



# ***BSFRF Crab Research Update***

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**BERING SEA FISHERIES**  
**RESEARCH FOUNDATION**

**Crab Plan Team**  
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# *Industry Perspectives: Responding to the Crab Crises*

Financial  
Relief

Flexible  
Management

Focused  
Research

BSFRF &  
Collaborators

Disaster relief funds to

- Harvesters
- Processors
- CDQ Groups
- Communities
- Research

*Efforts to expedite*

Sustainability Priority

- Don't fish stocks down
- Consider new options
- Build in flexibility
- Modify current system
- Adjust as necessary

*Expedite the approach*

Prioritize Research Now

- Update priorities
- Projects to help now
- Build new support
- Collaborate more
- Stakeholder input

*Do Urgent Research*



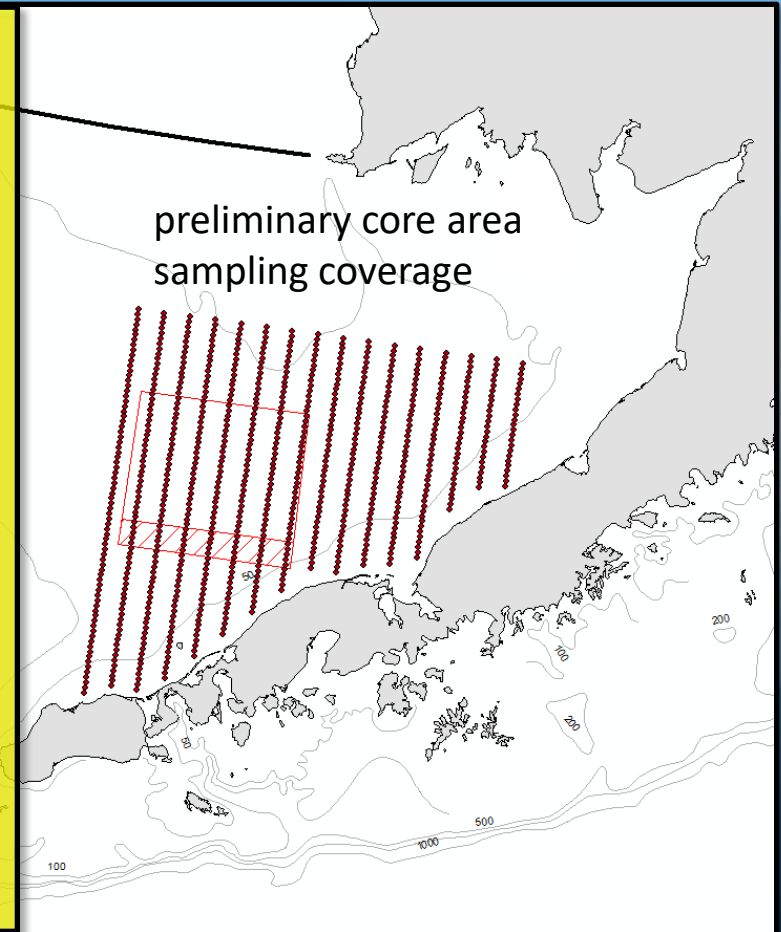
## *Current Plans*

- Existing data in order, shareable, working on co-publications/projects
- Updating existing research strategy, reprioritizing – shareable soon
- Immediate focus on win/spr BBRKC project – coming up fast
- Preparing for new supplemental funds – CDS, other, related plans
- Considerations for snow crab, what's next for protections & conservation measures, further spatial work, NBS inclusion, etc.
- Bycatch focused work, both in directed crab fisheries and others, BREP projects may be expanding
- UFM work, BSFRF initiated a 'scoping' review based on data – we'd like to see this reviewed/updated more, working w/ Council/SSC

# Winter-Spring BBRKC Research Charter, MARCH 2023

- Supported directly by NOAA/ADFG (\$850k)
- Working directly with industry (BSFRF/others)
- Chartering two crab industry vessels
- Focused in BB core area for three objectives
  1. Measure Win/Spr CPUE of BBRKC from pots
  2. Place satellite tags at density centers
  3. Conduct pot gear work to reduce discards
- Outcomes are expected to be useful soon  
*(this Fall for management consideration)*

*Current plans call for:  
Placement of about 175 tags  
Three pot gear types used  
Approximately 1,000 – 1,200 pot lifts  
No crab retention*





# ➤ Seeking research funds

## **PROJECT – Description**

**CRAB MOVEMENT RESEARCH** – smart tags (satellite/acoustic) and smart monitoring (drone) technology along with other traditional means to tag release and recover BBRKC and snow crab, are needed. Efforts to date have been limited by funds and sample size. A primary project would be to increase the number of sampled tags scaled 1x, 3x, 5x, or 10x to get more tagged crab out and to better cover the crab distribution in areas of particular interest. **Focus species: BBRKC, snow crab**

**CRAB SURVEY RESEARCH** – currently the BSFRF is determining a plan to conduct trawl survey, pot survey, and other survey efforts that would fill critical information gaps in the winter and spring periods when and where fishery or summer survey information does not exist. NMFS summer surveys provide a rich, long time series, but don't cover winter grounds, nor provide insight on mating/molting activity in time and space, which is needed now to consider necessary protections for crab. Surveys would also enable us to set tag results into the context of population densities. **Focus species: BBRKC, snow crab**

**HABITAT & RECRUITMENT RESEARCH** – understanding of specific areas of crab habitat is lacking context with recent ecosystem and climate changes, and current fishing activities. Proposed tagging and survey research could be further specified to focus on precise areas (BBRKC: Amak Island, Black Hills, nearshore AK Peninsula, and snow crab: Pribilof Islands areas, canyon areas) that may reflect important breeding, nursery, and/or juvenile areas that may require designation. This research will help to fill huge gaps in knowledge about important recruitment areas. **Focus species: BBRKC, snow crab, Tanner crab, other king crab stocks**

**BYCATCH RESEARCH** – research has been completed to roughly estimate handling and discard mortality for crabs that are captured and released in both target and non-target fisheries. Given poor stock status, a research focus on bycatch and fishing impacts would provide more precision to these important estimates of mortality for sustainable fishery management. **Focus species: BBRKC, snow crab, Tanner crab, other king crab stocks**

**CRAB PREDATION** – longstanding research on cod stomachs provides a limited understanding for how much crab are eaten by groundfish (cod). Major gaps in time and space requires a focus on molting periods, when crab are most vulnerable, and nearshore areas occupied by young crab that have not been studied. This information is particularly critical now given changing ocean conditions that are affecting the overlap of groundfish predators with crab. **Focus species: snow crab, Tanner crab, BBRKC, other king crab stocks**

# Upcoming Further Research Funds – Federal CDS

\$2.75 million through Senator Murkowski's efforts – for collaborative industry crab research with BSFRF with support and help from Senator Sullivan, and WA Senator Murray and Senator Cantwell...

A huge THANK YOU to the Alaska and Washington Senators for their support for additional research funds to help toward recovery for Alaska crab stocks !



The screenshot shows the top navigation bar of the website for the United States Senator for Alaska, Lisa Murkowski. The navigation bar includes links for ABOUT, ASSISTANCE, ISSUES, PRESS (highlighted in yellow), and CONTACT, along with a search icon. Social media icons for Instagram, Twitter, Facebook, and YouTube are also present. Below the navigation bar, the page is titled "PRESS / PRESS RELEASES" with the date "12.23.22". The main headline reads "Murkowski Delivers Congressionally Directed Spending for 130+ Alaska Projects".

- **Bering Sea:** \$2.7 million for the Bering Sea Fisheries Research Foundation to monitor commercial fisheries in the Bering Sea.
  - *“Collapsing Bering Sea crab stocks need immediate attention and urgent research to help understand causes and inform efforts toward recovery. Crab fishermen and processors are in survival mode due to enormous economic losses from recent season closures with associated impacts rippling through Alaskan communities. This CDS funding will support critical collaborative research through direct involvement with the Alaska crab industry and agency partners. Research is expected to provide further clarity to stakeholders and managers on what’s next for crab and the ability to conduct this research through the Bering Sea Fisheries Research Foundation further mitigates economic impacts on the crab industry that directly funds BSFRF. This CDS will vitalize research efforts toward rebuilding the stocks to sustainable levels to support Alaskan fishermen, and to bring back critical jobs and economic livelihood to Alaskan communities.” - Scott Goodman, Executive Director, Bering Sea Fisheries Research Foundation*

# ***BSFRF Crab Research Update***

## ***Follow up Questions***

**Opilio conservation measures – spatial protections**

- **What's next if anything is known yet?**
- **what's plan for NBS inclusion?**
- **How can we help – industry is very interested**

**UFM continued work**

- **Going further on our scale/magnitude what's next?**
- **SSC working group/who's in/how can we help?**

**Following up with BSFRF Board contact w/ a few of you**