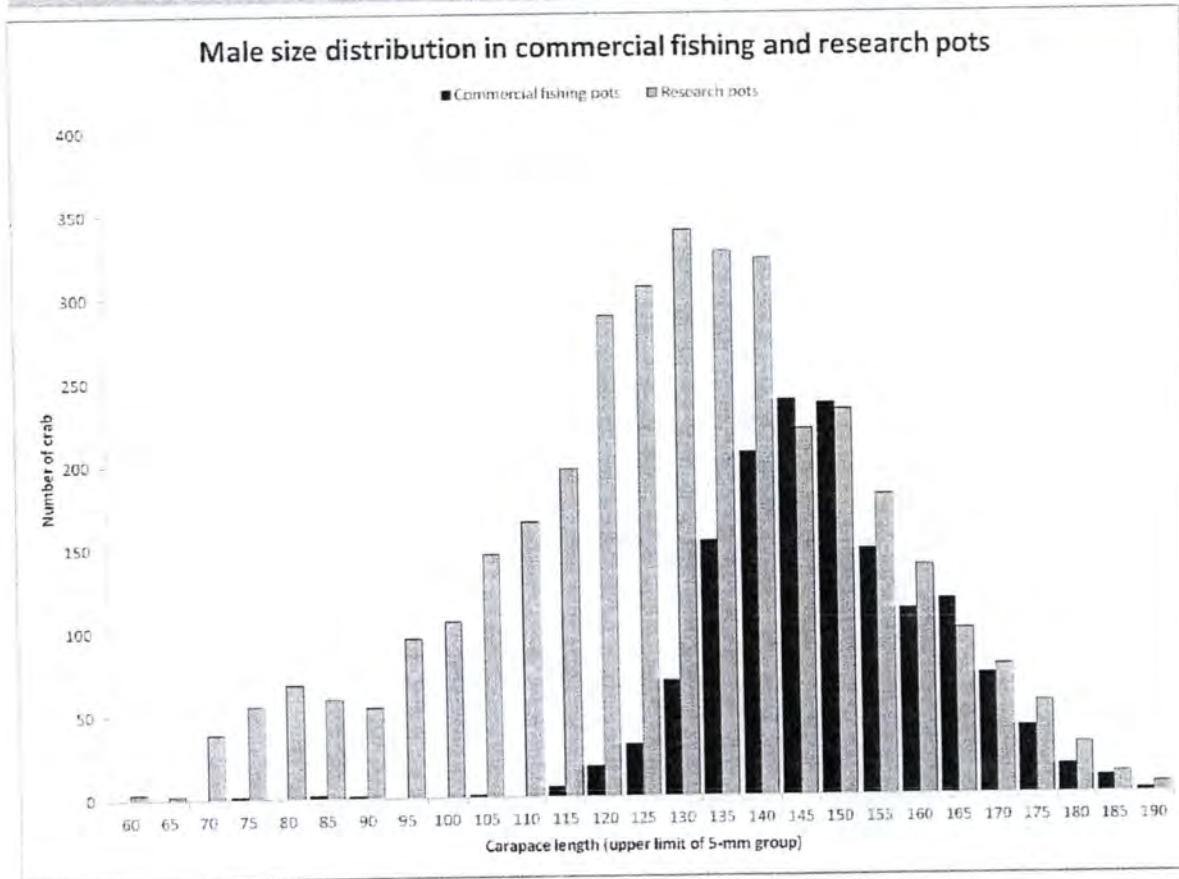


Aleutian Islands Golden King Crab Fishery

RC 037

Comments by Dick Tremaine, Siu Alaska Corporation
2 pages

Prelim results on male golden king crab from 31 pairs of "research" and commercial pots



Source: "Pilot Study of Commercial Fishing Gear Selectivity during the 2012/13 Aleutian Islands Golden King Crab Fishery". 2013. Vanek and Pengilly.

Comments on the ADF&G pot survey from the February 2013 NPFMC crab modeling workshop:

- "Doug and industry members noted that it is clear that sub-legal animals exist in the area where the fishery is prosecuted."
- "The consensus of the workshop was that these data could: (1) be used to estimate gear selectivity; and (2) form the basis for an index of abundance which covered a broader range of sizes than the CPUE for the retained catch."

Aleutian Islands Golden King Crab Fishery

North Pacific Fishery Management Council Crab Modeling Workshop

February 26-March 1, 2013

Summary report presented in Agenda D1d(1) at the April 2013 NPFMC meeting

“... presented the current draft assessment model for AIGKC, **with a focus on the model structure, rather than results.** This **model has not yet been approved for providing management advice ...**” (Section A.3 Stock assessment model)

“The treatment of the EAG and WAG as separate stocks **was questioned** ... continuous distribution of crabs between the two areas, albeit at lower density.” (Section A.3 Stock assessment model)

“Natural mortality (M) was specified as 0.18yr^{-1} in the model, based on estimates of M for Bristol Bay red king crab. However, golden king crab are a deeper water species **and may be longer-lived.**” (Section A.3 Stock assessment model)

“**The model is not ready for adoption in its current form and there is a significant amount of work that needs to be done before adoption,** including implementation of the standards outlined in Appendix C. Many of the presented diagnostics indicate the model does not fit the data well. **Recommendations from the last workshop [3 examples] have not been implemented, and must be addressed before adoption of the model.**” (*Major recommendations and conclusions section*)

- “• **Recode the model so that CPUE is never negative** and so that there are no “if” statements which involve differentiable variables.” [*Future work (before the model is next reviewed)*]
- “• **Remove penalties on fishing mortality during the final phase of the estimation – they introduce biases and can exert strong influence on the outcome of the assessment.**” [*Future work (before the model is next reviewed)*]

Report of the NPFMC Scientific and Statistical Committee, April 4, 2013

D-1 (d) Crab modeling report

“The workshop focused on model structure and not the model results. It was noted that **there were a number of coding issues that may lead to spurious results** associated with initial starting conditions and or constants that are hard-wired into the code. **The model is not ready for adoption in its current form and requires a considerable amount of work to bring it up to standards where it would be recommended for guiding management advice.** The workshop provided a long list of recommendations for the AIGKC model including issues relating to coding standards, simulation testing, and developing a standard set of model diagnostics and summary plots for residual fits to observed data.”