

## Submitted by the Alaska Department of Fish and Game.

March 22, 2022

Substitute language for proposal 268:

Repeal and readopt 5 AAC 35.507. Kodiak, Chignik, and South Peninsula Districts *C. bairdi* Tanner crab harvest strategies to read as follows:

### **5 AAC 35.507. Kodiak, Chignik, and South Peninsula Districts *C. bairdi* Tanner crab harvest strategies.**

(a) In the Kodiak, Chignik, and South Peninsula Districts, a commercial *C. bairdi* Tanner crab fishery may open only if analysis of preseason survey data indicates that the subject population

(1) in the Chignik District, or a section of the South Peninsula District is sufficient to provide a guideline harvest level of 200,000 pounds or more as calculated under (c) of this section; or

(2) in a section of the Kodiak District is sufficient to provide a guideline harvest level of 100,000 pounds or more as calculated under (c) of this section.

(b) Notwithstanding (a) of this section, a commercial *C. bairdi* Tanner crab fishery may open

(1) in the South Mainland Section, the fishery will open if at least two adjacent sections are open and will close when both of the adjacent sections are closed;

(2) in the Semidi Island Overlap Section,

(A) the fishery will open when either the Southwest Section of the Kodiak District or the Chignik District is opened;

(B) the owner, or the owner's agent, of a vessel must register with the department before fishing in the Semidi Island Overlap Section and may not be simultaneously registered to fish in other sections of the Kodiak District or the Chignik District;

(C) the pot limit is 70 pots per vessel;

(D) a vessel operator must either provide daily reports to the department verbally or in writing of the vessel's catch, catch location, and effort, or maintain logbooks that include the vessel's catch, catch locations, and effort; and

(E) the commissioner may close, by emergency order, the Semidi Island Overlap Section based on fishery performance.

(c) In the Kodiak, Chignik, and South Peninsula Districts, the department shall establish separate *C. bairdi* Tanner crab guideline harvest levels, as described in (1) or (2) of this subsection. In the Kodiak, Chignik, and South Peninsula Districts, and under the restrictions of (d) of this section, the maximum exploitation rate on legal male abundance ( $EXP_{ELM}$ ) shall be established as follows:

(1) in an area where the long-term trend in mature male abundance (MMA) is increasing, the maximum exploitation rate on legal male abundance ( $EXP_{ELM}$ ) in all districts or sections will be established by an analysis of preseason survey mature female abundance (MFA) data as follows:

(A) if MFA is less than 40 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be 0.05;

(B) if MFA is at least 40 percent but not greater than 100 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be computed as  $((MFA/MFA_{(1988-2021)} - 0.4)/0.6) \times 0.15 + 0.05$ , with slope  $m$  and intercept  $b$ ;

(i) the  $EXP_{LMB}$  slope “ $m$ ” is computed as  $(((((MFA/MFA_{(1988-2021)} - 0.4)/0.6) \times 0.15) + 0.05) - 0.05)/0.5$ ;

(ii) the  $EXP_{ELM}$  intercept “ $b$ ” is computed as  $0.05 - (m \times 0.5)$ ;

(C) if MFA is greater than 100 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be 0.20;

(D) and

(i) if MMA is less than 50 percent of  $MMA_{(1988-2021)}$ , the fishery will not open;

(ii) if MMA is at least 50 percent but not greater than 100 percent of  $MMA_{(1988-2021)}$ , the guideline harvest level of legal males will be computed as  $((m \times MMA/MMA_{(1988-2021)}) + b) \times ELM$ ;

(iii) if MMA is greater than 100 percent of  $MMA_{(1988-2021)}$ , the guideline harvest level of legal males will be 20 percent of ELM.

(2) in an area where the long-term trend in mature male abundance (MMA) is stable or decreasing, the maximum exploitation rate on legal male abundance ( $EXP_{ELM}$ ) in all districts/sections will be established by an analysis of preseason survey mature female abundance (MFA) data as follows:

0.05; (A) if MFA is less than 40 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be

(B) if MFA is at least 40 percent but not greater than 100 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be computed as  $((MFA/MFA_{(1988-2021)} - 0.4)/0.6) \times 0.15 + 0.05$ , with slope  $m$  and intercept  $b$ ;

(i) the  $EXP_{ELM}$  slope “ $m$ ” is computed as  $(((((MFA/MFA_{(1988-2021)} - 0.4)/0.6) \times 0.15) + 0.05) - 0.05)/0.5$ ;

(ii) the  $EXP_{ELM}$  intercept “ $b$ ” is computed as  $0.05 - (m \times 1)$ ;

0.20; (C) if MFA is greater than 100 percent of  $MFA_{(1988-2021)}$ ,  $EXP_{ELM}$  will be

(D) and

(i) if MMA is less than 100 percent of  $MMA_{(1988-2021)}$ , the fishery will not open;

(ii) if MMA is at least 100 percent but not greater than 150 percent of  $MMA_{(1988-2021)}$ , the guideline harvest level of legal males will be computed as  $((m \times MMA/MMA_{(1988-2021)}) + b) \times ELM$ ;

(iii) if MMA is greater than 150 percent of  $MMA_{(1988-2021)}$ , the guideline harvest level of legal males will be 20 percent of ELM.

(d) Notwithstanding (a) – (c) of this section, in implementing these harvest strategies, the department shall consider the reliability of the estimates of *C. bairdi* Tanner crab, the manageability of the fishery, and other factors the department determines necessary to be consistent with sustained yield principles and use the best scientific information available and consider all sources of uncertainty as necessary to avoid overfishing.

(e) In this section,

(1) “ $EXP_{ELM}$ ” means the maximum exploitation rate on legal male *C. bairdi* Tanner crab abundance as determined in (c) of this section;

(2) “MFA” means the abundance of mature female *C. bairdi* Tanner crab in the entire surveyed portion of a district or section estimated at the time of the preseason survey;

(3) “ $MFA_{(1988-2021)}$ ” means the mean value of the abundance of mature female *C. bairdi* Tanner crab in the entire surveyed portion of the district or section estimated at the time of the preseason survey for the period 1988–2021;

(4) “MMA” means the abundance of male *C. bairdi* Tanner crab in the entire surveyed portion of the district or section that are more than 114 mm carapace width estimated at the time of the preseason survey;

(5) “MMA<sub>(1988–2021)</sub>” means the mean value of the abundance of male *C. bairdi* Tanner crab in the entire surveyed portion of the district or section that are more than 114 mm carapace width estimated at the time of the preseason survey for the period 1988–2021; and

(6) “ELM” means 100 percent of soft-shell, new-shell, and old-shell male *C. bairdi* Tanner crab abundance in the entire surveyed portion of the district or section that are at least 140 mm (five and one-half inches) carapace width, including lateral spines, estimated at the time of the preseason survey.

5 AAC 35.510(a) is amended to read as follows:

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

(a) In the Kodiak District,

(1) **in the Northeast, Eastside, Southeast, Southwest, Westside, North Mainland and South Mainland Sections,** pots may be operated to take Tanner crab only from 8:00 a.m. to 5:59 p.m., with a soak time of 14 hours from 6:00 p.m. to 7:59 a.m., from 12:00 noon January 15 until 12:00 noon March 31;

...

(3) based on the department's assessment of effort, manageability, and harvest rate, the commissioner may, by emergency order, increase the daily fishing period in the sections specified in this subsection, when the effort in the district declines and a substantial amount of the guideline harvest level remains to be taken;[.]

**(4) in the Semidi Island Overlap Section, pots may be operated to take Tanner crab from 12:00 noon January 15 until 12:00 noon February 15.**