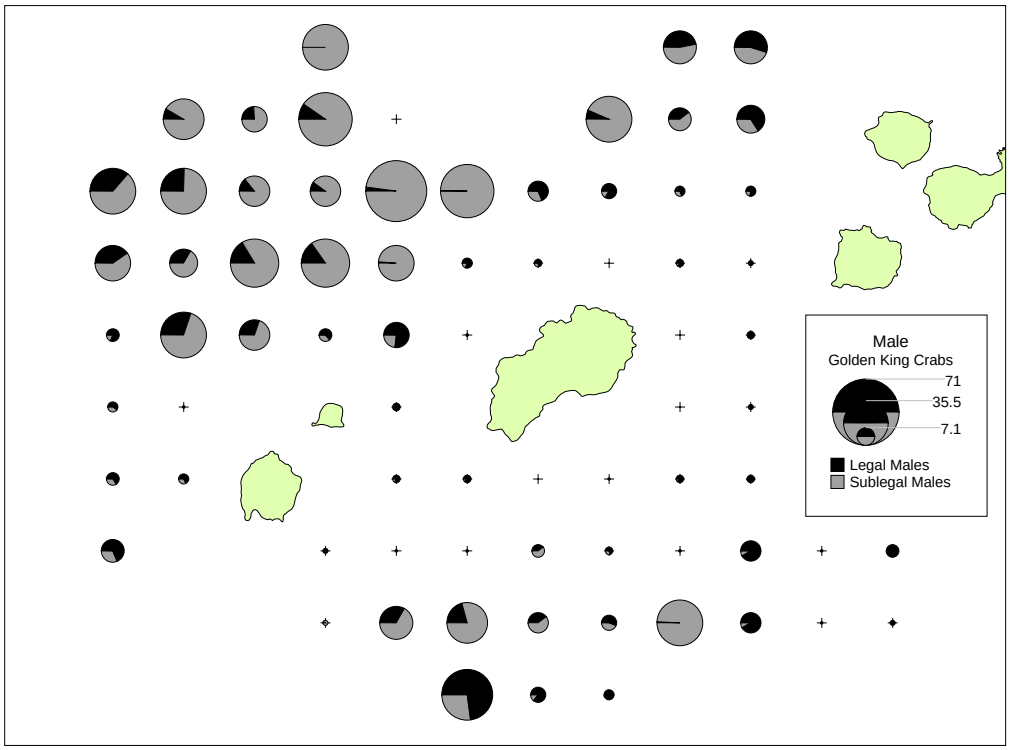

Figure 3.–Legal and sublegal male golden king crab catch per unit effort (CPUE) by station on the 2006 Aleutian Islands survey.

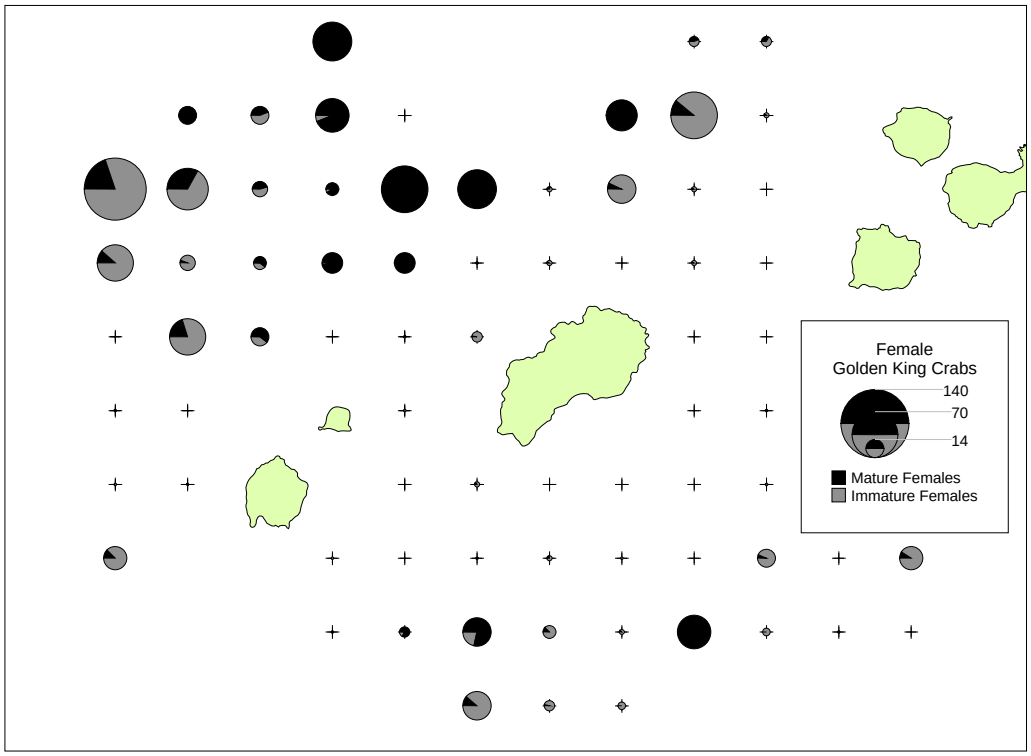

Figure 4.–Mature and immature female golden king crab catch per unit effort (CPUE) by station on the 2006 Aleutian Islands survey.

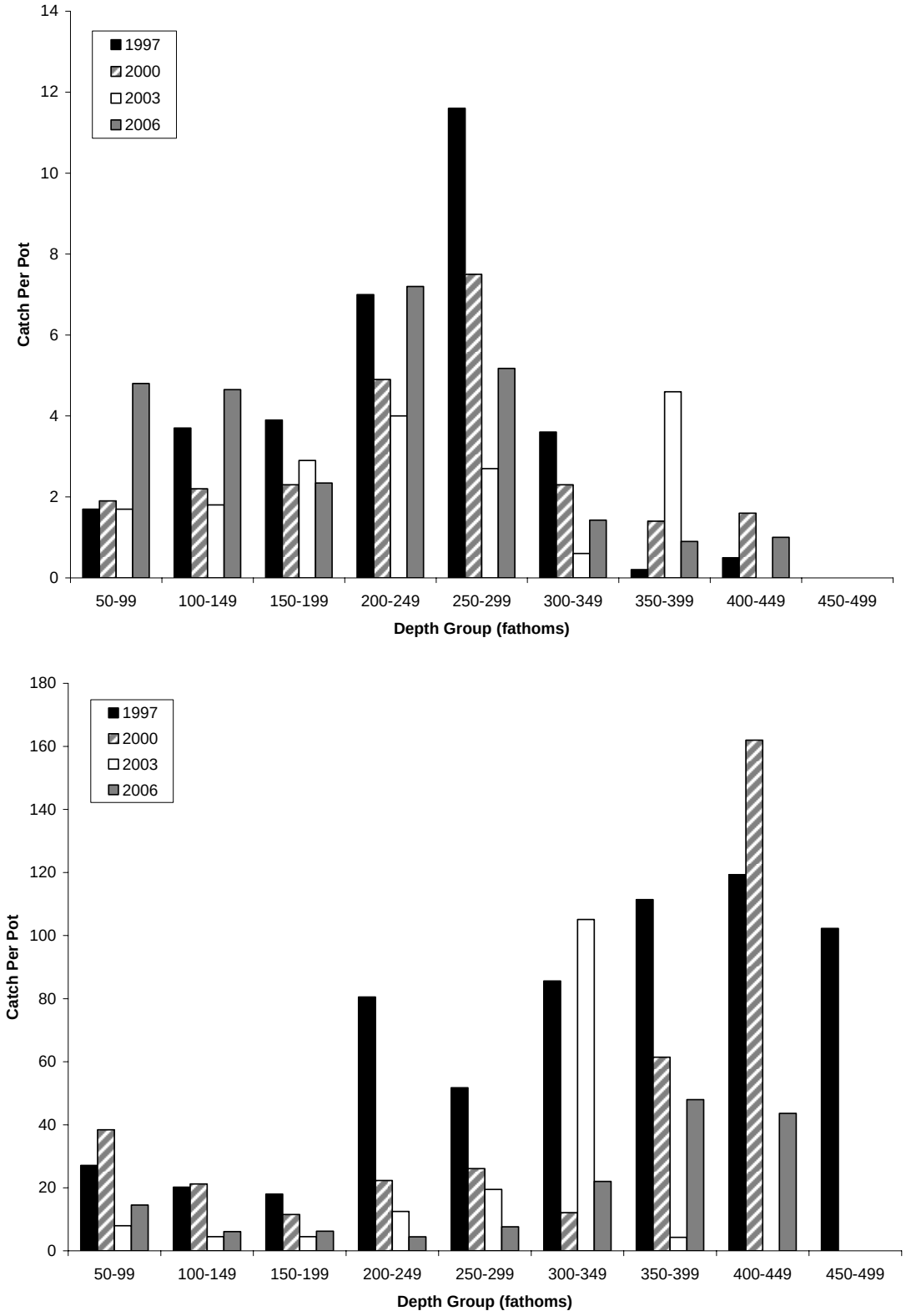

Figure 5.–Legal male (top) and sublegal male (bottom) golden king crab percent catch by 50-fathom depth groupings in the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

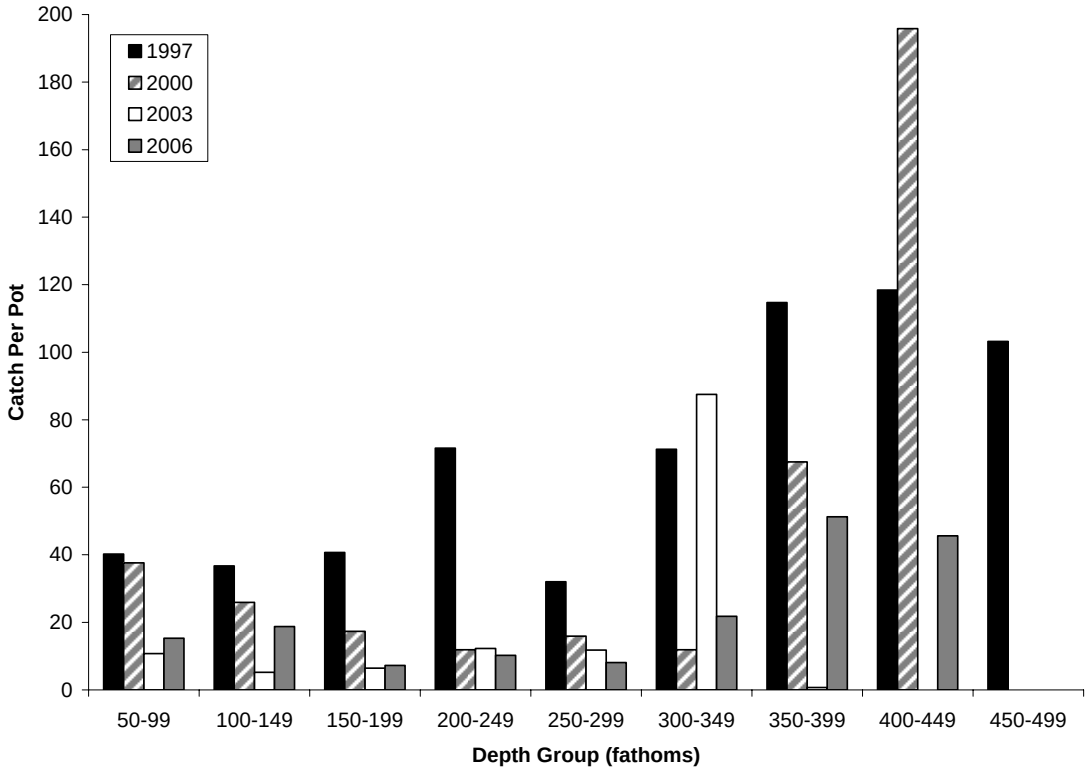

Figure 6.–Female golden king crab percent catch by 50-fathom depth groupings in the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

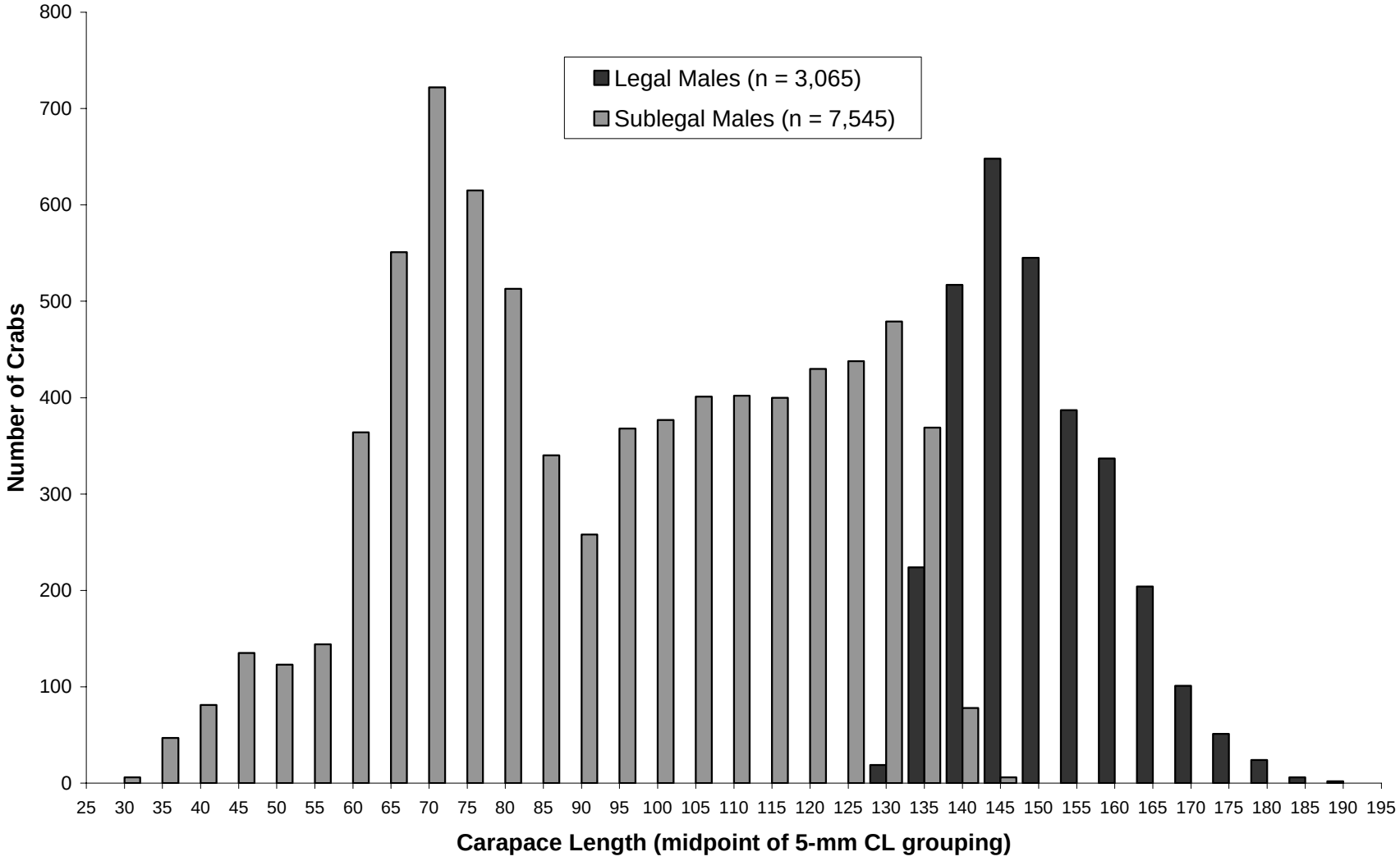

Figure 7.–Carapace length distributions of legal and sublegal male golden king crabs captured in the 2006 Aleutian Islands survey.

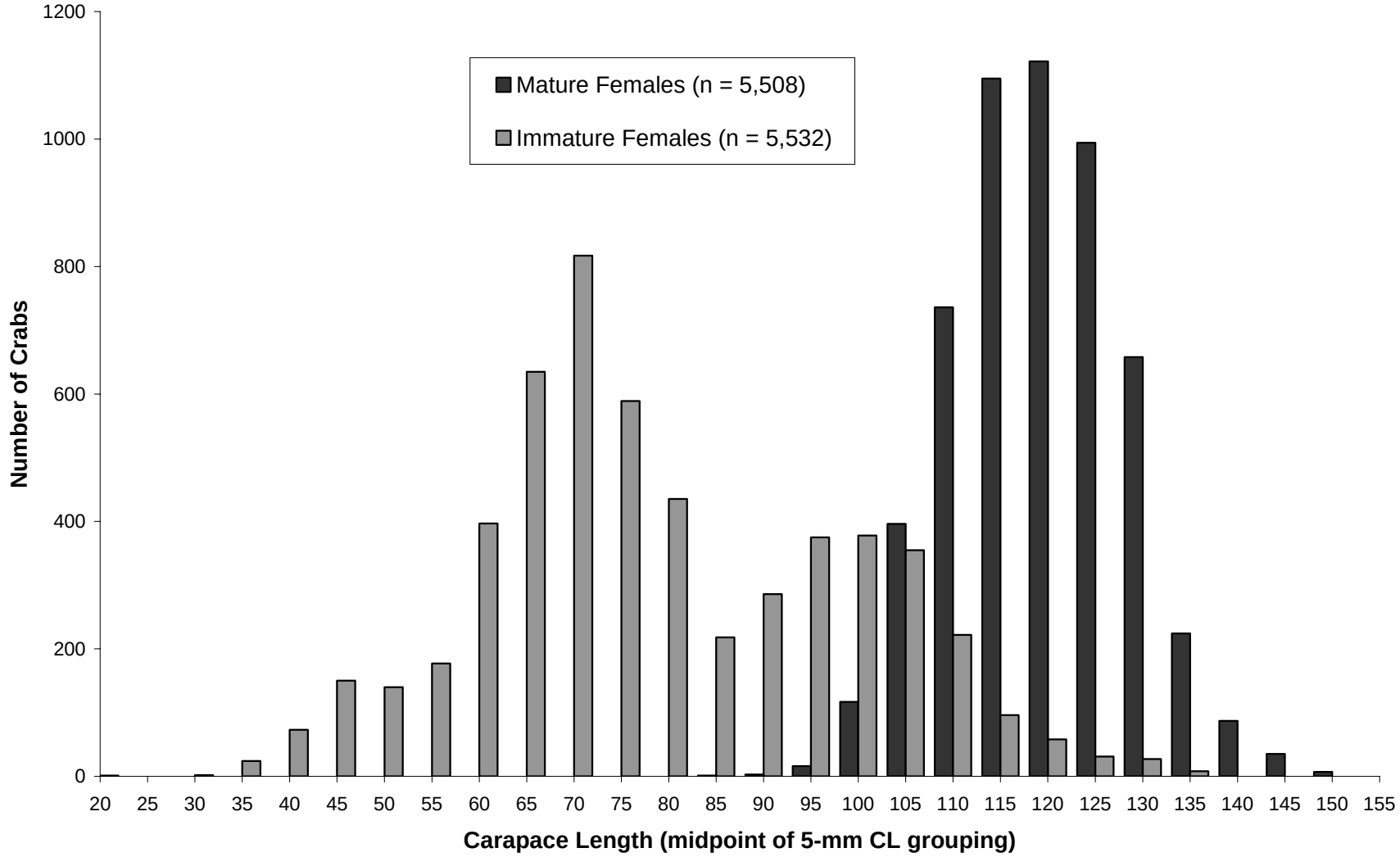

Figure 8.–Carapace length distributions of mature and immature female golden king crabs captured in the 2006 Aleutian Islands survey.

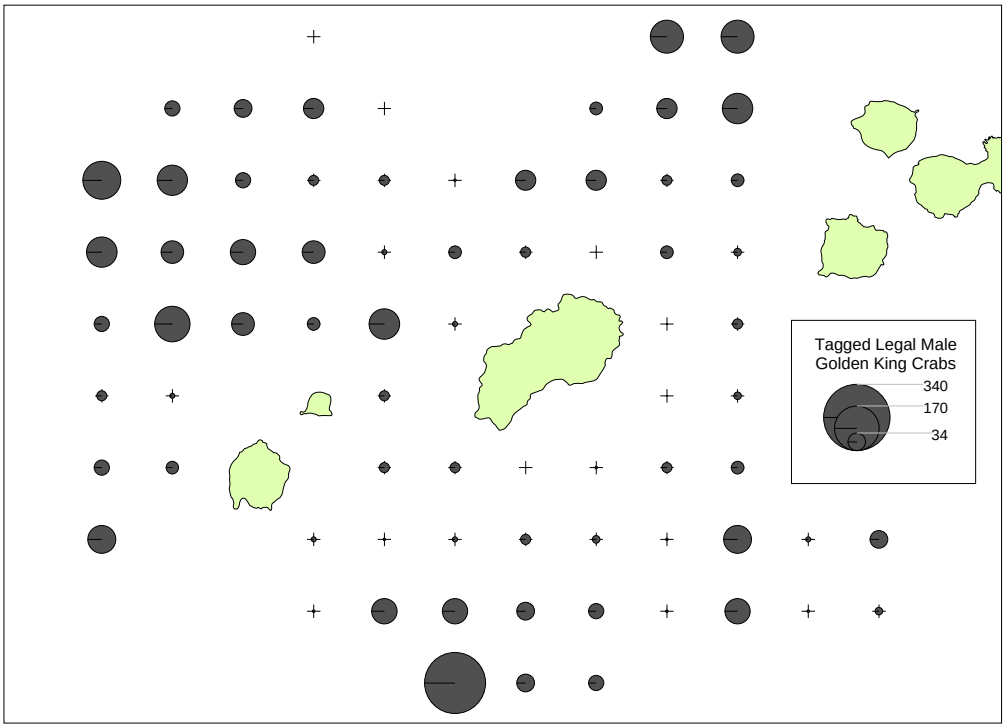

Figure 9.–Release distribution of tagged legal male golden king crabs by station in the 2006 Aleutian Islands survey.

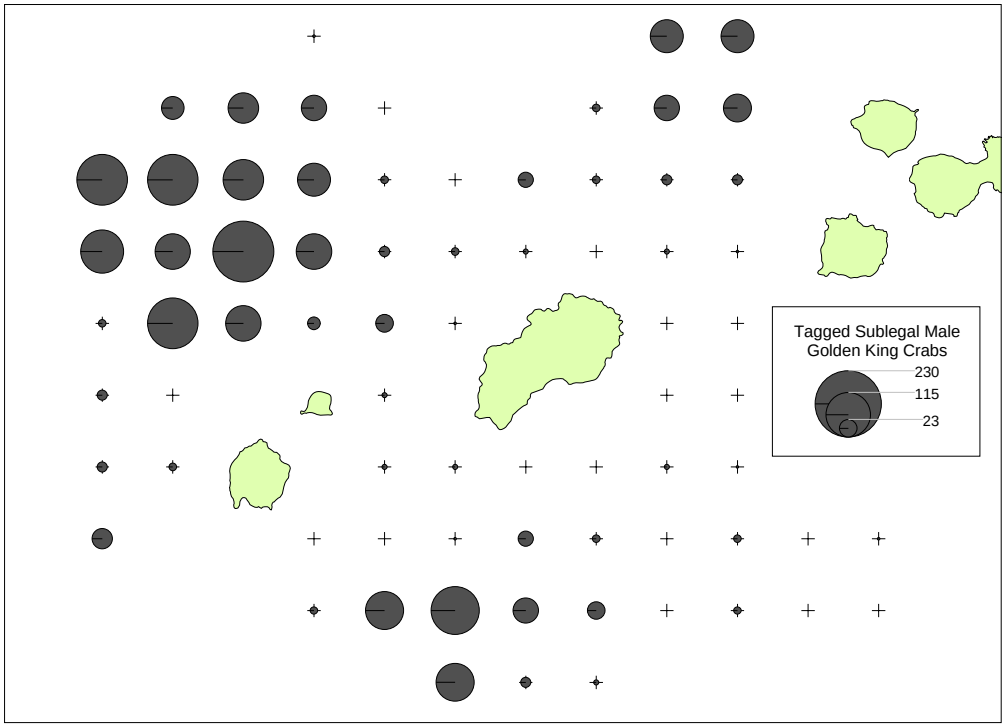

Figure 10.–Release distribution of tagged sublegal male golden king crabs by station in the 2006 Aleutian Islands survey.

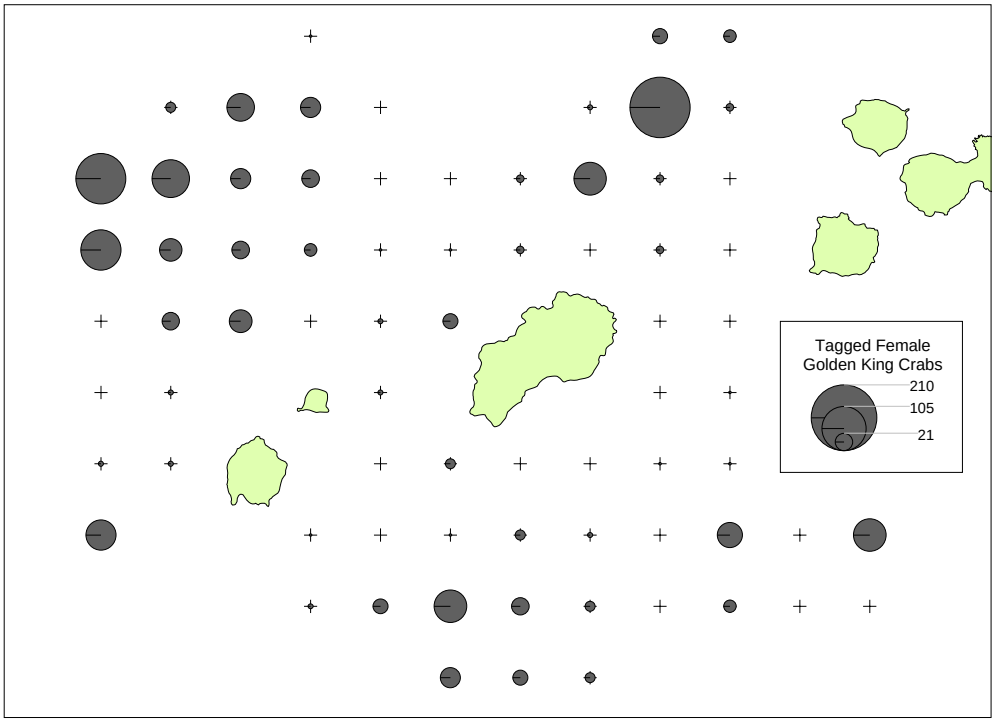

Figure 11.–Release distribution of tagged female golden king crabs by station in the 2006 Aleutian Islands survey.

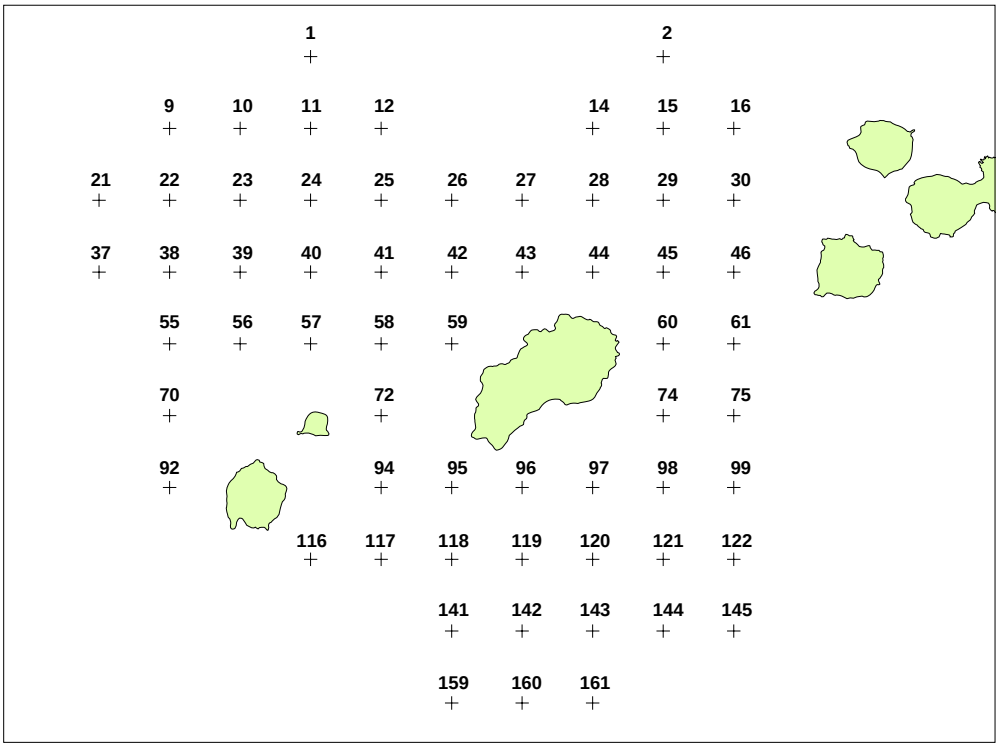

Figure 12.–Location of the 62 stations fished in common during the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

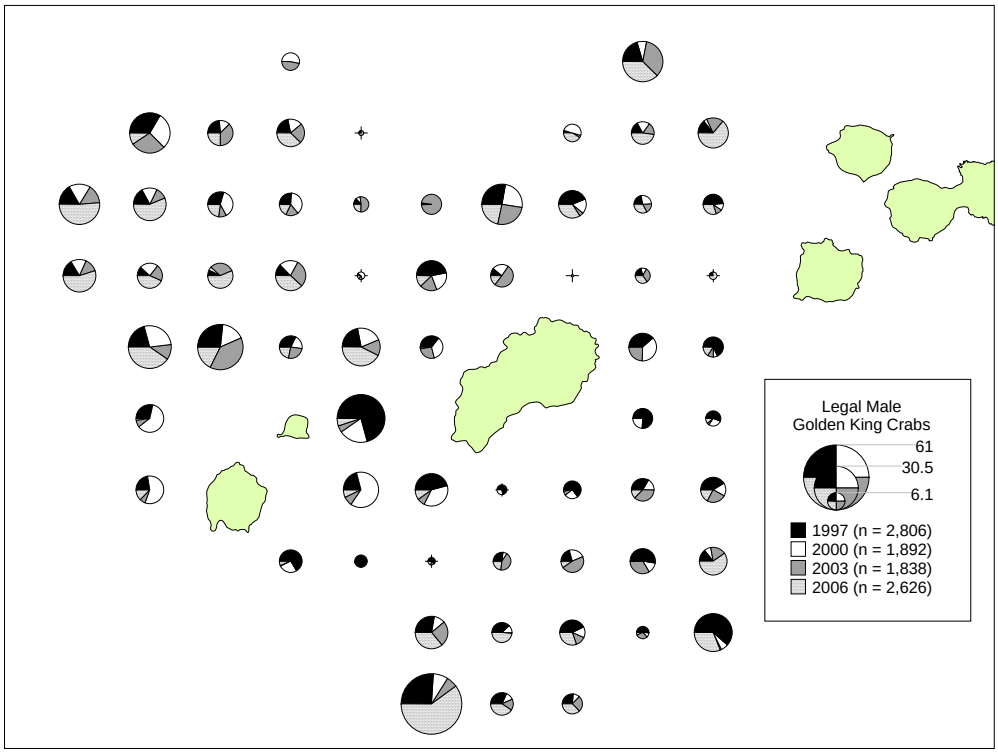

Figure 13.–Legal male golden king crab catch per unit effort (CPUE) by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

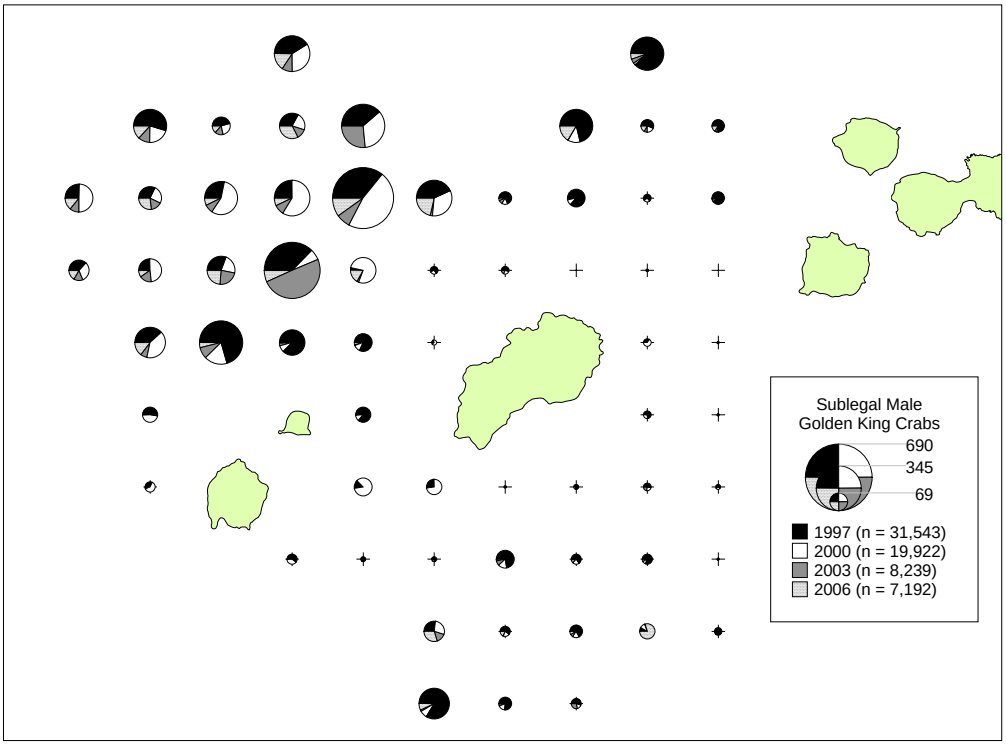

Figure 14.–Sublegal male golden king crab catch per unit effort (CPUE) by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

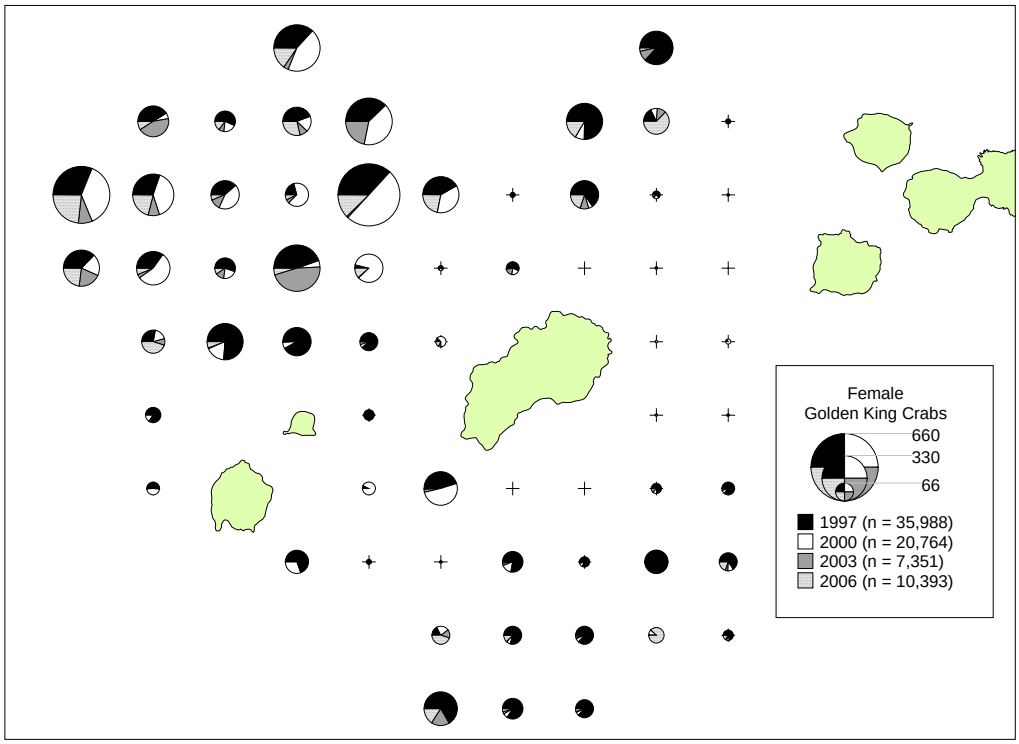

Figure 15.–Female golden king crab catch per unit effort (CPUE) by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

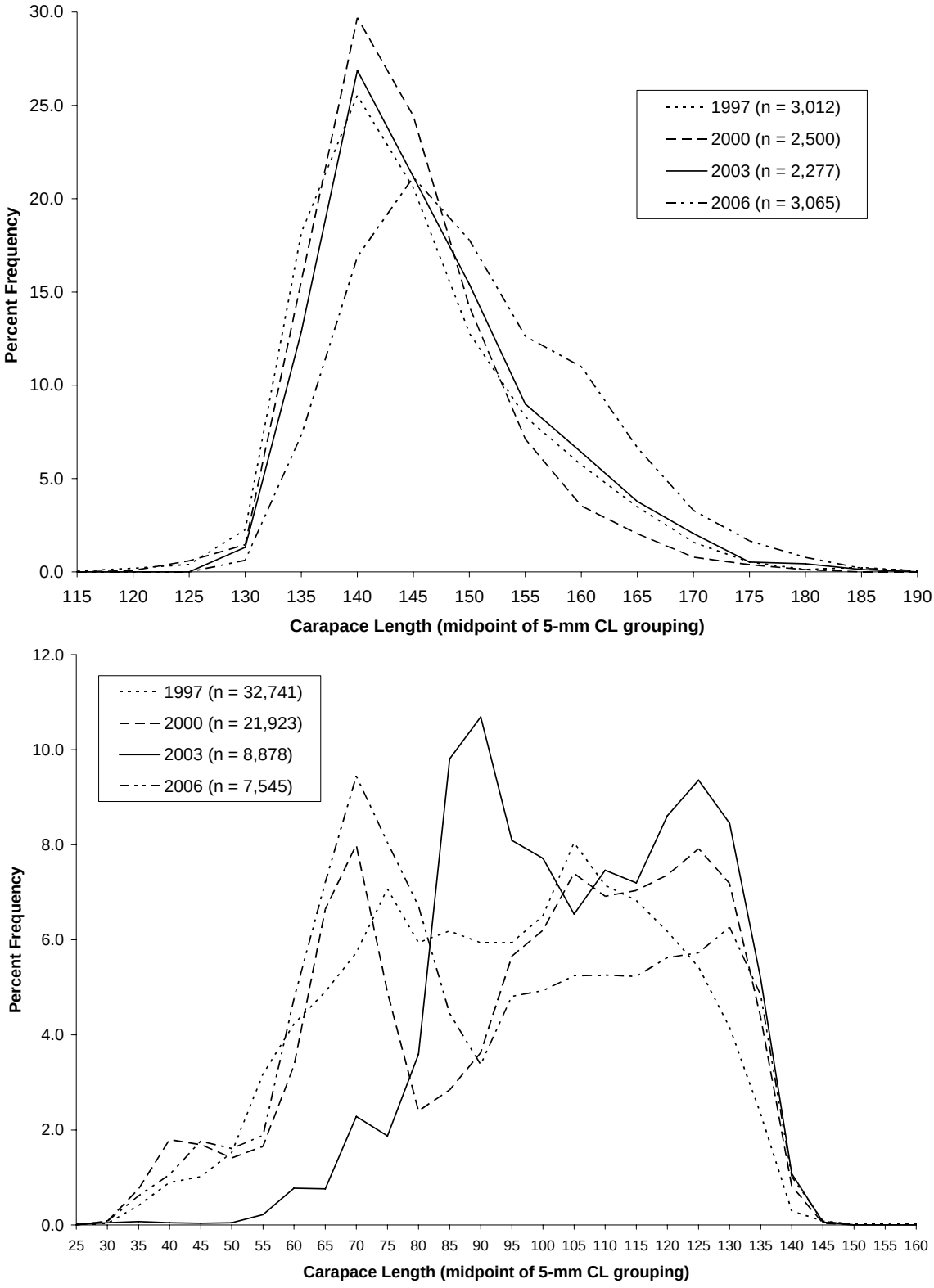

Figure 16.–Legal male (top) and sublegal male (bottom) golden king crab carapace length distributions from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

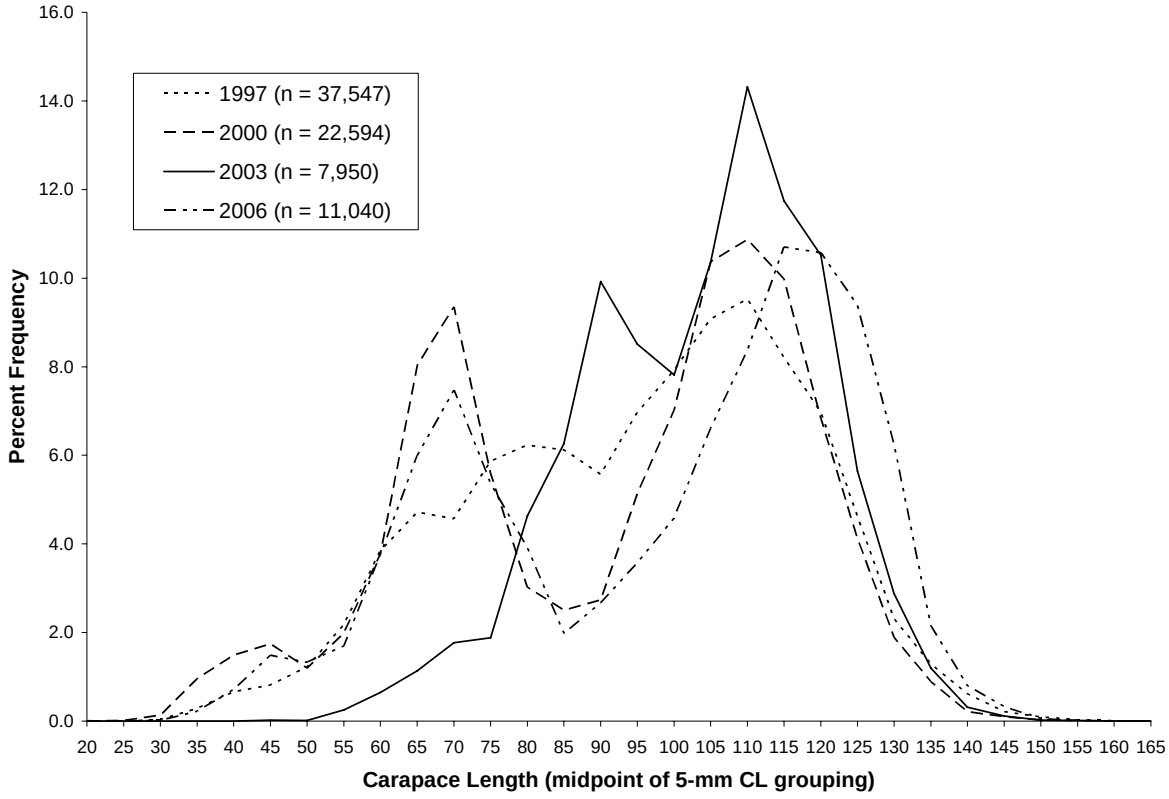

Figure 17.–Female golden king crab carapace length distributions from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

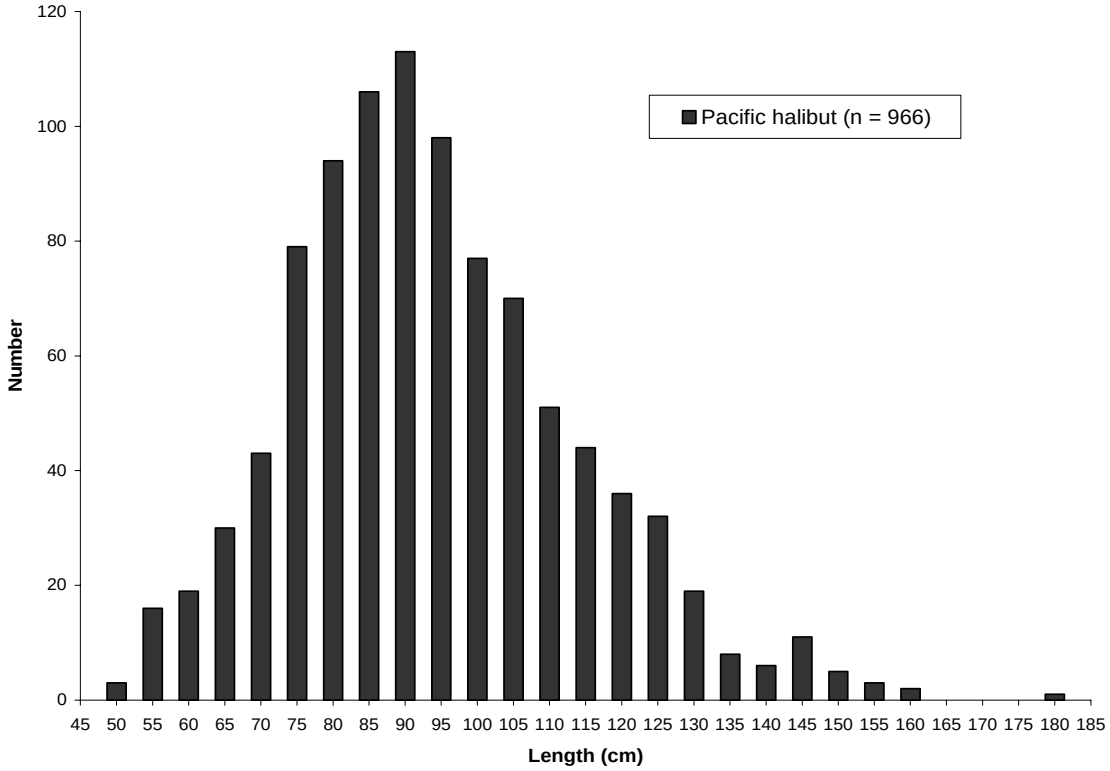

Figure 18.–Pacific halibut length distributions from the 2006 Aleutian Islands survey.

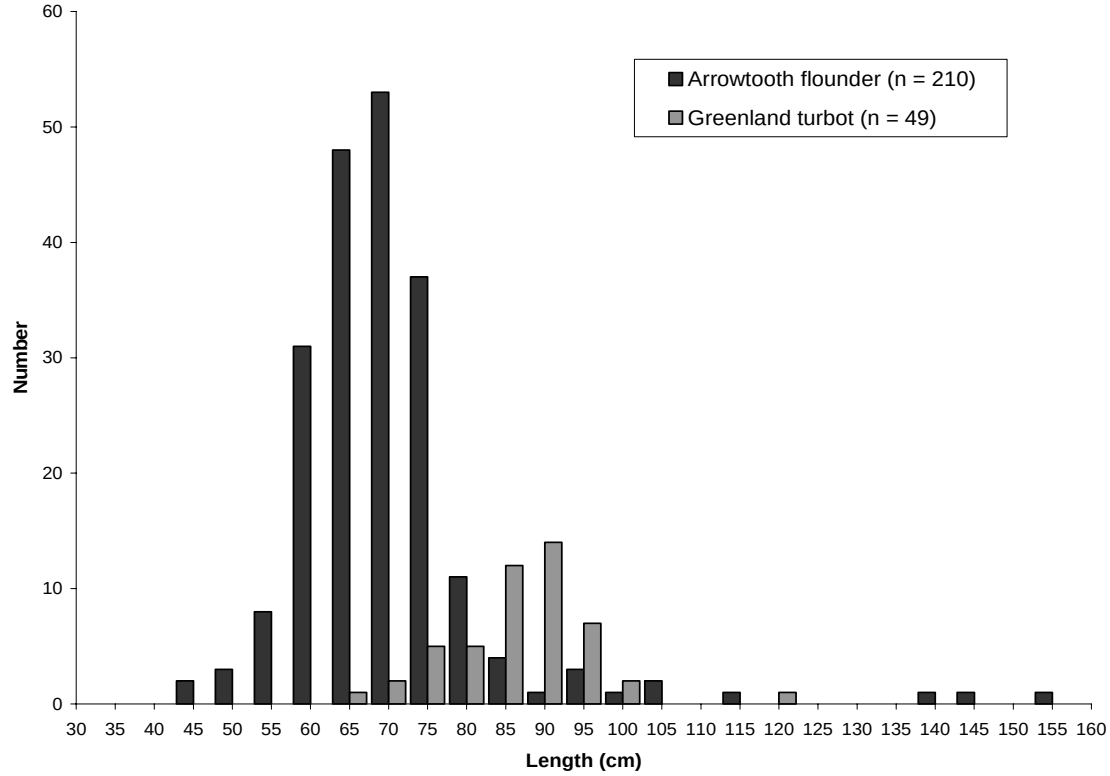

Figure 19.–Arrowtooth flounder and Greenland turbot length distributions from the 2006 Aleutian Islands survey.

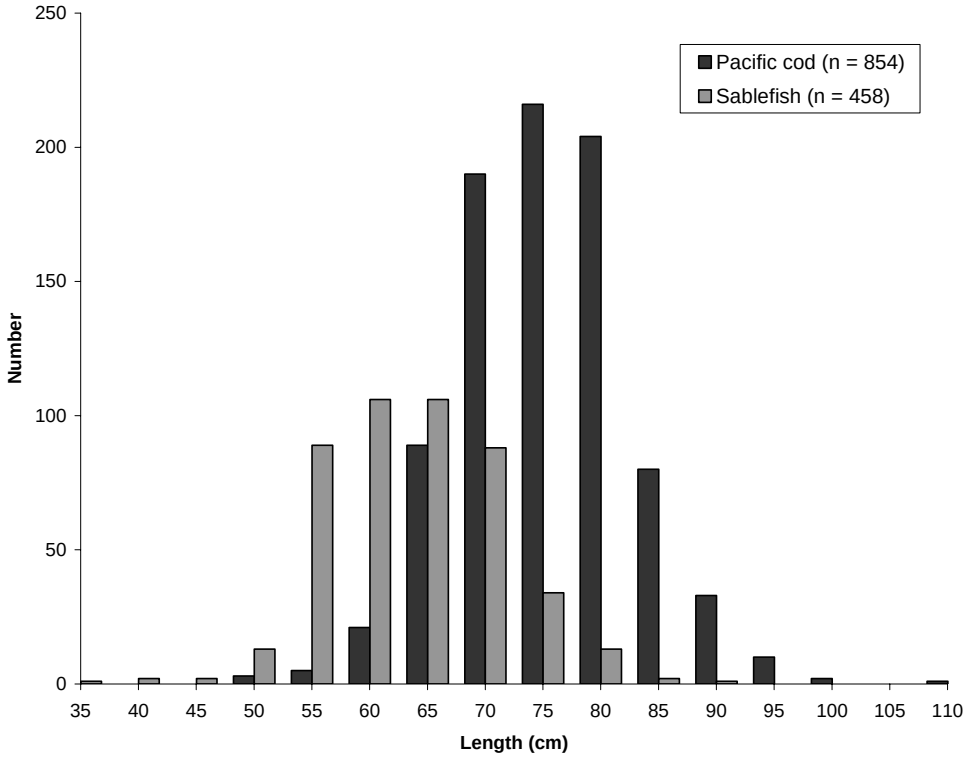

Figure 20.–Pacific cod and sablefish length distributions from the 2006 Aleutian Islands survey.

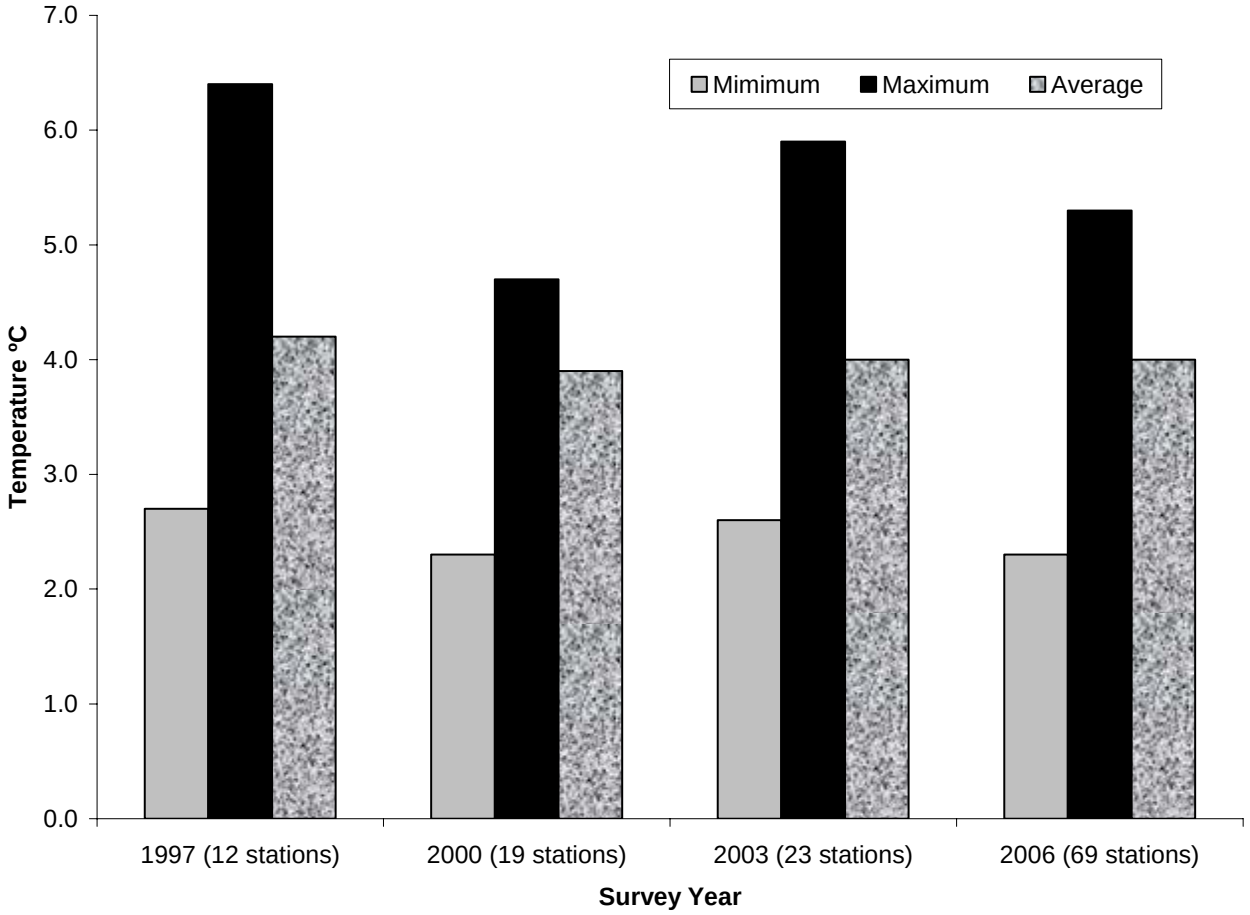

Figure 21.–Comparison of the minimum, maximum, and average temperatures (ºC) from submersible temperature-depth recorders deployed during the 1997, 2000, 2003, and 2006 Aleutian Islands triennial golden king crab surveys

APPENDIX A. GOLDEN KING CRAB CATCH

Appendix A1.–Golden king crab catch, catch per unit effort (CPUE), and tagging effort by station from the 2006 Aleutian Islands survey.

			Average						Legal Males			Sublegal Males			Females		
	Set		Soak	Depth	N latitude		W longitude										
Station	Date	Pots	Days	(fms)	Degrees	Minutes	Degrees	Minutes	Number	CPUE	Tagged	Number	CPUE	Tagged	Number	CPUE	Tagged
1	7/11	10	3.0	406	52	59.92	171	9.01	0	0.0	0	446	44.6	1	616	61.6	1
2	7/5	10	2.0	247	52	59.76	170	28.44	118	11.8	111	133	13.3	80	75	7.5	21
3	7/5	10	3.0	107	53	0.29	170	19.79	135	13.5	124	111	11.1	82	51	5.1	15
9	7/14	10	3.0	448	52	55.20	171	24.91	29	2.9	28	311	31.1	45	173	17.3	9
10	7/11	10	3.0	148	52	55.30	171	16.75	36	3.6	35	113	11.3	66	155	15.5	50
11[a]	7/11	9	3.0	151	52	55.19	171	8.87	50	5.6	46	466	51.8	49	447	49.7	31
12[b]	7/11	10	15.0	370	52	54.97	171	1.19									
14	7/7	10	3.0	347	52	55.26	170	35.92	27	2.8	25	410	41.0	7	407	40.7	2
15	7/5	10	2.0	142	52	54.95	170	28.36	53	5.3	49	80	8.0	48	891	89.1	207
16	7/6	10	2.0	116	52	55.04	170	20.00	120	12.0	100	62	6.2	55	15	1.5	6
21	7/14	10	4.0	143	52	50.57	171	33.55	153	15.3	141	266	26.6	166	1,353	135.3	154
22	7/14	10	3.0	100	52	49.91	171	24.48	111	11.1	104	324	32.4	166	698	69.8	94
23	7/14	10	2.0	95	52	50.51	171	16.94	30	3.0	26	180	18.0	115	107	10.7	32
24	7/12	10	2.0	121	52	50.04	171	8.76	21	2.1	15	191	19.1	81	94	9.4	27
25	7/10	10	2.0	393	52	50.08	171	0.86	15	1.5	14	685	68.5	7	814	81.4	0
26	7/8	10	2.0	407	52	50.28	170	52.55	1	0.1	1	552	55.2	0	581	58.1	0
27	7/8	10	3.0	284	52	50.00	170	44.29	64	6.4	54	29	2.9	21	13	1.3	7
28	7/8	10	2.0	214	52	50.07	170	36.42	55	5.5	46	11	1.1	7	334	33.4	76
29	7/6	10	3.0	115	52	50.04	170	28.63	22	2.2	15	10	1.0	9	15	1.5	6
30	7/6	10	2.0	128	52	49.77	170	19.91	27	2.7	24	8	0.8	8	0	0.0	0
37	7/14	10	4.0	89	52	45.44	171	33.07	118	11.8	108	173	17.3	121	575	57.5	104
38	7/16	10	2.0	85	52	45.10	171	25.27	62	6.2	59	123	12.3	89	139	13.9	37
39	7/18	10	2.0	87	52	45.19	171	16.84	78	7.8	72	396	39.6	230	95	9.5	27
40	7/18	10	2.0	289	52	45.16	171	8.90	69	6.9	63	384	38.4	95	187	18.7	13
41	7/10	10	6.0	374	52	44.58	171	1.00	3	0.3	3	274	27.4	8	211	21.1	1
42	7/10	10	3.0	286	52	45.32	170	52.91	24	2.4	21	6	0.6	5	2	0.2	1
43	7/8	10	3.0	169	52	45.10	170	44.35	16	1.6	14	6	0.6	4	14	1.4	6
44	7/9	10	2.0	92	52	45.04	170	35.89	0	0.0	0	0	0.0	0	0	0.0	0

-continued-

Appendix A1.–Page 2 of 3.

			Average														
	Set		Soak	Depth	N latitude		W longitude		Legal Males			Sublegal Males			Females		
Station	Date	Pots	Days	(fms)	Degrees	Minutes	Degrees	Minutes	Number	CPUE	Tagged	Number	CPUE	Tagged	Number	CPUE	Tagged
45	7/9	10	7.0	178	52	45.28	170	28.53	20	2.0	19	4	0.4	4	16	1.6	5
46	7/29	10	2.0	141	52	44.71	170	20.33	10	1.0	7	2	0.2	1	0	0.0	0
54	7/30	10	2.0	258	52	40.21	171	33.23	38	3.8	29	9	0.9	6	0	0.0	0
55	7/16	10	2.0	281	52	40.22	171	24.93	135	13.5	127	310	31.0	172	515	51.5	22
56	7/17	10	2.0	200	52	40.55	171	16.81	67	6.7	62	154	15.4	86	151	15.1	37
57	7/19	10	2.0	305	52	39.90	171	8.94	26	2.6	23	15	1.5	13	0	0.0	0
58	7/18	10	6.0	273	52	40.09	171	0.58	109	10.9	103	33	3.3	26	3	0.3	2
59	7/29	10	2.0	122	52	40.48	170	52.45	3	0.3	3	1	0.1	1	51	5.1	16
60	7/27	10	2.0	115	52	39.90	170	28.27	0	0.0	0	0	0.0	0	0	0.0	0
61	7/27	10	2.0	171	52	40.08	170	20.35	14	1.4	13	0	0.0	0	0	0.0	0
69	7/30	10	2.0	254	52	35.41	171	33.11	15	1.5	15	10	1.0	10	5	0.5	0
70	7/18	10	3.0	241	52	35.46	171	25.06	4	0.4	4	0	0.0	0	0	0.0	3
72	7/18	10	2.0	282	52	34.69	171	0.93	21	2.1	17	2	0.2	2	2	0.2	2
74	7/27	10	2.0	137	52	34.55	170	28.84	0	0.0	0	0	0.0	0	0	0.0	0
75	7/26	10	3.0	189	52	34.57	170	21.13	7	0.7	7	0	0.0	0	2	0.2	1
91	7/30	10	2.0	289	52	29.59	171	32.61	32	3.2	31	17	1.7	12	7	0.7	2
92	7/19	10	2.0	178	52	29.90	171	25.15	19	1.9	19	9	0.9	7	6	0.6	3
94	7/28	10	2.0	227	52	30.09	171	0.72	17	1.7	16	4	0.4	3	0	0.0	0
95	7/28	10	2.0	157	52	30.22	170	52.61	20	2.0	17	3	0.3	2	23	2.3	9
96	7/25	10	3.0	76	52	30.01	170	44.87	0	0.0	0	0	0.0	0	0	0.0	0
97	7/25	10	3.0	139	52	29.64	170	37.13	2	0.2	2	0	0.0	0	0	0.0	0
98	7/25	10	3.0	153	52	30.56	170	28.19	13	1.3	13	2	0.2	2	1	0.1	1
99	7/26	10	2.0	145	52	30.50	170	20.56	22	2.2	21	1	0.1	1	2	0.2	1
114	7/30	10	2.0	274	52	24.55	171	33.19	85	8.5	83	39	3.9	37	259	25.9	63
116	7/28	10	2.0	162	52	24.83	171	9.06	7	0.7	6	1	0.1	0	2	0.2	1
117	7/28	10	2.0	232	52	24.75	171	1.01	1	0.1	1	0	0.0	0	0	0.0	0
118	7/22	10	2.0	209	52	25.14	170	52.71	4	0.4	4	1	0.1	1	2	0.2	1
119	7/20	10	3.0	155	52	24.95	170	44.91	18	1.8	14	27	2.7	18	26	2.6	9

-continued-

Appendix A1.–Page 3 of 3.

			Average														
	Set		Soak	Depth	N latitude		W longitude		Legal Males			Sublegal Males			Females		
Station	Date	Pots	Days	(fms)	Degrees	Minutes	Degrees	Minutes	Number	CPUE	Tagged	Number	CPUE	Tagged	Number	CPUE	Tagged
120	7/23	10	2.0	173	52	25.08	170	36.63	11	1.1	10	5	0.5	5	2	0.2	2
121	7/25	10	2.0	258	52	24.98	170	28.59	1	0.1	1	0	0.0	0	1	0.1	0
122	7/24	10	2.0	133	52	25.63	170	19.98	88	8.8	81	8	0.8	7	165	16.5	45
123	7/31	10	2.0	104	52	25.43	170	11.92	5	0.5	4	0	0.0	0	0	0.0	0
124	7/31	10	2.0	131	52	25.07	170	4.21	41	4.1	39	2	0.2	1	276	27.6	76
139	7/29	10	2.0	320	52	20.39	171	8.90	1	0.1	1	12	1.2	5	6	0.6	3
140	7/29	10	2.0	264	52	20.20	170	0.73	79	7.9	75	158	15.8	99	51	5.1	17
141	7/22	10	2.0	176	52	19.85	170	52.68	73	7.3	68	277	27.7	152	351	35.1	71
142	7/21	10	2.0	102	52	19.92	170	44.91	43	4.3	39	65	6.5	50	87	8.7	26
143	7/23	10	2.0	120	52	20.03	170	36.54	39	3.9	32	31	3.1	27	25	2.5	8
144	7/25	10	2.0	334	52	20.06	170	28.72	3	0.3	2	444	44.4	0	459	45.9	0
145	7/25	10	2.0	248	52	20.05	170	20.45	85	8.5	78	8	0.8	6	41	4.1	12
146	7/31	10	2.0	285	52	20.33	170	11.84	1	0.1	1	0	0.0	0	2	0.2	0
147	7/31	10	2.0	241	52	20.29	170	4.94	7	0.7	7	0	0.0	0	0	0.0	0
159	7/22	10	2.0	206	52	15.48	170	52.46	362	36.2	335	135	13.5	105	358	35.8	32
160	7/21	10	2.0	128	52	15.12	170	44.66	46	4.6	44	8	0.8	8	54	5.4	16
161	7/23	10	2.0	154	52	14.75	170	36.57	34	3.4	28	2	0.2	2	37	3.7	11
Totals:		729	2.6	204					3,065	4.3	2,799	7,550	10.4	2,436	11,050	15.2	1,424

[a] One pot was lost during retrieval.

[b] Station 12 contained high catches of male and female juvenile golden king crabs but was not sampled due to unsafe deck conditions. A total of 62 legal male crabs were enumerated from station 12 pot contents, but are not included in analysis because of the excessive 15-day soak time.

APPENDIX B. LEGAL MALE GOLDEN KING CRAB CATCH

Appendix B1.–Legal male golden king crab catch, catch per unit effort (CPUE), and tagging effort by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
1	0	39	34	0	73	0.0	3.9	3.4	0.0	1.8	0	1	34	0	35
2	64	24	107	118	313	6.4	2.4	10.7	11.8	7.8	55	23	103	111	292
3	nf[d]	53	45	135	233	nf	5.3	4.5	13.5	7.8	nf	48	45	124	217
4	nf	nf	46	nf	46	nf	nf	4.6	nf	4.6	nf	nf	31	-	31
5	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	0	-	0
9	92	88	85	29	294	10.2	8.8	8.5	2.9	7.6	90	85	81	28	284
10	34	20	53	36	143	3.4	2.0	5.3	3.6	3.6	33	20	51	35	139
11	32	26	34	50	142	3.2	2.6	3.4	5.6	3.7	32	26	32	46	136
12	1	1	6	-	8	0.1	0.1	0.6	-	0.3	1	1	6	-	8
13	0	nf	nf	nf	0	0.0	nf	nf	nf	0.0	0	-	-	-	0
14	3	33	3	27	66	0.3	3.4	0.3	2.8	1.7	3	32	3	25	63
15	19	20	21	53	113	1.9	2.0	1.9	5.3	2.8	19	20	18	49	106
16	27	7	31	120	185	2.7	0.7	3.4	12.0	4.7	27	7	26	100	160
17	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
21	50	51	45	153	299	5.0	5.1	4.5	15.3	7.5	49	51	44	141	285
22	34	24	23	111	192	3.4	3.0	2.3	11.1	5.0	34	23	22	104	183
23	39	49	13	30	131	3.9	4.9	1.3	3.0	3.3	38	48	13	26	125
24	30	43	20	21	114	3.0	4.3	2.0	2.1	2.9	28	42	20	15	105
25	8	5	29	15	57	0.8	0.6	3.2	1.5	1.5	5	5	27	14	51
26	1	1	84	1	87	0.1	0.1	9.3	0.1	2.4	1	1	84	1	87
27	82	73	75	64	294	8.2	7.3	7.5	6.4	7.4	80	72	75	54	281
28	71	28	8	55	162	7.1	2.8	0.8	5.5	4.1	70	24	8	46	148
29	15	18	12	22	67	1.5	1.8	1.2	2.2	1.7	15	18	11	15	59
30	44	10	9	27	90	4.4	1.0	0.9	2.7	2.3	44	10	9	24	87
37	31	33	26	118	208	3.5	3.3	2.9	11.8	5.4	29	33	26	108	196
38	15	34	27	62	138	1.7	3.4	3.0	6.2	3.6	15	32	26	59	132
39	10	6	40	78	134	1.0	0.6	4.4	7.8	3.5	10	3	39	72	124
40	23	37	53	69	182	2.3	3.7	5.3	6.9	4.6	22	37	53	63	175

-continued-

Appendix B1.–Page 2 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
41	2	11	3	3	19	0.2	1.2	0.3	0.3	0.5	2	11	3	3	19
42	90	42	35	24	191	9.0	4.2	3.5	2.4	4.8	90	41	33	21	185
43	11	25	54	16	106	1.2	2.5	5.4	1.6	2.7	11	23	53	14	101
44	0	0	1	0	1	0.0	0.0	0.1	0.0	0.0	0	0	1	0	1
45	12	7	18	20	57	1.2	0.7	1.8	2.0	1.4	12	7	18	19	56
46	1	1	1	10	13	0.1	0.1	0.1	1.0	0.3	1	1	1	7	10
54	nf	84	17	38	139	nf	8.4	1.9	3.8	4.7	-	30	17	29	76
55	70	91	38	135	334	7.0	9.1	3.8	13.5	8.4	70	91	38	127	326
56	101	63	131	67	362	10.1	6.3	14.6	6.7	9.4	99	61	131	62	353
57	38	23	30	26	117	3.8	2.3	3.0	2.6	2.9	38	23	30	23	114
58[e]	56	45	69	109	279	5.6	5.6	3.5	10.9	6.4	56	44	68[f]	103	271
59[e]	37	32	52	3	124	3.7	3.6	2.7	0.3	2.6	37	31	50[f]	3	121
60	58	55	37	0	150	5.8	5.5	3.7	0.0	3.8	57	53	35	0	145
61	59	6	8	14	87	5.9	0.6	0.8	1.4	2.2	59	6	8	13	86
69	nf	31	17	15	63	nf	3.1	1.7	1.5	2.1	nf	0	17	15	32
70	46	98	13	4	161	4.6	9.8	1.3	0.4	4.0	46	98	13	4	161
72[e]	291	80	38	21	430	29.1	8.0	1.9	2.1	10.3	291	78	36[f]	17	422
73	0	nf	47	nf	47	0.0	nf	4.7	nf	2.4	0	-	47	-	47
74[g]	63	20	0	0	83	6.3	2.0	0.0	0.0	2.1	61	38[f]	0	0	99
75[g]	34	17	3	7	61	3.4	1.7	0.3	0.7	1.5	34	30[f]	3	7	74
77	nf	nf	12	nf	12	nf	nf	1.2	nf	1.2	-	-	12	-	12
91	nf	235	19	32	286	nf	23.5	1.9	3.2	9.5	-	0	19	31	50
92	33	85	10	19	147	3.3	8.5	1.0	1.9	3.7	32	85	10	19	146
93	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
94[e]	46	150	39	17	252	5.0	15.0	2.0	1.7	5.9	46	147	39[f]	16	248
95[e]	91	72	28	20	211	9.1	7.2	1.5	2.0	5.0	89	71	28[f]	17	205
96[g]	23	9	0	0	32	2.3	0.9	0.0	0.0	0.8	23	17[f]	0	0	40

-continued-

Appendix B1.–Page 3 of 4.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
97[g]	42	16	5	2	65	4.2	1.6	0.5	0.2	1.6	42	27[f]	5	2	76
98	34	17	37	13	101	3.4	1.7	3.7	1.3	2.5	32	17	37	13	99
99	52	21	31	22	126	5.2	2.1	3.1	2.2	3.2	45	21	31	21	118
100	nf	nf	4	nf	4	nf	nf	0.4	nf	0.4	-	-	4	-	4
101	nf	nf	1	nf	1	nf	nf	0.1	nf	0.1	-	-	0	-	0
114	nf	147	47	85	279	nf	14.7	5.9	8.5	9.7	-	0	46	83	129
115	35	nf	nf	nf	35	3.9	nf	nf	nf	3.9	35	-	-	-	35
116[e,g]	71	28	2	7	108	7.1	2.8	0.1	0.7	2.7	71	51[f]	2[f]	6	130
117	34	1	0	1	36	3.4	0.1	0.0	0.1	0.9	34	1	0	1	36
118	11	1	3	4	19	1.1	0.1	0.3	0.4	0.5	11	1	3	4	19
119	21	6	33	18	78	2.1	0.6	3.3	1.8	2.0	21	6	32	14	73
120	23	25	51	11	110	2.3	2.5	5.1	1.1	2.8	23	24	51	10	108
121	75	20	42	1	138	7.5	2.0	4.7	0.1	3.6	74	20	41	1	136
122	21	11	27	88	147	2.1	1.2	2.7	8.8	3.7	20	11	27	81	139
123	52	nf	2	5	59	5.2	nf	0.2	0.5	2.0	51	-	2	4	57
124	29	nf	16	41	86	2.9	nf	1.6	4.1	2.9	28	-	15	39	82
125	43	nf	nf	nf	43	4.3	nf	nf	nf	4.3	43	-	-	-	43
126	12	nf	nf	nf	12	1.2	nf	nf	nf	1.2	12	-	-	-	12
136	nf	nf	40	nf	40	nf	nf	4.4	nf	4.4	-	-	40	-	40
137	nf	nf	22	nf	22	nf	nf	2.4	nf	2.4	-	-	22	-	22
138	nf	nf	42	nf	42	nf	nf	4.2	nf	4.2	-	-	42	-	42
139[e]	nf	17	18	1	36	nf	1.7	0.9	0.1	0.9	-	17	18[f]	1	36
140	nf	42	25	79	146	nf	4.2	2.5	7.9	4.9	-	42	25	75	142
141	56	23	50	73	202	5.6	2.3	5.0	7.3	5.1	55	19	50	68	192
142	34	11	1	43	89	3.4	1.1	0.1	4.3	2.2	34	9	1	39	83
143	55	18	17	39	129	5.5	1.8	1.7	3.9	3.2	53	17	15	32	117
144	22	5	13	3	43	2.2	0.5	1.3	0.3	1.1	22	2	13	2	39
145	151	17	3	85	256	16.8	1.7	0.3	8.5	6.8	143	13	3	78	237

-continued-

Appendix B1.–Page 4 of 4.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
146	7	nf	19	1	27	0.7	nf	1.9	0.1	0.9	7	-	18	1	26
147	28	nf	1	7	36	2.8	nf	0.1	0.7	1.2	26	-	0	7	33
159	157	48	36	362	603	15.7	4.8	3.6	36.2	15.1	149	44	34	335	562
160	36	13	18	46	113	3.6	1.3	1.8	4.6	2.8	35	12	18	44	109
161	24	9	23	34	90	2.4	1.0	2.3	3.4	2.3	23	9	21	28	81
Totals:	3,012	2,501	2,278	3,065	10,856	4.3	3.4	2.6	4.3	3.6	2,943	2,011	2,213	2,799	9,966

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.
[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.
[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.
[d] nf – station was not fished that survey year.
[e] Station was sampled twice in 2003.
[f] value represents the combined number of crabs tagged from the two samplings of the station.
[g] Station was sampled twice in 2000.

APPENDIX C. SUBLEGAL MALE GOLDEN KING CRAB CATCH

Appendix C1.–Sublegal male golden king crab catch, catch per unit effort (CPUE), and tagging effort by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
1	1,058	951	275	446	2,730	117.6	95.1	27.5	44.6	71.2	5	2	153	1	161
2	2,152	52	106	133	2,443	215.2	5.2	10.6	13.3	61.1	114	34	73	80	301
3	nf[d]	232	44	111	387	nf	23.2	4.4	11.1	12.9	-	204	43	82	329
4	nf	nf	16		16	nf	nf	1.6	nf	1.6	-	-	9	-	9
5	nf	nf	0		0	nf	nf	0.0	nf	0.0	-	-	0	-	0
9	1,150	479	268	311	2,208	127.8	47.9	26.8	31.1	58.4	327	245	202	45	819
10	372	206	119	113	810	37.2	20.6	11.9	11.3	20.3	107	72	98	66	343
11	527	353	201	466	1,547	52.7	35.3	20.1	51.8	40.0	108	107	135	49	399
12	1,538	1,362	1,051	-	3,951	153.8	136.2	105.1	-	131.7	9	1	48	-	58
13	886	nf	nf	nf	886	88.6	nf	nf	nf	88.6	5	nf	-	-	5
14	1,752	297	6	410	2,465	175.2	29.7	0.6	41.0	61.6	7	18	3	7	35
15	262	88	40	80	470	26.2	8.8	3.6	8.0	11.7	65	67	35	48	215
16	290	16	21	62	389	29.0	1.6	2.3	6.2	9.8	71	16	20	55	162
17	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	nf	0	-	0
21	476	924	203	266	1,869	47.6	92.4	20.3	26.6	46.7	61	235	129	166	591
22	391	601	194	324	1,510	39.1	30.1	19.4	32.4	30.3	80	226	120	166	592
23	698	1,377	209	180	2,464	69.8	137.7	20.9	18.0	61.6	55	402	121	115	693
24	664	1,557	246	191	2,658	66.4	155.7	24.6	19.1	66.5	131	159	160	81	531
25	2,471	2,898	456	685	6,510	247.1	322.0	50.7	68.5	172.1	40	51	302	7	400
26	1,107	850	44	552	2,553	110.7	85.0	4.9	55.2	63.9	11	7	41	0	59
27	278	58	40	29	405	27.8	5.8	4.0	2.9	10.1	114	53	31	21	219
28	709	81	19	11	820	70.9	8.1	1.9	1.1	20.5	168	67	16	7	258
29	104	42	7	10	163	10.4	4.2	0.7	1.0	4.1	50	40	7	9	106
30	434	28	11	8	481	43.4	2.8	1.1	0.8	12.0	220	28	11	8	267
37	346	326	135	173	980	38.5	32.6	15.0	17.3	25.9	56	127	97	121	401
38	273	604	187	123	1,187	30.4	60.4	20.8	12.3	31.0	22	411	139	89	661
39	513	370	340	396	1,619	51.3	37.0	37.8	39.6	41.4	25	346	254	230	855
40	2,131	359	2,831	384	5,705	213.1	35.9	283.1	38.4	142.6	50	95	341	95	581

-continued-

Appendix C1.–Page 2 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
41	51	1,127	37	274	1,489	5.1	125.3	3.7	27.4	40.4	9	48	3	8	68
42	114	48	8	6	176	11.4	4.8	0.8	0.6	4.4	64	43	8	5	120
43	112	59	36	6	213	12.5	5.9	3.6	0.6	5.7	33	53	30	4	120
44	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
45	27	9	4	4	44	2.7	0.9	0.4	0.4	1.1	16	9	4	4	33
46	0	1	1	2	4	0.0	0.1	0.1	0.2	0.1	0	1	1	1	3
54	nf	315	36	9	360	nf	31.5	4.0	0.9	12.1	-	57	33	6	96
55	805	839	145	310	2,099	80.5	83.9	14.5	31.0	52.5	56	278	112	172	618
56	2,756	665	299	154	3,874	275.6	66.5	33.2	15.4	97.7	83	153	238	86	560
57	1,278	121	48	15	1,462	127.8	12.1	4.8	1.5	36.6	22	22	37	13	94
58[e]	643	78	26	33	780	64.3	9.8	1.3	3.3	19.7	113	64	21[f]	26	224
59[e]	23	68	26	1	118	2.3	7.6	1.4	0.1	2.9	23	64	24[f]	1	112
60	51	93	1	0	145	5.1	9.3	0.1	0.0	3.6	48	83	1	0	132
61	22	5	2	0	29	2.2	0.5	0.2	0.0	0.7	18	5	2	0	25
69	nf	232	27	10	269	nf	23.2	2.7	1.0	9.0	-	0	26	10	36
70	364	319	8	0	691	36.4	31.9	0.8	0.0	17.3	32	186	8	0	226
72[e]	584	86	16	2	688	58.4	8.6	0.8	0.2	17.0	57	55	14[f]	2	128
73	0	nf	7	nf	7	0.0	nf	0.7	nf	0.4	0	nf	7	-	7
74[g]	100	35	0	0	135	10.0	3.5	0.0	0.0	3.4	81	68[f]	0	0	149
75[g]	22	7	2	0	31	2.0	0.7	0.2	0.0	0.7	10	13[f]	2	0	25
77	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
91	nf	582	13	17	612	nf	58.2	1.3	1.7	20.4	-	0	12	12	24
92	103	191	12	9	315	10.3	19.1	1.2	0.9	7.9	14	135	11	7	167
93	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	0	-	0
94[e]	104	669	37	4	814	10.0	67.0	1.9	0.4	19.8	13	282	28[f]	3	326
95[e]	157	460	26	3	646	16.0	46.0	1.4	0.3	15.9	95	185	25[f]	2	307
96[g]	10	8	0	0	18	1.0	0.8	0.0	0.0	0.5	10	13[f]	0	0	23

-continued-

Appendix C1.–Page 3 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
97[g]	57	16	0	0	73	5.7	1.6	0.0	0.0	1.8	45	30[f]	0	0	75
98	85	39	35	2	161	8.5	3.9	3.5	0.2	4.0	45	36	31	2	114
99	48	23	7	1	79	4.8	2.3	0.7	0.1	2.0	28	23	6	1	58
100	nf	nf	1	nf	1	nf	nf	0.1	nf	0.1	nf	nf	1	-	1
101	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	0	-	0
114	nf	230	18	39	287	nf	23.0	2.3	3.9	9.7	nf	0	17	37	54
115	157	nf	nf	nf	157	17.5	nf	nf	nf	17.5	74	nf	nf	-	74
116[e,g]	170	109	1	1	281	17.0	10.9	0.1	0.1	7.0	102	196[f]	1[f]	0	299
117	81	13	0	0	94	8.1	1.5	0.0	0.0	2.4	5	13	0	0	18
118	49	11	9	1	70	4.9	1.1	0.9	0.1	1.8	13	9	8	1	31
119	544	117	64	27	752	54.4	11.7	6.4	2.7	18.8	106	47	48	18	219
120	170	56	30	5	261	17.0	5.6	3.0	0.5	6.5	87	37	28	5	157
121	283	37	28	0	348	28.3	3.7	3.1	0.0	8.8	173	33	23	0	229
122	21	8	4	8	41	2.1	0.9	0.4	0.8	1.1	8	7	4	7	26
123	78	nf	0	0	78	7.8	nf	0.0	0.0	2.6	60	-	0	0	60
124	24	nf	1	2	27	2.4	nf	0.1	0.2	0.9	19	-	1	1	21
125	12	nf	nf	nf	12	1.2	nf	nf	nf	1.2	9	-	-	-	9
126	19	nf	nf	nf	19	1.9	nf	nf	nf	1.9	19	-	-	-	19
136	nf	nf	20	nf	20	nf	nf	2.2	nf	2.2	-	-	17	-	17
137	nf	nf	84	nf	84	nf	nf	9.3	nf	9.3	-	-	45	-	45
138	nf	nf	110	nf	110	nf	nf	11.0	nf	11.0	-	-	79	-	79
139[e]	nf	161	130	12	303	nf	16.1	6.8	1.2	8.0	-	69	85[f]	5	159
140	nf	259	130	158	547	nf	25.9	13.0	15.8	18.2	-	71	81	99	251
141	252	255	140	277	924	25.2	25.5	14.0	27.7	23.1	121	96	101	152	470
142	211	71	3	65	350	21.1	7.1	0.3	6.5	8.8	115	41	2	50	208
143	248	62	29	31	370	24.8	6.2	2.9	3.1	9.3	148	53	22	27	250
144	45	62	6	444	557	4.5	6.2	0.6	44.4	13.9	22	5	5	0	32
145	122	4	12	8	146	13.6	0.4	1.2	0.8	4.0	75	4	9	6	94

-continued-

Appendix C1.–Page 4 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
146	1	nf	3	0	4	0.1	nf	0.3	0.0	0.1	1	-	3	0	4
147	23	nf	0	0	23	2.3	nf	0.0	0.0	0.8	15	-	0	0	15
159	1,612	150	32	135	1,929	161.0	15.0	3.2	13.5	48.2	421	86	24	105	636
160	385	85	26	8	504	38.5	8.5	2.6	0.8	12.6	203	54	20	8	285
161	138	37	70	2	247	13.8	4.2	7.0	0.2	6.3	66	27	65	2	160
Totals:	32,743	21,933	8,879	7,550	71,105	46.9	30.1	9.9	10.5	24.4	4,678	5,767	3,961	2,436	16,842

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.
[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.
[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.
[d] nf – station was not fished that survey year.
[e] Station was sampled twice in 2003.
[f] value represents the combined number of crabs tagged from the two samplings of the station.
[g] Station was sampled twice in 2000.

APPENDIX D. FEMALE GOLDEN KING CRAB CATCH

Appendix D1.–Female golden king crab catch, catch per unit effort (CPUE), and tagging effort by station from the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
1	1,326	1,753	137	616	3,832	147.4	175.3	13.7	61.6	99.5	9	0	37	1	47
2	1,830	26	205	75	2,136	183.0	2.6	20.5	7.5	53.4	24	17	59	21	121
3	nf[d]	178	34	51	263	nf	17.8	3.4	5.1	8.8	-	129	34	15	178
4	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
5	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
9	682	115	795	173	1,765	75.8	11.5	79.5	17.3	46.0	0	0	139	9	148
10	581	204	86	155	1,026	58.1	20.4	8.6	15.5	25.7	10	0	26	50	86
11	770	306	162	447	1,685	77.0	30.6	16.2	49.7	43.4	10	0	42	31	83
12	1,519	1,614	875	-	4,008	151.9	161.4	87.5	-	133.6	15	0	26	-	41
13	634	nf	nf	nf	634	63.4	nf	nf	nf	63.4	0	-	-	-	0
14	1,853	200	4	407	2,464	185.3	20.0	0.4	40.7	61.6	1	9	0	2	12
15	254	123	178	891	1,446	25.4	12.3	16.2	89.1	35.8	26	104	0	207	337
16	99	0	0	15	114	9.9	0.0	0.0	1.5	2.9	9	0	1	6	16
17	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	53	-	53
21	1,812	2,181	465	1353	5,811	181.2	218.1	46.5	135.3	145.3	0	0	71	154	225
22	1,008	1,049	297	698	3,052	100.8	131.1	29.7	69.8	82.9	10	154	64	94	322
23	652	719	200	107	1,678	65.2	71.9	20.0	10.7	42.0	5	163	70	32	270
24	266	845	67	94	1,272	26.6	84.9	6.7	9.4	31.9	10	0	23	27	60
25	2,436	2,963	51	814	6,264	243.6	329.2	5.7	81.4	165.0	10	1	16	0	27
26	1,115	962	3	581	2,661	111.5	96.2	0.3	58.1	66.5	1	2	2	0	5
27	72	5	6	13	96	7.2	0.5	0.6	1.3	2.4	10	3	3	7	23
28	1,087	80	165	334	1,666	108.7	8.0	16.5	33.4	41.7	121	73	46	76	316
29	89	33	3	15	140	8.9	3.3	0.3	1.5	3.5	6	33	3	6	48
30	7	2	0	0	9	0.7	0.2	0.0	0.0	0.2	1	1	0	0	2
37	842	484	454	575	2,355	93.6	48.4	50.4	57.5	62.5	0	0	103	104	207
38	700	1,219	76	139	2,134	77.8	121.9	8.4	13.9	55.5	5	251	23	37	316
39	539	210	117	95	961	53.9	21.0	13.0	9.5	24.4	5	186	29	27	247
40	1,719	175	1,756	187	3,837	171.9	17.5	175.6	18.7	95.9	10	1	108	13	132

-continued-

Appendix D1.–Page 2 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
41	69	1,373	10	211	1,663	6.9	152.6	1.0	21.1	45.4	2	13	1	1	17
42	39	20	4	2	65	3.9	2.0	0.4	0.2	1.6	4	8	4	1	17
43	212	86	84	14	396	23.6	8.6	8.4	1.4	10.5	25	78	28	6	137
44	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
45	5	2	0	16	23	0.5	0.2	0.0	1.6	0.6	2	2	0	5	9
46	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
54	nf	42	6	0	48	nf	4.2	0.7	0.0	1.6	-	0	3	0	3
55	320	206	108	515	1,149	32.0	20.6	10.8	51.5	28.7	0	0	31	22	53
56	1,948	439	14	151	2,552	194.8	43.9	1.6	15.1	63.9	0	0	8	37	45
57	1,503	118	15	0	1,636	150.3	11.8	1.5	0.0	40.9	0	0	8	0	8
58[e]	641	35	78	3	757	64.1	4.4	3.9	0.3	18.2	10	16	25[f]	2	53
59[e]	38	164	48	51	301	3.8	18.2	2.5	5.1	7.4	10	31	15[f]	16	72
60	0	8	0	0	8	0.0	0.8	0.0	0.0	0.2	0	8	0	0	8
61	13	83	0	0	96	1.3	8.3	0.0	0.0	2.4	2	0	0	0	2
69	nf	0	8	5	13	nf	0.0	0.8	0.5	0.4	nf	0	4	0	4
70	494	91	1	0	586	49.4	9.1	0.1	0.0	14.7	0	0	1	3	4
72[e]	329	19	2	2	352	32.9	1.9	0.1	0.2	8.8	0	0	2[f]	2	4
73	0	nf	73	nf	73	0.0	nf	7.3	nf	3.7	0	-	20	-	20
74[g]	4	9	0	0	13	0.4	0.9	0.0	0.0	0.3	1	15[f]	0	0	16
75[g]	16	5	0	2	23	1.6	0.5	0.0	0.2	0.6	3	10[f]	0	1	14
77	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
91	nf	198	2	7	207	nf	19.8	0.2	0.7	6.9	-	0	2	2	4
92	251	230	2	6	489	25.1	23.0	0.2	0.6	12.2	0	0	2	3	5
93	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
94[e]	27	351	4	0	382	2.7	35.1	0.2	0.0	9.5	0	50	4[f]	0	54
95[e]	959	1,077	111	23	2,170	95.9	107.7	5.8	2.3	52.9	30	79	32[f]	9	150
96[g]	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

-continued-

Appendix D1.–Page 3 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
97[g]	1	2	0	0	3	0.1	0.2	0.0	0.0	0.1	0	3[f]	0	0	3
98	201	35	37	1	274	20.1	3.5	3.7	0.1	6.9	16	32	19	1	68
99	671	38	25	2	736	37.1	3.8	2.5	0.2	10.9	118	31	10	1	160
100	nf	nf	4	nf	4	nf	nf	0.4	nf	0.4	-	-	4	-	4
101	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	-	-	0	-	0
114	nf	1,265	18	259	1,542	nf	126.5	2.3	25.9	51.6	-	0	6	63	69
115	610	nf	nf	nf	610	67.8	nf	nf	nf	67.8	30	-	-	-	30
116[e,g]	753	328	1	2	1,084	75.3	32.8	0.1	0.2	27.1	30	397[f]	0	1	428
117	51	2	0	0	53	5.1	0.2	0.0	0.0	1.3	0	2	0	0	2
118	24	7	3	2	36	2.4	0.7	0.3	0.2	0.9	2	1	3	1	7
119	798	163	39	26	1,026	79.8	16.3	3.9	2.6	25.7	150	47	19	9	225
120	273	41	16	2	332	27.3	4.1	1.6	0.2	8.3	98	31	10	2	141
121	127	7	9	1	144	127.0	0.7	1.0	0.1	32.2	48	5	9	0	62
122	543	77	42	165	827	54.3	8.6	4.2	16.5	20.9	168	25	22	45	260
123	95	nf	3	0	98	9.5	nf	0.3	0.0	3.3	33	-	3	0	36
124	210	nf	95	276	581	21.0	nf	9.5	27.6	19.4	79	-	32	76	187
125	1	nf	nf	nf	1	0.1	nf	nf	nf	0.1	1	-	-	-	1
126	0	nf	nf	nf	0	0.0	nf	nf	nf	0.0	0	-	-	-	0
136	nf	nf	39	nf	39	nf	nf	4.3	nf	4.3	-	-	16	-	16
137	nf	nf	99	nf	99	nf	nf	11.0	nf	11.0	-	-	31	-	31
138	nf	nf	153	nf	153	nf	nf	15.3	nf	15.3	-	-	42	-	42
139[e]	nf	64	32	6	102	nf	6.4	1.7	0.6	2.9	-	23	13	3	39
140	nf	84	36	51	171	nf	8.4	3.6	5.1	5.7	-	22	13	17	52
141	137	171	118	351	777	13.7	17.1	11.8	35.1	19.4	17	28	33	71	149
142	535	49	5	87	676	53.5	4.9	0.5	8.7	16.9	175	21	5	26	227
143	620	49	21	25	715	62.0	4.9	2.1	2.5	17.9	97	25	11	8	141
144	5	56	2	459	522	0.5	5.6	0.2	45.9	13.1	1	4	1	0	6
145	162	21	11	41	235	18.0	2.1	1.1	4.1	6.3	54	17	8	12	91

-continued-

Appendix D1.–Page 4 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
146	0	nf	12	2	14	0.0	nf	1.2	0.2	0.5	0	-	9	0	9
147	12	nf	0	0	12	1.2	nf	0.0	0.0	0.4	3	-	0	0	3
159	1,465	21	386	358	2,230	146.5	2.1	38.6	41.8	55.8	195	7	75	32	309
160	882	77	39	54	1,052	88.2	7.7	3.9	5.4	26.3	280	24	16	16	336
161	614	36	14	37	701	61.4	4.0	1.4	3.7	17.6	154	10	7	11	182
Totals:	37,550	22,595	7,965	11,050	79,160	53.4	31.0	8.9	15.5	27.2	2,136	2,192	1,585	1,424	7,337

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.

[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.

[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.

[d] nf – station was not fished that survey year.

[e] Station was sampled twice in 2003.

[f] value represents the combined number of crabs tagged from the two samplings of the station.

[g] Station was sampled twice in 2000.

APPENDIX E. TOTAL CATCH FOR ALL GOLDEN KING CRABS

Appendix E1.–Total catch, catch per unit effort (CPUE), and tagging effort by station for all golden king crabs captured in the 1997, 2000, 2003, and 2006 Aleutian Islands surveys.

	Number Caught					CPUE					Number Tagged				
Station	1997[a]	2000[b]	2003[c]	2,006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
1	2,384	2,743	446	1,062	6,635	265.0	274.3	44.6	106.2	172.5	14	3	224	2	243
2	4,046	102	418	326	4,892	404.6	10.2	41.8	32.6	122.3	193	74	235	212	714
3	nf[d]	463	123	297	883	nf	46.3	12.3	29.7	29.4	nf	381	122	221	724
4	nf	nf	62	nf	62	nf	nf	6.2	nf	6.2	nf	nf	40	0	40
5	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	0	0	0
9	1,924	682	1,148	513	4,267	213.8	68.2	114.8	51.3	112.0	417	330	422	82	1,251
10	987	430	258	304	1,979	98.7	43.0	25.8	30.4	49.5	150	92	175	151	568
11	1,329	685	397	963	3,374	132.9	68.5	39.7	107.0	87.0	150	133	209	126	618
12[e]	3,058	2,977	1,932	-	7,967	305.8	297.7	193.2	-	265.6	25	2	80	0	107
13	1,520	nf	nf	nf	1,520	152	nf	nf	nf	152.0	5	nf	nf	0	5
14	3,608	530	13	844	4,995	360.8	53.1	1.3	84.5	124.9	11	59	6	34	110
15	535	231	239	1,024	2,029	53.5	23.1	21.7	102.4	50.2	110	191	53	304	658
16	416	23	52	197	688	41.6	2.3	5.7	19.7	17.3	107	23	47	161	338
17	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	53	0	53
21	2,338	3,156	713	1,772	7,979	233.8	315.6	71.3	177.2	199.5	110	286	244	461	1,101
22	1,433	1,674	514	1,133	4,754	143.3	164.2	51.4	113.3	118.1	124	403	206	364	1,097
23	1,389	2,145	422	317	4,273	138.9	214.5	42.2	31.7	106.8	98	613	204	173	1,088
24	960	2,445	333	306	4,044	96	244.9	33.3	30.6	101.2	169	201	203	123	696
25	4,915	5,866	536	1,514	12,831	491.5	651.8	59.6	151.4	338.6	55	57	345	21	478
26	2,223	1,813	131	1,134	5,301	222.3	181.3	14.5	113.4	132.9	13	10	127	1	151
27	432	136	121	106	795	43.2	13.6	12.1	10.6	19.9	204	128	109	82	523
28	1,867	189	192	400	2,648	186.7	18.9	19.2	40.0	66.2	359	164	70	129	722
29	208	93	22	47	370	20.8	9.3	2.2	4.7	9.3	71	91	21	30	213
30	485	40	20	35	580	48.5	4.0	2.0	3.5	14.5	265	39	20	32	356
37	1,219	843	615	866	3,543	135.6	84.3	68.3	86.6	93.7	85	160	226	333	804
38	988	1,857	290	324	3,459	109.9	185.7	32.2	32.4	90.1	42	694	188	185	1,109
39	1,062	586	497	569	2,714	106.2	58.6	55.2	56.9	69.2	40	535	322	329	1,226
40	3,873	571	4,640	640	9,724	387.3	57.1	464.0	64.0	243.1	82	133	502	171	888

-continued-

Appendix E1.–Page 2 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2,006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
41	122	2,511	50	488	3,171	12.2	279.1	5.0	48.8	86.3	13	72	7	12	104
42	243	110	47	32	432	24.3	11.0	4.7	3.2	10.8	158	92	45	27	322
43	335	170	174	36	715	37.3	17.0	17.4	3.6	18.8	69	154	111	24	358
44	0	0	1	0	1	0	0.0	0.1	0.0	0.0	0	0	1	0	1
45	44	18	22	40	124	4.4	1.8	2.2	4.0	3.1	30	18	22	28	98
46	1	2	2	12	17	0.1	0.2	0.2	1.2	0.4	1	2	2	8	13
54	nf	441	59	47	547	nf	44.1	6.6	4.7	18.5	nf	87	53	35	175
55	1,195	1,136	291	960	3,582	119.5	113.6	29.1	96.0	89.6	126	369	181	321	997
56	4,805	1,167	444	372	6,788	480.5	116.7	49.4	37.2	171.0	182	214	377	185	958
57	2,819	262	93	41	3,215	281.9	26.2	9.3	4.1	80.4	60	45	75	36	216
58[d]	1,340	158	173	145	1,816	134	19.8	8.7	14.5	44.3	179	124	114	131	548
59[d]	98	264	126	55	543	9.8	29.4	6.6	5.5	12.8	70	126	89	20	305
60	109	156	38	0	303	10.9	15.6	3.8	0.0	7.6	105	144	36	0	285
61	94	94	10	14	212	9.4	9.4	1.0	1.4	5.3	79	11	10	13	113
69	0	263	52	30	345	nf	26.3	5.2	3.0	11.5	nf	0	47	25	72
70	904	508	22	4	1,438	90.4	50.8	2.2	0.4	36.0	78	284	22	7	391
72[d]	1,204	185	56	25	1,470	120.4	18.5	2.8	2.5	36.1	348	133	52	21	554
73	0	nf	127	nf	127	0	nf	12.7	nf	6.4	0	nf	74	0	74
74[f]	167	64	0	0	231	16.7	6.4	0.0	0.0	5.8	143	121	0	0	264
75[f]	72	29	5	9	115	7	2.9	0.5	0.9	2.8	47	53	5	8	113
77	nf	nf	12	nf	12	nf	nf	1.2	nf	1.2	nf	nf	12	0	12
91	nf	1,015	34	56	1,105	nf	101.5	3.4	5.6	36.8	nf	0	33	45	78
92	387	506	24	34	951	38.7	50.6	2.4	3.4	23.8	46	220	23	29	318
93	nf	nf	0	nf	0	nf	nf	0.0	nf	0.0	nf	nf	0	0	0
94[d]	177	1,170	80	21	1,448	17.7	117.1	4.1	2.1	35.3	59	479	71	19	628
95[d]	1,207	1,609	165	46	3,027	121	160.9	8.7	4.6	73.8	214	335	85	28	662
96[f]	33	17	0	0	50	3.3	1.7	0.0	0.0	1.3	33	30	0	0	63

-continued-

Appendix E1.–Page 3 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2,006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
97[f]	100	34	5	2	141	10	3.4	0.5	0.2	3.5	87	60	5	2	154
98	320	91	109	16	536	32	9.1	10.9	1.6	13.4	93	85	87	16	281
99	771	82	63	25	941	47.1	8.2	6.3	2.5	16.0	191	75	47	23	336
100	nf	nf	9	nf	9	nf	nf	0.9	nf	0.9	nf	nf	9	0	9
101	nf	nf	1	nf	1	nf	nf	0.1	nf	0.1	nf	nf	0	0	0
114	nf	1,642	83	383	2,108	nf	164.2	10.5	38.3	71.0	nf	0	69	183	252
115	802	nf	nf	nf	802	89.2	nf	nf	nf	89.2	139	nf	nf	0	139
116[d,f]	994	465	4	10	1,473	99.4	46.5	0.3	1.0	36.8	203	644	3	7	857
117	166	16	0	1	183	16.6	1.8	0.0	0.1	4.6	39	16	0	1	56
118	84	19	15	7	125	8.4	1.9	1.5	0.7	3.1	26	11	14	6	57
119	1,363	286	136	71	1,856	136.3	28.6	13.6	7.1	46.4	277	100	99	41	517
120	466	122	97	18	703	46.6	12.2	9.7	1.8	17.6	208	92	89	17	406
121	485	64	79	2	630	162.8	6.4	8.8	0.2	44.6	295	58	73	1	427
122	585	96	73	261	1,015	58.5	10.7	7.3	26.1	25.7	196	43	53	133	425
123	225	nf	5	5	235	22.5	nf	0.5	0.5	7.8	144	nf	5	4	153
124	263	nf	112	319	694	26.3	nf	11.2	31.9	23.1	126	nf	48	116	290
125	56	nf	nf	nf	56	5.6	nf	nf	nf	5.6	53	nf	nf	0	53
126	31	nf	nf	nf	31	3.1	nf	nf	nf	3.1	31	nf	nf	0	31
136	nf	nf	99	nf	99	nf	nf	10.9	nf	10.9	nf	nf	73	0	73
137	nf	nf	205	nf	205	nf	nf	22.7	nf	22.7	nf	nf	98	0	98
138	nf	nf	305	nf	305	nf	nf	30.5	nf	30.5	nf	nf	163	0	163
139[d]	nf	242	180	19	441	nf	24.2	9.4	1.9	118.	nf	109	116	9	234
140	nf	385	191	288	864	nf	38.5	19.1	28.8	28.8	nf	135	119	191	445
141	445	449	308	701	1,903	44.5	44.9	30.8	70.1	47.6	193	143	184	291	811
142	780	131	9	195	1,115	78	13.1	0.9	19.5	27.9	324	71	8	115	518
143	923	129	67	95	1,214	92.3	12.9	6.7	9.5	30.4	298	95	48	67	508
144	72	123	21	906	1,122	7.2	12.3	2.1	90.6	28.1	45	11	19	2	77
145	435	42	26	134	637	48.4	4.2	2.6	13.4	17.2	272	34	20	96	422

-continued-

Appendix E1.–Page 4 of 4.

Station	Number Caught					CPUE					Number Tagged				
	1997[a]	2000[b]	2003[c]	2,006	Total	1997	2000	2003	2006	Total	1997	2000	2003	2006	Total
146	8	nf	34	3	45	0.8	nf	3.4	0.3	1.5	8	0	30	1	39
147	63	nf	1	7	71	6.3	nf	0.1	0.7	2.4	44	0	0	7	51
159	3,234	219	454	855	4,762	323.2	21.9	45.4	85.5	119.0	765	137	133	472	1,507
160	1,303	175	83	108	1,669	130.3	17.5	8.3	10.8	41.7	518	90	54	68	730
161	776	82	107	73	1,038	77.6	9.2	10.7	7.3	26.2	243	46	93	41	423
Totals:	73,305	47,029	19,122	21,665	161,121	104.3	64.6	21.4	29.7	52.8	9,757	9,970	7,759	6,659	34,145

[a] 1997 survey data from 'ADF&G Adak97' database as of September 29, 2006, Kodiak.
[b] 2000 survey data from 'ADF&G Aleu2000' database as of September 29, 2006, Kodiak.
[c] 2003 survey data from 'ADF&G Aleu2003' database as of September 29, 2006, Kodiak.
[d] nf – station was not fished that survey year.