

Fishery Management Report No. 04-15

**Fishery Management Plan for the Commercial Tanner
Crab Fishery in the Chignik District of Registration
Area J, 2005**

by

Nicholas H. Sagalkin

December 2004

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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CRAB FISHERY IN THE CHIGNIK DISTRICT OF REGISTRATION
AREA J, 2005**

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Division of Sport Fish, Research and Technical Services
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December 2004

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ABSTRACT

The Chignik District will open for a commercial Tanner crab *Chionoecetes bairdi* fishery on January 15, 2005 with a guideline harvest level of 400,000 pounds. This report provides a brief historic overview of the fishery and summarizes the harvest strategy for Chignik District Tanner crabs. Important changes to regulations affecting pot limits and legal gear requirements are described. Information on tank inspections, inseason reporting, pot storage, landing requirements, gear operation hours, and contact personnel within the Alaska Department of Fish and Game is also provided. Harvesters are encouraged to use this document as a supplement to the 2003-2005 Commercial Shellfish Fishing Regulations to understand changes affecting this fishery.

Key words: Chignik District, Tanner crab fishery, *Chionoecetes bairdi*, harvest strategy, regulations

INTRODUCTION

The Chignik District of Area J for the commercial Tanner crab *Chionoecetes bairdi* fishery includes all Pacific Ocean waters east of a line from the southernmost tip of Kupreanof Point to the easternmost point of Castle Rock, and east of a line extending southeast 135° from the easternmost point of Castle Rock, and west of the longitude of the easternmost tip of Cape Kumlik. A full description of the district (Figure 1) can be found at 5 AAC 35.505 DESCRIPTION OF REGISTRATION AREA J DISTRICTS on page 185 of the 2003-2005 Commercial Shellfish Regulations, which will be referred to as 'shellfish regulations' for the remainder of this report. The Chignik District is a superexclusive registration district for Tanner crabs.

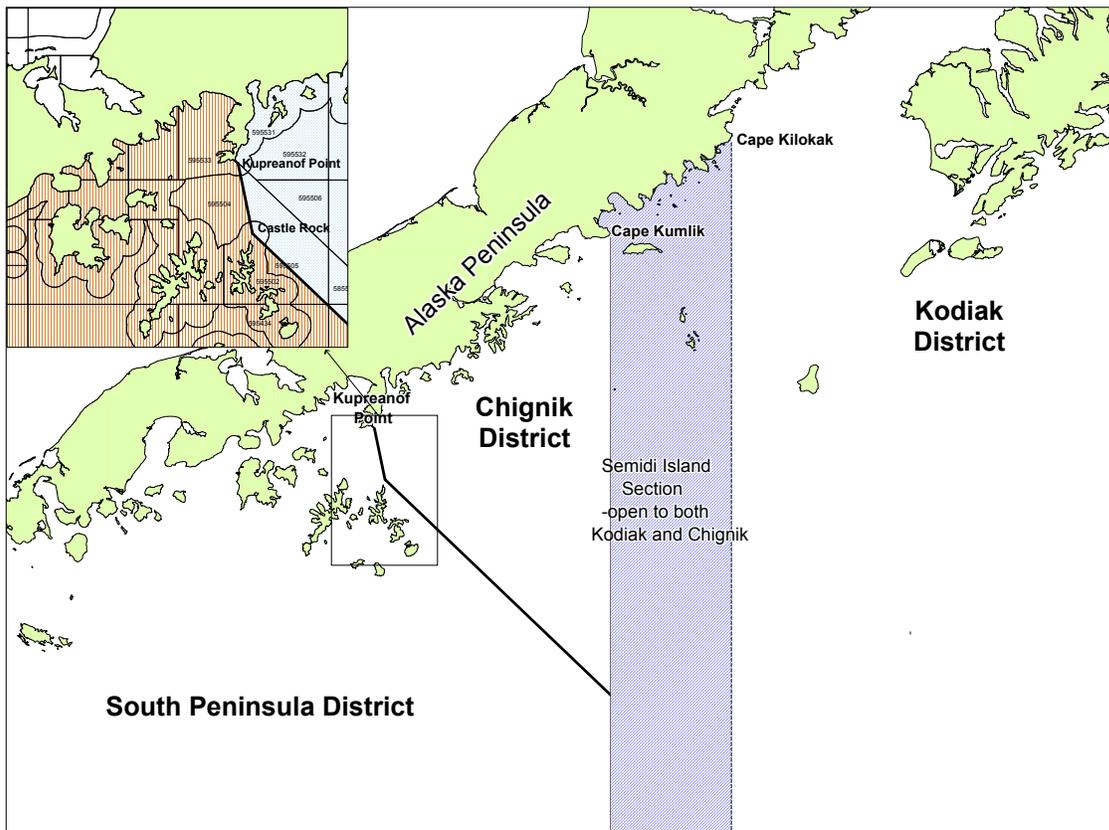


Figure 1.— Chignik Tanner crab District, 2005.

OVERVIEW

The Chignik District Tanner crab fishery began in 1968 when 21,100 pounds were harvested (Table 1). The fishery peaked in 1975/76 when 35 vessels harvested approximately 11.0 million pounds. Annual harvests decreased through the 1970s. Recruitment failures in the early 1980s led to consecutively smaller harvests until 1989, when a small resurgence occurred. Much of the effort in the Chignik District occurred in late March following the closure of the Kodiak and South Peninsula Districts. Many of the most productive areas were offshore between Mitrofanina Island, Lighthouse Rocks, and the Semidi Islands.

The Alaska Department of Fish and Game (ADF&G) did not conduct abundance surveys in the Chignik District until 1981. Surveys in the early 1980s predicted poor recruitment in the near future. As expected, the recruitment and subsequent fisheries were increasingly poor. Catches declined first in the productive offshore areas, then later in bays. The district was closed to commercial fishing in 1990 and has remained closed since.

In 1999, ADF&G presented the BOF with a comprehensive harvest strategy for Tanner crabs in the Chignik District. The harvest strategy established thresholds of abundance that must be met to allow for a commercial Tanner crab fishery (Urban et al. 1999). The harvest strategy also requires that a minimum guideline harvest level (GHL) of 200,000 pounds must exist before a fishery can be prosecuted.

REGULATIONS

OVERVIEW

Regulations pertaining to Tanner crab fishing in the State of Alaska can be found in chapter 35 of the Alaska Administrative Code (AAC). Chapter 35 begins on page 165 of the 2003-05 shellfish regulation booklet. Specific regulations that pertain to the Tanner crab fisheries in Registration Area J (Westward Region) begin on page 183. The harvest strategy regulation, 5 AAC 35.507 KODIAK, CHIGNIK, AND SOUTH PENINSULA DISTRICTS, *C. bairdi* TANNER CRAB HARVEST STRATEGIES, can be found on pages 186-187 of the shellfish regulations. Some of the regulations regarding Tanner crab fishing are summarized below. For additional information on regulations, contact the ADF&G office in Kodiak and refer to the shellfish regulations (available at ADF&G offices or at our website: <http://www.state.ak.us/adfg/>). The following is an overview of regulations pertaining to Tanner crab fishing in the Chignik District:

- **The Chignik District is a superexclusive registration district for Tanner crabs, 5 AAC 35.506 AREA J REGISTRATION (a).** A vessel or permit holder that registers for the 2005 Tanner crab fishery may not take Tanner crabs or any crab of the genus *Chionoecetes* in another district within the same registration year. A vessel is considered registered for the fishery when the permit holder signs the registration form; a valid registration does not require actual fishery participation or landing.
- **The pot limit is 30 pots per vessel.** Pot limit regulatory language is under 5 AAC 35.525 LAWFUL GEAR FOR REGISTRATION AREA J (c)(2). If vessels fish in the Semidi Island Section of the Kodiak District, the Kodiak District pot limit will be in effect. **Only 20 pots are allowed in the Semidi Island Section.**
- **Fishing gear may be operated for 10 hours each day from 8:00 AM to 5:59 PM.** Baited gear may be left in the water for 14 hours from 6:00 PM to 7:59 AM each night. The regulation

for the daily fishing and soak periods can be found under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J (b).

- **A person or vessel that operates pot gear (e.g., Pacific cod pots) 14 days prior to the Chignik District Tanner crab fishery may not participate in the commercial Tanner crab fishery.** The regulation for operation of other pot gear can be found under 5 AAC 35.053 OPERATION OF OTHER POT GEAR.
- Only vessels 58' or less may participate in the commercial Tanner crab fishery in the Chignik District, 5 AAC 35.590 VESSEL LENGTH RESTRICTIONS.

CHIGNIK DISTRICT GHIL FOR 2004/2005 SEASON IS 400,000 POUNDS.

The estimated number of legal crabs from the 2004 trawl survey in this district is just under 1.0 million animals. The abundance of crab in the Chignik District is more than triple the abundance estimated in 2003. The abundance of crab estimated in the 2003 trawl survey is displayed in Figure 2.

The fishery will close when ADF&G determines that the GHIL is achieved or when conditions indicating a threat to the long term health of the stock, such as observations of low catch per pot or excessive bycatch of female or sublegal male Tanner crabs. The regulatory season closure date is March 31.

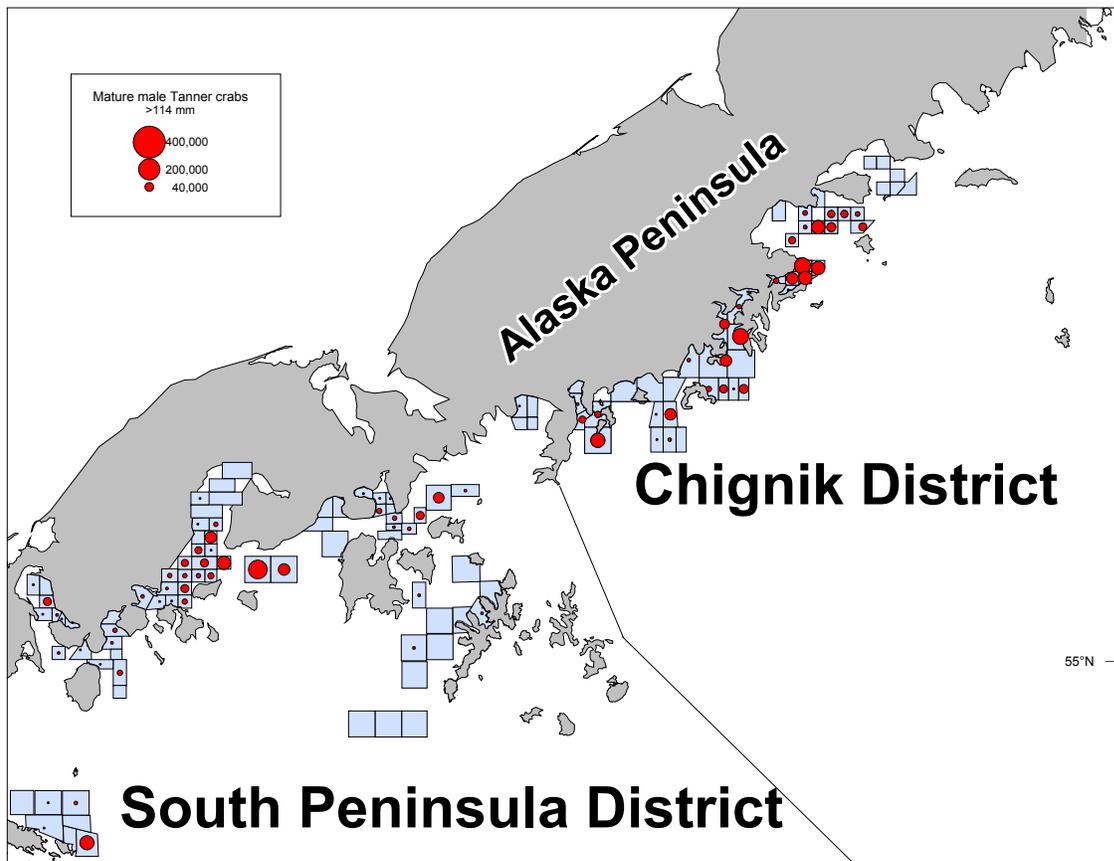


Figure 2.– Number of mature male Tanner crabs per kilometer towed in the 2003 Chignik trawl survey.

FISHING PERIODS

Pot gear may only be operated from 8:00 AM to 5:59 PM. Operation of gear, which includes setting or retrieving pots, is prohibited from 6:00 PM to 7:59 AM. Further information on fishing seasons and gear operation hours can be found under 5 AAC 35.510 FISHING SEASONS FOR REGISTRATION AREA J on pages 188 and 189 of the shellfish regulations.

POT LIMITS AND BUOY TAGS

A new pot limit for the Chignik District was adopted by the BOF in 1999. **No more than 30 aggregate pots may be operated from a validly registered Tanner crab vessel during the 2005 Tanner crab fishery.** The Semidi Section is part of the Kodiak District. While boats from the Chignik District are allowed to fish in the Semidi Section, **they are only allowed to use the Kodiak District pot limit in this section, which is 20 pots per vessel.**

Tags will be available for purchase beginning in mid-December at a cost of \$1.50 per tag. A valid 2005 Tanner crab CFEC permit card is required to purchase tags. Tags will be sold at the ADF&G office in Kodiak, and by department representatives in Sand Point and Chignik after January 10th. Participants from areas outside the city of Kodiak, Sand Point, or Chignik can purchase tags via U.S. Mail until December 31. No tags will be mailed after this date; call the ADF&G office in Kodiak for details (907) 486-1840. Appendix B contains additional contact information.

Replacement tags may be obtained by contacting the Alaska Department of Fish and Game in Kodiak. The vessel owner, operator, or agent must complete an affidavit form describing how the tags were lost and supply the unique number(s) of each lost tag.

Pots with lost tags must be secured open with the bait removed until replacement tags are obtained. Vessels must contact Alaska State Troopers, Division of Wildlife Protection to inform them of the situation (Appendix B).

GEAR

Gear for the commercial Tanner crab fishery is limited to pots no more than 10 feet long by 10 feet wide by 42 inches high with rigid tunnel eye openings that less than five inches in height. Tunnel eye opening perimeters must be individually more than 36 inches. Ring nets **are not** legal gear in the Chignik District for the commercial harvest of Tanner crabs. The specific language regarding legal pot dimensions can be found under 5 AAC 35.050 LAWFUL GEAR FOR TANNER CRAB on page 169 of the shellfish regulations.

Escape mesh or ring requirements are included in the regulations for legal Tanner gear. Each pot used to take Tanner crabs must have at least one third of one vertical surface of the pot composed of not less than 7-1/4 inch stretched mesh webbing or have no less than four circular escape rings which have an inside diameter of at least five inches. If using rings, they must be installed on the vertical plane of the pot to allow for escapement of undersized crabs. The rings are not required to be placed within a certain distance from the bottom as they are in some Bering Sea fisheries. However, ADF&G recommends placing rings within one mesh of the bottom of the pot to

optimize escapement of undersized crabs. The specific language on escape device requirements can be found under 5 AAC 35.525 **LAWFUL GEAR FOR REGISTRATION AREA J** on page 192 of the shellfish regulations.

All pots must be equipped with a biodegradable escape mechanism as described in 5 AAC 39.145 **ESCAPE MECHANISM FOR SHELLFISH AND BOTTOMFISH POTS** on page 54 of the shellfish regulations. An opening 18 inches or greater in length that is placed within six inches of the bottom of the pot must be laced, sewn, or secured together by a single length of untreated, 100 percent cotton twine no larger than 30 thread.

Buoys attached to pots must comply with 5 AAC 35.051 **TANNER CRAB GEAR MARKING REQUIREMENTS** listed on page 169 and 5 AAC 35.526 **TANNER CRAB GEAR MARKING REQUIREMENTS AREA J** on page 193-194 of the shellfish regulations. The buoy that contains the ADF&G number marking may not be marked with additional numbers; however, symbols and letters are acceptable on the buoy with the ADF&G number. Trailer or other buoys used to mark ownership or string sequence may be marked with any desired numbers, symbols, or letters.

The use of converted pots as ‘storage boxes’ to store crabs in the water for vessels registered as dry tanked vessels is not permitted unless crab storage devices are attached to the vessel at all time.

OPERATION OF OTHER POT GEAR, POT STORAGE, AND LANDING REQUIREMENTS

There is a 14-day stand down period for the operation of pot gear before the commercial Tanner crab fishery opening in the Chignik District. No person or vessel that will participate in the commercial Tanner crab fishery may operate commercial, subsistence, sport, or personal use pots for any species within the district during that 14-day period.

Legally outfitted pots with buoy tags attached *may be* placed into shallow water storage during the 14-day stand down period. However, vessels may not retrieve gear already in legal storage to put tags on gear during the 14-day stand down period. In addition, vessels **will not** be allowed to retrieve gear from storage during the 24-hour period after tank inspection but before the fishery opening, due to enforcement concerns. There would be no way to distinguish a vessel retrieving gear from storage and a vessel fishing before the opening. At the time of registration, all gear onboard and in the water must have buoy tags affixed to be in compliance.

After the closure of the Tanner crab season, vessels wishing to participate in the Pacific cod fishery must either place pots into shallow-water storage or on land and register with ADF&G for the Pacific cod fishery. Additional stipulations on the operation of other pot gear within the Chignik District can be found under 5 AAC 35.053 **OPERATION OF OTHER POT GEAR** on page 195 of shellfish regulations.

Up to 30 pots may be stored before the season in waters of 25 fathoms or less with all bait and bait containers removed and with the doors secured fully open (or not secured closed for cone or pyramid pots). No vessel may have more than the specified pot limit onboard or in wet storage in the registration district while the vessel is validly registered. The regulatory language concerning pot storage can be found at 5 AAC 35.527 **TANNER CRAB POT STORAGE REQUIREMENTS FOR AREA J (3)** on pages 194-195 of the shellfish regulations.

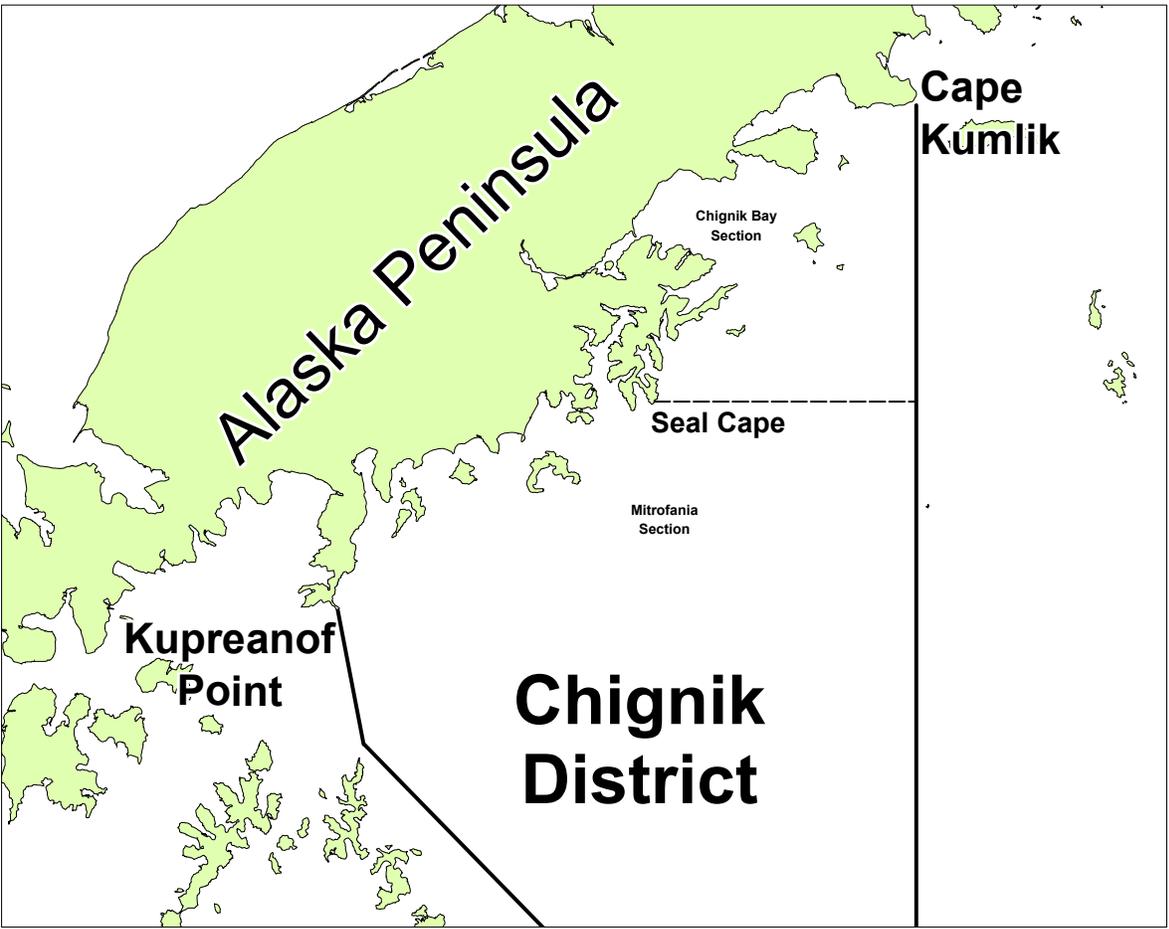


Figure 3.– Chignik Tanner crab District, identifying management section boundaries, 2005.

The Chignik District will be managed in two separate areas: Mitrofanina and Chignik Bay Sections (Figure 3). Once harvest in these sections approaches biomass estimates obtained from the survey, the section will close. Individual sections may close prior to the entire district. **Bays within these sections may close prior to the entire section.**

Delivery requirements, post-closure pot storage requirements, and re-registration requirements vary depending on the type of area closure and the amount of notice given. The following is a summary of closure scenarios, subsequent pot-storage options, delivery requirements, and re-registration requirements contained in 5 AAC 35.030, 5 AAC 35.031, 5 AAC 35.052, 5 AAC 35.527, and 5 AAC 35.556.

SUMMARY OF CLOSURE SCENARIOS

Partial closure of the Chignik District (i.e., section closure) with 6 or more hours notice of the closure given.

- Vessel operators are required to deliver all crabs from the section within 24 hours of the closure.
- Vessel operators may store pots in waters deeper than 25 fathoms for 72 hours in the closed waters of the section.

- Vessel operators may place, or simultaneously have, baited gear in the open waters of the same section before delivery provided the 24 hour delivery deadline is met. Any changes to the delivery requirement would be provided in a news release at the time of the closure announcement.

Partial closure of the Chignik District (i.e., section closure) with less than 6 hours notice of the closure given.

This scenario is highly unlikely. Should this type of closure occur, the landing, pot storage, and re-registration requirements would be provided in a news release.

Closure of the entire Chignik District with 6 or more hours notice of the closure given.

- Vessel operators are required to deliver all crabs within 24 hours of the closure.
- Vessel operators may store pots with bait and bait containers removed and doors secured open in waters deeper than 25 fathoms for up to 7 days following the closure.
- Gear may be stored with bait and bait containers removed and doors secured open in waters shallower than 25 fathoms for 7 days after the closure.

Closure of the entire Chignik District with less than 6 hours notice of the closure given.

- Vessel operators are required to deliver within 24 hours.
- After the closure, vessel operators may not place gear in or remove gear from storage until they have completed their delivery of crabs.
- Baited gear may be stored in waters deeper than 25 fathoms for 72 hours following the closure.
- Vessel operators are required to immediately return to the fishing grounds after their delivery to ‘rail dump’ any baited gear left on the grounds. Pots may then be stored in waters shallower than 25 fathoms for up to 7 days.

DELIVERIES OUTSIDE THE DISTRICT

Catcher vessel and tender operators wishing to deliver to the Kodiak District are required to contact the ADF&G office in Kodiak (Appendix B) or department representatives in Sand Point before leaving the Chignik District. Vessels delivering outside the district must provide the estimated number of crabs onboard the vessel at the time of the closure, location of port and processing facility, and estimated time of arrival. Additional requirements exist for catcher-processors and vessels mechanically disabled. Vessels legitimately delayed due to circumstances of weather will be addressed on a case by case basis. The specific regulation is 5 AAC 35.031 TANNER CRAB LANDING REQUIREMENTS and is on page 167-168 of the shellfish regulations.

This delivery requirement will be waived for vessels delivering to Sand Point from the Chignik District.

REGISTRATION, CFEC PERMITS, TENDERS, AND TANK INSPECTIONS

Vessel operators must have a 2005 permit card for Area L Tanner crab and a current 2005 commercial vessel license. Permits and vessel licenses can be obtained from the CFEC in Juneau.

Tender vessels must register with ADF&G before beginning tendering operations. Tender vessels may not have a pot-hauling block onboard nor may they be used to harvest Tanner crab.

Tank inspections are required for fishing vessels with a circulating sea water system to confirm that no crabs are onboard the vessel prior to the opening. Circulating sea water systems include on-deck containers with water circulated by pumps, hoses, or other means. Gear will also be inspected at the time of tank inspection to ensure it is in compliance with all gear regulations. Tanks will be inspected beginning at noon on January 14. Arrangements will be made to accommodate vessel inspections in Chignik and Sand Point. Upon successful completion of the tank inspection and gear inspection process, a valid 2005 shellfish registration will be issued to the vessel. A copy of this registration must remain onboard the vessel while fishing. This registration becomes invalid 24 hours after the closure of the fishery. Vessels must invalidate their registration before participating in other fisheries if the Tanner fishery remains open.

SIZE LIMIT

The legal minimum size of Tanner crabs that can be harvested in the Chignik District is 5.5” (140 millimeters; Appendix A) carapace width (CW). Only legal-size male crabs can be retained; all other crabs incidentally captured must be immediately returned to the water unharmed. This includes king crab, as they cannot be legally taken in a commercial Tanner crab fishery for subsistence purposes.

VOLUNTEER CATCH REPORTING

ADF&G will manage the Chignik District commercial Tanner crab fishery from inseason catch reports provided by fishers. Operators will be asked during the registration process which method they will use to submit daily reports. Inseason management will allow for real-time fishery decisions and the ability to consider changes in effort, fleet behavior, and weather. ADF&G will make every effort to allow sufficient time for fishers to configure gear for storage or to place gear onboard before a closure; however, the potential exists for a short advance notice closure.

Any validly registered vessel may participate in the reporting process and each registering vessel will be issued a 2005 reporting code and worksheet. Reports will be taken over marine VHF channel 10, single sideband (SSB) 4125 kHz, telephone, satellite dispatch system and e-mail. The ADF&G office uses Matrix¹ dispatch services; the office number is 7410, the R/V Resolution number is 7411. Vessel operators will be issued a reporting worksheet during tag sales and/or tank inspection to participate in inseason reporting.

Contents of the daily report will contain confidential codes for the section in the which vessel operator is fishing, statistical area, number of pot lifts, and number of crabs retained for each 10-hour fishing period. Reports will initially be taken at 6:30 PM daily and may be transmitted via

¹Use of trade names does not constitute an endorsement from ADF&G.

SSB, marine telex, e-mail, satellite dispatch, and satellite or cell phone. After most of the inside waters have closed, the department will change the reporting schedule to 9:00 AM.

ADF&G will update the fleet on SSB 4125 kHz with the fishery status each morning at 8:30 AM. Any closure announcement or change in the reporting schedule will be made on this frequency. Current fishery status will also be available on the ADF&G recorded information phone at 486-4559. Messages on the recorded information phone will be updated daily after the 8:30 AM updates. Updates, changes to the reporting schedule and closure announcements will be distributed via e-mail, FAX, and passed along to all participating processing facilities.

FISHERY MANAGEMENT PLAN

ADF&G may manage bays and offshore areas separately, closing one portion of a section while allowing continued harvest in other locations within the same section. The department will manage in a manner that keeps the commercial fishery from significantly exceeding the number of animals available for harvest as estimated by the survey within given bays or areas.

Given the distribution of legal animals estimated by the 2004 survey, partial closures are likely to occur after very little fishing time (possibly within the first full day of fishing). These types of closures have been used to curtail excessive removals of legal-sized animals or to keep the fishery from working on very low numbers of animals within bays or other areas.

Fishery performance as measured by catch per unit effort (CPUE) of legal crabs, undersized, and female crabs will be closely monitored. As the stocks within these management sections are still rebuilding, closures may occur before the total GHF is achieved if CPUE indicates the number of legal sized animals has been substantially depleted or if excessive handling of sublegal and female crabs is occurring.

Details of the tank inspection process, updates on inseason reporting, and other fishery related information will be forthcoming in ADF&G news releases.

REFERENCES CITED

Urban, D., D. Pengilly, D. Jackson, and I. Vining. 1999. A Tanner crab harvest strategy for Kodiak, Chignik, and the South Peninsula Districts. A Report to the Board of Fisheries. Alaska Department of Fish and Game, Division of Commercial Fisheries, Westward Region, Regional Information Report 4K99-21, Kodiak.

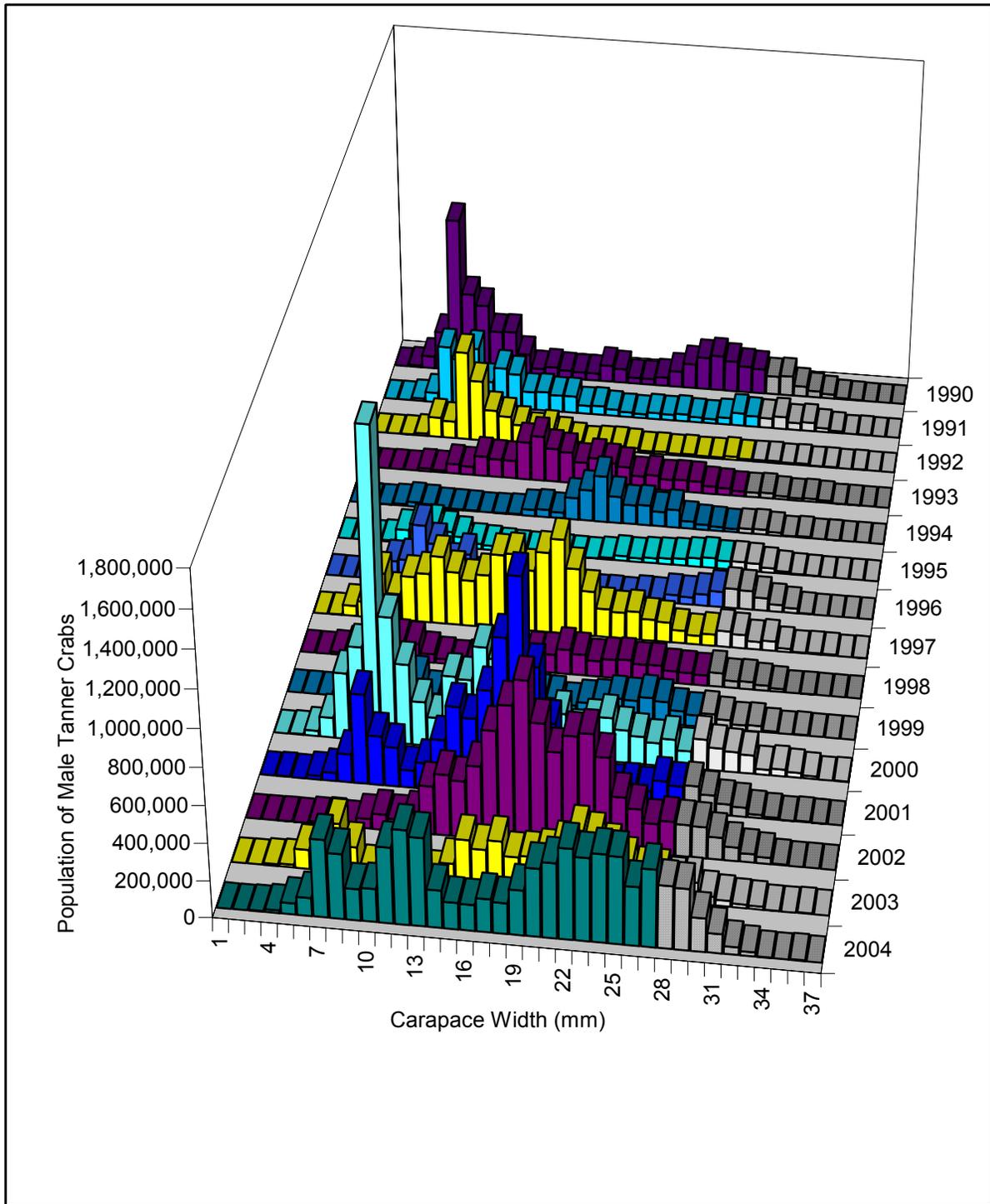
TABLES

Table 1.– Commercial catch and effort for the Tanner crab *Chionoecetes bairdi* fishery for the Chignik Management District, 1968-2004.

| Year | Number | | | Pots Lifted | CPUE | Average Weight | Price Per Pound (\$) | |
|-----------------|---------|----------|-----------------------|-----------------------|---------|-------------------|-------------------------|------|
| | Vessels | Landings | of crabs of Pounds | | | | | |
| 1968 | NA | NA | NA | 21,100 | NA | NA | NA | |
| 1969 | NA | NA | NA | 38,100 | NA | NA | NA | |
| 1969/70 | NA | NA | NA | 2,800 | NA | NA | NA | |
| 1970/71 | NA | NA | NA | 152,300 | NA | NA | NA | |
| 1971/72 | | | | Confidential harvest | | | | |
| 1972/73 | 15 | 56 | 297,363 | 747,788 | 8,080 | 51 | 2.5 | 0.16 |
| 1973/74 | 25 | 115 | 1,585,560 | 4,054,873 | 28,083 | 57 | 2.6 | 0.20 |
| 1974/75 | 25 | 91 | 1,438,508 | 3,649,444 | 22,675 | 63 | 2.5 | 0.14 |
| 1975/76 | 35 | 288 | 2,724,509 | 11,201,900 | 52,381 | 52 | 2.5 | 0.19 |
| 1976/77 | 21 | 141 | 2,098,226 | 5,672,919 | 40,604 | 52 | 2.7 | 0.33 |
| 1977/78 | 32 | 140 | 1,725,042 | 4,693,830 | 38,414 | 45 | 2.8 | 0.42 |
| 1978/79 | 39 | 126 | 926,253 | 2,536,105 | 28,378 | 33 | 2.7 | 0.55 |
| 1979/80 | 42 | 155 | 2,340,004 | 3,517,920 | 54,627 | 25 | 2.6 | 0.54 |
| 1980/81 | 24 | 112 | 1,534,847 | 3,653,723 | 44,022 | 35 | 2.4 | 0.64 |
| 1981/82 | 45 | 174 | 1,343,500 | 3,240,476 | 47,830 | 28 | 2.4 | 1.21 |
| 1982/83 | 48 | 136 | 1,432,029 | 3,497,370 | 60,210 | 24 | 2.4 | 1.12 |
| 1983/84 | 17 | 41 | 269,724 | 659,043 | 14,665 | 18 | 2.4 | 1.09 |
| 1984/85 | 15 | 27 | 162,448 | 375,476 | 15,708 | 10 | 2.3 | 1.42 |
| 1985/86 | 6 | 12 | 85,697 | 188,162 | 7,435 | 12 | 2.2 | 1.97 |
| 1986/87 | 10 | 20 | 89,329 | 195,060 | 7,052 | 13 | 2.2 | 2.28 |
| 1987/88 | 6 | 11 | 87,148 | 183,111 | 6,544 | 13 | 2.1 | 2.33 |
| 1988/89 | 6 | 34 | 142,470 | 323,120 | 9,845 | 15 | 2.3 | 3.05 |
| 1989/90 to 2004 | | | | NO COMMERCIAL FISHERY | | | | |
| TOTAL | NA | NA | 18,282,657 | 48,604,620 | 486,553 | NA | NA | NA |

NA = not available

**APPENDIX A. ESTIMATED POPULATION OF MALE TANNER
CRABS BY CARAPACE WIDTH IN THE CHIGNIK DISTRICT, 1990-
2004**



Appendix A1.– Estimated population of male Tanner crabs by carapace width in the Chignik District, 1990-2004.

(Note- The lightly colored portions of each year represents the estimated population that is legal sized.)

**APPENDIX B. LISTING OF CONTACT PERSONS, BY AGENCY
AND LOCATION**

Appendix B1.– Listing of contact persons, by agency and location.

| | | | |
|---|--|--|---|
| Alaska Department of Fish and Game | | web site: http://www.cf.adfg.state.ak.us/region4/ | |
| <u>Kodiak office</u> | | | |
| Mail address: | 211 Mission Road Kodiak, Alaska 99615 | physical address: 211 Mission Road 2 nd floor, Kodiak | Phone: (907) 486-1840 FAX : (907) 486-1824 |
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| Commercial Fisheries Entry Commission | | web site: http://www.cfec.state.ak.us/ | |
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