

Bering Sea and Gulf of Alaska Crab Committee

Working Document – August 9, 2022

General Research Recommendations

- Encourage and facilitate more industry/agency cooperative research projects
- Better collaboration is needed between agencies on research priorities, projects and funding requests
- Identifying and acquiring research funds to better achieve research goals and needs

Gulf of Alaska Tanner Crab Bycatch Research Recommendations

Alaska Department of Fish & Game:

- Need better estimates of total fishery mortality in the groundfish and directed crab fisheries
- Improve understanding of preferred habitat at various life stages and identify critical crab habitat
- Seasonal movement and habitat use relative to groundfish seasons
- Trawl fishing effects/habitat modification (EFH considerations)
- Improved understanding of recruitment limitations and natural mortality estimates (groundfish diet/predation)

Fixed Gear (Provided by Theresa Peterson):

- Support ADF&G research priorities
- Study and update discard mortality rates in directed and non-directed trawl and fixed gear fisheries

Trawl Gear (Provided by Chris Woodley and Rebecca Skinner):

- Improve data gaps regarding uncertainty of bycatch/discards in the directed Tanner crab fishery and state pot cod fishery
- Study and update discard mortality rates in trawl fisheries
- Additional research needed on unobserved mortality for pelagic gear and modified trawl sweep gear
- Research closed areas to trawling which may contribute to groundfish predation on Tanner crab

Areas of Agreement Between Trawl and Fixed Gear:

- Additional and updated research is needed on assumed discard mortality rates for the directed fishery and non-directed fixed and trawl gear fisheries
- Some agreement on reviewing closed areas to trawling in the Central Gulf

Bering Sea/Aleutian Islands Crab Research Recommendations

Alaska Department of Fish & Game:

- Research is needed on unobserved mortality including delayed mortality and long-term effects, with studies on overlap of crab and trawling distributions, pelagic trawl bottom contact rates, on-trawl camera research, timing of fisheries and periods of molting
- Crab mortality in longline and pot groundfish fisheries
- Gear modification, soak time, mesh size, etc. work for industry research
- Effects of repeated capture/discarding of females and sublegals
- Retention size
- RAMP studies at varying times of the year

Directed Crab Fishery (Alaska Bering Sea Crabbers):

- Crab movement tagging efforts
- Seasonal distribution of crab (trawl/pot and summer/winter surveys)
- Habitat and recruitment research
- Unobserved mortality
- Gear modification design research to reduce bycatch
- Handling and discard mortality studies
- Collection of shell condition information to better understand times and areas for molting/mating

Fixed Gear Groundfish (Bering Sea Pot Cod Cooperative):

- Gear modification research for groundfish pots
- Research on better ways to do hot spot reporting on crab movement
- Industry/agency cooperative research
- Funding for industry research projects

Trawl Gear (Groundfish Forum and Alaska Seafood Cooperative):

- More collaboration between agencies on research projects and funding requests
- Need better indicators of red king crab spatial distribution in winter months – particularly for red king crab
- Work on environmental indicators to predict areas of winter red king crab abundance
- Better information is needed on seasonal distribution so all gear types (including directed fishery) can stay out of areas of high abundance of undersized males and females
- Research needed on groundfish predation on opilio to utilize in assessment models

Bering Sea Research Foundation:

- More tagging and movement of crab research is needed
- Seasonal distribution of crab (same as ABSC)
- Life history – timing and areas of molting and mating (mature females)
- Include camera work