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## ALASKA DEPARTMENT OF FISH AND GAME

## STAFF COMMENTS ON COMMERCIAL, PERSONAL USE, SPORT, AND SUBSISTENCE REGULATORY PROPOSALS FOR

## STATEWIDE (EXCEPT SOUTHEAST AND YAKUTAT) KING AND TANNER CRAB AND SUPPLEMENTAL ISSUES

## ALASKA BOARD OF FISHERIES MEETING ANCHORAGE, ALASKA

## MARCH 8–11, 2020

*Revised 02/24/20 with the addition of Proposal 284*

Regional Information Report No. 5J20-03

The following staff comments were prepared by the Alaska Department of Fish and Game (department) for use at the Alaska Board of Fisheries (board) meeting, March 8–11, 2020 in Anchorage, Alaska. The comments are forwarded to assist the public and board. The comments contained herein should be considered preliminary and subject to change, as new information becomes available. Final department positions will be formulated after review of written and oral public testimony presented to the board.

## Acronyms and Abbreviations

The following acronyms and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Commercial Fisheries, Sport Fish, and Subsistence: 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) |

**Acronyms**

| | |
|---|---|
| Acceptable Biological Catch | ABC |
| Alaska Board of Fisheries | board |
| Alaska Department of Fish and Game | department /ADF&G |
| Amount Necessary for Subsistence | ANS |
| Alaska Wildlife Troopers | AWT |
| Biological Escapement Goal | BEG |
| Central Gulf of Alaska | CGOA |
| Coded Wire Tag | CWT |
| Commercial Fisheries Entry Commission | CFEC |
| Cook Inlet Aquaculture Association | CIAA |
| Customary and Traditional | C&T |
| Department of Natural Resources | DNR |
| Demersal Shelf Rockfish | DSR |
| Emergency Order | EO |
| Guideline Harvest Level | GHL |
| Gulf of Alaska | GOA |
| Global Positioning System | GPS |
| Individual Fishing Quota | IFQ |
| Local Area Management Plan | LAMP |
| Lower Cook Inlet | LCI |
| Mean Low Water | MLW |
| Mean Lower Low Water | MLLW |
| No Data | ND |
| National Marine Fisheries Service | NMFS |
| National Oceanic and Atmospheric Administration | NOAA |
| Nick Dudiak Fishing Lagoon | NDFL |
| North Pacific Fishery Management Council | NPFMC |
| Optimum Escapement Goal | OEG |
| Pelagic Shelf Rockfish | PSR |
| Prince William Sound | PWS |
| Prior Notice of Landing | PNOL |
| Private Nonprofit Salmon Hatchery | PNP |
| River Mile | RM |
| Special Harvest Area | SHA |
| Sustainable Escapement Goal | SEG |
| Trail Lakes Hatchery | TLH |
| Upper Cook Inlet | UCI |
| Western Gulf of Alaska | WGOA |

*REGIONAL INFORMATION REPORT 5J20-03*

# ALASKA DEPARTMENT OF FISH AND GAME

# STAFF COMMENTS ON COMMERCIAL, PERSONAL USE, SPORT, AND SUBSISTENCE REGULATORY PROPOSALS FOR

# STATEWIDE (EXCEPT SOUTHEAST AND YAKUTAT) KING AND TANNER CRAB AND SUPPLEMENTAL ISSUES

## ALASKA BOARD OF FISHERIES MEETING ANCHORAGE, ALASKA

## MARCH 8–11, 2020

by
Alaska Department of Fish and Game

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

February 2020

# ABSTRACT

This document contains Alaska Department of Fish and Game staff comments on commercial regulatory proposals for the Statewide King and Tanner crab meeting. These comments were prepared by the department for use at the Alaska Board of Fisheries meeting, March 8–11, 2020, in Anchorage, Alaska. The comments are forwarded to assist the public and board. The comments contained herein should be considered preliminary and subject to change, as new information becomes available. Final department positions will be formulated after review of written and oral public testimony presented to the board.

Key words: Alaska Board of Fisheries (board), Alaska Department of Fish and Game (department), staff comments, regulatory proposals, fisheries, commercial, personal use, sport, subsistence, shellfish, Tanner crab, king crab.

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## SUMMARY OF DEPARTMENT POSITIONS ON REGULATORY PROPOSALS FOR STATEWIDE KING AND TANNER CRAB – ANCHORAGE, MARCH 8–11, 2019.

| Proposal Number | Department Position | Issue |
|---|---|---|
| 244 | O | Allow a commercial king crab fishery in the Northern and Western Districts of Prince William Sound. |
| 245 | O | Create commissioner's permits for any king crab fishery in Area E closed for five years. |
| 246 | N | Adopt amounts reasonably necessary for subsistence for crab in the Cook Inlet Area, outside the Anchorage-Matsu-Kenai Nonsubsistence Area. |
| 247 | S | Adjust the opening date of the subsistence Tanner crab fishery east of Kachemak Bay in the Cook Inlet Area. |
| 248 | S | Establish an annual limit for Tanner crab sport fisheries. |
| 249 | S | Align tanner crab sport fishery season dates for all areas |
| 250 | S | Include an appeal process for failure to report for the Tanner crab sport fishery harvest recording form. |
| 251 | O | Require two escape mechanisms per pot in the tanner crab sport fishery in the Cook Inlet and North Gulf Coast areas |
| 252 | N | Establish a seasonal limit for Tanner crab in Kachemak Bay. |
| 253 | S | Allow crab rings in the Cook Inlet Area Tanner crab sport fishery. |
| 254 | S | Allow crab rings in the Cook Inlet Area Tanner crab subsistence fishery |
| 255 | S | Amend commercial and noncommercial thresholds, and management based on thresholds, for Cook Inlet Area Tanner crab fisheries. |
| 256 | N | Adopt amounts reasonably necessary for subsistence for king crab in the Kodiak Area. |
| 257 | N | Open the Kodiak District Tanner crab fishery December 15. |
| 258 | S | Align pot storage requirements and allow storage of pots in waters more than 25 fathoms for seven days following season closure for Tanner crab in the Kodiak District. |
| 259 | N | Create a Chignik Registration Area commercial king crab fishery and provide for registration, seasons, size limits, lawful gear, pot storage requirements, inspection, and vessel length restrictions |
| 260 | N | Align boundaries for the Chignik District commercial Tanner crab fishery with the commercial salmon fishery. |
| 261 | S | Adopt a new Bering Sea Tanner crab harvest strategy used to set annual harvest limits. |
| 262 | O | Modify the Bering Sea *C. opilio* harvest strategy definition of "exploited legal males". |
| 263 | O | Allow retention of incidentally harvested Bering Sea District *C. bairdi* during directed a *C. opilio* season. |
| 264 | S | Amend Area J Tanner crab season opening weather delay criteria. |
| 265 | S | Update Bering Sea and Aleutian Islands crab registration regulations |

**N = Neutral; S = Support; O = Oppose; NA = No Action, WS = Withdrawn Support**

| Proposal Number | Department Position | Issue |
|---|---|---|
| 266 | N/O | Change the season dates for the Registration Area O golden king crab fishery to March 1–October 31. |
| 267 | S | Establish season and limits for golden king crab in the Alaska Peninsula and Aleutian Islands Area. |
| 268 | S | Allow gear transfers to be authorized by electronic mail |
| 269 | S | Amend observer trainee permit revocation regulation |
| 270 | S | Specify briefing and debriefing requirements for trainee and certified observers. |
| 271 | S | Specify marine safety requirements for fishing vessels carrying observers. |
| 272 | S | Amend observer trainee minimum qualifications |
| 273 | N | Amend the season dates for king crab in the Northern District Norton Sound Section. |
| 274 | N | Limit the number of pot tags per permit per season in the Norton Sound Section commercial king crab fishery |
| 275 | O | Allow a person or vessel to participate in the Norton Sound red king crab fishery after operating commercial Pacific cod pots in the Norton Sound Section within 14 days prior to the opening of the Norton Sound red king crab fishery. |
| 276 | O | Allow a person or vessel to operate commercial Pacific cod pots in the Norton Sound Section within 14 days of the closure of the Norton Sound red king crab fishery after participating in the Norton Sound red king crab fishery. |
| 277 | N | Add the Crawfish Inlet Terminal Harvest Area and West Crawfish Inlet to waters that may be opened to a hatchery chum salmon troll fishery. |
| 279 | N | Allow two Bristol Bay drift gillnet CFEC permit holders to fish concurrently from the same vessel and jointly operate up to 200 fathoms of drift gillnet gear when the Naknek River Special Harvest Area is open. |
| 280 | N | Allow use of set gillnets with 6” mesh to harvest salmon other than king salmon and other non-salmon fish species on the Kuskokwim River for subsistence purposes during times of king salmon conservation. |
| 281 | N | Prohibit fishing in fresh water with live earthworms in the genus *Lumbricus*. |

**N = Neutral; S = Support; O = Oppose; NA = No Action, WS = Withdrawn Support**

# COMMITTEE OF THE WHOLE – GROUP 1: PRINCE WILLIAM SOUND AREA COMMERCIAL KING CRAB, COOK INLET TANNER CRAB, AND SOUTHEAST AREA COMMERCIAL SALMON (13 PROPOSALS – CHAIR GODFREY)

## Prince William Sound Area Commercial King Crab (2 proposals)

**PROPOSAL 244 – Allow a commercial king crab fishery in the Northern and Western Districts of Prince William Sound.**

**5 AAC 34.210. Fishing seasons for Registration Area E.**

**PROPOSED BY:** Cordova District Fishermen United, Shellfish Division.

**WHAT WOULD THE PROPOSAL DO?** This would allow the department to issue commissioner's permits for commercial king crab fisheries in the Northern and Western Districts of the Prince William Sound Area (PWS; Registration Area E).

**WHAT ARE THE CURRENT REGULATIONS?** The commercial harvest of king crab in PWS is closed until the board adopts a harvest strategy. Currently, there are no provisions for the issuance of commissioner's permits for these fisheries (5 AAC 34.210). There is a guideline harvest range for golden king crab of 40,000 to 60,000 lb (5 AAC 34.217).

The board has found there are positive customary and traditional uses of shrimp, Dungeness crab, Tanner crab, king crab, and miscellaneous shellfish in PWS (5 AAC 02.208(a)). The board has not yet made an ANS finding for any crab stocks in PWS. The waters near Valdez are a state nonsubsistence area (5 AAC 99.015(a)(5)).

Currently, there is a subsistence fishery for golden king crab in PWS which has a permit requirement with mandatory catch reporting; this permit is combined with the Tanner crab subsistence permit (5 AAC 02.206). Male golden king crab 7 inches or greater in width of shell may be harvested with an annual household limit of 3 crab (5 AAC 02.225). Golden king crab may only be harvested in those waters west of 147° 20' W. longitude (which is outside of the nonsubsistence area) from October 1 through March 31; permits must be returned to the department by April 15 following the regulatory closure (Figure 244-1).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** A person could apply to obtain a commissioner's permit to participate in a commercial king crab fishery in PWS. If permits were issued by the department, this would increase the harvest of king crab in PWS by an unknown amount depending on the number of permits issued and abundance of king crab.

**BACKGROUND:** The department does not have a king crab assessment program in PWS and no data are available to identify or quantify a harvestable surplus. Both red and golden king crab have been caught in the PWS large-mesh trawl survey. Numbers of red king crab have ranged from zero to two and none have been caught in the survey since 2005, while only 2 golden king crab have ever been captured (in 1995 and 1997) in the history of the survey. The department conducted a 3-year pot survey for golden king crab in western PWS from 2004 through 2006. Data obtained over the course of that 3-year survey provided an indication that the golden king crab numbers in the Knight Island Passage area of PWS appear stable, but are at low levels, and not close to being high enough to sustain commercial harvest.

The first commercial harvest of king crab in PWS was landed in 1957 and the fishery quickly developed; the second highest harvest of 246,965 lb was landed in 1960 (Table 244–1). Species separation of the king crab species in harvest reporting began in the 1979/80 season. In 1972, 296,200 lb of primarily blue king crab were landed. Between 1979 and 1984 both blue and red king crab harvest declined and commercial fisheries for both these species were closed by EO from the 1984/85 season through the 1990/91 season and also from 1991 through 1998. These closures coincided with development of the golden king crab fishery from 1982 to 1989.

Harvest levels of golden king crab were relatively low from the 1979/80 season through the 1988/89 season, with negligible harvest the first three seasons (Table 244–1). During the fishery, the average weight of golden king crab decreased from 9.7 lb in the 1982/83 season to 6.6 lb in the 1988/89 season. Due to conservation concerns, the fishery was closed for the 1989/90 season by emergency order. Because of low harvest levels and the decrease in average size of harvested crab, the board established a guideline harvest range (GHR) of between 40,000 and 60,000 lb. For the following years, the lower end of the GHR was not achieved, leading to a closure of the commercial fishery in 1992 and the following season. For years when pot effort data were available (beginning in 1984/85 season), catch per unit effort (CPUE) for golden king crab also declined to the lowest level of 0.6 crab/pot during the 1991/92 season. Although the fishery did reopen for a month during the 1994/95 season, participation and harvest were low, and the fishery was closed by EO each season until the board closed it by regulation in 1999.

In March 2008, the board made a positive customary and traditional use finding for king crab in PWS and subsequently opened a golden king crab subsistence fishery. Harvest in this fishery is monitored with a required permit and administered in conjunction with the subsistence Tanner crab fishery. Harvest and participation have remained low since the fishery opened in 2008. The number of trips has ranged from 0 in 2012/13 to a high of 42 trips in the 2018/19 season (Table 244–2). The 2018/19 season produced the highest harvest of golden king crab since the subsistence fishery was implemented in 2008. During the 2018/19 season, there were 181 legal male golden king crab caught (47 crab retained), 230 sublegal male crab released, and 605 female crab released (Table 244–2).

The department prosecuted a Commissioner's Permit Tanner crab fishery in the Eastern and Western Districts of PWS in 2018 and 2019 following adoption of a new regulation by the board in 2017 (Figure 244-2). Logbooks were required in this fishery and in 2019 participants were asked to record any other crab species that were caught (and released) in their pots. Logbook data indicated king crab were caught in 21 pots; most of the records indicated "king crab" without noting the species, gender, or size of these king crab. There were 327 king crab caught in 4,853 pots that were pulled during the fishery. Golden king crab are generally caught at deeper depths than Tanner crab and historically are caught in different areas.

**DEPARTMENT COMMENTS:** The department **OPPOSES** this proposal. The department is concerned with issuing commissioner's permits allowing for a red king crab commercial fishery without assurance that a harvestable surplus is available. Currently, the department does not have a king crab assessment program, which would be needed to supply evidence of a harvestable surplus beyond that that which is taken for subsistence purposes. The department would have expected to see an increase of red king crab in the annual PWS trawl survey if there was an increase in red king crab abundance. Although subsistence harvest of golden king crab peaked in the most recent season, and golden king crab were caught in the commissioner's permit Tanner crab fishery, overall catch is still relatively low and does not indicate that abundance levels are high enough to support a commercial fishery.

**COST ANALYSIS:** Approval of this proposal would result in an additional direct cost for a private person to participate in a new commissioner's permit fishery for king crab in PWS, including those costs associated with acquiring a CFEC permit, gear, and operating a vessel in the fishery. Approval of this proposal would result in additional costs to the department if a commissioner's permit fishery occurs, including those costs associated with management of the fishery, sampling the harvest, and sending department observers aboard participating vessels.

Table 244-1.–Prince William Sound Area (Registration Area E) commercial king crab harvests, 1960–2019, including golden king crab catch per unit effort (CPUE; crab/pot) and average weight when available.

| | | | King Crab Harvest Biomass (lb) | | | | Golden King | |
|---|---|---|---|---|---|---|---|---|
| Season[a,b,c] | Vessels | Landings | Red | Blue | Golden | Total | CPUE[d] | Avg Wt (lb) |
| 1960 | | | | | | 246,965 | | |
| 1961 | | | | | | 236,081 | | |
| 1962 | | | | | | 31,478 | | |
| 1963 | | | | | | 43,569 | | |
| 1964 | | | | | | 14,028 | | |
| 1965 | | | | | | 5,500 | | |
| 1966 | | | | | | 11,000 | | |
| 1967 | | | | | | 41,800 | | |
| 1968 | | | | | | 200,000 | | |
| 1969 | | | | | | 48,100 | | |
| 1970 | | | | | | 94,300 | | |
| 1971 | | | | | | 144,200 | | |
| 1972 | | | | | | 296,200 | | |
| 1973 | | | | | | 207,916 | | |
| 1974 | | | | | | 85,379 | | |
| 1975 | | | | | | 53,423 | | |
| 1976/77 | | | | | | 17,087 | | |
| 1977/78 | | | | | | 86,595 | | |
| 1978/79 | | | | | | 114,000 | | |
| 1979/80 | 18 | 109 | 52,026 | 13,662 | 0 | 65,688 | | |
| 1980/81 | 14 | 65 | 32,433 | 7,282 | 20 | 39,735 | | |
| 1981/82 | 11 | 43 | 25,358 | 5,634 | 0 | 30,992 | | |
| 1982/83 | 31 | 187 | 30,809 | 10,433 | 147,016 | 188,258 | | 9.7 |
| 1983/84 | 18 | 69 | 16,467 | 5,324 | 50,535 | 73,226 | | 8.8 |
| 1984/85 | 4 | 14 | 235 | closed | 40,232 | 40,467 | 0.9 | 6.0[d] |
| 1985/86 | 4 | 11 | closed | closed | 51,800 | 51,800 | 1.4 | 5.8 |
| 1986/87 | 4 | 11 | closed | closed | 65,674 | 65,837 | 3.4 | 6.1 |
| 1987/88 | 4 | 15 | closed | closed | 68,270 | 68,270 | 2.4 | 6.6 |
| 1988/89 | 5 | 14 | closed | closed | 48,442 | 48,442 | 2.6 | 6.6 |
| 1989/90 | 0 | 0 | closed | closed | closed | 0 | | |
| 1990/91 | [e] | [e] | closed | closed | [e] | [e] | 0.8 | 6.4[d] |
| 1991/92 | [e] | [e] | [e] | [e] | [e] | [e] | 0.6 | 6.5[d] |
| 1992/93 | 0 | 0 | closed | closed | closed | 0 | | |
| 1993/94 | 0 | 0 | closed | closed | closed | 0 | | |
| 1994/95 | [e] | [e] | closed | closed | [e] | [e] | 1.4 | 7.9[d] |
| 1996–2019 | closed by regulation | | | | | | | |

[a] 1995/1996 to 1999 seasons closed by emergency order.

[b] Seasons closed by regulation effective August 1999.

[c] Catch not reported by species prior to 1979/1980 season.

[d] Derived from available fish ticket data.

[e] Data are confidential.

Table 244-2.–Annual effort, harvest, and catch for trips targeting golden king crab (GKC) in the Prince William Sound Area subsistence fishery, 2008/09–2018/19.

| Season | Number of permits issued | Number of legal crab retained | Number of legal crab released | Total crab | Number of sublegal released | Number of females released | Number of trips[a] |
|---|---|---|---|---|---|---|---|
| 2008/09 | 115 | 5 | 8 | 13 | 9 | 12 | 13 |
| 2009/10 | 93 | 3 | 7 | 10 | 21 | 22 | 9 |
| 2010/11 | 73 | 12 | 0 | 12 | 5 | 8 | 12 |
| 2011/12 | 79 | 10 | 8 | 18 | 23 | 39 | 9 |
| 2012/13 | 151 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2013/14 | 173 | 27 | 2 | 29 | 6 | 97 | 20 |
| 2014/15 | 211 | 35 | 22 | 57 | 15 | 179 | 24 |
| 2015/16 | 206 | 16 | 7 | 23 | 9 | 39 | 16 |
| 2016/17 | 183 | 5 | 0 | 5 | 4 | 7 | 15 |
| 2017/18 | 179 | 6 | 4 | 10 | 12 | 27 | 6 |
| 2018/19 | 192 | 47 | 134 | 181 | 230 | 605 | 42 |

*Note:* permits are combined for Tanner and GKC which have different habitats (GKC, very deep) with most trips (pots) targeting Tanner crab.

[a] Number of trips targeting GKC

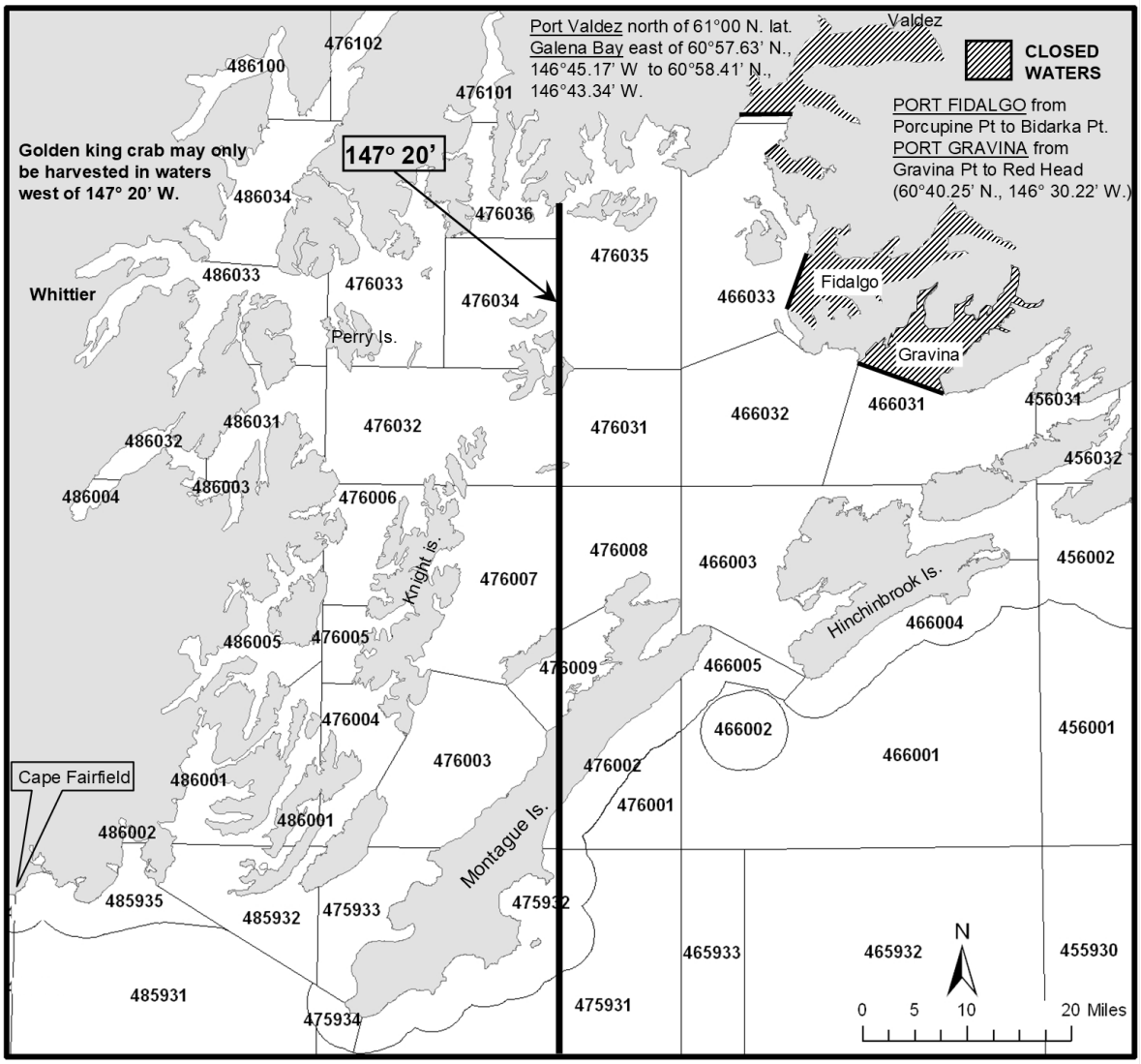


Figure 244-1.–Prince William Sound Area Tanner and golden king crab subsistence fishery statistical areas, closed waters, and boundaries; golden king crab may only be retained in waters west of 147° 20' W. long.

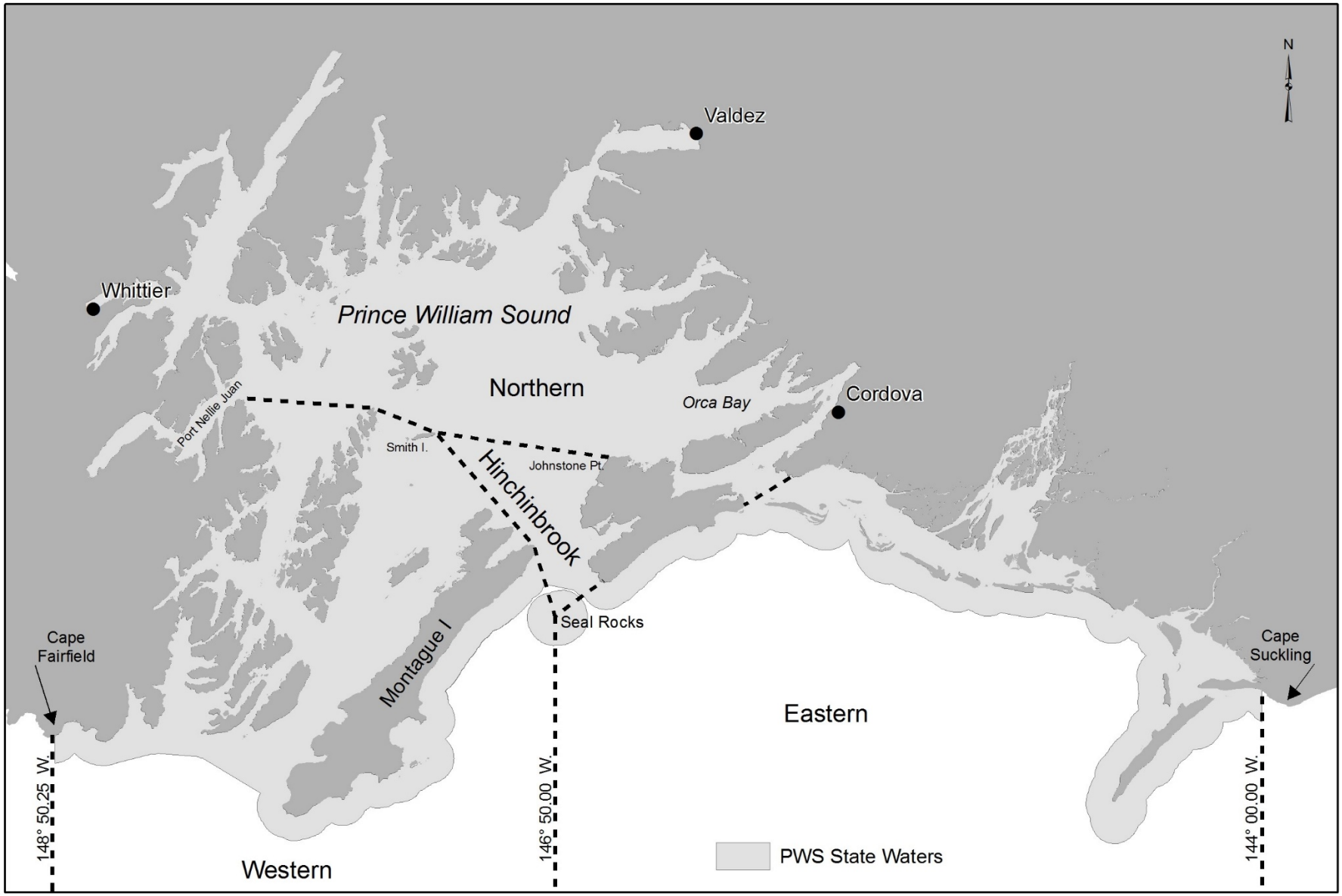


Figure 244-2.–Prince William Sound Area (Registration Area E) commercial crab districts.

**PROPOSAL 245 – Create commissioner's permits for any king crab fishery in Area E closed for 5 years.**

**5 AAC 34.210. Fishing seasons for Registration Area E.**

**PROPOSED BY:** Robert Smith & Warren Chappell.

**WHAT WOULD THE PROPOSAL DO?** This would allow the department to issue commissioner's permits for commercial king crab fisheries in the Prince William Sound Area (PWS; Registration Area E) if a king crab fishery has not been prosecuted in the past 5 years.

**WHAT ARE THE CURRENT REGULATIONS?** The commercial harvest of king crab in PWS is closed until the board adopts a harvest strategy and currently there are no provisions for the issuance of commissioner's permits for these fisheries (5 AAC 34.210). There is a guideline harvest range for golden king crab of 40,000 to 60,000 lb (5 AAC 34.217).

The board has found there are positive customary and traditional uses of shrimp, Dungeness crab, Tanner crab, king crab, and miscellaneous shellfish in the PWS (5 AAC 02.208 (a)). The board has not yet made an ANS finding for any crab stocks in PWS. The waters near Valdez are a state nonsubsistence area (5 AAC 99.015(a)(5)).

Currently, there is a subsistence fishery for golden king crab in PWS, which has a permit requirement with mandatory catch reporting; this permit is combined with the PWS Tanner crab subsistence permit (5 AAC 02.206). Male golden king crab 7 inches or greater in width of shell may be harvested with an annual household limit of 3 crab (5 AAC 02.225). Golden king crab may only be harvested in those waters west of 147° 20' W. longitude (except in the nonsubsistence area) from October 1 through March 31; permits must be returned to the department by April 15 following the regulatory closure (Figure 244-1).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** A person could apply to obtain a commissioner's permit to participate in a commercial king crab fishery in PWS. If permits were issued by the department, this would increase the harvest of king crab in PWS by an unknown amount depending on the number of permits issued and abundance of king crab.

**BACKGROUND:** Refer to the comments in proposal 244.

**DEPARTMENT COMMENTS:** The department **OPPOSES** this proposal. The department is concerned with issuing commissioner's permits allowing for a red king crab commercial fishery without assurance that a harvestable surplus is available. Currently, the department does not have a king crab assessment program, which would be needed to supply evidence of a harvestable surplus beyond that that which is taken for subsistence purposes. The department would have expected to see an increase of red king crab in the annual PWS trawl survey if there was an increase in red king crab abundance. Although subsistence harvest of golden king crab peaked in the most recent season, and golden king crab were caught in the commissioner's permit Tanner crab fishery, overall catch is still relatively low and does not indicate that abundance levels are high enough to support a commercial fishery.

**COST ANALYSIS:** Approval of this proposal would result in an additional direct cost for a private person to participate in a new commissioner's permit fishery for king crab in PWS including those costs associated with acquiring a CFEC permit, gear, and operating a vessel in the fishery. Approval of this proposal would result in additional costs to the department if a commissioner's permit fishery occurs including those costs associated with management of the fishery, sampling the harvest, and sending department observers aboard participating vessels.

## Cook Inlet Area Subsistence Tanner Crab (3 proposals)

**PROPOSAL 246 – Adopt amounts reasonably necessary for subsistence for crab in the Cook Inlet Area, outside the Anchorage-Matsu-Kenai Nonsubsistence Area.**

**5 AAC 02.311. Customary and traditional subsistence uses of shellfish stocks and amounts reasonably necessary for subsistence**.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would adopt amounts reasonably necessary for subsistence (ANS) for crab stocks in the Cook Inlet Area, outside the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT ARE THE CURRENT REGULATIONS?** The board has not yet made an ANS finding for the stock in this area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** An ANS finding will provide the board with a metric to determine if the regulations are providing a reasonable opportunity for subsistence uses of crab in this area.

**BACKGROUND:** Alaska Statute 16.05.258(b) directs the board to determine the amount of the harvestable portion of fish stocks that support customary and traditional (C&T) uses that is reasonably necessary for subsistence uses. Areas of the Cook Inlet Area outside the nonsubsistence area include coastal portions of the Southern, Barren Islands, and Outer districts, including Jakalof and Kasitsna bays in what is considered Kachemak Bay (Figure 246-1). There are three communities on the lower Kenai Peninsula outside the Anchorage-Matsu-Kenai Nonsubsistence Area: Nanwalek (formerly English Bay), Port Graham, and Seldovia.

In 1982, the board adopted regulations allowing the subsistence harvesting of clams in the Port Graham Subdistrict. At the same time, the board repealed all other subsistence shellfish regulations pertaining to the Cook Inlet Area. In 2007, the board found C&T uses for all shellfish outside of the nonsubsistence area and determined an ANS for hardshell clams and an ANS for shellfish other than hardshell clams, crab, and shrimp (5 AAC 02.311(b)).

Permits have been required for the noncommercial harvest of Tanner crab since 1996; however, only since the 2017/2018 season has there been a separate permit that applies only to the subsistence harvest of crab in waters outside the nonsubsistence area. The permit collects harvest data including date, location, and number of individual crab harvested. Noncommercial fishing has been closed in the Cook Inlet Area for king crab since 1985 and for Dungeness crab since 1998. Since 1996, a noncommercial Tanner crab fishery has been opened in 1996–2002, 2008/2009–2011/2012, and 2017/2018–2019/2020. The 2017/18 and 2018/19 seasons of the noncommercial fishery opened under new regulations adopted by the board in 2017 which provided for a limited fishery with reduced bag and gear limits and a shortened season in the

absence of an ADF&G survey or when below thresholds to open the standard (unrestricted) fishery. The standard fishery was opened for the 2019/20 season.

The department's written report in RC 3 *Options for amounts reasonably necessary for subsistence uses of crab in the Cook Inlet and Kodiak areas* (posted at the meeting website) provides harvest assessment data from subsistence permits since 2017 as well as from household surveys conducted in Seldovia, Port Graham, and Nanwalek. The report also provides options for ANS findings for consideration by the board.

**DEPARTMENT COMMENTS:** The department submitted and is **NEUTRAL** on this proposal. If the board chooses to adopt ANS findings for crab in the Cook Inlet Area, it may wish to consider doing so only for Tanner crab, since no subsistence fisheries for Dungeness or king crab have been authorized for at least 20 years and, therefore, no recent harvest data are available upon which to base an ANS finding.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

**SUBSISTENCE REGULATION REVIEW:**

1. Is this stock in a nonsubsistence area? No.

2. Is this stock customarily and traditionally taken or used for subsistence? Yes. The board has found that the shellfish stocks in that portion of the Cook Inlet Area outside the nonsubsistence area described in 5 AAC 99.015(a)(3) are customarily and traditionally taken or used for subsistence (5 AAC 02.311(a)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes, for Tanner crab; no for Dungeness and king crab.

4. What amount is reasonably necessary for subsistence uses? The board has not established an ANS finding for the crab stocks in this area: see written report *Options for amounts reasonably necessary for subsistence uses of crab in the Cook Inlet and Kodiak areas* (posted at the meeting website).

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

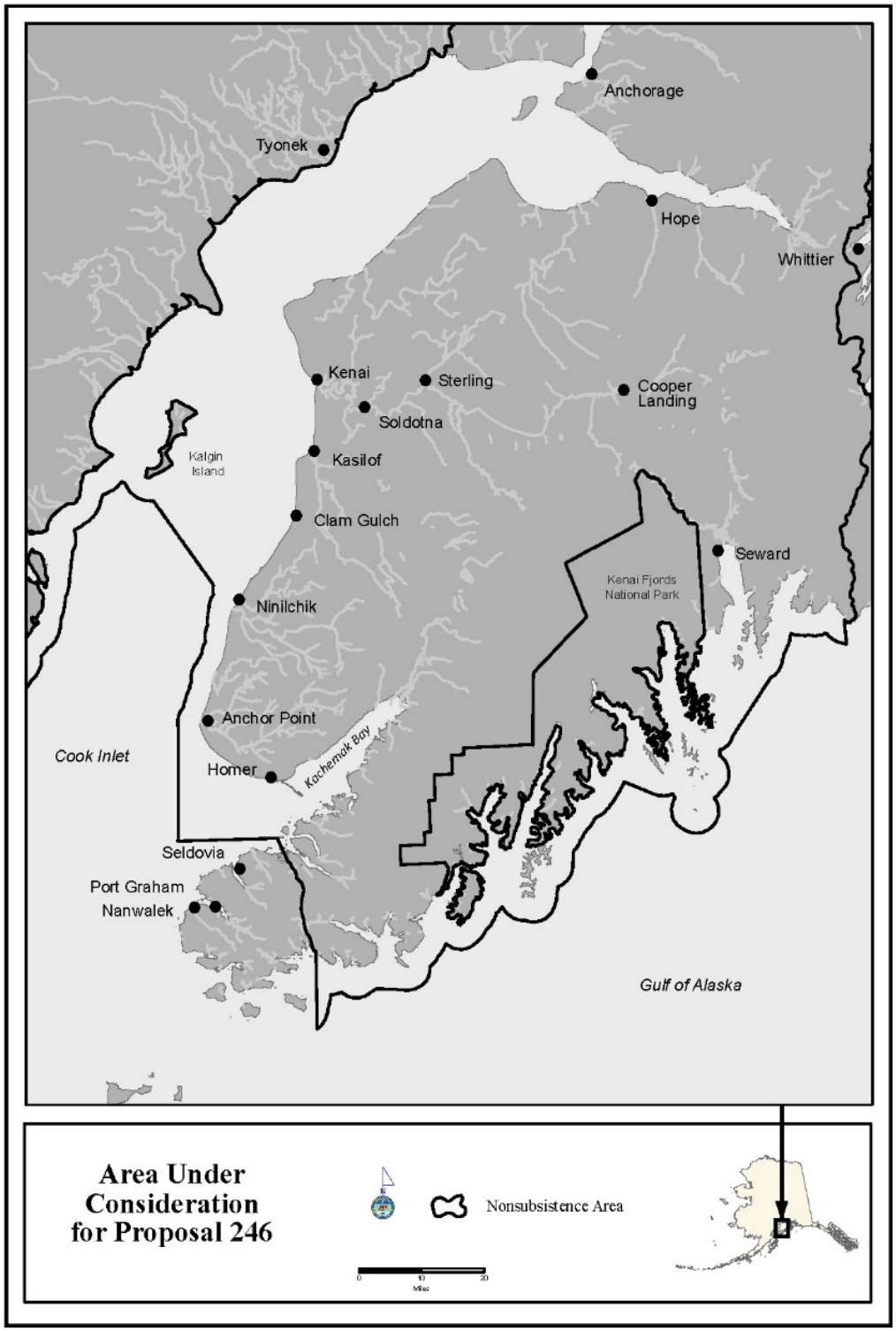


Figure 246-1.–Cook Inlet Area and the Anchorage-Matsu-Kenai Nonsubsistence Area.

**PROPOSAL 247 – Adjust the opening date of the subsistence Tanner crab fishery east of Kachemak Bay in the Cook Inlet Area.**

**5 AAC 02.325. Subsistence Tanner crab fishery.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would align Tanner crab subsistence seasons for the entire Cook Inlet Area, coordinate subsistence and sport seasons, eliminate regulatory area closure dates midseason, and implement seasonal Tanner crab harvest limits. The season would be extended by two weeks in the Kachemak Bay subsistence area (Area E, Figure 247-1) by removing the January 1 to 14 closure period. The season would be shortened by 48 days in all other subsistence areas (A, B, and C) by adjusting the opening date from July 15 to September 1. If this proposal and Proposal 249 are both adopted, the standard seasons for the sport and subsistence fisheries would be aligned in all areas.

This proposal would also repeal regulatory language that closes subsistence Tanner crab fisheries in the Eastern, Central, and Outer districts (these are commercial district designations, but effectively subsistence areas A, B, and C) if subsistence fisheries in the Kamishak or Barren Islands districts are closed (Figure 247-1). In Proposal 255, the department suggests using the Tanner crab male abundance derived from the Kachemak Bay trawl survey, which is currently the only survey conducted in this management area, to trigger all Cook Inlet Area sport and subsistence fisheries.

**WHAT ARE THE CURRENT REGULATIONS?** For the Cook Inlet Area subsistence Tanner crab fishery (5 AAC 02.325 (a)), the standard regulatory season in Kachemak Bay (Area E, Figure 247-1) is September 1 through December 31 and January 15 or the beginning of the commercial Tanner crab season, whichever is later, through March 15. In all other Cook Inlet Area subsistence areas (A, B, and C), the standard season is July 15 through March 15. When the subsistence fishery is restricted (5 AAC 02.325 (b)), the limited regulatory season in all areas (A, B, C, and E) is October 1 through the last day of February.

During the standard subsistence season, the bag and possession limits are 5 legal male Tanner crab. During the limited subsistence season, the bag and possession limits are 3 Tanner crab and allowable gear is no more than one pot per person and vessel (reduced from two pots during the standard season). There are no seasonal crab limits for either the standard or limited seasons.

The Joint Boards of Fisheries and Game has designated part of Kachemak Bay as a nonsubsistence area (5 AAC 99.015(a)(3); Figure 247-1).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This would reduce regulatory complexity by aligning the standard subsistence Tanner crab seasons for the entire Cook Inlet Area. The season would be extended by two weeks in the Kachemak Bay subsistence area (Area E, Figure 247-1) by removing the January 1 to 14 closure period, which will increase opportunity and may increase harvest by a small amount. The season would be shortened by 48 days in all other subsistence areas (A, B, and C) by adjusting the opening date from July 15 to September 1, which would decrease subsistence opportunity and may decrease harvest by an unknown amount. Seasonal Tanner crab harvest limits of 40 crab and 20 crab would be implemented for both the standard and limited subsistence fisheries, respectively, which would

stabilize harvest. If this proposal and Proposal 248 are both adopted, the sport and subsistence fisheries would have the same seasonal harvest limits in the standard and limited fisheries. However, the board will need to consider if the regulations continue to provide a preference for subsistence uses as well as a reasonable opportunity for success in harvesting Tanner crab for subsistence uses.

This proposal would also repeal regulatory language that closes subsistence Tanner crab fisheries in the Eastern, Central, and Outer districts (these are commercial district designations but effectively subsistence areas A, B, and C) if subsistence fisheries in the Kamishak or Barren Islands districts are closed (Figure 247-1). In Proposal 255, the department suggests using the Tanner crab male abundance derived from the Kachemak Bay trawl survey, which is currently the only survey conducted in this management area, to trigger all Cook Inlet Area sport and subsistence fisheries.

**BACKGROUND:** Tanner crab in the Cook Inlet Area have supported both commercial and noncommercial (sport, personal use, and subsistence) fisheries. Beginning in 1990, Tanner crab abundance has been assessed with trawl surveys in Kachemak and Kamishak bays. However, no Kachemak Bay surveys were conducted in 2010 and 2014 through 2016 and no surveys have been conducted in Kamishak Bay since 2012. Historically, these surveys provided abundance estimates of legal male Tanner crab required by regulation to open commercial and noncommercial fisheries. The Kachemak Bay trawl survey was used to manage fisheries within Kachemak Bay (noncommercial areas D and E, Figure 247-1) and the Kamishak Bay survey was used to manage fisheries in the remainder of the Cook Inlet Area (noncommercial areas A, B, and C).

The *Registration Area H (Cook Inlet Area) Tanner crab Harvest Strategy* (5 AAC 35.408) was adopted in 2002 and outlines legal male Tanner crab abundance thresholds that allow commercial and noncommercial fisheries. The harvest strategy also establishes a noncommercial guideline harvest level (GHL) not to exceed 10% of the recent three-year average of legal male abundance when below the minimum stock threshold for a commercial fishery. Due to low stock abundances, all commercial fisheries have been closed since 1995 and the noncommercial fisheries have experienced periodic closures since 1989. In 2017, the board adopted a department proposal to allow a more restrictive, limited noncommercial fishery in the absence of trawl survey data or when abundance estimates were below the thresholds required for the standard (unrestricted) noncommercial fishery. For the 2017/18 and 2018/19 seasons, the limited sport and subsistence fisheries were opened; estimates of abundance from the Kachemak Bay trawl survey were the first two produced since 2013 and a recent three-year average was not available. In the following season, 2019/20, the third estimate was produced, and the recent three-year average was above the minimum threshold in the harvest strategy, and the standard sport and subsistence fisheries were open.

In 1993, the board adopted the noncommercial Tanner crab season with a July 15 opening date to protect molting crab and the two-week closure from January 1 through 14 to discourage prospecting two weeks prior to the commercial fishery opening on January 15. In 2014, based on a department Tanner crab shell hardness study in Kachemak Bay, the board changed the opening date for the noncommercial Tanner crab fisheries in Kachemak Bay from July 15 to September 1. However, the season opening date was not changed in the other noncommercial areas in the Cook Inlet Area for subsistence fisheries or the Cook Inlet-Resurrection Bay Saltwater Area for sport fisheries (noncommercial areas A, B, and C; Figure 247-1).

The Cook Inlet Area noncommercial fishery requires a permit for participation and mandatory harvest reporting by area. Historically, the sport, personal use, and subsistence fisheries were all included in one permit, which only provided harvest estimates for the entire noncommercial fishery. Cook Inlet Area personal use regulations were repealed in 2016 in accordance with the Administrative Procedure Act (AS 44.62) to eliminate regulatory redundancies. When the limited noncommercial fishery first opened for the 2017/18 season, separate online permits were available for both the sport and subsistence fisheries; with required online reporting, harvest was able to be estimated for both fisheries.

In the 2017/18 limited season, there were 1,930 noncommercial permits issued (1,782 sport and 148 subsistence) with 53% of the permits being fished. In the 2018/19 limited season, there were 1,752 permits issued (1,570 sport and 182 subsistence) and 61% of permits were fished (Table 247-1). For both seasons, approximately 90% of the participants harvested fewer than 20 crab for the season. The remaining 10% of the participants harvested about 48% of the total crab.

Most of the Cook Inlet Area noncommercial Tanner crab harvest has occurred in Kachemak Bay (Areas D and E, Figure 247-1). Between the 2008/09 and 2010/11 standard seasons, the total harvest averaged 16,582 Tanner crab, with approximately 92% of the harvest occurring in Kachemak Bay (Areas D and E, Table 247-1 and Figure 247-1). During both seasons of the limited noncommercial fishery, 2017/18 and 2018/19, total harvest averaged 8,700 crab with about 97% of the harvest occurring in Kachemak Bay (Table 247-2). During the 2017/18 and 2018/19 seasons, subsistence harvest was 363 and 260 Tanner crab, respectively, with 96% of the harvest occurring in Kachemak Bay (Area E); subsistence harvest averaged 4% of the total noncommercial harvest during these two seasons.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Aligning the Cook Inlet Area subsistence Tanner crab season with the Cook Inlet-Resurrection Bay sport season in all noncommercial areas simplifies regulations. Eliminating the two-week January closure for the standard fishery in Kachemak Bay removes a currently unnecessary closure in the middle of the season. Implementing seasonal Tanner crab harvest limits for the standard and limited noncommercial fisheries would stabilize harvest. However, the board would need to consider whether the regulations still provide a preference for subsistence uses, as well as whether reasonable opportunity for success in harvesting crab for subsistence uses would still be maintained.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

**SUBSISTENCE REGULATION REVIEW:**

1. Is this stock in a nonsubsistence area? Yes, the stock is in subsistence and nonsubsistence areas.

2. Is this stock customarily and traditionally taken or used for subsistence? Yes; the board has found that shellfish, including Tanner crab, in the Cook Inlet Area outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3) are customary and traditionally taken or used for subsistence with seasons, size, pot, and bag limits specified (5 AAC 02.325).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? The Subsistence Division will propose subsistence levels options at this Board of Fisheries meeting that are reasonably necessary for subsistence uses in the Cook Inlet Area outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3).The board has not yet made an ANS finding: see Proposal 246

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 247-1.–Cook Inlet Area noncommercial (sport, personal use, and subsistence) Tanner crab permits issued from 2008/09 to 2018/19.

| | Number of permits issued[a] | | | Percent of permits fished[a] | | |
|---|---|---|---|---|---|---|
| Season | Sport | Subsistence | Total | Sport | Subsistence | Total |
| 2008/09[a] | | | 1,611 | | | 61% |
| 2009/10[a] | | | 1,457 | | | 63% |
| 2010/11[a] | | | 1,592 | | | 62% |
| 2011/12[a,b] | | | 1,023 | | | 54% |
| 2017/18[cd] | 1,782 | 148 | 1,930 | 55% | 34% | 53% |
| 2018/19[d] | 1,570 | 182 | 1,752 | 61% | 62% | 61% |

[a] Fishery operated under a single permit for all users 2008/09-2011/12 seasons; split into sport and subsistence permits beginning 2017/18 season.
[b] Fishery closed by EO 9/6/2011.
[c] Personal use fishery was repealed after determination by the board that it was redundant with the sport fishery.
d Limited (restricted) noncommercial fishery prosecuted.

Table 247-2.–Cook Inlet Area noncommercial (sport, personal use, and subsistence) Tanner crab fishery effort and harvest reported on ADF&G permits from 2008/09 to 2018/19.

| | | Effort (crabber days)[a] | | | Harvest (number of crab)[a] | | |
|---|---|---|---|---|---|---|---|
| Year | Location | Sport | Subsistence | Total | Sport | Subsistence | Total |
| 2008/09 | A | | | 3 | | | 0 |
| | B | | | 249 | | | 823 |
| | C | | | 19 | | | 9 |
| | D | | | 1,203 | | | 3,443 |
| | E | | | 3,580 | | | 12,742 |
| | Unknown | | | 54 | | | 156 |
| | **Total** | | | **5,108** | | | **17,173** |
| 2009/10[b] | A | | | 5 | | | 20 |
| | B | | | 357 | | | 1,320 |
| | C | | | 128 | | | 241 |
| | D | | | 1,149 | | | 3,358 |
| | E | | | 3,625 | | | 13,783 |
| | Unknown | | | 23 | | | 105 |
| | **Total** | | | **5,287** | | | **18,827** |
| 2010/11[b] | A | | | 14 | | | 34 |
| | B | | | 197 | | | 610 |
| | C | | | 31 | | | 41 |
| | D | | | 759 | | | 1,708 |
| | E | | | 3,537 | | | 10,968 |
| | Unknown | | | 185 | | | 384 |
| | **Total** | | | **4,723** | | | **13,745** |
| 2011/12[b,c] | A | | | 9 | | | 21 |
| | B | | | 104 | | | 372 |
| | C | | | 19 | | | 48 |
| | D | | | 518 | | | 1,509 |
| | E | | | 2,145 | | | 6,762 |
| | Unknown | | | 68 | | | 267 |
| | **Total** | | | **2,863** | | | **8,979** |
| 2017/18[b,d] | A | 2 | 1 | 3 | 4 | 3 | 7 |
| | B | 7 | 0 | 7 | 15 | 0 | 15 |
| | C | 45 | 5 | 50 | 48 | 15 | 64 |
| | D | 163 | 0 | 163 | 338 | 0 | 338 |
| | E | 2,939 | 131 | 3,070 | 7,744 | 345 | 8,089 |
| | Unknown | 55 | 0 | 55 | 116 | 0 | 116 |
| | **Total** | **3,211** | **137** | **3,348** | **8,266** | **363** | **8,629** |
| 2018/19[b,d] | A | 15 | 0 | 15 | 28 | 1 | 29 |
| | B | 8 | 13 | 21 | 45 | 1 | 46 |
| | C | 118 | 0 | 118 | 308 | 5 | 313 |
| | D | 129 | 0 | 129 | 242 | 0 | 242 |
| | E | 2,882 | 123 | 3005 | 7,886 | 253 | 8,139 |
| | Unknown[e] | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Total** | **3,152** | **136** | **3,288** | **8,509** | **260** | **8,769** |

[a] Fishery operated under a single permit for all users 2008/09-2011/12 seasons; split into sport and subsistence permits beginning 2017/18 season.

[b] Harvest numbers were expanded for nonrespondents.

[c] Fishery closed by EO 9/6/2011.

[d] Limited (restricted) noncommercial fishery prosecuted.

[e] Online reporting did not allow for unknown area beginning in 2018/19 season.

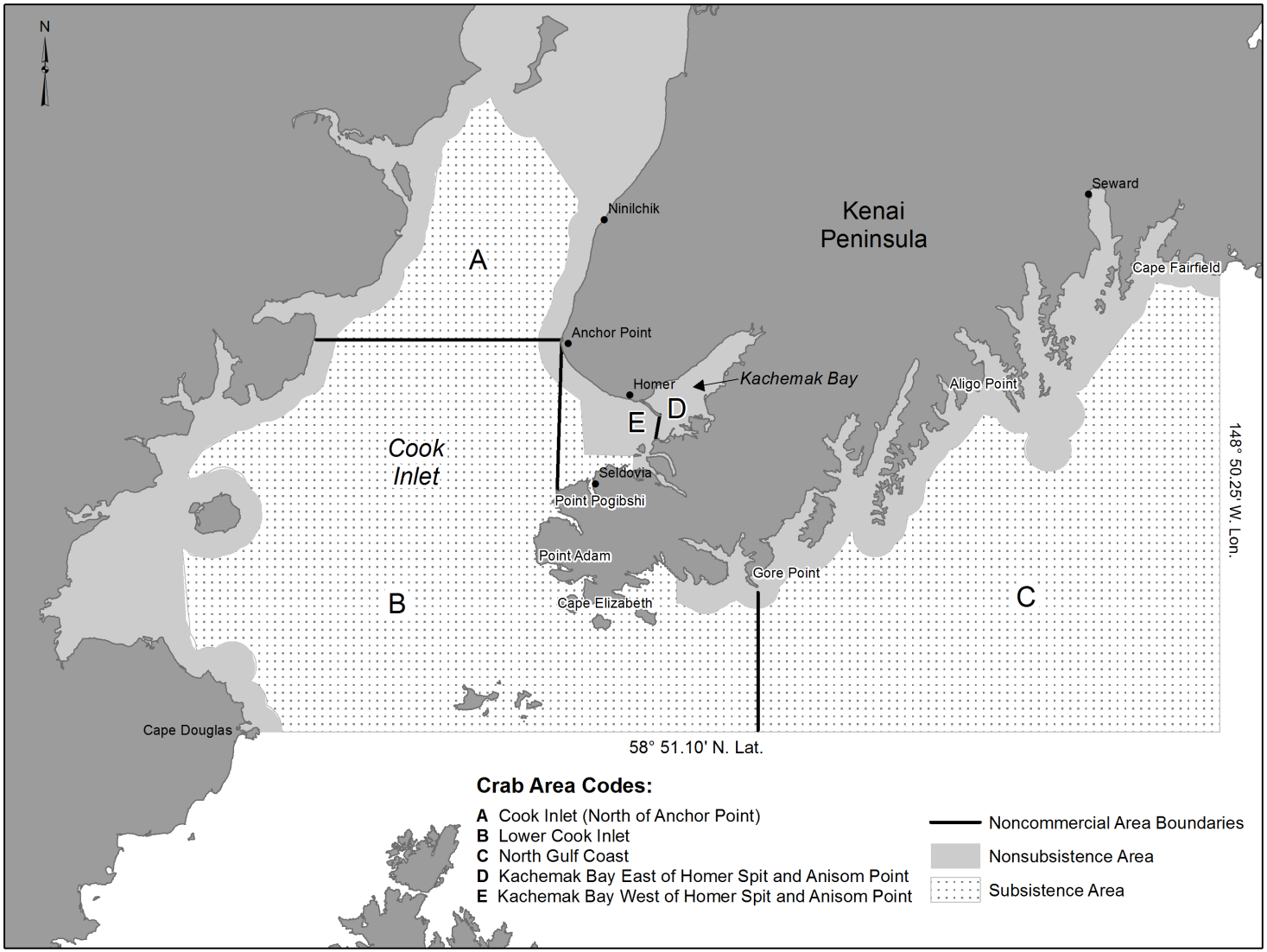


Figure 247-2.–Cook Inlet Area noncommercial Tanner crab fishing areas.

**PROPOSAL 254 – Allow crab rings in the Cook Inlet Area Tanner crab subsistence fishery.**

**5 AAC 02.307. Lawful subsistence fishing gear for the taking of Tanner crab; and 5 AAC 02.325 Subsistence Tanner crab fishery.**

**PROPOSED BY:** Gary Barnes.

**WHAT WOULD THE PROPOSAL DO?** This would allow the use of ring nets (stated as "crab rings" in the proposal) in the Cook Inlet Area Tanner crab limited subsistence fishery and establish limits on the number of ring nets allowed in the standard subsistence fishery.

**WHAT ARE THE CURRENT REGULATIONS?** In the Cook Inlet Area Tanner crab subsistence fishery, ring nets are listed as a legal gear under 5 AAC 02.307 (1), however, the limits to the gear are set specifically for pots in (3) of that section and do not include ring net limits. The gear for the limited subsistence fishery is limited to one pot and does not include provisions for ring nets.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This would clarify that ring nets could be used in both the standard and limited subsistence fisheries in the Cook Inlet Area. It would also place limits on the number of ring nets that could be operated: two ring nets in the standard fishery and one ring net in the limited fishery (the same allowances as pot gear).

**BACKGROUND:** Subsistence Tanner crab fishery regulations in other management areas allow ring nets as a legal gear. Regulations vary depending on how they specify gear limits.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** this proposal in order to provide clarity on legal gear types and limits.

**COST ANALYSIS:** Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery if they choose to purchase crab rings.. Approval of this proposal is not expected to result in an additional cost to the department.

**SUBSISTENCE REGULATION REVIEW:**

1. Is this stock in a nonsubsistence area? Yes, the stock is in subsistence and nonsubsistence areas.

2. Is this stock customarily and traditionally taken or used for subsistence? Yes; the board has found that shellfish, including Tanner crab, in the Cook Inlet Area outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3) are customary and traditionally taken or used for subsistence with seasons, size, pot, and bag limits specified (5 AAC 02.325).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? The board has not yet made an ANS finding: see Proposal 246

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

## Cook Inlet Area Sport Tanner Crab (6 proposals)

**PROPOSAL 248 – Establish an annual Tanner crab limit.**

**5 AAC 58.022. Waters; season; bag, possession, annual and size limits; and special provisions for Cook Inlet- Resurrection Bay Saltwater Area.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would establish an annual Tanner crab limit of 40 crab for the standard sport fishery and an annual limit of 20 crab for the limited sport fishery.

**WHAT ARE THE CURRENT REGULATIONS?** For the standard sport fishery, the bag and possession limits are five legal male Tanner crab. For the more restricted, limited sport fishery, the bag and possession limits are three legal male Tanner crab. There are no seasonal crab limits for either of these fisheries.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Implementing seasonal Tanner crab harvest limits for both the standard and limited sport fisheries would stabilize harvest in the sport fishery. Based on bag limit analyses, adopting seasonal limits will likely reduce the harvest in the limited noncommercial fishery by 25%. If this proposal and Proposal 247 are both adopted, the sport and subsistence fisheries would have the same seasonal harvest limits in both the standard and limited fisheries.

**BACKGROUND:** Refer to Proposal 247 for background information.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Implementing seasonal limits for the standard and limited noncommercial fisheries would stabilize harvest.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

**PROPOSAL 249 – Align the Tanner crab fishery season dates for Cook Inlet-Resurrection Bay Saltwater Area.**

**5 AAC 58.022. Waters; season; bag, possession, annual and size limits; and special provisions for Cook Inlet- Resurrection Bay Saltwater Area.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would align the Tanner crab sport fishery season dates for the entire Cook Inlet-Resurrection Bay Saltwater Area and, with adoption of Proposal 247, would align the sport and subsistence fisheries season dates.

**WHAT ARE THE CURRENT REGULATIONS?** For the standard sport Tanner crab fishery, the season in Kachemak Bay is September 1 through December 31 and January 15 or the beginning of the commercial Tanner crab season, through March 15. In the remaining noncommercial areas in the Cook Inlet-Resurrection Bay Area, the season is July 15 through March 15. For the more restrictive, limited sport fishery, the season is October 1 through last day of February.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** It would reduce regulatory complexity by aligning the standard sport Tanner crab fishery season in all Cook Inlet-Resurrection Bay noncommercial areas. With this change, the season would be extended by two weeks in Kachemak Bay by removing the January 1–14 closure period. The season would be shortened by 48 days in all other areas. If this proposal and Proposal 247 are both adopted, the sport and subsistence fisheries seasons would be aligned for the standard fisheries in all areas.

**BACKGROUND:** Refer to Proposal 247 for background information

In 1993, the board adopted the noncommercial Tanner crab season with a July 15 opening date to protect molting crab and the two-week closure from January 1 through 14 to discourage prospecting two weeks prior to the commercial fishery opening on January 15. In 2014, based on a department Tanner crab shell hardness study in Kachemak Bay, the board changed the opening date for the noncommercial Tanner crab fisheries in Kachemak Bay from July 15 to September 1. However, the season opening date was not changed in the other noncommercial areas in the Cook Inlet Area for subsistence fisheries or the Cook Inlet-Resurrection Bay Saltwater Area for sport fisheries (noncommercial areas A, B, and C; Figure 247-1).

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Aligning the Cook Inlet Area sport and subsistence Tanner crab season dates for all areas simplifies regulations. Eliminating the two-week January closure for the standard fishery in Kachemak Bay removes an unnecessary closure in the middle of the season.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

**PROPOSAL 250 – Create an appeal process for failure to report Tanner crab on the sport fishery harvest recording form.**

**5 AAC 58.026. Shellfish harvest recording form required.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Enact an appeal process for failure to report for the Tanner crab sport fishery harvest recording form.

**WHAT ARE THE CURRENT REGULATIONS?** Before harvesting shellfish with pots, a person must obtain a sport fishing shellfish harvest recording form as described in statewide sport fish regulations (5 AAC 75.016) and provided by the department. A person who fails to report may be ineligible to participate during the following season. There are no statewide or Cook Inlet-Resurrection Bay Saltwater Area sport fishing regulations outlining an appeal process for permittees that fail to comply with permit requirements, but there are statewide regulations for subsistence and personal use fisheries (5 AAC 02.015 (b); 5 AAC 77.015 (d)).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** It would provide a person who is ineligible to participate during the following season because they failed to comply with sport Tanner crab permit requirements a means to appeal the decision. It would align permit regulations for the sport and subsistence Tanner crab fisheries. It would also clarify language on the information required for reporting and duration of permit denial.

**BACKGROUND:** The Cook Inlet-Resurrection Bay Saltwater Area Tanner crab sport fishery requires a permit for participation and mandatory harvest reporting by noncommercial area. Historically, the sport, personal use, and subsistence Tanner crab fisheries were all included in one permit which only provided harvest estimates for the entire noncommercial fishery combined. Cook Inlet Area personal use regulations were repealed in 2016 in accordance with the Administrative Procedure Act (AS 44.62) to eliminate redundancies in existing regulations.

When the more restrictive, limited noncommercial fishery first opened for the 2017/18 season, separate online permits were available for both the sport and subsistence fisheries. With required online reporting, harvest was able to be estimated for both fisheries and provided the department a more functional process to identify persons who have not reported their harvest and deny permits as provided in regulation for persons who do not report. Denying permits is expected to improve compliance and lead to more timely reporting and accurate harvest information. For the 2019/20 season, 276 individuals were denied a sport permit for failing to report on their 2018/19 season permit. This resulted in approximately 16% of individuals who were issued a permit in 2018/2019 season being denied a permit in the 2019/20 season.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Providing an appeal process for failing to report on the Cook Inlet-Resurrection Bay Area sport Tanner crab permit will allow a person that failed to report with unavoidable circumstances to receive a permit in the following season. It will also make the sport fishery permitting process consistent with the subsistence fishery permitting process in the Cook Inlet Area.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

**PROPOSAL 251 – Require two escape mechanisms per pot in the Cook Inlet-Resurrection Bay Saltwater Area Tanner crab sport fishery.**

**5 AAC 58.035. Methods, Means, and general provisions–Shellfish.**

**PROPOSED BY:** Dan Anderson.

**WHAT WOULD THE PROPOSAL DO?** This would require two escape mechanisms per pot in the Cook Inlet-Resurrection Bay Saltwater Area Tanner crab sport fishery.

**WHAT ARE THE CURRENT REGULATIONS?** The required escape mechanisms for sport fishery shellfish pots are outlined in statewide commercial fishery regulations (5 AAC 39.145) and require an opening equal to or exceeding 18 inches in length; the opening must be laced, sewn, or secured together by a single length of untreated, 100 percent cotton twine, no larger than 30 thread. In addition, in the Cook Inlet-Resurrection Bay Saltwater Area, shellfish sport fishery pot gear, other than shrimp pots, must have a minimum of two escape rings that are at least four and three-eighths inches inside diameter.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** It would add regulatory complexity by having differing pot gear regulations for the Cook Inlet-Resurrection Bay sport Tanner crab fishery than any other shellfish fishery in the state, although the effect of the increased complexity would likely be minimal. It would create differing escape mechanism regulations between sport and subsistence fisheries in the same or adjacent waters. It may also reduce ghost fishing by lost crab pots and associated mortality by an unknown amount.

**BACKGROUND:** The purpose of mandatory escape mechanisms in shellfish pot gear is to prevent unnecessary mortality by allowing shellfish to escape. The mandatory untreated biodegradable twine degrades over time to allow shellfish and other fish to escape if pots are lost or left unattended. Escape rings allow sublegal crab to escape from pots prior to pots being pulled and minimizes release of crab at the surface; handling mortality and associated damage to crab have been well documented and should be minimized.

**DEPARTMENT COMMENTS:** The department **OPPOSES** this proposal. It would create unnecessary regulatory complexity and current regulations are adequate for allowing crab and other types of animals to escape from lost pots.

**COST ANALYSIS:** Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery by requiring the addition of a second escape mechanism in existing pots. Approval of this proposal is not expected to result in an additional direct cost for the department.

**PROPOSAL 252 – Establish a seasonal limit in the Cook Inlet-Resurrection Bay Saltwater Area sport Tanner crab fishery.**

**5 AAC 58.022. Waters; season; bag, possession, annual and size limits; and special provisions for Cook Inlet- Resurrection Bay Saltwater Area.**

**PROPOSED BY:** Dave Lyon.

**WHAT WOULD THE PROPOSAL DO?** This would establish a seasonal limit of between 36 and 48 crab in the Cook Inlet-Resurrection Bay Saltwater Area sport Tanner crab fishery.

**WHAT ARE THE CURRENT REGULATIONS?** Refer to Proposal 248 for current regulations.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Implementing seasonal Tanner crab harvest limits for the sport fishery would stabilize harvest. Based on bag limit analyses, the sport fishery harvest would be reduced by 12% for a seasonal limit of 36 crab and by 6% for a seasonal limit of 48 crab.

**BACKGROUND:** Refer to Proposal 247 for background information.

**DEPARTMENT COMMENTS:** Although the department supports implementing a seasonal limit, the department is **NEUTRAL** on this proposal. A seasonal limit between 36 and 48 Tanner crab may not sufficiently reduce the harvest in the limited sport fishery and a limit of 36 crab may overly restrict harvest in the standard fishery.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

**PROPOSAL 253 – Allow the use of crab rings in the Cook Inlet-Resurrection Bay Saltwater Area Tanner crab sport fishery.**

**5 AAC 58.022. Waters; season; bag, possession, annual and size limits; and special provisions for Cook Inlet- Resurrection Bay Saltwater Area; and 5 AAC 58.035. Methods, Means, and general provisions-Shellfish.**

**PROPOSED BY:** Gary Barnes.

**WHAT WOULD THE PROPOSAL DO?** This would allow the use of crab rings in the Cook Inlet-Resurrection Bay Saltwater Area Tanner crab limited sport fishery and establish limits on the number of ring nets allowed in the standard sport fishery.

**WHAT ARE THE CURRENT REGULATIONS?** In the Cook Inlet-Resurrection Bay Area Tanner crab standard sport fishery, ring nets are allowed through statewide provisions, but gear limits are not defined.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** It would clarify that ring nets (crab rings) may be used in both the standard and limited sport fisheries in the Cook Inlet-Resurrection Bay Area. It would also place limits on the number of ring nets that could be operated in both fisheries to be consistent with pot limits. This would provide an opportunity to participate in the limited fishery with less effective gear than a pot by users that are not able to operate a pot from their vessel. This may increase effort and harvest by a small, but unknown amount.

**BACKGROUND:** Sport fishing statewide gear regulations for shellfish (5 AAC 75.035) allow the use of ring nets in crab fisheries. The amount of effort with ring nets in the Cook Inlet-Resurrection Bay Tanner crab sport fishery is unknown but assumed to be low. The overall effectiveness of ring nets for Tanner crab is likely to be low given the depths in which they are harvested in the Cook Inlet-Resurrection Bay Area.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** this proposal in order to provide clarity on legal gear types and limits, and to provide additional fishing opportunity with a gear not currently allowed in the fishery.

**COST ANALYSIS:** Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery if they choose to purchase crab rings. Approval of this proposal is not expected to result in an additional direct cost for the department.

## Cook Inlet Commercial Tanner Crab (1 proposal)

**PROPOSAL 255 – Amend commercial and noncommercial thresholds, and management based on thresholds, for Cook Inlet Area Tanner crab fisheries.**

**5 AAC 35.408. Registration Area H Tanner crab harvest strategy; and 5 AAC 35.410. Fishing Seasons for Registration Area H.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would amend commercial and noncommercial thresholds, and management based on thresholds, for Cook Inlet Area (Registration Area H) Tanner crab fisheries.

**WHAT ARE THE CURRENT REGULATIONS?** Tanner crab abundance thresholds necessary to open Cook Inlet Area Tanner crab commercial and noncommercial fisheries are established in 5 AAC 35.408 Registration Area H Tanner crab harvest strategy.

The regulations for the Southern District commercial Tanner crab fisheries are linked to the Kachemak Bay trawl survey (Figure 255-1). The minimum stock threshold for the commercial fishery to open in the Southern District is 500,000 legal male Tanner crab. If the estimated abundance level of legal male Tanner crab is at least 1,000,000 crab, the commercial fishery will open at a harvest rate, in combination with the noncommercial fisheries, not to exceed 25% of the estimated abundance of legal crab. If the estimated abundance of legal male crab is at least 500,000 crab, but less than 1,000,000 crab, the commercial Tanner crab fishery will open to a harvest rate, in combination with the noncommercial fishery, not to exceed 15% of the estimated abundance of legal crab. The commercial fishery in the Southern District may not open if: (A) the estimated abundance is below 500,000 legal crab; (B) attainment of the guideline harvest level (GHL) would cause legal Tanner crab abundance to fall below 500,000 crab; or (C) the estimated harvest capacity, calculated by the number of registered vessels multiplied by the legal pot limit, and the estimated catch rate exceeds the GHL during a commercial fishery of a minimum 12-hour duration.

The regulations for the Kamishak and Barren Island Districts commercial Tanner crab fisheries are linked to the Kamishak Bay trawl survey (Figure 255-2). In the Kamishak and Barren Islands Districts, combined, the minimum stock threshold for the commercial fishery is 700,000 legal male Tanner crab. If the estimated abundance is at least 1,400,000 legal crab, the commercial fishery will have a harvest rate, in combination with the noncommercial fisheries, not to exceed 25% of the estimated abundance of legal crab. If the estimated abundance of legal crab is at least 700,000 but less than 1,400,000 legal crab, the commercial Tanner crab fishery will open to a harvest rate, in combination with the noncommercial fisheries, not to exceed 15% of the estimated abundance of legal crab. The commercial fishery in the Kamishak and Barren Islands Districts may not open if: (A) the estimated abundance is below 700,000 legal crab; (B) attainment of the GHL would cause legal male Tanner crab abundance to fall below 700,000 crab; or (C) the estimated harvest capacity, calculated by the number of registered vessels multiplied by the legal pot limit, and the estimated catch rate exceeds the GHL during a commercial fishery of a minimum 12-hour duration.

The harvest strategy limits the noncommercial Tanner crab GHL to no more than 10 percent of the recent three-year average of legal male stock abundance when legal male stock abundance is below the minimum stock threshold for a commercial fishery. The harvest strategy contains provisions for two noncommercial fisheries. The more restrictive, limited noncommercial fishery would occur in the absence of a trawl survey or when stock abundance are below thresholds. The standard noncommercial fishery is open when the stock abundance meets thresholds.

In noncommercial areas A, B, and C (Figure 247-1), Tanner crab noncommercial fisheries are managed from the Kamishak Bay trawl survey legal crab abundance estimates. In areas D and E, noncommercial fisheries are managed from the Kachemak Bay trawl survey legal crab abundance estimates. Regulation 5 AAC 35.410(c) connects the areas outside of Kachemak Bay (A, B, and C) to the Kamishak Bay survey for management of the noncommercial fisheries.

In areas D and E, or Kachemak Bay waters east of a line from Point Pogibshi to Anchor Point, the noncommercial Tanner crab fisheries will close when: the recent three-year average stock abundance of legal male Tanner crab estimated from the Kachemak Bay trawl survey is less than 100,000 crab; or estimated abundance of legal crab is less than 50,000 crab in any given year. In areas A, B and C, or all remaining waters of the Cook Inlet Area outside of Kachemak Bay, the noncommercial fisheries will close when: the recent three-year average stock abundance of legal male Tanner crab estimated from the Kamishak Bay trawl survey is less than 50,000 crab; or estimated abundance of legal male Tanner crab is less than 40,000 crab in any given year.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Updating commercial and noncommercial thresholds based on the most recent analysis, which included a reduction in the legal-size limit from 5.5 inches to 4.5 inches in 2017, will provide minimum thresholds for sustainable harvest in commercial and noncommercial fisheries. It will also use the abundance of legal male Tanner crab estimated in the Kachemak Bay trawl survey for management of noncommercial fisheries in all areas. This will reduce regulatory complexity by aligning regulations in all noncommercial areas for a given season and improve Tanner crab stock conservation.

**BACKGROUND:** Refer to background information found in Proposal 247.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Changes to the harvest strategy and associated regulations are needed to reflect the changes in management and assessment based on the new legal size of 4.5 inches. These changes will provide consistency, clarify conditions for differential management, and simplify regulations, thereby reducing confusion for the public.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional cost to the department.

## Upper Cook Inlet Area Salmon Sport (1 proposal)

**PROPOSAL 284 – Amend the size limit for Kenai River early-run king salmon from 36 inches to 34 inches.**

**5 AAC 57.120. General provisions for seasons, bag, possession, annual, and size limits, and methods and means for the Kenai River Drainage Area.**

**PROPOSED BY:** Alaska Board of Fisheries

**WHAT WOULD THE PROPOSAL DO?** This would amend the size limit for the Kenai River early-run king salmon sport fishery from 36 inches to 34 inches to be consistent with the size limit in the *Kenai River Late-Run King Salmon Management Plan.*

**WHAT ARE THE CURRENT REGULATIONS?** From January 1 – June 30, from its mouth upstream to an ADF&G regulatory marker located at the outlet of Skilak Lake, and from July 1 – July 31, from an ADF&G regulatory marker located approximately 300 yards downstream from the mouth of the Slikok Creek upstream to an ADF&G regulatory marker located at the outlet of Skilak Lake, only king salmon that are less than 36 inches in length as measured from tip of snout to tip of tail may be retained.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** When these provisions are in effect for early- and late-run Kenai River sport fisheries, anglers could only harvest king salmon less than 34 inches in length rather than less than 36 inches. The reduction in harvest resulting from the two-inch difference is negligible. Amending language referenced in the early-run plan would add regulatory consistency between early and late runs and is consistent with the size of "large fish" that comprise the Kenai River king salmon escapement goals.

**BACKGROUND:** At the 2017 Upper Cook Inlet (UCI) board meeting, the *Kenai River and Kasilof River Early-Run King Salmon Management Plan* was amended to include provisions that allowed the department to prohibit harvest of king salmon greater than 36 inches in length in the inriver sport fishery. At the 2020 UCI meeting, similar provisions were applied to the Kenai *River Late-Run King Salmon Management Plan* with a size limit of less than 34 inches in length. The board generated this proposal to be considered at the March 2020 Statewide meeting to align the size for regulatory consistency.

**DEPARTMENT COMMENTS:** The department is NEUTRAL on this proposal. The reduction in harvest from a two-inch difference in total king salmon length is expected to be negligible, but the department supports attempts to simplify regulations and make them more consistent.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

## Southeast Area Commercial Salmon (1 proposal)

**PROPOSAL 277 – Add the Crawfish Inlet Terminal Harvest Area and West Crawfish Inlet to waters that may be opened to a hatchery chum salmon troll fishery.**

**5 AAC 29.112. Management of chum salmon troll fishery.**

**PROPOSED BY:** Northern Southeast Regional Aquaculture Association (NSRAA)

**WHAT WOULD THE PROPOSAL DO?** This would expand the waters open to a troll fishery targeting hatchery-produced chum salmon during the summer coho salmon troll fishery closures. Waters of the proposed expansion include a larger portion of the Crawfish Inlet THA than currently allowed in regulation; expanded waters in West Crawfish Inlet would be determined by the department inseason.

**WHAT ARE THE CURRENT REGULATIONS?** 5 AAC 29.112(b)(3) only allows for the Crawfish Inlet Special Harvest Area east of 135°11.05′ W. long. to be opened for a hatchery chum salmon troll fishery during the summer troll fishery coho conservation closures.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Extent of waters open for a hatchery chum salmon troll fishery would expand to include a larger portion of the Crawfish Inlet THA and portions of West Crawfish Inlet (Figure 277-1). This would create more opportunity for the troll fleet to harvest hatchery produced chum salmon bound for Crawfish Inlet during the summer coho troll fishery closures. The harvest of hatchery chum salmon by the troll fleet would increase by an unknown amount. There would likely be a small, insignificant increase in coho and king salmon encounters by trollers targeting hatchery-produced chum salmon.

**BACKGROUND:** NSRAA began releasing hatchery produced salmon at the Crawfish Inlet remote site during 2015. Chum salmon began returning in 2017 and king salmon in 2018. This remote release site was established to provide additional opportunity to the troll fleet, in an attempt to bring the troll fleet closer to their enhanced salmon fishery allocation percentage. Large runs of hatchery produced chum salmon to Crawfish Inlet were observed in 2018 and 2019.

Chum salmon harvest in the troll and seine fisheries and aerial survey observations suggest that most chum salmon returning to rearing sites in Crawfish Inlet do so by first entering West Crawfish Inlet rather than Crawfish Inlet. The harvest of chum salmon in the directed chum salmon troll fishery in Crawfish Inlet and West Crawfish Inlet in 2018 and 2019 was 254,800 fish and 188,500 fish, respectively. The majority of the troll harvest of hatchery reared chum salmon comes from West Crawfish Inlet.

Coho salmon run strength is assessed in August to determine if a troll fishery closure is needed to meet allocation and conservation requirements established by the Alaska Board of Fisheries. The August assessment includes updated projections of the total commercial catch and regional abundance of wild coho salmon, as well as recommendations for the length and timing for a troll closure. The strength of coho salmon returns to inside waters is evaluated in part by assessing the cumulative catch-per-unit-effort in the four major drift gillnet fisheries. A troll closure for up to

ten days typically occurs in mid-August. If a coho conservation closure is not warranted, a fair start closure is required by regulation to be a minimum of two days, and prior to any second king salmon retention period. The actual length of that closure is decided in early August, when an assessment determines whether the number of coho salmon reaching inside waters is adequate to provide for spawning requirements, given usual or restricted inside fisheries on coho salmon and other species; or whether the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and recreational fisheries compared to average 1971–1980 levels.

During the 8-day coho salmon conservation closure from August 5–12 in 2019, the department opened waters of the Crawfish Inlet troll THA by emergency order to allow for a directed troll fishery targeting hatchery-produced chum salmon. The southern boundary lines were modified to exclude waters that may have increased encounters of wild Southeast Alaska coho and coastwide king salmon stocks, which are closed to retention during that time.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this allocative proposal. The department does not have conservation concerns for sporadic incidental encounters of wild coho or king salmon during this proposed fishery and hatchery-produced chum salmon are the predominant fish present and harvest during the time and for the area proposed.

This proposal mirrors the action that was taken by emergency order in 2019, with the addition of the adjacent waters of West Crawfish Inlet.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

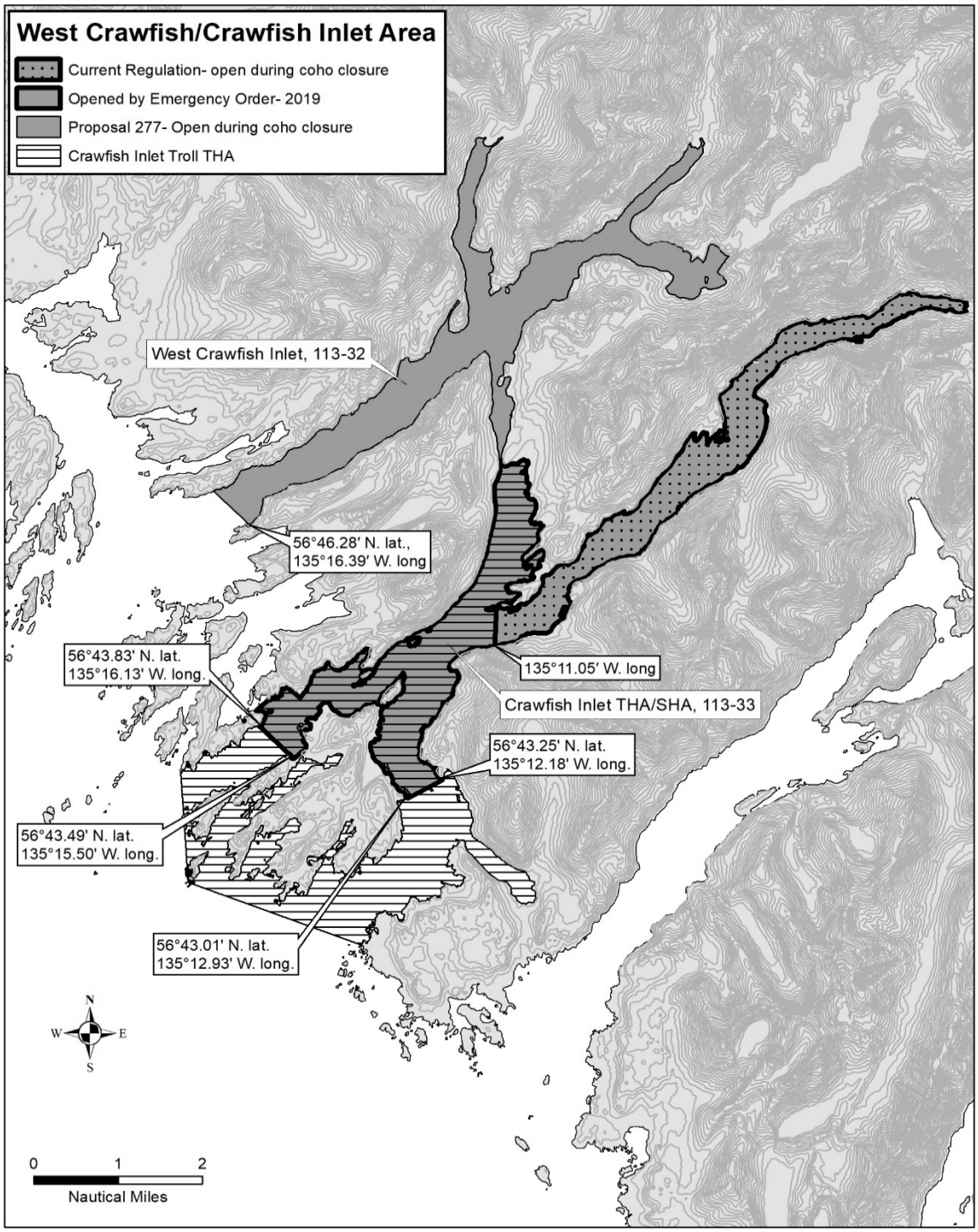


Figure 277-1.–Map of Crawfish Inlet and West Crawfish Inlet depicting Crawfish Inlet THA/SHA, area opened by emergency order in 2019, and are considered by Proposal 277.

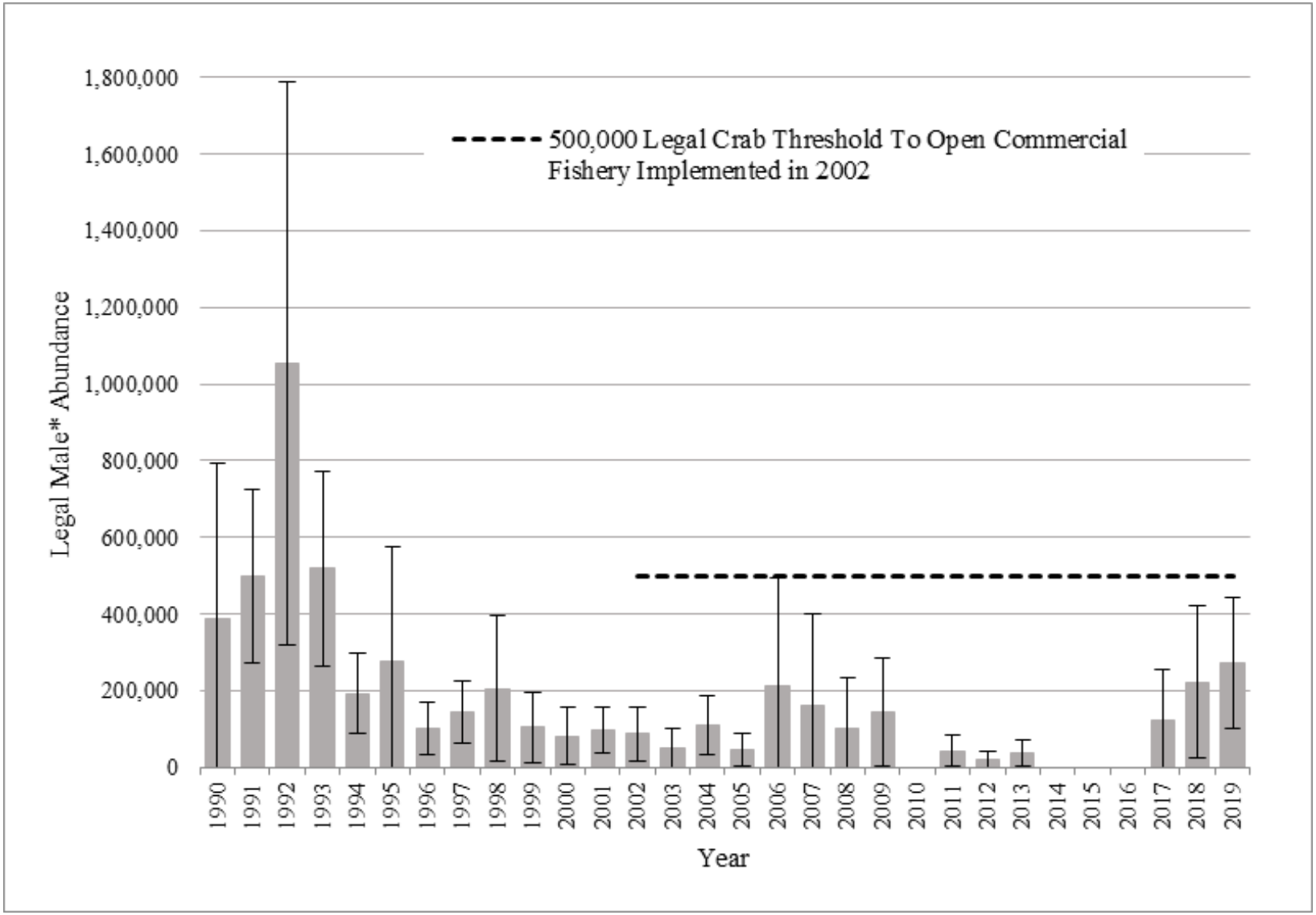


Figure 255-1.–Kachemak Bay trawl survey abundance estimates of legal male Tanner crab 1990–2019 (no survey in 2010 or 2014–2016); *legal male Tanner crab carapace width was 5.5 inches through 2016 and 4.5 inches since 2017.

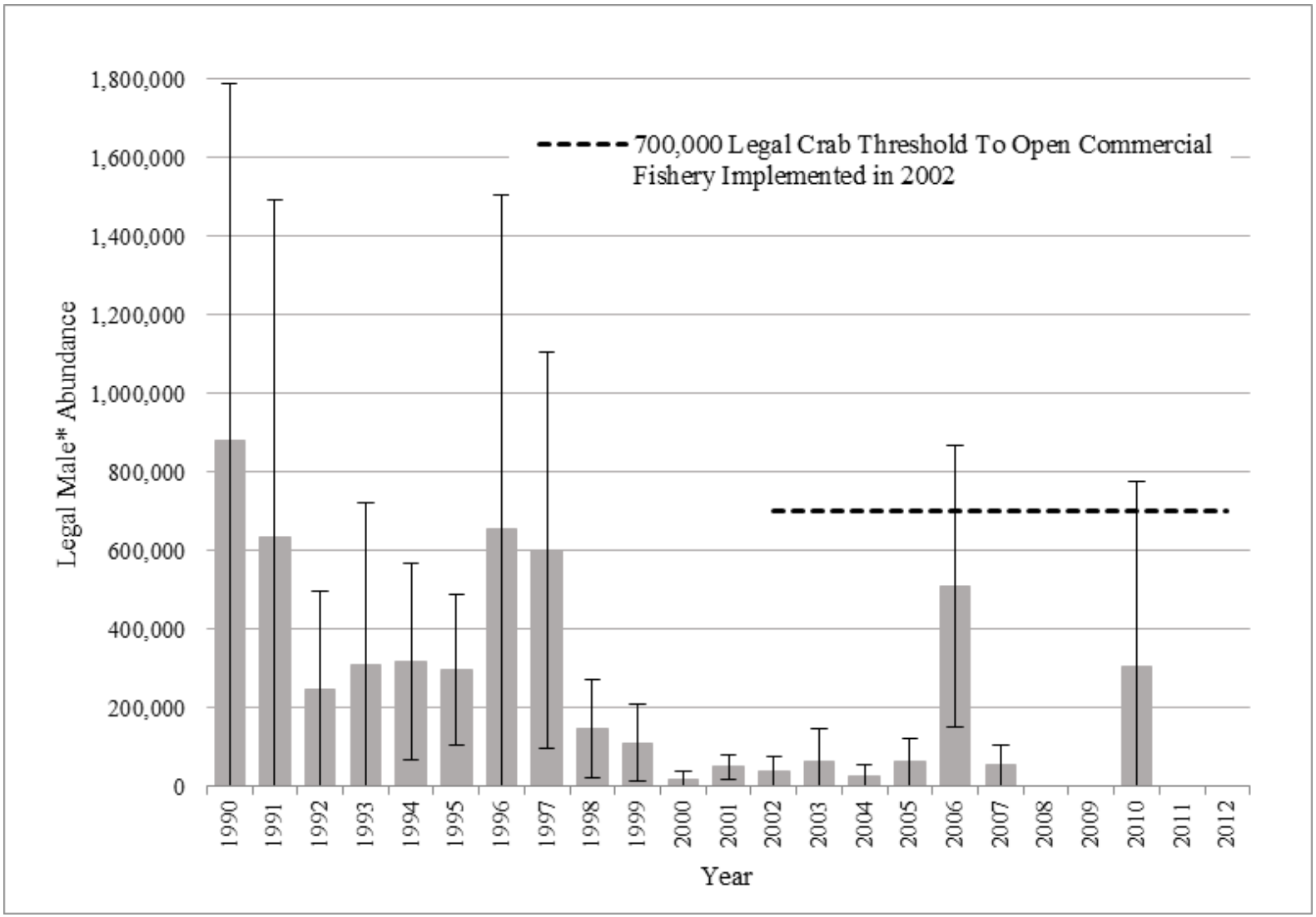


Figure 255-2.–Kamishak Bay trawl survey abundance estimates of legal male Tanner crab 1990–2012 (no survey in 2008–09 or 2011); *legal male Tanner crab carapace width was 5.5 inches.

# COMMITTEE OF THE WHOLE – GROUP 2: NORTON SOUND COMMERCIAL KING CRAB, BRISTOL BAY AREA COMMERCIAL SALMON, KUSKOKWIM AREA SUBSISTENCE SALMON, AND FRESHWATER SPORT FISHING (7 PROPOSALS – CHAIR PAYTON)

## Norton Sound Commercial King Crab (4 proposals)

**PROPOSAL 273 – Amend the season dates for king crab in the Northern District Norton Sound Section.**

**5 AAC 24.910. Fishing seasons for Registration Area Q.**

**PROPOSED BY:** Northern Norton Sound Fish and Game Advisory Committee.

**WHAT WOULD THE PROPOSAL DO?** Move the earliest start date of the winter through-the-ice commercial fishery from January 15 to February 1.

**WHAT ARE THE CURRENT REGULATIONS?** A commercial king crab fishing season may occur through the ice only and is established by emergency order to open on or after January 15 and close April 30, unless extended by an emergency order (5 AAC 34.910 (d)(2).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This would shorten regulatory season dates but in practice the earliest the season has opened by EO is February 7 so little actual impact to the fishery is expected under prevailing conditions.

**BACKGROUND:** The winter season dates now in effect were established with the 2016 season. The last two years have had the latest season starts on record with a start date of March 3, 2018 and February 25, 2019. The late start dates have occurred to allow better ice formation. Also, the sole winter crab buyer has not been interested in buying crab until late February because the buyer believes that the late winter weather tends to allow for better crab survival because of warming temperatures. In 2019, for the first time, the buyer periodically announced days they would not buy crab because of windy and cold weather likely affecting crab viability.

Fishing Seasons are a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP; FMP Section 8.2.5).

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal. The proposed season dates fall within the biologically acceptable time period to harvest this stock.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional direct cost for a private person to participate in this fishery. Additionally, adoption of this proposal is not expected to add additional cost to the department.

**PROPOSAL 274 – Limit the number of pot tags per permit per season in the Norton Sound Section commercial king crab fishery.**

**5AAC 34.925. Lawful gear for Registration Area Q.(e)(2)(C)**

**PROPOSED BY:** Northern Norton Sound Advisory Committee.

**WHAT WOULD THE PROPOSAL DO?** If a crab pot is lost in the winter through-the-ice commercial fishery, the permit holder would not be allowed to set a replacement pot.

**WHAT ARE THE CURRENT REGULATIONS?** a permit holder may operate no more than 20 pots described during the winter through-the-ice commercial king crab season.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** No replacement pot tags would be issued for lost pots. Pot tags are required to be placed on a line above the ice or attached to a stake when commercial fishing. If a permit holder lost all their crab pots, they would be unable to continue participating in the fishery. The potential loss of participation in the commercial crab fishery may result in permit holders being more cautious about deploying pots in the thinner ice layers near the offshore ice edge. This would likely reduce harvest rates over the course of the fishery during a given season.

**BACKGROUND:** Beginning in 2012 the number of commercial permit holders increased dramatically as the price paid for crab nearly doubled and in the following years there was a noticeable increase in the number of crab pots lost in the through-the-ice fishery. When the 20-pot limit went into effect in 2017 the number of commercial permit holders nearly doubled from the previous year as many former crew members became permit holders. Table 274-1 below shows a record 201 pots lost in the 2017 commercial fishery. Although commercial permit holders were limited to 20 pots, they were able to get replacement tags for any lost pots. In 2018 the number of permit holders decreased to near previous levels because the winter commercial fishery harvest level was restricted for the first time to 8% of the guideline harvest level (GHL). However, the number of pots lost was the second highest on record.

Pot limits are a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP; FMP Section 8.2.7 Pot Limits).

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal.

**PROPOSAL 275 – Allow a person or vessel to participate in the Norton Sound red king crab fishery after operating commercial Pacific cod pots in the Norton Sound Section within 14 days prior to the opening of the Norton Sound red king crab fishery.**

**5 AAC 34.XXX. New section.**

**PROPOSED BY:** Wes Jones.

**WHAT WOULD THE PROPOSAL DO?** Allow a person or vessel to continue fishing with pot gear within 14 days prior to the start of the Norton Sound red king crab fishery if that person or vessel was targeting Pacific cod.

**WHAT ARE THE CURRENT REGULATIONS?** A person or vessel that operates commercial, subsistence, personal use or sport pots during the 14 days immediately before the opening of a commercial king crab season in a king crab registration area may not participate in the commercial king crab fishery in the king crab registration area (5 AAC 34.053).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Allowing pot fishing nearer the king crab season start may allow those fishing before the opening date to prospect for king crab movement while targeting Pacific cod. This may be a disadvantage to those fishermen not pot fishing for Pacific cod in a "fair start" to crabbing.

**BACKGROUND:** The department news release announcing the guideline harvest level reminds those planning to participate in the crab fishery of the 14-day moratorium prior to the season opening. The summer commercial crab fishery usually begins in late June and can go until September 3 but has ended as early as late July. There are no tank inspections. In the Pacific cod fishery there have been fewer than 5 participants to date.

Gear Placement and Removal is a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP; FMP Section 8.3.2).

**DEPARTMENT COMMENTS:** The department is **OPPOSED** to this proposal. There are enforcement concerns since the elimination of the 14-day moratorium may present opportunity for people to begin fishing early.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional direct cost for a private person to participate in this fishery. Additionally, adoption of this proposal is not expected to result in additional costs to the department.

**PROPOSAL 276 – Allow a person or vessel to operate commercial Pacific cod pots in the Norton Sound Section within 14 days of the closure of the Norton Sound red king crab fishery after participating in the Norton Sound red king crab fishery.**

**5 AAC 34.XXX. New section.**

**PROPOSED BY:** Wes Jones.

**WHAT WOULD THE PROPOSAL DO?** Allow a person, or vessel, to operate commercial Pacific cod pots after the closure of the commercial king crab fishery in which that person, or vessel, previously participated in.

**WHAT ARE THE CURRENT REGULATIONS?** A person or vessel that participates in the Registration Area Q a commercial king crab fishery may not operate commercial, subsistence, personal use or sport pots during the 14 days immediately after the close of the commercial crab season; except, a person or vessel may stop participating in the commercial king crab fishery and operate commercial pots other than king crab pots if the king crab pots are put in storage as specified in 5 AAC 34.052 and contacts the department, in person, to request that the king crab registration be invalidated (5 AAC 34.053).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Allowing Pacific cod pot fishing within 14 days of the commercial king crab fishery season closure would allow permit holders to target another commercial species. The department sets a time limit of usually 12 to 24 hours after the closure of the commercial king crab fishery for the catch to be delivered to the buyer.

**BACKGROUND:** The department news release announcing the closure to the commercial king crab fishery reminds those that participated in the crab fishery of the 14-day moratorium.

Gear Placement and Removal is a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP; FMP Section 8.3.2).

**DEPARTMENT COMMENTS:** The department is **OPPOSED** to this proposal. Under provisions of 5 AAC 34.053 (2) a person may stop participating in a king crab fishery and operate other pot gear provided the king crab pot gear has been placed in storage or removed from the water and the vessel's king crab fishery registration has been invalidated.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional direct cost for a private person to participate in this fishery. Additionally, adoption of this proposal is not expected to result in additional costs to the department.

## Bristol Bay Area Commercial Salmon (1 proposal)

**PROPOSAL 279 – Allow two Bristol Bay drift gillnet CFEC permit holders to fish concurrently from the same vessel and jointly operate up to 200 fathoms of drift gillnet gear when the Naknek River Special Harvest Area is open.**

**5 AAC 06.333. Requirements and specifications for use of 200 fathoms of drift gillnet in Bristol Bay.**

**PROPOSED BY:** Robert Heyano.

**WHAT WOULD THE PROPOSALS DO?** This proposal would allow the use of dual-permit drift gillnet operations in Bristol Bay when the Naknek River Special Harvest Area (NRSHA) is open.

**WHAT ARE THE CURRENT REGULATIONS?** Current regulations limit the length of a drift gillnet to no more than 150 fathoms per vessel unless two drift gillnet permit holders are on board a vessel at the same time, the vessel and permit holders have registered as a dual operation, and the vessel is marked accordingly. Dual operations are allowed in Bristol Bay except for the Togiak District, in special harvest areas, and anywhere in Bristol Bay when the NRSHA is open. When the NRSHA is open, dual-permit drift gillnet operations (D-configuration) are unlawful in any other district in Bristol Bay (5 AAC 06.333(a)(3)).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Dual-permit drift gillnet operations would be allowed to continue to operate in Bristol Bay when the NRSHA is open. The Nushagak and Ugashik districts are the districts in which dual-permit operations would continue to be allowed when the NRSHA is open. This proposal would have no effect on management for escapement goals. It is not possible to determine if there would be a change in the number of vessels or total amount of gear fished.

**BACKGROUND:** In 2003 the board adopted regulations that allowed the use of 200 fathoms of gear when two permit holders were on the same vessel and the vessel was registered and marked accordingly. Dual-permit operations were not allowed in any of the special harvest areas or when a single CFEC permit holder was restricted to less than 150 fathoms.

In 2009, the board passed a regulation that limited all vessels to 150 fathoms of drift gillnet gear in Bristol Bay when the Naknek River Sockeye Salmon Special Harvest Area Management Plan (5 AAC 06.360) was in effect.

In 2012, the board clarified where and when dual permit operations were not allowed. These include the Togiak District, in a special harvest area, and in the Bristol Bay area when the Naknek River Special Harvest Area is open under 5 AAC 06.360.

NRSHA was opened in 2018 for the first time in over a decade and opened again in 2019. In 2019 the department issued a news release allowing dual-permit vessels to continue normal operations while the NRSHA was open. This was done outside the department's emergency order authority.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in additional direct cost for the department.

## Kuskokwim Area Subsistence Salmon (1 proposal)

**PROPOSAL 280 – Allow use of set gillnets with 6" mesh to harvest salmon other than king salmon and other nonsalmon fish species on the Kuskokwim River for subsistence purposes during times of king salmon conservation.**

**5 AAC 01.270. Lawful gear and gear specifications and operation and 5 AAC 07.365 Kuskokwim River Salmon Management Plan.**

**PROPOSED BY:** Organized Village of Kwethluk.

**WHAT WOULD THE PROPOSAL DO?** This would modify subsistence set gillnet specifications and operation during times of king salmon conservation. Specifically, gillnet mesh size may not exceed 6 inches, net length may not exceed 60 feet, and nets may only be operated as a set net, with no placement limitations in relation to the high-water mark. In addition, this would add language to address what the gillnet may be anchored with, such as commercial anchors or make-shift anchors constructed out of wood.

**WHAT ARE THE CURRENT REGULATIONS?** During times of king salmon conservation, the department may restrict gillnet operations to 4 inch or smaller mesh size, net length may not exceed the length specified by the commissioner, and gillnets may only be operated as set gillnets, with no part being more than 100 feet from the ordinary high-water mark (5 AAC 01.270 (n)(1)(B); 5 AAC 07.365 (c)(2)(C) and (c)(3)(C)).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** During times of king salmon conservation and during the regulatory early season closure, subsistence fishermen would be allowed to use a set gillnet with 6 inch or less mesh, not exceeding 60 feet in length. A set gillnet could also be placed anywhere within the river channel. This will lead to an increase in king salmon harvest due to the larger mesh size and lack of bank orientation requirement. Higher harvests will decrease the amount of subsistence fishing time provided when the projected size of the king salmon return warrants subsistence fishing restrictions.

**BACKGROUND:** Since 2010, the Kuskokwim River has experienced poor king salmon runs. Total run estimates for Kuskokwim River king salmon in 2012, 2013, and 2014 are the 3 lowest on record. From 2010 through 2013 most tributary escapement goals were not achieved and the Kuskokwim River drainagewide sustainable escapement goal established in 2013 was not achieved that year. Since 2014, a very conservative management approach has been employed on the Kuskokwim River, which has led to most tributary escapement goals being achieved. In addition, drainagewide escapement levels have been near the upper end of the established escapement goal of 65,000–120,000 king salmon since 2015.

The preliminary 2019 king salmon run was average, with an estimated total run of approximately 230,000 fish. The spawning escapement was estimated to be 180,000, the drainagewide sustainable escapement goal was exceeded, and all tributary goals were met or exceeded. Harvest data for 2019 are still being analyzed; however, communications from Kuskokwim River residents indicate most subsistence needs in 2019 for king salmon were met.

Prior to 2015, 4-inch or less mesh gillnets not exceeding 60 ft in length were allowed during times of king salmon conservation by emergency order as an opportunity for subsistence fishermen to harvest species of fish other than salmon (e.g., sheefish, whitefish, burbot, and northern pike). It was observed that subsistence fishermen were setting 4-inch mesh gillnets and targeting king salmon with this gear. This was a direct conflict with the intent of this fishing opportunity. In response, the board addressed this issue at their March 2015 meeting and adopted regulations to provide the department with the ability to specify that during times of conservation, 4-inch mesh gillnets could only be operated as set gillnets and no part of the gillnet may be more than 100 ft from the ordinary high-water mark.

The Kuskokwim Subsistence Salmon Panel was established by the board in October 2014 to seek public input on how to ensure an equitable distribution of subsistence salmon resources throughout the Kuskokwim River drainage and potential tools for equitable distribution in times of low abundance. The panel met in Bethel in January and August of 2015 to develop options for consideration by the board. Subsequently, in January 2016, the board met in Fairbanks to consider proposals concerning the Arctic-Yukon-Kuskokwim areas. An early season king salmon subsistence fishing closure, like the approach taken in 2014 and 2015, was suggested and agreed to by a group of Kuskokwim River residents who were in attendance. The board passed language that would annually suspend directed subsistence fishing for king salmon in the Kuskokwim River until after June 11. The intent of this closure was to distribute fish throughout the drainage for equitable harvest opportunity. Consequently, the closure also conserves fish for escapement purposes. In 2017, the board provided the department with additional guidance by directing the department to provide at least 1 subsistence fishing opportunity per week with 4-inch or less mesh set gillnets during the closure. This allows subsistence fishermen the opportunity to harvest species other than salmon during the regulated early season closure.

Limited harvest data are available during the early season front end closure when all recent 4-inch or less set gillnet fishing periods were provided. Two 12-hour 4-inch or less set gillnet fishing periods were provided by the department during the 2019 early season subsistence fishing closure. Concurrent fishing periods were offered within federal jurisdiction by the USFWS and bank-oriented set gillnets with 6-inch or less mesh were the legal gear for federally qualified Kuskokwim Area residents. Harvest estimates have been produced by the USFWS for the lower portion of the Kuskokwim River downriver from the community of Akiak, where the majority of fishing effort occurs. Total king salmon harvest during the two fishing periods was estimated to be 810 king salmon. Harvest estimates were not apportioned by mesh size; however, a broad comparison can be made to total drainagewide subsistence harvest. The estimated harvest of king salmon that occurred in the lower Kuskokwim River during both early season set gillnet fishing periods is small compared to the preliminary estimated drainagewide harvest of 50,000 fish.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on the allocative aspects of this proposal. The department would support this proposal with modifications. The department supports adding 6-inch or less set gillnet mesh size to subsistence lawful gear and gear specifications and operations and to specific sections of the *Kuskokwim River Salmon Management* Plan. The department recommends maintaining the ability to implement 4-inch or less set gillnet mesh size restrictions if warranted based on the king salmon run size. Adding set gillnet mesh of 6-inch or smaller would provide the department with an additional gear type to implement during and after the front-end closure when there is a projected harvestable surplus of king salmon. The department opposes the removal of bank orientation requirements from current regulations. Removing the

bank orientation requirement for set gillnets would allow fishermen to specifically target king salmon by placing nets in their primary migration routes.

**COST ANALYSIS:**

Adoption of this proposal is not expected to result in additional direct cost for a private person to participate in this fishery. Adoption of this proposal is not expected to result in additional costs to the State.

**SUBSISTENCE REGULATION REVIEW:**

1. Is this stock in a nonsubsistence area? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes, the board made positive customary and traditional use findings for halibut, Pacific cod, and all other finfish in the Kuskokwim Area, and specific findings for king, chum, sockeye, coho, and pink salmon in the Kuskokwim River drainage (5 AAC 01.286).

3 Can a portion of the stock be harvested consistent with sustained yield? Yes

4 What amount is reasonably necessary for subsistence use? In January 2013 the board revised the salmon amount reasonably necessary (ANS) findings in the Kuskokwim River drainage as follows: 67,200–109,800 king salmon; 41,200–116,400 chum salmon; 32,200–58,700 sockeye salmon; 27,400–57,600 coho salmon; and 500–2,000 pink salmon (5 AAC 01.286(b)). The board has not made a finding for nonsalmon species in the Kuskokwim Area.

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

## Freshwater Sport Fishing (1 proposal)

### PROPOSAL 281 – Prohibit use of live non-native earthworms as bait

### 5 AAC 75.022. Freshwater sport fishing.

**PROPOSED BY:** Matt Bowser.

**WHAT WOULD THE PROPOSAL DO?** Prohibit sport anglers from using live nonnative earthworms of the genus *Lumbricus*, commonly called nightcrawlers, as bait when sport fishing in fresh waters. This proposal would not prohibit sport anglers from the use of earthworms native to Alaska as bait, only the two nonnative species *Lumbricus terrestris* and *Lumbricus rubellus*, already present in Alaska.

**WHAT ARE THE CURRENT REGULATIONS?** Sport fish regulations define "bait" as "any substance applied to fishing gear for the purpose of attracting fish by scent, including fish eggs in any form, natural or preserved animal, fish, fish oil, shellfish, or insect parts, natural or processed vegetable matter, and natural or synthetic chemicals." There are no other references in sport fishing regulations that prohibit the use of invertebrates as bait, including earthworms.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Anglers would not be able to use *Lumbricus* spp. (a.k.a. nightcrawlers) as live bait when sport fishing. Local and regional retailers or online vendors would see reduced sales of nightcrawlers because anglers could no longer purchase these species of earthworms for live bait. Anglers who prefer to use earthworms would have to ensure earthworms are dead before using or replace them with an alternative bait. The objective of prohibiting use of *Lumbricus* earthworms is to reduce the spread of nonnative earthworms. Although the board can prohibit the use of nonnative earthworms as bait, Alaska lands and waters would still be at risk from invasive earthworms transmitted by vectors not addressed by this proposal.

**BACKGROUND:** Twenty-one species of earthworm have been documented in Alaska - two of which are believed to be native. Of all these species, thirteen are nonnative earthworms that have been established in Alaska, and of these *Lumbricus terrestris* (nightcrawlers) and *Lumbricus rubellus* are of potential concern because of their ability to alter terrestrial and riparian environments and compete with native earthworms. Both *Lumbricus* species are decomposers and mainly affect environments by feeding on leaf litter, which causes loss of organic layers, and in turn can affect plants, fungi, and organisms dependent on this layer, and/or increase erosion. Terrestrial changes have been documented near Stormy Lake near Nikiski. Some plants (e.g., grasses) and worm predators (e.g., robins) can benefit from these changes caused by *Lumbricus*. Little is known of their effects on aquatic ecosystems, which are closely linked to riparian habitats. A study of juvenile coho salmon in the Anchor River showed these fish have been observed feeding on *Lumbricus rubellus* and achieving more growth than those that did not; however, whether there is a net benefit is unknown.

The most common means of transport is accidental inclusion of earthworms, eggs, or cocoons in soils, plant pots, mulches or other materials moved by people in the agricultural and horticultural

trades. Discarding of bait also spreads *L. rubellus*. Logging, back-country fishing and off-road recreation (using either pack animals or motorized vehicles) are significant transport vectors into remote areas. The dispersal of *Lumbricus* earthworms in Alaska has been caused by humans and it appears these worms are being introduced into some areas when unused fishing bait is dumped. Nightcrawlers are used by anglers and can be readily purchased throughout Southcentral, Southeast, and Interior Alaska at major outdoor retailers and locally owned stores carrying fishing tackle.

The distribution of both *Lumbricus* species in Alaska appears to be limited by cold temperatures, with no populations known to survive north of the Alaska Range except in human-modified environments: for example, next to buildings where the soil may have been kept warm artificially. In Alaska, *Lumbricus* species tend to occur around human development and at popular fishing lakes. Currently *Lumbricus* worms occur in Southcentral and Southeast Alaska, with the exception of a single specimen of *Lumbricus terrestris* collected from the University of Alaska Fairbanks campus. Both *L. terrestris* and *L. rubellus* are cold-tolerant only to 30° F as adults, but they can survive as cocoons down to 23° F in *L. terrestris* and -31° F in *L. rubellus*. *Lumbricus terrestris* survives cold temperatures by overwintering at depths of up to 5 feet below the ground.

Within developed lands, *Lumbricus* worms can spread by gardening, as well as in agricultural and construction activities due to the moving of soil. The degree to which these activities occurs and affects dispersal of *Lumbricus* worms is unknown. On their own these earthworms will disperse <50 ft per year. In Southeast Alaska, nonnative earthworm distribution is strongly related to timber harvest activity. Earthworms are commonly used for composting in Alaska, but the species that are best suited for and most often used for efficient composting are *Eisenia* species, not *Lumbricus* species. Some stores order their nightcrawlers from vermiculture operations in the Lower 48 and worm cultures can be contaminated with other species of nonnative earthworms.

Minnesota and Wisconsin have both recognized earthworms as a problematic invasive species, but live earthworms or nightcrawlers are still permitted to be used as live bait by anglers. However, these states have made it illegal to release unused bait back into lakes and streams. The department reviewed fishing regulations in several western states (WA, CA, ID, OR, MT, NV, NM, and CO) and all permitted the use of live earthworms as bait. Bait prohibition in these western states generally relate to the illegal transfer or use of live bait fish or exotic fishes.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal. The protection of Alaska's aquatic and riparian environments from invasive species cannot be accomplished exclusively by prohibiting the use of live *Lumbricus* spp. or "nightcrawlers" as bait, as it is only one of the vectors of dispersal. *Lumbricus* earthworms alter terrestrial and riparian environments. The detrimental effects of invasive *Lumbricus* species on aquatic ecosystems is unknown. Banning only *Lumbricus* species would be difficult for enforcement because of species identification relative to alternative earthworm species native to Alaska or those used for composting.

**COST ANALYSIS:** Approval of this proposal may require anglers to replace live earthworms with alternative baits. Approval of this proposal is not expected to result in an additional direct cost to the department.

# COMMITTEE OF THE WHOLE – GROUP 3: KODIAK AREA SUBSISTENCE KING CRAB, ALASKA PENINSULA AND ALEUTIAN ISLANDS AREA SPORT FISHING KING CRAB, KODIAK, CHIGNIK, AND ALASKA PENINSULA COMMERCIAL KING AND TANNER CRAB, BERING SEA AND ALEUTIAN ISLANDS COMMERCIAL KING AND TANNER CRAB, AND ONBOARD OBSERVER PROGRAM (17 PROPOSALS – CHAIR JENSEN)

## Kodiak Subsistence King Crab (1 proposal)

**PROPOSAL 256 – Adopt amounts reasonably necessary for king crab in the Kodiak Area.**

**5 AAC 02.466. Customary and traditional subsistence uses of shellfish stocks and amounts reasonably necessary for subsistence**.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would adopt amounts reasonably necessary for subsistence (ANS) for king crab stocks in the Kodiak Area.

**WHAT ARE THE CURRENT REGULATIONS?** The board has not yet made an ANS finding for the stock in this area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** An ANS finding will provide the board with a metric to determine if the regulations are providing a reasonable opportunity for subsistence uses of king crab in this area.

**BACKGROUND:** Alaska Statute 16.05.258(b) directs the board to determine the amount of the harvestable portion of fish stocks that support customary and traditional (C&T) uses that is reasonably necessary for subsistence uses. Following adoption of the first subsistence law in 1978, in 1988 the board determined that there are C&T uses of king crab (all species) in the Kodiak Management Area (except in the Semidi Island Overlap section, the North Mainland Section, and the South Mainland Section: no finding was made in those 3 sections). In 1993, following adoption of a revised subsistence law, the board reviewed available harvest and subsistence use information, as summarized in an eight-criteria worksheet prepared by the department in accordance with subsistence procedures at 5 AAC 99.010. The board reconfirmed the positive C&T finding for king crab and readopted all regulations allowing subsistence harvests for all shellfish.

In 1996, due to concerns of declining king crab populations in the Kodiak Area, the board adopted regulations limiting subsistence harvesters in the Kodiak Area to 3 male king crab per household per year and 1 pot per vessel. These regulations have been in place since that time.

In 2015, the board found positive C&T findings for Tanner crab, Dungeness crab, and miscellaneous shellfish and determined ANS ranges for these species (5 AAC 02.466). At the same time, the board extended the C&T finding for king crab to the entire Kodiak Area. An ANS for king crab was not determined at that meeting.

A permit is required for any resident wishing to harvest crab in the Kodiak Area. The permit collects harvest data illustrating the user's harvest date, location, and number of individual crabs. Permit harvest data exist for every year since 1995 for king crab. The department's written report in RC 3 *Options for amounts reasonably necessary for subsistence uses of crab in the Cook Inlet and Kodiak areas* (posted at the meeting website) provides harvest assessment data from subsistence permits as well as from household surveys conducted in the Kodiak Area. The report also provides options for ANS findings that the board may wish to consider.

**DEPARTMENT COMMENTS:** The department submitted and is **NEUTRAL** on this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

**SUBSISTENCE REGULATION REVIEW:**

1. Is this stock in a nonsubsistence area? No.

2. Is this stock customarily and traditionally taken or used for subsistence? Yes. The board has found that that king crab, Tanner crab, Dungeness crab, shrimp, and miscellaneous shellfish are customarily and traditionally taken or used for subsistence in the Kodiak Area.

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? The board has not established an ANS finding for the king crab stocks in this area: see the written report in RC 3 *Options for amounts reasonably necessary for subsistence uses of crab in the Cook Inlet and Kodiak areas* (posted at the meeting website).

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

## Alaska Peninsula and Aleutian Islands Area Sport King Crab (1 proposal)

**PROPOSAL 267 – Establish a season and bag and size limits for golden king crab in the Alaska Peninsula and Aleutian Islands Area.**

**5 AAC 65.020. Fishing seasons for the Alaska Peninsula and Aleutian Islands Area.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This would establish a season of June 1 through January 31 and a bag and size limit of six male golden king crab in the Alaska Peninsula and Aleutian Islands Area (APAIA) that would mirror existing subsistence regulations. Sport fishing for red king crab would remain closed.

**WHAT ARE THE CURRENT REGULATIONS?** Sport fishing for all species of king crab is closed in the APAIA.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This would increase harvest of golden king crab by an unknown but likely small amount.

**BACKGROUND:** Sport fishing for all species of king crab is closed in the APAIA though it is only red king crab stocks that are of concern due to low abundance. Golden king crab populations are currently at levels that support an annual commercial harvest in the Aleutian Islands, as well as subsistence fisheries near several communities in the Aleutian Islands. Sport harvest of Tanner and Dungeness crab occurs throughout the Alaska Peninsula and Aleutian Islands, but both the harvest of crab and overall saltwater effort are very low (Table 267-1). Alaska residents can currently harvest golden king crab under subsistence regulations and introducing concurrent sport fishing regulations would allow both residents and nonresidents to participate in the fishery. Angler effort in the APAIA is very low due to the remote nature of the area and the deep waters golden king crab prefer, therefore, effort and harvest are expected to be low. Although some anglers would be able to take advantage of the opportunity this is one of the few areas of the state where there is little conservation concern for allowing harvest on golden king crab stocks. Effort would be expected to be mostly from guided anglers though guided effort can be sporadic in the APAIA, with generally less than 3 charter boats operating in the area. Guided angler harvest is confidential in almost all years available from the logbook data. No more than seven charter boats have ever operated in the APAIA and charter boats targeting golden king crab would be expected to be large vessels on multi-day trips.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

Table 267-1.–SWHS estimates of Dungeness and Tanner crab harvest, anglers and angler-days of saltwater effort in the APAIA, 2009–2018.

| Year | Anglers | Resident angler- days | Non-resident angler-days | Dungeness crab | Tanner crab |
|---|---|---|---|---|---|
| 2009 | 1,839 | 3,815 | 3,488 | 252 | 796 |
| 2010 | 1,703 | 3,261 | 2,036 | 0 | 298 |
| 2011 | 1,855 | 3,102 | 1,514 | 0 | 358 |
| 2012 | 1,774 | 6,824 | 2,213 | 0 | 0 |
| 2013 | 1,466 | 2,595 | 2,646 | 444 | 0 |
| 2014 | 1,364 | 4,217 | 3,631 | 241 | 598 |
| 2015 | 1,377 | 5,657 | 2,111 | 0 | 78 |
| 2016 | 1,098 | 3,241 | 1,777 | 30 | 485 |
| 2017 | 1,283 | 1,596 | 1,237 | 0 | 63 |
| 2018 | 1,586 | 6,588 | 2,080 | 537 | 507 |
| 2009–2018 Average | 1,535 | 4,090 | 2,273 | 150 | 318 |

## Kodiak, Chignik, and Alaska Peninsula Commercial King and Tanner Crab (5 proposals)

### PROPOSAL 257 – Open the Kodiak District Tanner crab fishery December 15.

### 5AAC 35.510 Fishing seasons for Registration Area J.

**PROPOSED BY:** Dia Kuzmin.

**WHAT WOULD THE PROPOSAL DO?** Change season opening date for the Kodiak District Tanner crab fishery from January 15 to December 15.

**WHAT ARE THE CURRENT REGULATIONS?** The Kodiak District Tanner crab fishery opens at 12:00 noon, January 15, unless delayed by weather. If the 4 a.m. National Weather Service (NWS) marine forecast on January 14 contains a gale warning for January 14 or January 15, the season will be delayed for 24 hours. If after the initial weather delay, the 4:00 a.m. NWS marine forecast for January 15 or January 16, again a contains a gale warning, the season opening will be delayed an additional 24 hours. Season opening delays may continue on a rolling 24-hour basis until 12:00 noon January 25, when the season will open regardless of the marine forecast.

While registered for the Kodiak District commercial Tanner crab fishery, a person or vessel may not operate any other commercial, subsistence, or sport pot gear. If a person or vessel intends to participate in the Kodiak District commercial Tanner crab fishery, they may not operate any commercial, subsistence, or sport, or pot gear during the 14 days prior to the fishery opening. There is no prohibition against operating other gear types (e.g., longline, jig, etc.) in the 14 days prior to the commercial Tanner crab fishery opening.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** A December 15 start date would likely benefit individuals who participate in Kodiak Pacific cod and Tanner crab fisheries by providing Tanner crab fishing opportunity at a time of the year when Pacific cod fisheries are traditionally closed. This may increase participation and competition in the Kodiak Area commercial Tanner crab fishery, however, the effects on participation and harvest rates are largely unknown. Kodiak seafood processors typically cease operations or maintain minimal staffing during December. The effects an earlier start date on market availability and price are also unknown. The mating and molting season for Tanner crab occurs from October 15 to March 31. An earlier start date would not have adverse biological impacts to the crab stock.

Weather delay regulations would still apply. Based on the NWS marine forecast, the fishery may be delayed on a 24-hour rolling basis for up to 10 days. If delayed the maximum amount, this would result in an opening date of 12:00 noon December 25 with registration validation beginning at 10:00 a.m. December 24. However, the fishery opening is typically only delayed 0-3 days.

**BACKGROUND:** The Kodiak District commercial Tanner crab fishery is a limited entry fishery. Guideline harvest levels are established annually based on Tanner crab abundance estimates from an ADF&G stock assessment trawl survey. During some years regulatory biological and management thresholds are not met and the fishery does not open (Table 257-1). Since the current

management plan was adopted in 2000, on average 74 vessels landed 827,045 pounds with a combined exvessel value of $1.9 million annually (Table 257-1).

Federal/parallel Pacific cod seasons open January 1 and close when each sector harvests their allocation. Generally, the pot gear sector closes mid-February and the longline gear sector closes mid- to late March. On average, the Kodiak District Tanner crab season lasts 39 days although most harvest occurs within the first 7 to 10 days after a season opens. Due to overlap in Pacific cod and Tanner crab seasons participants typically must forego fishing opportunity in one fishery to participate in the other.

Regulations that prohibit operation of any pot gear pot 14 days prior to the Tanner season are intended to prevent prospecting for Tanner crab. At any time, a person may choose to invalidate their Tanner crab registration, cease Tanner crab fishing, and enter the Pacific cod fishery.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. This proposal would result in additional staffing costs to the department. Seasonal catch sampling staff would need to be hired for the month of December in addition to the regularly scheduled months of January through March.

Table 257-1.–Kodiak District commercial Tanner crab guideline harvest level (GHL), effort, harvest, season length, and value, 2000-2019.

| Season | GHL | Number | | | Season length (days) | Avg. price per pound | Exvessel value |
|---|---|---|---|---|---|---|---|
| | | Vessels | Landings | Pounds | | | |
| 2000 | No Commercial Fishery | | | | | | |
| 2001 | 500,000 | 145 | 192 | 510,407 | 5 | $2.30 | $1,173,936 |
| 2002 | 500,000 | 181 | 279 | 361,166 | 30 | $2.20 | $794,565 |
| 2003 | 510,000 | 72 | 276 | 511,324 | 36 | $2.48 | $1,268,084 |
| 2004 | 795,000 | 66 | 252 | 566,218 | 77 | $2.45 | $1,387,234 |
| 2005 | 1,750,000 | 76 | 291 | 1,806,416 | 76 | $1.73 | $3,125,100 |
| 2006 | 2,100,000 | 68 | 249 | 2,123,931 | 45 | $1.53 | $3,249,614 |
| 2007 | 800,000 | 50 | 96 | 765,092 | 14 | $1.84 | $1,407,769 |
| 2008 | 500,000 | 33 | 64 | 425,353 | 76 | $1.98 | $842,199 |
| 2009 | 400,000 | 31 | 48 | 359,056 | 74 | $1.80 | $646,301 |
| 2010 | 700,000 | 52 | 84 | 650,315 | 12 | $1.58 | $1,027,498 |
| 2011 | 1,490,000 | 80 | 131 | 1,537,384 | 18 | $3.04 | $4,673,647 |
| 2012 | 950,000 | 64 | 93 | 1,078,106 | 32 | $3.00 | $3,234,318 |
| 2013 | 660,000 | 59 | 115 | 658,194 | 75 | $2.70 | $1,777,124 |
| 2014–2017 | | | | | | No Commercial Fishery | |
| 2018 | 400,000 | 56 | 65 | 431,991 | 5 | $4.52 | $1,952,599 |
| 2019 | 615,000 | 82 | 119 | 620,726 | 14 | | |
| Avg. 2000–2019 | 844,667 | 74 | 157 | 827,045 | 39 | $2.37 | $1,897,142 |

**PROPOSAL 258 – Align pot storage requirements and allow storage of pots in waters more than 25 fathoms for seven days following season closure for Tanner crab in the Kodiak District.**

**5 AAC 35.527. Tanner crab pot storage requirements for Registration Area J.**

**PROPOSED BY:** Oliver Holm.

**WHAT WOULD THE PROPOSAL DO?** Extend the amount of time Kodiak District Tanner crab pots may be stored on the fishing grounds after a season closure from 3 to 7 days and align pot gear storage regulations across all Tanner crab pot gear types.

**WHAT ARE THE CURRENT REGULATIONS?** Pots in non-fishing configuration may be stored in waters greater than 25 fathoms (i.e. at depth) for 3 days following closure of any portion of the district. After 3 days, pots must be removed from the water or moved to shallow water storage (less than 25 fathoms).

Specific to the Kodiak District, cone or pyramid pots in non-fishing configuration may be stored in the water for 30 days before the scheduled opening and 30 days after the closure of that season. During these pre- and post-season periods, storage depth for cone and pyramid pots is not specified.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Additional time for a vessel to retrieve gear from the fishing grounds would provide greater flexibility to accommodate weather, travel time, and crab delivery schedules. Standardizing gear storage requirements across all pot gear types allows for regulations that are easier to communicate and enforce.

**BACKGROUND:** The Kodiak District Tanner crab commercial fishery is generally fast-paced and competitive. On average the fishery is open 39 days, however, in some years the fishery may be as short as 4 days. The Kodiak District is divided into smaller management sections where each section is assigned a unique GHL that is managed independent of other sections. Most vessels fish until the closure, after which all vessels are required to return to port to deliver crab within 24 hours. Depending on vessel capability, advanced closure notice time, and weather, a vessel may not be able to stack all pots on board before returning to port. Frequently pots are left at depth on the fishing grounds and must be retrieved after all crab on board the vessel are offloaded. At times, vessels must wait for several days before offloading and returning to the fishing grounds to retrieve gear.

Pot limits for the Kodiak Tanner crab fishery are scaled to the size of the GHL and range between 20 to 60 pots per vessel. Statewide general provisions for Tanner pot gear storage do not differentiate between pot gear types while Kodiak District specific regulations only address cone and pyramid pots. Therefore, rectangular pot must adhere to statewide provisions while cone and pyramid pots are afforded more liberal storage provisions (30 days before and after a season) under the Kodiak District specific regulations. This allows participants using cone and pyramid pots to preempt fishing grounds as rectangular pots may not be placed at depth until the fishery opens.

The intent of differing storage regulations for cone and pyramid pot gear is unclear. The discrepancy in gear storage is not widely understood by the fleet and the department is unaware of any instance where fishery participants used it to gain advantage or for a specific purpose.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost to the department.

**PROPOSAL 259 – Create a Chignik Registration Area commercial king crab fishery and provide for registration, seasons, size limits, lawful gear, pot storage requirements, inspection, and vessel length restrictions.**

**5 AAC 34.005 Registration Areas Established; 5 AAC 34.XXX. New sections; 5 AAC 34.500. Description of Registration Area M; 5 AAC 34.505. Description of Registration Area M Districts; 5 AAC 34.506. Area M Registration; and 5 AAC 34.527. King crab pot storage requirements for Registration Area M.**

**PROPOSED BY:** Axel Kopun.

**WHAT WOULD THE PROPOSAL DO?** Create a Chignik Management Area for king crab by aligning boundaries of the West Chignik District of the Alaska Peninsula Area with those of the Chignik Salmon Management Area. As written, the proposed king crab area would be limited to state waters (0-3 nmi offshore) as defined by the Chignik Management Area for salmon, whereas current king crab boundaries in the Kodiak and Alaska Peninsula Areas includes waters from 0 to 200 nmi offshore. Based on proposal language, the department interprets the intent is to move the eastern boundary of the West Chignik District for king crab from Cape Kumlik to Kilokak Rocks, and to create a new registration area. This is best accomplished by aligning the boundaries of the West Chignik District for king crab with those of the Chignik Area for groundfish, which are very similar to those of the Chignik Salmon Management Area but include offshore waters.

Under this scenario, the northern portion of Semidi Island District of the Kodiak Area would become part of the new Chignik Area, the southern portion of the Semidi Island District of the Kodiak District would become part of the Central District of Alaska Peninsula Area, and a portion of the West Chignik District would become part of the Central District of the Alaska Peninsula Area (Figure 259-1).

This proposal would also create two smaller management districts (Eastern and Western) within the new Chignik Area for king crab. Smaller management districts are typically established to subdivide large areas to spread fishing effort or reflect differences in crab distribution or biology. The proposed Chignik Area would be relatively small and there are no known differences in local crab stocks so the purpose for the Eastern and Western districts is unclear (Figure 259-1).

**WHAT ARE THE CURRENT REGULATIONS?** The West Chignik District for king crab is part of the Alaska Peninsula Area and includes waters between Kupreanof Point and Cape Kumlik. Both the Chignik Area for groundfish and the Chignik Salmon Management Area extend farther east, including waters between Kupreanof Point and Kilokak Rocks (Figure 259-1). The western boundary for West Chignik District for king crab is a line from Kupreanof Point to Castle Rock then extending 135° from Castle Rock, whereas the western boundary for Chignik groundfish (and salmon) is a line extending 135° from Kupreanof Point (Figure 259-1).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The West Chignik District of the Alaska Peninsula Area would be expanded and become a standalone superexclusive registration area for king crab. The West Chignik District would become larger by gaining the northern portion of the Semidi Island District of the Kodiak Area (Figure 259-1). The

Alaska Peninsula Area would become larger by gaining a portion of the West Chignik District and the southern portion of the Semidi Island District of the Kodiak District (Figure 259-1). The Kodiak District would become smaller by losing the entire Semidi Island District (Figure 259-1). Vessels registered for the West Chignik District of the Alaska Peninsula Area may also fish for king crab in the Semidi Island District of the Kodiak Area. Thus, the Semidi Island District of the Kodiak Area is functionally part of the West Chignik District of the Alaska Peninsula Area. Further, a vessel registered to take king crab in the West Chignik District may not be used to take king crab in any other district of the Alaska Peninsula Area during the same registration year. Although current king crab management boundaries differ from Chignik salmon and groundfish, the existing West Chignik District for king crab is, in practice, very similar to the proposed standalone Chignik Management Area for king crab. It is unknown if creating a new management district would yield additional opportunity for local participants.

Should this proposal be adopted the department recommends: 1) aligning boundaries of the proposed Chignik king crab area with the Chignik Area groundfish boundaries found in 5 AAC 28.500; and 2) establish clear management intent regarding the purpose and need for the proposed Eastern and Western districts or adopt the proposed king crab area absent the Eastern and Western districts.

**BACKGROUND:** Commercial red king crab fisheries in the Kodiak and Alaska Peninsula areas have been closed since 1984 due to low abundance. Red king crab stocks are monitored annually by the department and abundance estimates have generally remained at historical low levels. Current red king crab abundance does not support commercial or sport fisheries in either the Kodiak or Alaska Peninsula areas. The Kodiak Area subsistence fishery is limited to 3 crab per household per year and the Alaska Peninsula Area subsistence fishery is limited to six crab per person per day. Red king crab abundance is not expected to rebound to a level capable of supporting a commercial fishery in the foreseeable future. Should crab stocks begin to rebuild, all Kodiak and Alaska Peninsula areas commercial king crab regulations will need be revisited to ensure they provide for adequate stock conservation and reflect best management practices.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost to the department.

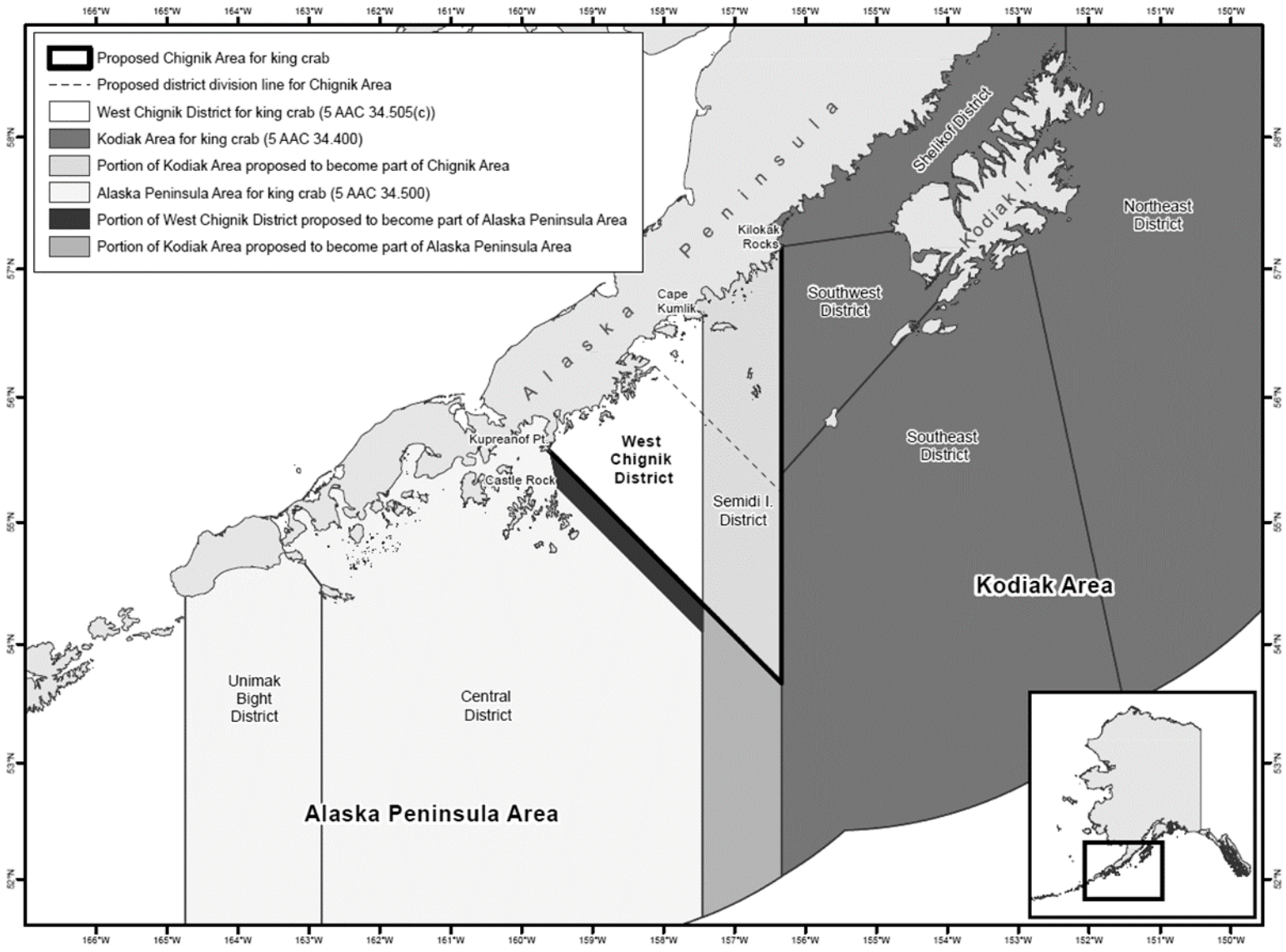


Figure 259-1.–Current West Chignik District of the Alaska Peninsula Area and proposed Chignik Area for king crab.

**PROPOSAL 260 – Align boundaries for the Chignik District commercial Tanner crab fishery with the commercial salmon fishery.**

**5 AAC 35.505. Description of Registration Area J districts; 5 AAC 35.506. Area J registration; and 5 AAC 35.507. Kodiak, Chignik, and South Peninsula Districts *C. bairdi* Tanner crab harvest strategies.**

**PROPOSED BY:** Axel Kopun.

**WHAT WOULD THE PROPOSAL DO?** Expand the Chignik Tanner crab District by realigning existing boundaries with the Chignik Salmon Management Area. As written, the proposed Tanner crab boundaries would be limited to state waters (0-3 nmi offshore) as defined by the Chignik Management Area for salmon, whereas the existing Tanner crab boundaries extend from 0 to 200 nmi offshore. Based on proposal language, the department interprets the intent is to move the eastern boundary of the Chignik District for Tanner crab from Cape Kumlik to Kilokak Rocks. This is best accomplished by aligning the boundaries of the Chignik District for Tanner crab with those of the Chignik Area for groundfish, which are very similar to those of the Chignik Salmon Management Area but also include offshore waters.

Under this scenario, the majority of the Semidi Island Overlap (SIO) Section of the Kodiak District would become part of the Chignik District while the southern portion of the SIO Section would become part of the South Peninsula District (Figure 260-1). Additionally, the southwest portion of the Chignik District would become part of the South Peninsula District.

**WHAT ARE THE CURRENT REGULATIONS?** The Chignik Tanner crab District includes waters between Kupreanof Point and Cape Kumlik. Both the Chignik Area for groundfish and the Chignik Salmon Management Area extend farther east and include waters between Kupreanof Point and Kilokak Rocks (Figure 260-1). The western boundary for Chignik Tanner crab is a line from Kupreanof Point to Castle Rock and then a line extending 135° from Castle Rock, whereas the western boundary for Chignik salmon (and groundfish) extends 135° from Kupreanof Point (Figure 260-1).

The Chignik District is an open access Tanner crab fishery while the Kodiak District fishery is limited entry, both districts are superexclusive registration districts for Tanner crab.

The SIO opens for Tanner crab fishing if either the Southwest Section of the Kodiak District or the Chignik District meet regulatory thresholds for fishery openings. If the Chignik District Tanner crab fishery is open, vessels registered for the Chignik District may also fish in the SIO of the Kodiak District.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The Chignik District would become larger overall by gaining the northern portion of the SIO which would then open concurrent with the Chignik District (Figure 260-1). The South Peninsula District would become larger by gaining the offshore portion of the SIO as well as the southwest portion of the existing Chignik Tanner crab District. The Kodiak District would become smaller by losing the entire SIO and vessels registered for the Kodiak District Tanner crab fishery would no longer have access to the SIO (Figure 260-1).

The SIO is not surveyed by the department nor is it included in any harvest strategy used to establish GHLs. Thus, transferring the SIO from the Kodiak to the Chignik District would not change the probability of fishery openings or the amount of GHL established for either district.

The effects on fishery participants are variable. Although the entire SIO would become part of the Chignik District, Chignik Tanner crab participants are currently allowed to fish in the SIO when the Chignik District is open to Tanner crab fishing so the expanded area would not yield improved access. However, Kodiak vessels would be precluded from fishing in the SIO which may reduce competition for Chignik permit holders although crab abundance and harvests in the SIO are generally low. Kodiak permit holder would lose access to an historical fishing area but due to low overall crab productivity of the SIO lost yield to Kodiak participants may be minimal.

Should this proposal be adopted, the department recommends establishing boundaries for Chignik District Tanner crab that are aligned with the boundaries of the Chignik Area for groundfish found in 5 AAC 28.500.

**BACKGROUND:** The Chignik District for Tanner crab was established in 1980. Previously, the Chignik District was part of the South Peninsula District. The current harvest strategy for Chignik Tanner crab was adopted in 1999. Fishery openings are based on estimated Tanner crab abundance from the annual ADF&G large-mesh trawl survey. Since 2000, the Chignik Tanner crab fishery opened four years (Table 260-1). On average, 17 vessels landed 474,620 pounds with a combined exvessel value of $1.01 million annually when the fishery was open (Table 260-1).

The SIO is not surveyed for Tanner crab and historically very little effort or harvest has occurred in the section. Since 2000, the SIO opened five years (Table 260-2). On average, 4 vessels landed 14,389 pounds with a combined exvessel value of $44,424 annually (Table 260-2). Of the 22 landings made since 2000, 12 were made by Chignik permit holders and 10 were made by Kodiak permit cards holders. All Tanner crab were taken in the northern portion of the SIO, which is proposed to become part of the Chignik District.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost to the department.

Table 260-1.–Chignik District commercial Tanner crab GHL, effort, harvest, and value, 2000–2019.

| Year | GHL | Number | | | Avg. price per pound | Exvessel value |
|---|---|---|---|---|---|---|
| | | Vessels | Landings | Pounds | | |
| 2000–2004 | | | No commercial fishery | | | |
| 2005 | 400,000 | 22 | 59 | 410,741 | $1.66 | $681,830 |
| 2006 | 200,000 | 4 | 7 | 143,164 | $1.20 | $171,797 |
| 2007–2010 | | | No commercial fishery | | | |
| 2011 | 600,000 | 13 | 35 | 646,531 | $2.58 | $1,668,050 |
| 2012 | 700,000 | 28 | 43 | 698,043 | $2.21 | $1,542,675 |
| 2013–2019 | | | No commercial fishery | | | |
| Avg. 2000–2019 | 475,000 | 17 | 36 | 474,620 | $1.91 | $1,016,088 |

*Note*: GHL = guideline harvest level (pounds).

Table 260-1.–Semidi Island Overlap (SIO) Section of the Kodiak District GHL, effort, harvest, and value, 2000–2019.

| Year | GHL | Number | | | Avg. price per pound | Exvessel value |
|---|---|---|---|---|---|---|
| | | Vessels | Landings | Pounds | | |
| 2000–2004 | | | No commercial fishery | | | |
| 2005–2006[a] | NA | 3 | 5 | 5,597 | $1.60 | $8,955 |
| 2007–2010 | | | No commercial fishery | | | |
| 2011 | NA | 6 | 6 | 14,578 | $3.00 | $43,734 |
| 2012 | NA | 5 | 6 | 28,195 | $3.00 | $84,586 |
| 2013–2017 | | | No commercial fishery | | | |
| 2018 | NA | 3 | 5 | 9,186 | $4.40 | $40,420 |
| 2019 | | | No commercial fishery | | | |
| Avg. 2000–2019 | NA | 4 | 6 | 14,389 | $3.00 | $44,424 |

*Notes*: GHL = guideline harvest level (pounds).
[a] combined due to confidentiality

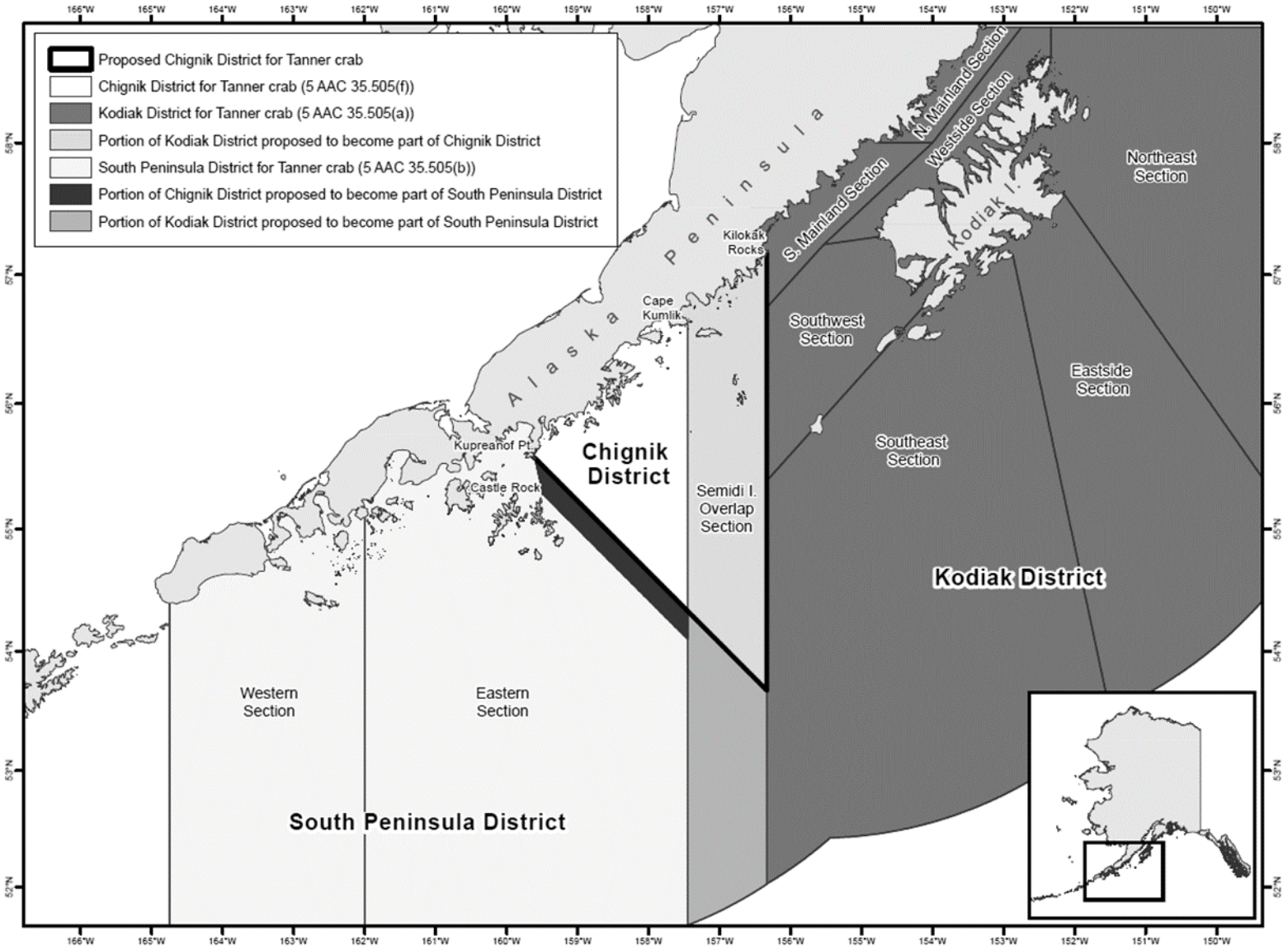


Figure 260-1.–Current and proposed Chignik District management boundaries for Tanner crab.

**PROPOSAL 264 – Amend Area J Tanner crab season opening weather delay criteria.**

**5 AAC 35.510. Fishing seasons for Registration Area J.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Align Kodiak, Chignik, and South Peninsula commercial Tanner crab fishery weather delay criteria with current National Weather Service (NWS) forecast areas and practices.

**WHAT ARE THE CURRENT REGULATIONS?** The Kodiak, Chignik, and South Peninsula Tanner crab seasons open 12:00 noon January 15, unless delayed by weather. Season openings in each area are delayed for 24 hours if the relevant NWS marine forecast issued at 4 a.m. January 14 contains a gale warning for the next 48 hours. Weather delays continue on a rolling 24-hour basis until there are no gale warning in the 48-hour forecast or until 12:00 noon January 25 when Tanner crab seasons open regardless of the marine forecast.

NWS forecasting practices have changed since weather delay provisions were last addressed by the board. In practice, NWS issues marine forecasts that extend 36 hours rather than 48-hours in the future.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The current regulation is structured to delay the season based, in part, on information that is no longer unavailable (a gale warning issued more than 36 hours in advance). In practice, nothing will change if this proposal is adopted, but the regulation would be aligned with current NWS forecasting practices and will therefore be less confusing and easier to communicate.

**BACKGROUND:** Weather delay provisions do not inform conservation or management of crab stocks. They reflect permit holder preference and are intended to improve vessel safety at the start of the season when vessels are transporting gear or traveling to the fishing grounds and they may also provide a more equitable start during competitive fisheries for smaller vessels less capable of operating in heavy seas. This proposal is intended to coordinate and highlight recent changes in NWS forecast methodology and allow users an opportunity to review and/or recommend changes to the board relative to weather delay provisions for each fishery.

The naming convention for NWS forecast areas also changed since this regulation was adopted (e.g., Area 3B became Area PKZ132). These area designations were updated in regulation through an administrative change in spring of 2019. Regulations now reflect the current NWS forecast area names and the board no longer needs to consider this aspect of the proposal.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional cost to the department.

## Bering Sea and Aleutian Islands Area Commercial King and Tanner Crab (6 proposals)

### PROPOSAL 261 – Adopt a new Bering Sea Tanner crab harvest strategy used to set annual harvest limits.

**5 AAC 35.508. Bering Sea District *C. bairdi* Tanner crab harvest strategy.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Establish new harvest strategy to set annual harvest limits for the commercial Bering Sea *C. bairdi* Tanner crab fishery.

**WHAT ARE THE CURRENT REGULATIONS?** Tanner crab in the Bering Sea District are managed as a single stock but separate TACs are established for the areas east and west of 166°W long. The current Bering Sea District Tanner crab harvest strategy, 5 AAC 35.508, has four primary components: 1) a mature female biomass threshold that must be met or exceeded before a commercial fishery in the Bering Sea District may be opened; 2) provisions for computing reduced TACs based on mature male abundance if the mature female biomass meets the minimum threshold for opening the Bering Sea District but the point estimate is within the 'error band' of the regulatory female biomass threshold; 3) provisions for computing full TACs east and west of 166°W long based on mature male abundance if the mature female biomass exceeds the female biomass threshold for opening the Bering Sea District; and 4) a limit on the number of legal sized males available for harvest.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Adopting a new harvest strategy for Bering Sea Tanner crab would simplify the existing harvest strategy, eliminate fishery closures based solely on female abundance, and apply an abundance-based exploitation rate to mature male biomass. Overall, a new harvest strategy is expected to reduce the probability of fishery closures, improve yield, and provide stability for fishery participants.

**BACKGROUND:** Eastern Bering Sea Tanner crab undergo highly variable and episodic recruitment trends, which result in a "boom or bust" style fishery. The U.S. Tanner fishery developed in the mid-1970s with historical peak landings in 1977 (67 million pounds) and 1990 (40 million pounds) but low abundance levels resulted in fishery closures in 1985, 1986, 1997–2004, 2010–2012, 2016, and 2019 (40% closure rate since 1982). Harvest strategies have evolved in parallel with advancements in understanding of Tanner crab biology and assessment modelling approaches. The current harvest strategy is improved relative to past versions but is complicated relative to other BSAI crab stocks and contains provisions that create abrupt fluctuations to annual TACs that are economically suboptimal. The purpose of this harvest strategy revision is to incorporate up-to-date biological information for Tanner crab, simplify harvest strategy control rules, address the utility of females while setting annual TACs, and address the abrupt inter-annual changes in TACs. While the "female error band rule" adopted in 2017 achieves these goals in part, it was meant as a temporary measure until a more comprehensive update was

formally conducted using a robust forecasting analysis that can evaluate conservation and economic considerations across a suite of harvest strategy scenarios.

A total of fifteen harvest policies were evaluated for consideration that ranged in their level conservation (Table 261-1). For ramping harvest strategies, the exploitation rates increase (or decrease) linearly along a 'ramp' up to fixed maximum amount in response to increases (or decreases) in annual estimates of mature male biomass (Figure 261-1). Consideration of mature females was incorporated into ramping control rules where the maximum exploitation rate on mature male biomass (MMB) is limited by mature female abundance (Figure 261-2). The underlying framework for each policy uses abundance estimates to set minimum biomass levels necessary for a fishery to occur, establishes a range of annual exploitation rates that are responsive to stock condition, and identifies the proportion of legal crab that could be harvested in any given year. Other harvest strategies considered include the use of the federal ABC and a fixed exploitation rate on the industry preferred males. Common to other BSAI crab state harvest strategies, the proposed 30% or 50% maximum exploitation rate on exploitable legal male abundance provides an additional level of protection against over harvesting legal males in years when legal male abundance is low relative to mature male abundance. Typically, this situation occurs when the population is rebounding from a period of low production (i.e., strong cohort of mature size males exists simultaneously as a senescing cohort of legal sized males).

To compare differences across harvest policies and provide recommendations for board consideration, state, federal, and industry stock assessment scientists developed a simulation model that projects crab abundance into the future under each of the harvest policies. This process provides opportunity to identify and contrast tradeoffs between meeting conservation objectives and optimizing yield. A detailed summary of harvest policy scenarios, simulation methodology, and results are presented in the Recommended Harvest Strategy for Bering Sea Tanner Crab report submitted to the board in support of this proposal.

In consultation with crab industry and based on simulation results, a harvest policy that includes a female dimmer (Figure 261-2) maximizes the trade-off between meeting conservation objectives and optimizing yield. The female dimmer is consistent with a precautionary approach and most closely meets objectives outlined by managers and industry stakeholders. Overall, the female dimmer improves the economic outlook to the industry by reducing the probability of fishery closures and allowing for substantial increases in average TACs when compared to actual historical TACs. The female dimmer also acknowledges the importance of reproductive capacity to conserve the stock by reducing exploitation on mature male biomass when mature female biomass is at relatively low levels in order to optimize mating opportunities for incoming mature female recruits. In addition, because temporal trends in mature female biomass generally lead those of mature male biomass by 1-2 years and can be used as predictor for mature male biomass, a reduced exploitation rate prior to mature male population declines (as applied via the female dimmer) is a proactive approach to reduce fishery removals during periods of conservation concern.

Two variants of a female dimmer policy are advanced for board consideration. Both maximize exploitation when crab are most valuable to industry (periods with a high proportion of preferred size male crab in the newshell condition) by establishing a maximum mature male exploitation rate of 20% and a 50% maximum rate on exploitable legal males. Variant 1 sets the minimum exploitation rate at 5% of estimated mature male abundance whereas Variant 2 is more liberal and sets the minimum exploitation rate at 10% of mature male abundance. The 10% minimum

exploitation variant would allow for higher (<10%) TACs and lower annual TAC variability when compared to the lower 5% minimum exploitation rate. Higher harvests would occur when the population is declining or at low levels, with the highest exploitation rate differences occurring when mature male abundance approaches 25% of the long-term average (i.e., when in a depressed state). Further, industry preferred sized crab tends to have higher proportions of individuals in the old-shell condition (i.e., less valuable to the fishery) during low population levels. As such, higher exploitation during these periods may be inconsistent with industry preferences. The female dimmer with a 5% minimum exploitation floor (Variant 1) provides for lower exploitation during periods of conservation concern and likely affords improved conservation benefit to the stock overall. Both control rules are consistent with MSA National Standards, FMP objectives, and the board policy on king and Tanner crab resources management.

Total allowable catch is a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.2.2). Category 2 management measures should be consistent with the criteria set out in the FMP and the Magnuson – Stevens Fishery Conservation and Management Act National Standards.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** adopting a revised harvest strategy for setting Bering Sea Tanner crab TACs based on a female dimmer harvest control rule.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional direct cost for the department.

Table 261-1.–Proposed harvest policies evaluated. All policies have a threshold for opening and closing the fishery based on mature male biomass (i.e., 25% of $MMB_{AVE}$). Ramping control rules containing an upper and lower bound. All but two contain a maximum allowable exploitation rate on exploitable legal-size males.

| Policy | Description | Fixed vs ramp exploitation rate | Ramp lower boundary | Ramp upper boundary | Max TAC |
|---|---|---|---|---|---|
| HCR1 | Female ramp | Ramp | 5% | 20% | 50% ELM |
| HCR2_R1 | Male only 10% | Ramp | 5% | 10% | 50% ELM |
| HCR2_R2 | Male only 15% | Ramp | 5% | 15% | 50% ELM |
| HCR2_R3 | Male only 20% | Ramp | 5% | 20% | 50% ELM |
| HCR2_R4 | Male only 22.5% | Ramp | 5% | 22.5% | 50% ELM |
| HCR3 | TAC = $ABC_{5\text{-inch}♂}$ | Ramp ($F_{MSY}$) | NA | NA | NA |
| HCR4_1 | Female dimmer 20% | Ramp | 5% | 20% | 50% ELM |
| HCR4_2 | Female dimmer 20% | Ramp | 10% | 20% | 50% ELM |
| HCR4_3 | Female dimmer 22.5% | Ramp | 10% | 22.5% | 50% ELM |
| HCR4_4 | Female dimmer 22.5% | Ramp | 10% | 22.5% | 30% ELM |
| HCR5 | Female blocks | Ramp | 5% | 20.0% | 50% ELM |
| HCR6_30 | ELM 30% | Fixed | NA | NA | 30% ELM |
| HCR6_40 | ELM 40% | Fixed | NA | NA | 40% ELM |
| HCR6_50 | ELM 50% | Fixed | NA | NA | 50% ELM |
| HCR7 | Status Quo | Ramp ($F_{MSY}$) | NA | NA | NA |

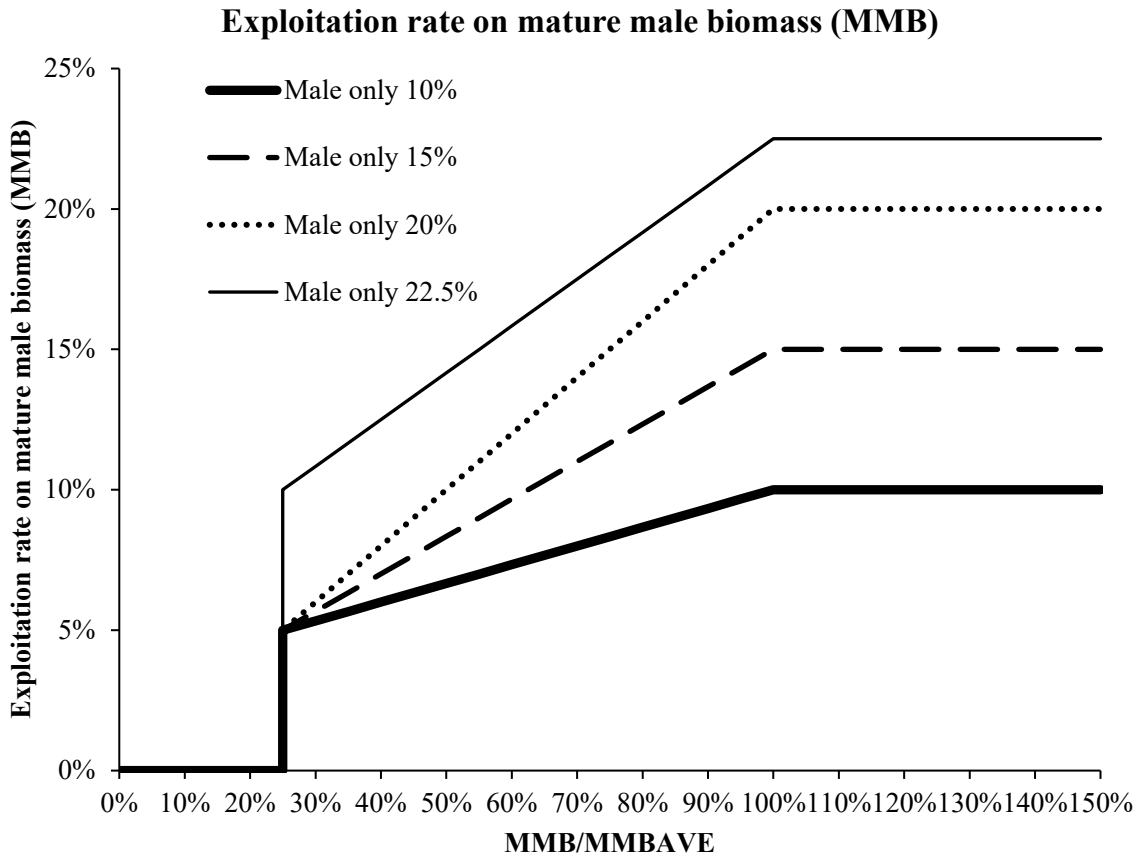


Figure 261-1.–Depiction of proposed sloping control rules (ramp harvest policies). Exploitation rates based on mature male biomass (MMB). For each sloping control rule, the exploitation rate is determined based on the current year MMB relative to $MMB_{AVE}$ (the mean value of MMB for the period 1982 – 2018).

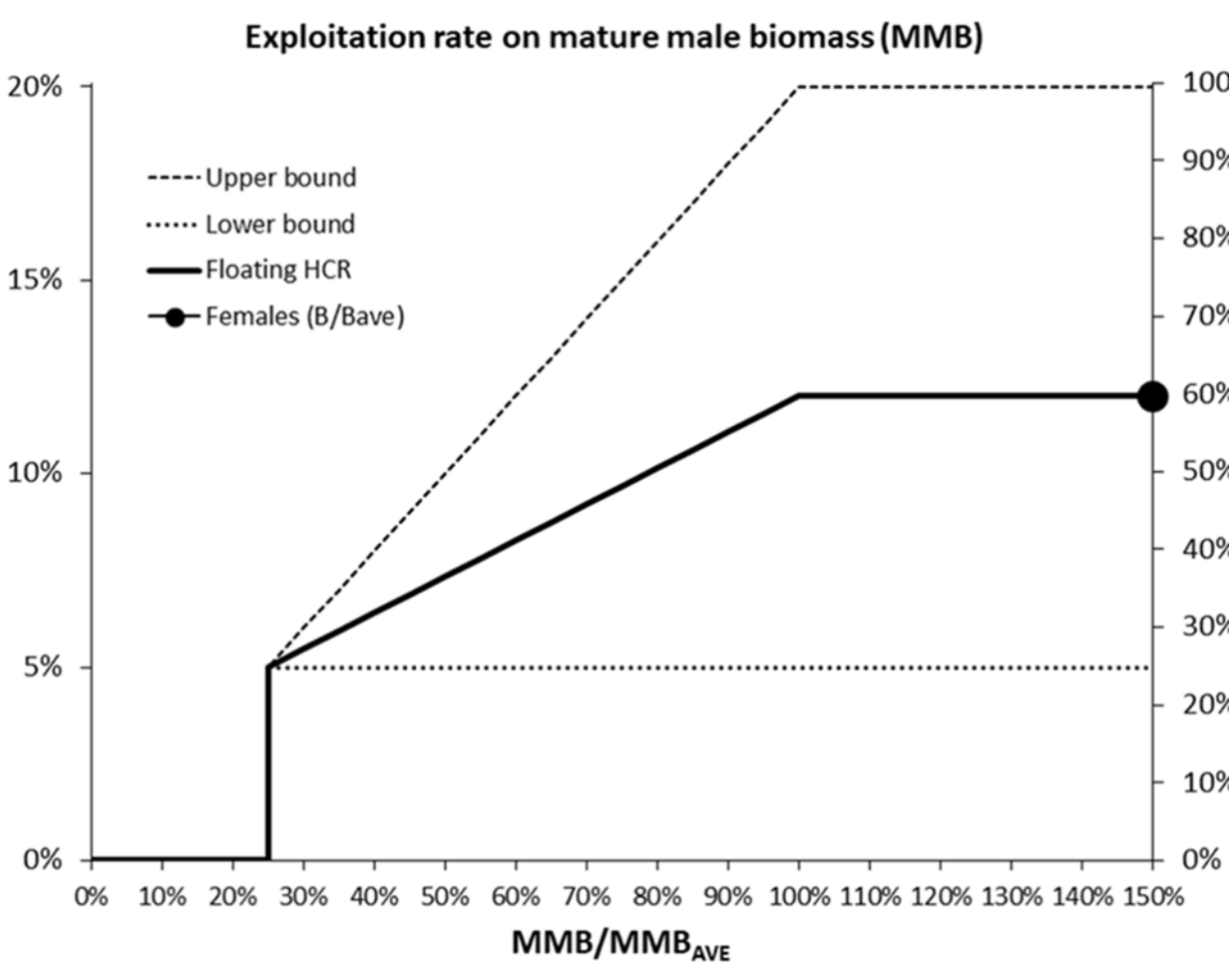


Figure 261-2.–Depiction of proposed sloping control rules (ramp harvest policies). The exploitation rate is determined based on the current year MMB relative to $MMB_{AVE}$ (the mean value of MMA for the period 1982–2018), but the maximum is determined by mature female biomass (MFB) relative to $MFB_{AVE}$ (the mean value of MFB for the period 1982–2018).

**PROPOSAL 262 – Modify the Bering Sea *C. opilio* harvest strategy definition of "exploited legal males"**

**5 AAC 35.517. Bering Sea opilio Tanner crab harvest strategy.**

**PROPOSED BY:** Alaska Bering Sea Crabbers.

**WHAT WOULD THE PROPOSAL DO?** Adjust the annual Bering Sea District snow crab TAC calculation in the regulatory harvest strategy. The intent of the proposal is to align the harvest strategy with a reduction in the industry-preferred snow crab size otherwise known as exploited legal male (ELM) size from 4.0 inches (102 mm) carapace width (CW) to an unspecified smaller size to be determined by the department while establishing annual snow crab TACs.

**WHAT ARE THE CURRENT REGULATIONS?** Male snow crab greater than 3.1 inches CW may be retained during the commercial fishery. ELM for Bering Sea snow crab are defined in regulation as male snow crab 4.0 inches (102 mm) CW or greater.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** In general, a lower ELM size would provide for higher TACs than would otherwise be computed using the current definition as well as reduce discard mortality of legal-size crab during the fishery. The degree to which TACs would increase primarily depends on the size and shell condition composition of male snow crab and the estimated total and retained-catch fishery selectivity of male snow crab by size and shell condition.

Conversely, a lower ELM size may negatively impact market preference and fishery value. Exploitation rates could additionally increase to level that harm reproductive potential of the stock.

**BACKGROUND:** The board adopted the current framework for the Bering Sea snow crab harvest strategy in 2002. Prior to 2000, there was no regulatory harvest strategy used to determine annual harvest limits for Bering Sea snow crab. The season opened January 15 and closed by emergency order when a GHL established by the department was reached. In 1999, the Bering Sea snow crab stock was declared overfished by the NPFMC due to low mature crab biomass. In response, the board adopted an interim harvest strategy in 2000 to rebuild the stock. This temporary harvest strategy specified only legal male crab 3.1 inches or greater in CW could be retained and was the first instance where 4.0-inch exploitable legal males were defined in regulation. In practice, harvesters have targeted crab greater than 4.0 inches CW since the inception of the domestic fishery. Industry preference for larger crab provides for higher product yield and marketability as opposed to a biological or conservation benefit to the stock.

Generally, the snow crab harvest strategy derives two TACs and advances the lesser of the two quantities as the final annual harvest limit. These TACs include a *computed* TAC based on mature male biomass and a *maximum* TAC which limits the amount crab based on the definition of ELM. The computed TAC uses a sliding control rule (10.0% to 22.5%) to set exploitation on mature male biomass, so changes to ELM do not influence the final harvest limit. Max TACs are derived by capping harvest at no more than 58% of 4.0-inch exploitable legal males, so a change in ELM size (i.e. from 4.0 inches to 3.8 inches) would increase the amount of crab available to the harvest

strategy. Preliminary simulations suggest relatively small changes in ELM size (3.6 or 3.8 inches versus 4.0 inches) could result in significant increases (+38% to +51%) to average annual TACs when the maximum TAC calculation is used to set final harvest limits.

Additional biological and market research is needed before the effects of this proposal are fully understood. Further analyses are needed to assess the biological impacts of harvesting smaller sized mature male snow crab, particularly with respect to impacts on future spawning biomass. Current understanding of snow crab size at maturity from both published and unpublished sources supports that a smaller ELM size could benefit the both the stock and harvesters (and may be necessary) if crab continue to shift northward in the Bering Sea in response to rising water temperatures. While a lower ELM size may yield higher TACs on average, committing smaller crab to long standing markets could lower value. Given this tradeoff, harvesters and processors should reach consensus on industry preferred size to inform further analysis and prior to revising the regulatory definition of ELM in the harvest strategy.

Minimum size limits are a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.2.1). Category 2 management measures should be consistent with the criteria set out in the FMP and the Magnuson – Stevens Fishery Conservation and Management Act National Standards.

**DEPARTMENT COMMENTS:** The department is **OPPOSED** to this proposal until further analyses are completed to fully understand effects. The department encourages and supports exploration of alternative ELM size and is actively engaged with industry to advance this work.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal is not expected to result in an additional cost for the department.

**PROPOSAL 263 – Allow retention of incidentally harvested Bering Sea District *C. bairdi* during directed a *C. opilio* season.**

**5 AAC 35.506. Area J Registration.**

**PROPOSED BY:** Alaska Bering Sea Crabbers.

**WHAT WOULD THE PROPOSAL DO?** Allow retention of Bering Sea Tanner crab, *Chionoecetes bairdi*, as incidental catch during the Bering Sea snow crab, *Chionoecetes opilio* fishery after the Tanner crab season closes or during years when Bering Sea Tanner crab fisheries remained closed. Incidentally harvested Tanner crab could not be sold or otherwise enter commerce and all catch would be required to be reported as deadloss on an ADF&G fish ticket at the time of landing.

**WHAT ARE THE CURRENT REGULATIONS?** The Bering Sea Tanner crab fishery is open October 15 through March 31. The Bering Sea snow crab fishery is open October 15 through May 31. During the directed snow crab fishery, vessels are permitted to retained legal sized Tanner crab up to 5% by weight of snow crab onboard the vessel provided the Tanner crab fishery is open and the fishermen holds appropriate Tanner crab IFQ or CDQ. Retention of Tanner crab is prohibited after the closure of the regulatory Tanner crab season and during times when Bering Sea Tanner crab fisheries are closed. Retention of sublegal male and female crab is always prohibited during both fisheries.

Management of BSAI crab fisheries requires total catch accounting for all rationalized crab harvested. All crab harvested are accounted for under the TAC established by the department and all fishermen must possess federal IFQ and/or CDQ according to the terms of their federal permitting for each species of crab retained.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Allowing for regulatory retention of Tanner crab while a Tanner crab season is closed may prevent a vessel from receiving an enforcement citation for illegally retained crab, however, there are no recent AWT records that indicate citations specific to what would be allowed under this proposal have been issued. If this proposal were adopted and a vessel incidentally retains Tanner crab outside of a Tanner crab season but also inadvertently retains sublegal male or female snow crab which are typically encountered at higher abundance, that vessel would comply with the proposed Tanner crab retention regulations but would be out of compliance for snow crab retention limits and could still receive a citation.

Higher retention due to bycatch would increase total fishing mortality for Tanner crab. During years with high snow crab TACs, longer than average snow crab seasons, or periods with high relative Tanner crab abundance, incidental removals and associated mortality of Tanner crab during the snow crab fishery could be substantial. Should biological or conservation concerns arise from this added mortality, the department could reduce the regulatory Tanner crab TAC prior to the start of the season to account for anticipated incidental removals which would reduce the amount available quota share for stakeholders.

Under the BSAI rationalized crab fishery management structure, retention of all rationalized crab species must be coordinated with the federal IFQ/CDQ/IPQ accounting system. A vessel or processor is prohibited from retaining a rationalized crab species without possessing the corresponding quota share. Therefore, companion changes to federal regulations must occur for this proposal to take effect.

**BACKGROUND:** The Bering Sea snow and Tanner crab fisheries were rationalized prior to the 2005/06 season and the stocks are co-managed by the department and NMFS. Distinct snow and Tanner crab fisheries are prosecuted in the Bering Sea. The Bering Sea District is divided into the Eastern and Western Subdistricts at 173° W long. for snow crab management (Figure 263-1). Tanner crab in the Bering Sea are a single stock but prosecuted as two distinct fisheries; east and west of 166° W long. in order to distribute effort across the stock's expansive distribution area. The eastern Tanner crab (EBT) fishery occurs between 163° W long. and 166° W long. and western Bering Sea Tanner crab (WBT) fishery occurs west of 166° W long. to the EEZ. Currently, Bering Sea snow crab fishery is open October 15 through May 15 east of 173° W long. and through May 31 west of 173° W long. Tanner crab fisheries are open October 15 through March 31.

Current season dates for Bering Sea snow and Tanner crab were established when the fisheries were rationalized. Season dates are based on biological characteristics for each stock and are structured to maximize fishing opportunity while reducing or preventing fishing mortality during sensitive reproductive periods for each stock. Research indicates March and April are sensitive mating and hatching times for Tanner crab, whereas mating and hatching for snow crab generally begins mid-April. Bering Sea snow and Tanner crab stocks interbreed and produce hybrid crab. Hybrids may be harvested during both fisheries and their defining characteristics are specified in regulation. The department also produced and distributes hybrid identification guides that are available to all stakeholders.

When the Tanner crab fishery is open, a fisherman may incidentally retain legal sized male Tanner crab while targeting snow crab, up to 5% of the weight of the snow crab onboard a vessel provided the permit holder possesses Tanner crab IFQ or CDQ. Incidental harvest rates are variable and generally follow trends in Tanner crab abundance (Figure 263-1). The amount of Tanner crab taken as incidental catch during recent snow crab fisheries is relatively low, ranging between 0.3% to 1.6% of the total Tanner crab TAC (Table 236-1). Moreover, most snow crab are harvested prior to March 31 indicating most vessels have concluded snow crab fishing before the Tanner crab season has closed. Harvest of snow crab after March 31 averaged 4% of the total directed harvest over the past 7 seasons, with less than 1% harvested after March 31 in the most recent 3 seasons (Table 263-2). Notably, snow crab distribution and fishing effort in recent years has shifted north in response to warming water temperatures. A more northerly distributed snow crab fishery is expected to reduce overlap and interactions with a predominantly southerly distributed Bering Sea Tanner crab stock. Crab caught as incidental catch that are not retained are discarded overboard. The mortality rate of Tanner crab discarded during crab fisheries is assumed to be 32.1%.

Tanner crab abundance in the Bering Sea is highly variable and has declined in recent years. Based on 2019 NMFS trawl survey estimates mature male biomass for the eastern portion of this stock is currently 30% of the long-term average while mature male biomass is currently 51% of the long-term average for the western portion of this stock.

The BSAI crab rationalization program was designed, in part, to reduce effort and slow harvest rates to promote safe and orderly fisheries and encourage best handling practices. Qualified vessels

have exclusive fishing rights to harvest both snow and Tanner crab and the corresponding fishing seasons are open for more than 5 months for each species. Allowing incidental retention of Tanner crab after the biological season is inconsistent with the objectives of the crab rationalization program as well as the board's policy for king and Tanner crab resource management.

Bycatch limits are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.3.6). Category 3 management measures are not rigidly specified or frame-worked in the FMP.

Fishing seasons are a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.2.5). Category 2 management measures should be consistent with the criteria set out in the FMP and Magnuson – Stevens Fishery Conservation and Management Act National Standards.

**DEPARTMENT COMMENTS:** The department is **OPPOSED** to this proposal.

**COST ANALYSIS:** Approval of this proposal could result in additional direct costs for a private person to participate in this fishery. Additional costs required to develop and administer the necessary federal program modifications may be subject to BSAI crab rationalization cost recovery (50 CFR 680.44). Under this program, NMFS recovers the costs of management, administration, and enforcement of rationalized fisheries by collecting fees from individual and processor quota shareholders across all rationalized crab fisheries. Approval of this proposal would not result in additional costs for the department.

Table 263-1.–Total (all harvest), directed (catch landed within a directed fishery) and incidental catch (catch landed outside a directed fishery) of western Bering Sea Tanner crab and Bering Sea snow crab fisheries, 2005/06–2018/19.

*Western Bering Sea Tanner Crab (WBT)*

| | | Total | | | Directed | | | Incidental in BSS Fishery | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Seasons | WBT TAC | Pounds | # Crab | Effort | Pounds | # Crab | Effort | Pounds | # Crab | Effort | % Total Caught |
| 2005/06 | 1,620,000 | 952,887 | 443,977 | 32,389 | 539,105 | 255,859 | 6,346 | 413,782 | 188,118 | 26,043 | 43.4% |
| 2006/07 | 1,094,000 | 720,846 | 340,623 | 28,140 | 342,888 | 164,719 | 4,517 | 377,958 | 175,904 | 23,623 | 52.4% |
| 2007/08 | 2,176,000 | 523,796 | 241,673 | 21,938 | 333,144 | 151,525 | 7,268 | 190,652 | 90,148 | 14,670 | 36.4% |
| 2008/09 | 1,537,000 | 109,552 | 51,471 | 30,175 | 103,963 | 48,171 | 2,336 | 5,589 | 3,300 | 27,839 | 5.1% |
| 2009/10 | Closed | 3,778 | 2,544 | 25,236 | 0 | 0 | 0 | 3,778 | 2,544 | 25,236 | NA |
| 2010/11 | Closed | 2,544 | 1,689 | 39,114 | 0 | 0 | 0 | 2,544 | 1,689 | 39,114 | NA |
| 2011/12 | Closed | 4,612 | 3,095 | 68,526 | 0 | 0 | 0 | 4,612 | 3,095 | 68,526 | NA |
| 2012/13 | Closed | 2,450 | 1,643 | 91,033 | 0 | 0 | 0 | 2,450 | 1,643 | 91,033 | NA |
| 2013/14 | 1,645,000 | 1,330,488 | 735,725 | 131,524 | 1,308,701 | 722,469 | 23,062 | 21,787 | 13,256 | 108,462 | 1.6% |
| 2014/15 | 6,625,000 | 5,253,942 | 3,140,954 | 142,820 | 5,222,067 | 3,121,442 | 68,695 | 31,875 | 19,512 | 74,112 | 0.6% |
| 2015/16 | 8,396,000 | 8,378,816 | 4,856,156 | 145,638 | 8,312,120 | 4,817,144 | 84,933 | 66,696 | 39,012 | 60,705 | 0.8% |
| 2016/17 | Closed | 2,595 | 1,733 | 50,741 | 0 | 0 | 0 | 2,595 | 1,733 | 50,741 | NA |
| 2017/18 | 2,500,200 | 2,496,734 | 1,340,230 | 29,903 | 2,463,626 | 1,322,542 | 19,284 | 33,108 | 17,688 | 10,619 | 1.3% |
| 2018/19 | 2,439,000 | 2,441,201 | 1,380,990 | 41,922 | 2,433,686 | 1,376,977 | 29,833 | 7,515 | 4,013 | 12,089 | 0.3% |

-continued-

Table 263-1.–Page 2 of 2.

*Bering Sea Snow Crab (BSS)*

| | | Total | | | Directed | | | Incidental in WBT Fishery | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Seasons | BSS TAC | Pounds | # Crab | Effort | Pounds | # Crab | Effort | Pounds | # Crab | Effort | % Total Caught |
| 2005/06 | 37,184,000 | 36,973,890 | 24,551,986 | 121,029 | 36,923,482 | 24,520,279 | 117,375 | 50,408 | 31,707 | 3,654 | 0.1% |
| 2006/07 | 36,566,000 | 36,355,649 | 29,620,685 | 89,419 | 36,243,989 | 29,536,398 | 86,328 | 111,660 | 84,287 | 3,091 | 0.3% |
| 2007/08 | 63,034,000 | 63,028,036 | 50,327,591 | 144,110 | 63,002,304 | 50,307,812 | 140,857 | 25,732 | 19,779 | 3,253 | 0.0% |
| 2008/09 | 58,550,000 | 58,547,849 | 45,945,092 | 163,537 | 58,547,849 | 45,945,092 | 163,537 | 0 | 0 | 0 | 0.0% |
| 2009/10 | 48,017,000 | 48,014,089 | 35,289,022 | 137,292 | 48,014,089 | 35,289,022 | 137,292 | 0 | 0 | 0 | 0.0% |
| 2010/11 | 54,281,000 | 54,263,200 | 37,758,496 | 147,478 | 54,263,200 | 37,758,496 | 147,478 | 0 | 0 | 0 | 0.0% |
| 2011/12 | 88,894,000 | 88,830,652 | 60,555,105 | 270,602 | 88,830,652 | 60,555,105 | 270,602 | 0 | 0 | 0 | 0.0% |
| 2012/13 | 66,350,000 | 66,254,528 | 47,455,883 | 225,627 | 66,254,528 | 47,455,883 | 225,627 | 0 | 0 | 0 | 0.0% |
| 2013/14 | 53,983,000 | 53,983,286 | 41,926,542 | 231,614 | 53,978,074 | 41,923,152 | 225,245 | 5,212 | 3,390 | 6,369 | 0.0% |
| 2014/15 | 67,950,000 | 67,941,587 | 55,029,818 | 286,920 | 67,939,253 | 55,027,927 | 279,183 | 2,334 | 1,891 | 7,737 | 0.0% |
| 2015/16 | 40,611,000 | 40,611,446 | 29,614,529 | 217,054 | 40,594,509 | 29,603,375 | 202,526 | 16,937 | 11,154 | 14,528 | 0.0% |
| 2016/17 | 21,570,000 | 21,570,915 | 16,412,386 | 118,548 | 21,570,915 | 16,412,386 | 118,548 | 0 | 0 | 0 | 0.0% |
| 2017/18 | 18,961,000 | 18,963,473 | 15,695,007 | 118,034 | 18,888,112 | 15,637,993 | 114,673 | 75,361 | 57,014 | 3,361 | 0.4% |
| 2018/19 | 27,581,000 | 27,578,244 | 22,470,886 | 127,432 | 27,501,780 | 22,408,838 | 119,484 | 76,464 | 62,048 | 7,948 | 0.3% |

Table 263-2.–Harvest (pounds and number of crab), effort (number of pot lifts), and participation (number of vessels registered) in the Bering Sea snow crab fishery with detailed harvest (pounds and number of crab), effort (number of pot lifts), and participation (number of vessels registered) in the Bering Sea snow crab fishery after Bering Sea Tanner crab closure on March 31, 2005/06–2018/19.

| | Full Fishery | | | | After Bering Sea Tanner crab closes (after March 31) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Season | Harvest (lb) | Harvest (# crab) | Effort | Number of vessels | Harvest (lb) | Harvest (# crab) | Effort | Number of vessels | Proportion harvest (lb) | Proportion harvest (# crab) | Proportion effort |
| 2005/06[a] | 36,973,890 | 24,551,986 | 121,029 | 78 | 2,949,449 | 4,546,188 | 17,569 | 15 | 12% | 12% | 15% |
| 2006/07 | 36,355,649 | 29,620,685 | 89,419 | 69 | 2,974,344 | 3,561,162 | 6,897 | 12 | 10% | 10% | 8% |
| 2007/08 | 63,028,036 | 50,327,593 | 144,112 | 78 | 7,362,486 | 9,149,548 | 18,070 | 17 | 15% | 15% | 13% |
| 2008/09 | 58,547,849 | 45,945,093 | 163,537 | 77 | 2,153,941 | 2,671,052 | 15,123 | 20 | 5% | 5% | 9% |
| 2009/10[b] | 48,014,089 | 35,289,023 | 137,292 | 69 | 622,695 | 908,834 | 3,722 | 7 | 2% | 2% | 3% |
| 2010/11[c] | 54,263,200 | 37,758,496 | 147,478 | 68 | 118,526 | 165,936 | 528 | 2 | 0.3% | 0.3% | 0.4% |
| 2011/12[c,d] | 88,830,652 | 60,555,105 | 270,602 | 72 | 20,397,823 | 30,053,774 | 116,215 | 59 | 34% | 34% | 43% |
| 2012/13[c] | 66,254,528 | 47,455,883 | 225,627 | 70 | 3,141,646 | 4,376,463 | 22,620 | 18 | 7% | 7% | 10% |
| 2013/14 | 53,983,286 | 41,926,542 | 231,614 | 70 | 575,038 | 737,173 | 5,424 | 7 | 1% | 1% | 2% |
| 2014/15 | 67,941,587 | 55,029,818 | 286,920 | 68 | 5,118,617 | 6,179,654 | 29,175 | 29 | 9% | 9% | 10% |
| 2015/16 | 40,611,446 | 29,614,529 | 217,054 | 63 | 1,533,555 | 2,236,744 | 15,792 | 17 | 6% | 5% | 7% |
| 2016/17[c] | 21,570,915 | 16,412,386 | 118,548 | 63 | 72,386 | 107,560 | 1,200 | 2 | 0.5% | 0.4% | 1% |
| 2017/18[a] | 18,963,473 | 15,695,007 | 118,034 | 59 | 54,979 | 63,777 | 661 | 5 | 0.3% | 0.4% | 1% |
| 2018/19[a] | 27,578,244 | 22,470,886 | 127,432 | 61 | 46,807 | 53,874 | 542 | 8 | 0.2% | 0.2% | 0.4% |

[a] Eastern Bering Sea Tanner crab closed east of 166° W long.

[b] Western Bering Sea Tanner crab closed west of 166° W long.

[c] Eastern and Western Bering Sea Tanner crab fisheries closed.

[d] Bering Sea Snow crab closure was delayed until June 15, 2012 due to sea ice on the fishing grounds.

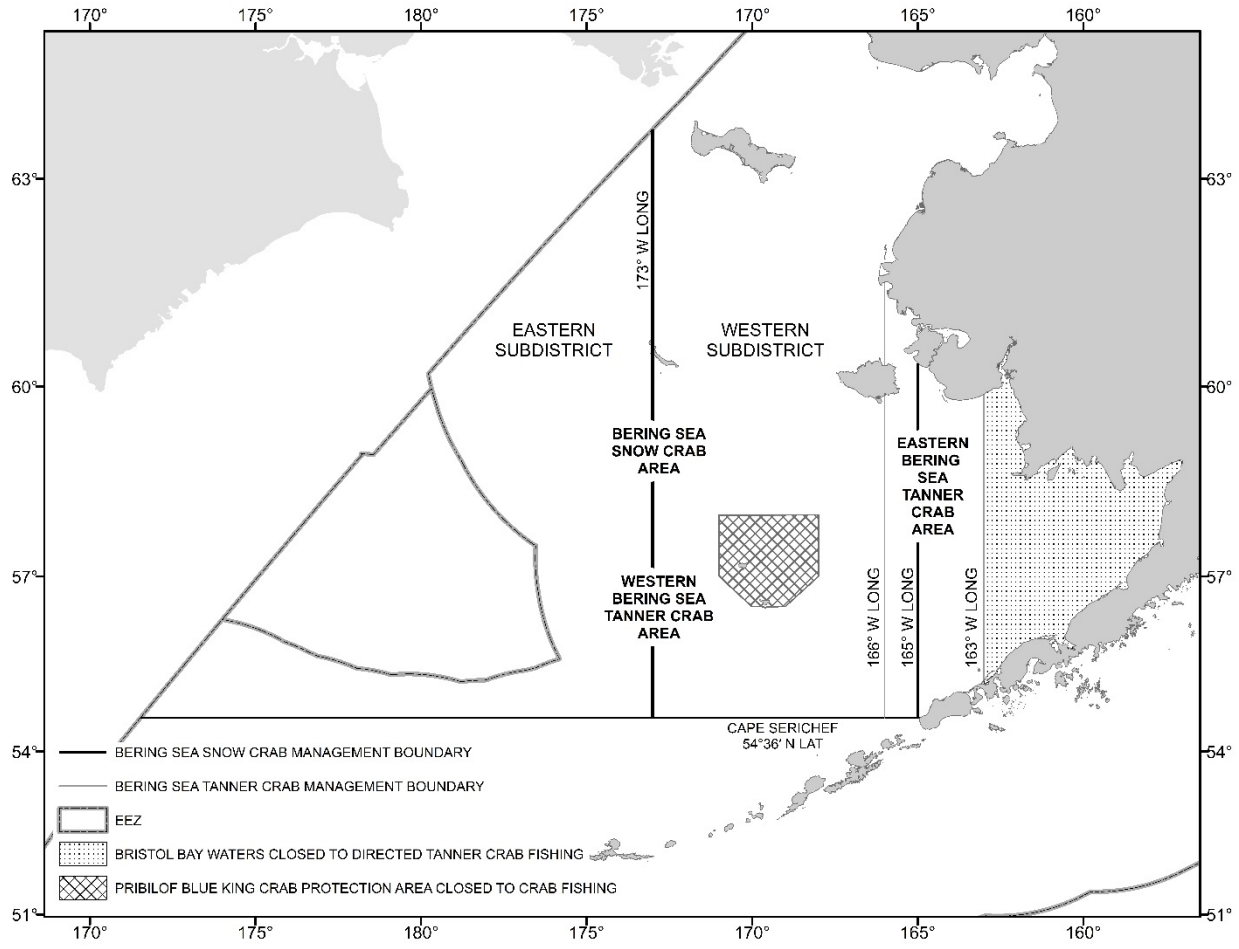


Figure 263-1.–Fishery management areas for Bering Sea snow crab, eastern Bering Sea Tanner crab, and western Bering Sea Tanner crab fisheries.

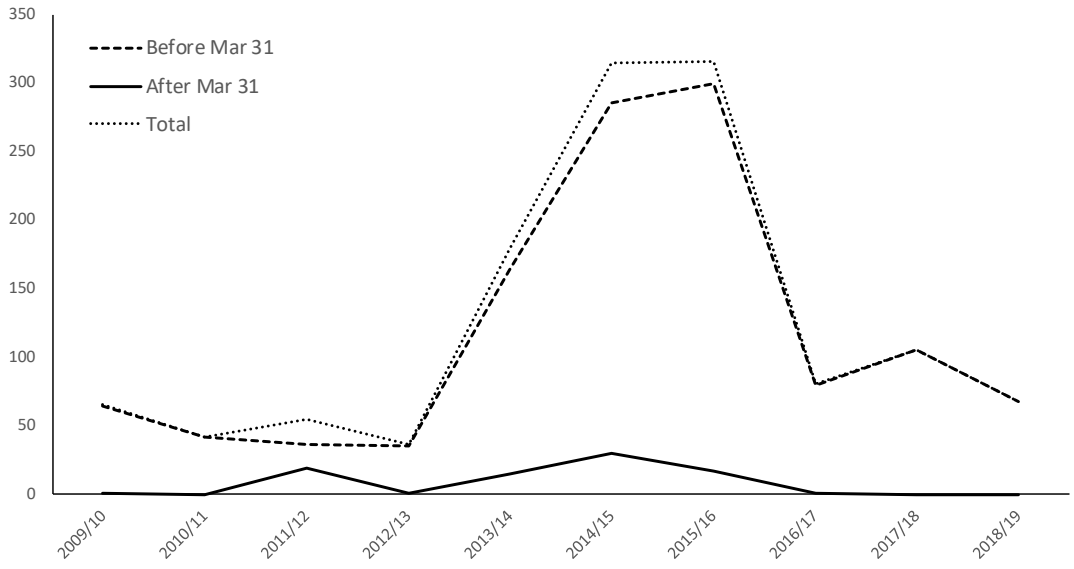


Figure 263-2.–Tanner crab landed as incidental catch in the Bering Sea snow crab fishery before and after closure of the Bering Sea Tanner crab season. Eastern and Western Bering Sea Tanner crab fisheries closed in 2010/11, 2011/12, 2012/13, and 2016/17 seasons. Eastern Bering Sea Tanner crab fishery was closed in 2017/18 and 2018/19.

**PROPOSAL 265 – Update Bering Sea and Aleutian Islands crab registration regulations.**

**5 AAC 34.640. Registration Area O inspections and inspection points; 5 AAC 34.806. Area T registration; 5 AAC 34.840. Registration Area T inspection points and requirements; 5 AAC 34.906. Area Q registration; 5 AAC 34.940. Registration Area Q inspections and inspection points; 5 AAC 35.506. Area J registration; 5 AAC 35.555. Inspection requirements for Registration Area J; 5 AAC 39.670. Bering Sea/Aleutian Islands Individual Fishing Quota (IFQ) Crab Fisheries Management Plan.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Update vessel registration and inspection requirements for BSAI rationalized crab fisheries.

**WHAT ARE THE CURRENT REGULATIONS?** All BSAI rationalized crab vessels must register with the department prior to fishing. Compulsory tank inspections are also required for Area T king crab and Area J Tanner crab fisheries and are discretionary for Area O king crab. Registration and vessel inspections may only occur in one of three specified locations (Dutch Harbor, Akutan, and King Cove). Fishermen may additionally only to submit registration forms to the department in person, by mail, or by facsimile.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Allowing vessels to register by electronic mail will reduce time and travel costs for the fleet and improve staffing flexibility for the department. Providing the department authority to waive or specify alternative vessel inspection locations further adds operational efficiency for all stakeholders and coordinates inspection regulations for vessels that opt to register electronically.

**BACKGROUND:** Current registration and inspection requirements for most BSAI crab fisheries were established prior to implementation of the crab rationalization program in 2005. Prior to rationalization, the BSAI crab fleet consisted of hundreds of vessels participating in short, competitive, and open access fisheries. As part of the registration process, regulations required department staff to inspect most vessel holding tanks 30, 48, or 72 hours (depending on the fishery) before seasons opened to ensure crab were not illegally harvested prior to fishery start dates. To facilitate inspection and registration for the large fleet, regulations specified that inspections could only occur in the ports of Dutch Harbor, Akutan, or King Cove.

BSAI crab fisheries have stabilized since rationalization and are now orderly and predictable. The size of the BSAI crab fleet has diminished to approximately sixty-three vessels. Harvest is tightly managed by a quota system and season dates are fixed in regulation. With harvesters restricted to delivering crab specific to the amount of issued quota, catch accounting and compliance have improved and there is little incentive to fish outside of the regulatory season. All BSAI rationalized crab seasons now overlap allowing vessels to transition in and out of fisheries throughout the year. With fewer vessels operating across flexible crab seasons, locating department staff in remote ports in order to accommodate the range of potential inspection and registration needs is costly and does not yield meaningful management, enforcement, or conservation benefit. The ability to waive

inspections and complete registration forms by electronic mail when department staff are not present in remote ports provides flexibility and efficiency for both the BSAI crab fleet and fishery managers.

Vessel tank inspections are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* FMP (Section 8.3.4). Category 3 management measures are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery nor additional costs to the department. Approval of this proposal is not expected to result in an additional cost to the department.

**PROPOSAL 266 – Change the season dates for the Registration Area O golden king crab fishery to March 1–October 31.**

**5 AAC 34.610. Fishing seasons for Registration Area O.**

**PROPOSED BY:** Mark Henkel.

**WHAT WOULD THE PROPOSAL DO?** Modify season dates for the Aleutian Islands golden king crab (AIG) fishery from August 1 through April 30 to March 1 through October 31.

**WHAT ARE THE CURRENT REGULATIONS?** The AIG fishery was rationalized prior to the 2005/06 season and the stock is co-managed by the department and NMFS. Aleutian Islands golden king crab are considered a single stock but managed separately, east and west of 174° W long., with separate TACs established for each area (Figure 266-1). TACs are established annually by the department then quota shares are established and allocated by NMFS as 90% to IFQ and 10% to CDQ.

The fishery open August 1 and closes April 30. The department may open the fishery as early as July 15 to accommodate an industry/department cooperative assessment survey.

To administer BSAI rationalized crab quota distribution and fee collection programs, a crab fishing year is defined in federal regulation as July 1 to June 30 (50 CFR 680.2). The crab fishing year is based on the first crab fishery (Aleutian Islands golden king crab) opening on August 1 and the last crab fishery (Bering Sea snow crab) closing on May 31, although times of active fishing can vary (Figure 266-2). Current federal regulations provide for application, permitting, data reporting, and cost recovery processes that are coordinated with the July 1 to June 30 crab fishing year. These include:

- Submission of applications for IFQ and individual processing quota (IPQ) (50 CFR 680.4(f)) and crab harvesting cooperative IFQ permits (50 CFR 680.21(b))
- Submission of value and volume data from Registered Crab Receivers (RCR) needed to determine annual cost recovery fee percentage (50 CFR 680.5)(m))
- Submission of cost recovery fees by holders of IFQ and IPQ (50 CFR 680.44)
- Renewal of required permits such as RCR and federal crab vessel permits (50 CFR 680.4(i) and (k)
- Arbitration agreements (50 CFR 680.20)
- Economic Data Reporting requirements (50 CFR 680.6)
- Submission of application for a regional delivery exemption for the AIG fishery (50 CFR 680.40)

Community Development Quota is regulated by the department and issuance of CDQ is largely independent of federal application, permitting, data reporting, and cost recovery processes.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Allow fishermen to take advantage of more favorable weather conditions during the summer months. A revised fishing season that does not overlap with other Alaskan and foreign king crab fisheries

may additionally reduce market competition, further promote custom marketing and processing, and increase value.

In contrast, AIG crab vessels and fishing operations are specialized relative to other BSAI crab fisheries. Most AIG boats predominantly focus on golden king crab and forgo other fisheries common to crab vessels (Bering Sea king and Tanner crab, Pacific cod, halibut/sablefish, and salmon tendering). A change to the historical timing of the fishery could result in changes in fishing practices for some AIG only stakeholders. No biological or conservation effects are known at this time, however, deadloss and discard mortality could increase during warm summer months.

Gear conflicts between AIG crab vessels and other predominantly federal groundfish trawl and longline vessels occurs on occasion. The effects of this proposal on fishery interactions with other gear types is largely unknown, however, gear interactions traditionally result in lost or damaged gear which has negative stock conservation and economic effects.

Creating separate administrative processes for the AIG fisheries would additionally require revisions to federal regulations, information management systems, permit application and quota issuance processes, and other recordkeeping and reporting requirements. In practice, a March 1 season opening may require AIG fisheries permitting, data reporting, and cost recovery procedures that are independent from the administrative processes established for other crab rationalization fisheries.

**BACKGROUND:** Under the crab rationalization program AIG season dates are structured to provide maximum fishing opportunity while allowing adequate time for stock assessment and other administrative functions to occur between seasons. Unlike other king and Tanner crab species in the BSAI, golden king crab molt and mate year-round and have no clearly defined biological season. As a result, AIG season dates are flexible relative to other crab stocks and can be structured to primarily suit stakeholder preference. Fishing effort in AIG fisheries generally occurs from August to December in the eastern AIG fishery and from August to March in the western AIG fishery.

The regulatory process to establish harvest limits and allocate quota is complex and compressed into a relatively tight and coordinated schedule during the 3-month closure. In general, the annual stock assessment process begins each winter which yields abundance estimates used to inform state and federal harvest control rules for the following season. The NPFMC Crab Plan Team recommends an ABC and OFL each May which are then adopted by the NPFMC during scheduled June meetings. After federal harvest limits are adopted the department computes and sets annual TACs during mid- to late-June. After TACs are announced, NMFS determines and collects the required cost recovery fees for the upcoming federal fishing year, issue permits, and facilitates price arbitration across users. Once all fees are collected, NMFS issues AIG quota share and the department opens the fishery August 1.

While stock assessment and the state/federal harvest control rule process could likely accommodate the proposed season date change (given some coordination time), the federal cost recovery and quota issuance process are defined in federal regulation and would require amending the federal crab FMP before any board action could take effect. In order to fully evaluate the scope of federal changes required, the NPFMC would likely need to first initiate an action and task staff appropriately.

Fishing seasons are a Category 2 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.2.5). Category 2 management measures should be consistent with the criteria set out in the FMP and Magnuson – Stevens Fishery Conservation and Management Act National Standards. Although the state has jurisdiction to modify seasons, any change adopted by the board that conflicts with the FMP crab year will require companion changes by the NPFMC prior to any change taking effect.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on the intent of this proposal as it primarily addresses industry preferred fishing practices. The department is **OPPOSED** to implementation until necessary changes to federal regulations and procedures are coordinated.

**COST ANALYSIS:** Approval of this proposal could result in additional direct costs for a private person to participate in this fishery. Additional costs required to develop and administer federal program modifications would be subject to the BSAI crab rationalization cost recovery (50 CFR 680.44). Under this program, NMFS recovers the costs of management, administration, and enforcement of rationalized fisheries by collecting fees from individual and processor quota shareholders across all rationalized crab fisheries.

Approval of this proposal could result in additional costs for the department. The AIG season currently overlaps with most other rationalized crab seasons allowing for efficient staffing of seasonal catch sampling and observer program staff. Additional staff time would be needed to accommodate a fishery that would predominantly occur during spring/summer months although added costs may be offset by added federal cost recovery or department test fishery program receipts.

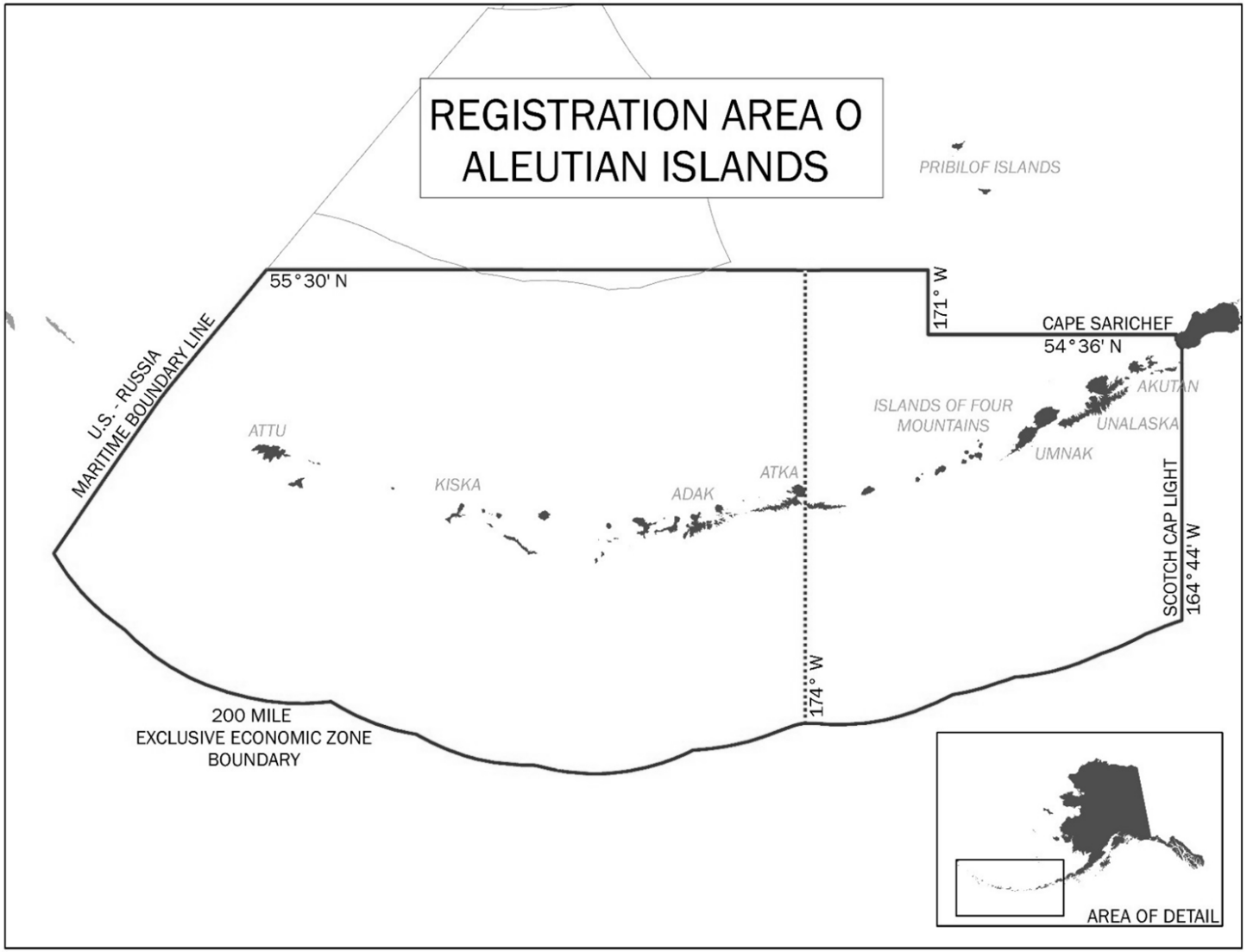


Figure 266-1.–Registration Area O for eastern Aleutian Islands golden king crab (east of 174°W long) and western Aleutian Islands golden king crab (west of 174°W long).

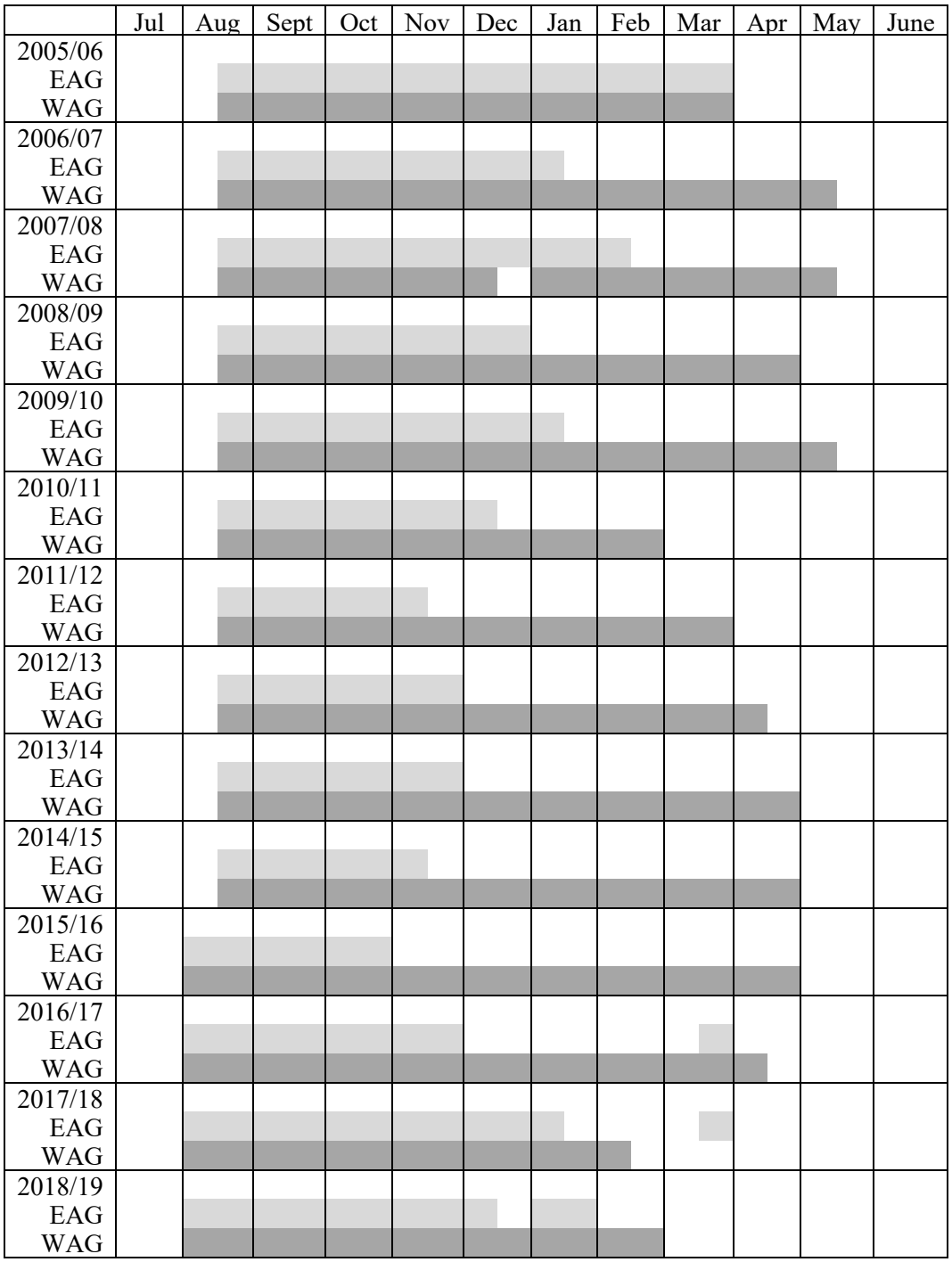


Figure 266-2.–Active fishing time in the Aleutian Islands golden king crab fisheries, 2005/06-2018/19. EAG = Eastern Aleutian Islands (east of 174° W long). WAG = Western Aleutian Islands (west of 174° W long).

**PROPOSAL 268 – Allow gear transfers to be authorized by electronic mail.**

**5 AAC 39.670. Bering Sea/Aleutian Islands Individual Fishing Quota (IFQ) Crab Fisheries Management Plan.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Update current gear transfer regulations to allow fishermen to notify the department of a gear transfer by email in addition to submitting gear transfer forms in person. This proposal would also allow the department to invalidate a gear transfer if a permit holder chooses resume use of their gear during a fishing season or revert gear rights to the relinquishing vessel after the regulatory closure of a fishing season.

**WHAT ARE THE CURRENT REGULATIONS?** Current regulations allow a vessel in a rationalized crab fishery to transfer gear operation rights and responsibilities to another vessel currently registered for the same fishery. All gear registered to a vessel must be transferred and both the captain of the vessel relinquishing gear rights and the captain of the vessel receiving those rights must sign a department gear transfer form. To validate the transfer, a representative of the department must also sign the gear transfer form bearing both skipper signatures. The transfer must occur within 14 days of the relinquishing vessel being active in the fishery.

There are no pot limits for rationalized crab fisheries, but all pot gear must be configured specific to each fishery. There additionally are no regulations that determine when a gear transfer is invalidated or when the gear operation rights and responsibilities return to the relinquishing vessel.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Provide operational flexibility and efficiency for fishermen that transfer gear and provide guidance to department staff on how and when to revert gear rights and responsibilities back to the gear owner.

**BACKGROUND:** Gear transfer regulations were established when BSAI crab fisheries were rationalized in 2005. Gear transfers allow a fisherman exiting a fishery to transfer all gear to another fisherman currently registered for the same fishery without the recipient fisherman having to change the vessel ADF&G number on the buoys. Gear transfers improve fishing efficiency, lowers crab discard rates and rail dumping when a vessel exits the fishery, and allows for vessels to work cooperatively resulting in less gear on the fishing grounds overall.

In practice, gear transfers occur on the fishing grounds. Although cooperating vessels may be operating in the same general area, direct contact between vessels to sign and exchange transfer paperwork at sea is impractical. Cooperating vessels also commonly deliver crab to different remote ports further complicating paperwork exchanges. Thus, about half of all gear transfer forms submitted to the department are never fully completed and fishermen are unable to legally transfer gear. Most crab vessels have ability to send electronic messages while at sea. Allowing for electronic gear form transmittal should improve access to gear sharing for fishermen while maintaining adequate gear tracking and documentation for the department and AWT.

In some instances, fisherman that relinquish gear operations choose to regain rights to their gear within the same season. This generally happens when IFQ or CDQ is reallocated within a cooperative and a fisherman needs to return to a fishery. There are currently no regulations that instruct the department on how or when a gear transfer can be invalidated. Fishery managers presume a gear transfer is invalidated at the regulatory closure of a fishing season. Even though there is no guidance in regulations, managers use the same procedure to invalidate a gear transfer and restore original rights.

Gear transfer regulations are not uniquely specified under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs*. For purposes of this proposal gear transfers are identified as a Category 3 management measure (Section 8.3.8) and are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. This proposal is not expected to result in an additional direct cost to the department.

## Onboard Observer Program (4 proposals)

### PROPOSAL 269 – Amend observer trainee permit revocation regulation.

### 5 AAC 39.143. Onboard observer certification and decertification.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Provide department greater flexibility to revoke BSAI crab at-sea observer trainee permits.

**WHAT ARE THE CURRENT REGULATIONS?** A 3-week department led training course designed to prepare trainees to collect fishery-dependent data is required for all new observer candidates. Trainees are evaluated on their ability to understand and demonstrate at-sea data collection concepts and skills and must pass a final training exam with a minimum score of 90 percent in order to deploy as a trainee observer.

To become a fully certified crab observer, a trainee must demonstrate professionalism and good judgment while working independently on board a fishing vessel and show proficiency in data collection across a range of deployments. A trainee advances to full observer certification at the discretion of the department based on data quality and the number, length, and complexity of deployments.

A trainee permit can be permanently revoked for falsifying data, consistently submitting poor data, or for acting in an unsafe or unprofessional manner. Notice of trainee decertification must be provided by certified mail. Once notified, a trainee may appeal decertification to the commissioner. The appeal must be in writing and be received by the commissioner within 15 days after the denial. The commissioner or the commissioner's designee shall investigate and may hold a hearing prior to making a finding on whether a permit will be revoked. The commissioner shall decide within 45 days after receiving an appeal and the decision is considered the final administrative action. Once decertified, a trainee may not retake the crab observer training class and will not be accepted to any other department observer program.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Maintaining only high-quality observer trainees improves data utility, lowers program costs, and increases efficiency for department staff and observer contracting companies. This action would additionally align the BSAI crab observer program with federal observer program standards and procedures regarding observer certification and permit revocation.

**BACKGROUND:** The BSAI crab observer program was established by the board in 1988 to collect fishery-dependent data used to characterize crab fisheries and inform stock assessment and management. Crab fisheries covered by the observer program include Bristol Bay red king crab, eastern and western Bering Sea Tanner crab, Bering Sea snow crab, eastern and western Aleutian Islands golden king crab, and several smaller non-rationalized crab fisheries. Each crab fishery has unique data collection protocols and sampling guidelines.

Crab observers are employed by independent contractors, however, the department trains and provides direct performance and data handling oversight. Observers are deployed on commercial crab vessels that are randomly selected preseason for each crab fishery. Approximately 25-30 observers are deployed seasonally to achieve fishery coverage rates ranging from 20-100%, depending on the fishery and stock assessment data needs.

Although observer trainees are required to meet minimum education and experience standards prior to hire they must also attend and pass a department led training course prior to deploying at sea on commercial fishing vessels. At times trainee observers excel in the classroom but struggle or fail to meet program standards once deployed. Classroom training cannot replicate seasickness, the physical demands of at sea sampling, or the necessary level of independent problem solving needed to remotely collect fishery data. In most cases, if an observer trainee is unable to identify and overcome performance challenges during their first deployment, issues tend to persist resulting in poor quality or missing data and added program costs. Observer programs are costly and the department attempts to deploy the minimum number of observers to meet assessment and management needs. Should it become clear that a trainee does not meet program standards, transitioning that trainee out of observer program in a timely manner is important. Under current regulations the time to revoke a trainee permit can span an entire crab season.

Trainees are promoted to fully certified observers at the discretion of the department when they demonstrate and maintain data collection proficiency and have deployed across multiple fisheries. Certified observers tend to provide better quality data and are more cost effective relative to trainees. As such, the department and observer contacting company attempt to deploy the maximum number of fully certified observers as possible. At times, certified observers struggle with interpersonal dynamics onboard vessels, maintaining data collection standards when sampling protocols are updated due to changes in the fisheries, or the addition new research-based duties to their workload. If a certified observer fails to maintain standards, they may be demoted to trainee status for additional training or be decertified. Revoking a full observer certification is rare, follows a rigorous regulatory evaluation and appeals process, and generally results in loss of employment for the observer in question.

State of Alaska crab observer regulations are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.3.7). Category 3 management measures are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal would not result in an additional cost to the department.

**PROPOSAL 270 – Specify briefing and debriefing requirements for trainee and certified observers.**

**5 AAC 39.146. Onboard observer briefing and debriefing.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Specify unique briefing and debriefing requirements for trainee and certified observers.

**WHAT ARE THE CURRENT REGULATIONS?** An onboard observer or trainee must be briefed by a department observer program staff member prior to deploying on a BSAI rationalized crab fishing vessel. The briefing involves a detailed review of sampling protocols for the fishery observed. Upon completion of the trip, the observer must return to a department staffed office to attend a debriefing to review data collected during the trip, correct errors, and address any sampling deficiencies. Current regulations outline the briefing process in general but do not identify the number of fisheries a trainee or certified observer is permitted to observe for each departmental briefing and debriefing.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** In practice, observer trainees are not deployed on fishing trips that include more than one fishery, whereas certified observers are deployed across multiple fisheries. This proposal would establish department practice in regulation, provide transparency, and ensure observers are matched and deployed appropriately across different fishing operation types.

**BACKGROUND:** The BSAI crab observer program was established in 1988 to collect fishery-dependent data used to characterize crab fisheries and inform stock assessment and management. Crab fisheries covered by the observer program include Bristol Bay red king crab, eastern and western Bering Sea Tanner crab, Bering Sea snow crab, eastern and western Aleutian Islands golden king crab, and several smaller non-rationalized crab fisheries. Most crab seasons overlap, and each fishery has unique observer data collection protocols and sampling guidelines.

Trainee observers commonly struggle to meet full program standards during their first few deployments and must attend a briefing and debriefing with department staff at the beginning and end of each deployment. This requires the vessel selected to carry a trainee to return to an observer program staffed port between crab fisheries to allow the trainee to be debriefed for the current fishery and briefed for the subsequent fishery. Certified observers in good standing with the department may be briefed for multiple fisheries prior to deploying allowing vessels registered for multiple fisheries to remain at sea while transitioning across fisheries and are not required to return to an observer program staffed port to brief/debrief the observer. Observer deployments where the vessel transitions from one rationalized crab fishery to another during the same fishing trip are rare and generally well communicated.

State of Alaska crab observer regulations are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.3.7). Category 3 management measures are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal would not result in an additional cost to the department to implement this change.

**PROPOSAL 271 – Add regulation to specify marine safety requirements for fishing vessels carrying observers.**

**5 AAC 39.645. Shellfish onboard observer program.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Require crab vessels carrying an onboard observer to follow all applicable USCG safety regulations.

**WHAT ARE THE CURRENT REGULATIONS?** Standards for maintaining safe conditions at sea while fishery observers are onboard a vessel are not specified in regulation.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** All crab fishing vessels would be required to maintain all USCG safety regulations when carrying an onboard observer. Should the vessel fail to meet or maintain these standards, the observer would have authority to terminate the trip if already embarked or refuse to board the vessel if the vessel is still in port.

**BACKGROUND:** Observers perform a vessel safety inspection prior to boarding and embarking on a trip. This inspection addresses onboard safety equipment required by the USCG. However, this does not account for safe practices while at sea. Examples of unsafe practices include operation of a vessel while intoxicated or otherwise impaired, failure to maintain proper wheel watch, and all forms of harassment or abuse.

All federal observer programs maintain this requirement for commercial fishing vessels required to carry fishery observers. This proposal would align this standard across state and federal observer programs.

State of Alaska crab observer regulations are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP) Category 3 management measures are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal would not result in an additional cost to the department to implement this change.

**PROPOSAL 272 – Amend observer trainee minimum qualifications.**

**5 AAC 39.646. Shellfish onboard observer trainee program qualifications and requirements.**

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Specify minimum education requirements for trainee observer candidates.

**WHAT ARE THE CURRENT REGULATIONS?** Current regulations require an observer trainee to possess a bachelor's degree in biology, any branch of biology, or limnology, but does not specify required coursework or require the degree to be obtained from an accredited college or university.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Provide quality observer trainee candidates by ensuring adequate coursework is obtained from reputable degree programs.

**BACKGROUND:** Current regulations allow candidates from a wide range of educational backgrounds to attend observer training. In some instances, a candidate's education does not include coursework or exposure to skills needed for successful at-sea data collection. Minimum coursework standards ensure trainees possess basic knowledge of biological processes and familiarity with field or sea-based data collection. The use of dichotomous keys prepares biologists with the skills needed to identify marine organisms to species, which is a critical component of observer data collection. Exposure and familiarity with mathematics and statistics informs accurate and efficient data collection and better provides a better understanding on how data is used in decision making.

While minimum applicable coursework does not predict success, candidates admitted to observer training without an appropriate educational background often struggle with basic duties of the position leading to poor data quality or data loss. This increases program costs and reduces the availability and utility of observer data for stock assessment and management.

State of Alaska crab observer regulations are a Category 3 management measure under the *Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs* (Section 8.3.7). Category 3 management measures are not rigidly specified or frame-worked in the FMP.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal.

**COST ANALYSIS:** Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery. Approval of this proposal would not result in an additional cost to the department.