AFA CP Efforts to Avoid and Reduce Crab Mortality in EBS Pollock Fishery 2023

NPFMC December Meeting 2023

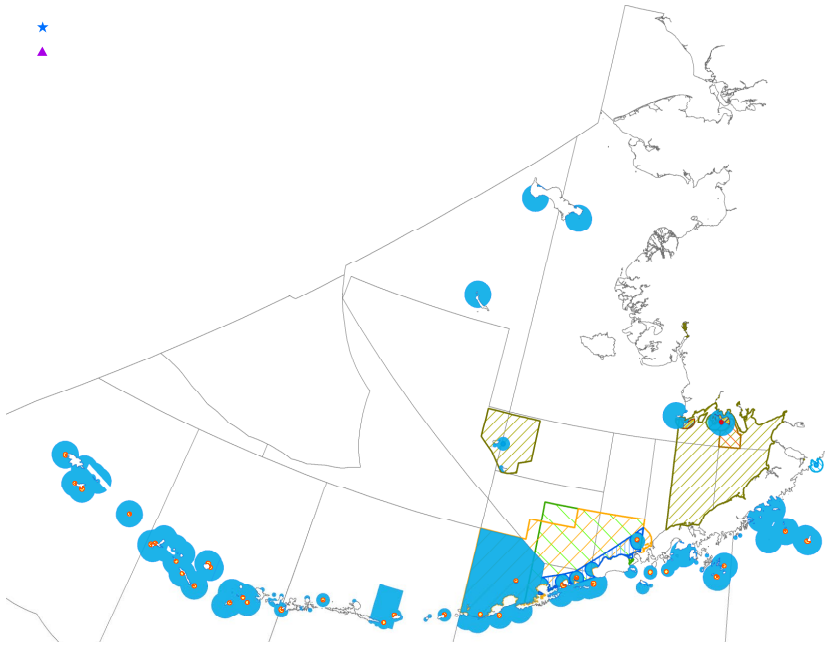
At-sea Processors Association

NPFMC Motion October 2022

2. The Council appreciates industry responses to requests for information on voluntary measures for implementation in 2023 and beyond to avoid BBRKC and EBS snow crab and reduce crab mortality in the non-directed fisheries and to reduce discard mortality in the directed fishery. *The Council encourages all sectors to implement these voluntary measures in the 2023 season and provide a status report on the efficacy of these measures in December 2023.*

Existing Habitat Protections and PSC Management of crab

- 50 CFR 679.22(a)(1) ***Zone 1 (512) closure to trawl gear.***
- 50 CFR 679.22(a)(2) ***Zone 1 (516) closure to trawl gear.***
- 50 CFR 679.22(a)(9) ***Nearshore Bristol Bay Trawl Closure.***
- 50 CFR 679.21(e)(3)(ii)(C) ***Incidental catch in midwater pollock fishery.***



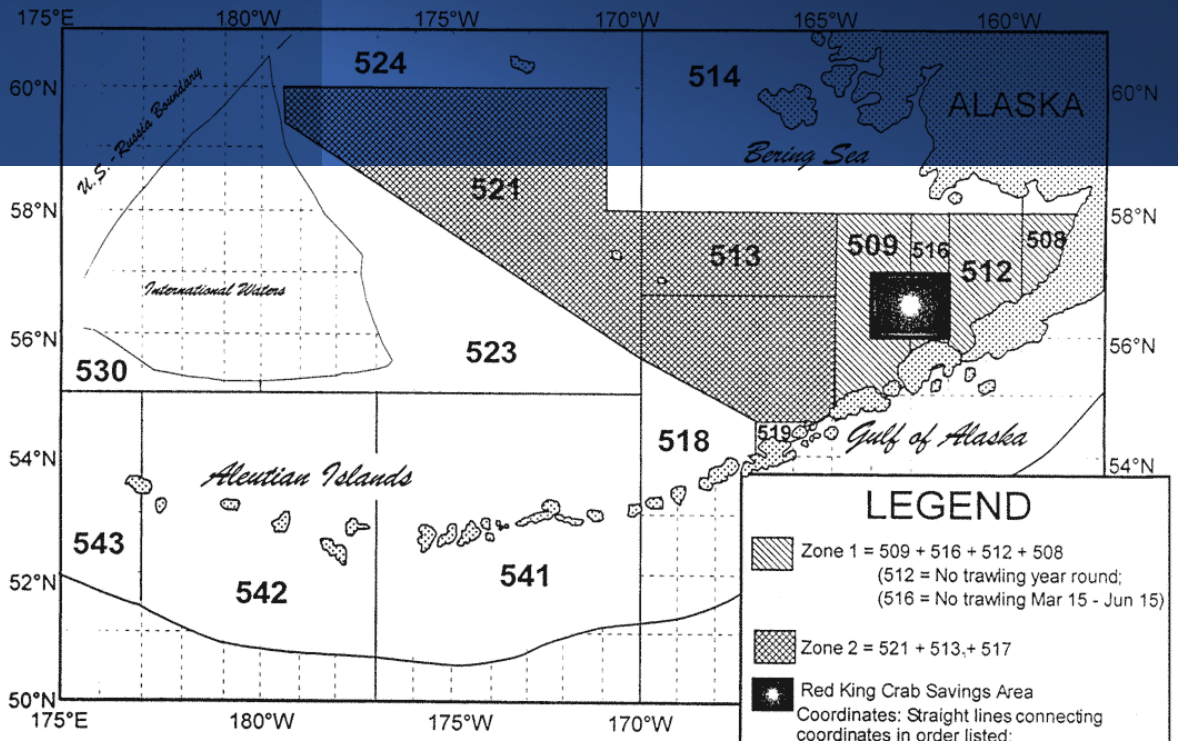


Figure 11 to Part 679. Red King Crab Savings Area (RKCSA). Red King Crab Savings Subarea (RKCSS) is that portion of the RKCS between 56°00' and 56°10'N.

<u>Additional Spatial Fishing Constraints in the EBS pollock fishery</u>

- SSL area closures, nearshore closures critical to young crab.
- SSL Conservation Area Catch limits
- B-season CVOA restrictions
- Pribilof Island Habitat Conservation Area
- Dynamic in-season Chinook and Chum Bycatch Avoidance Areas

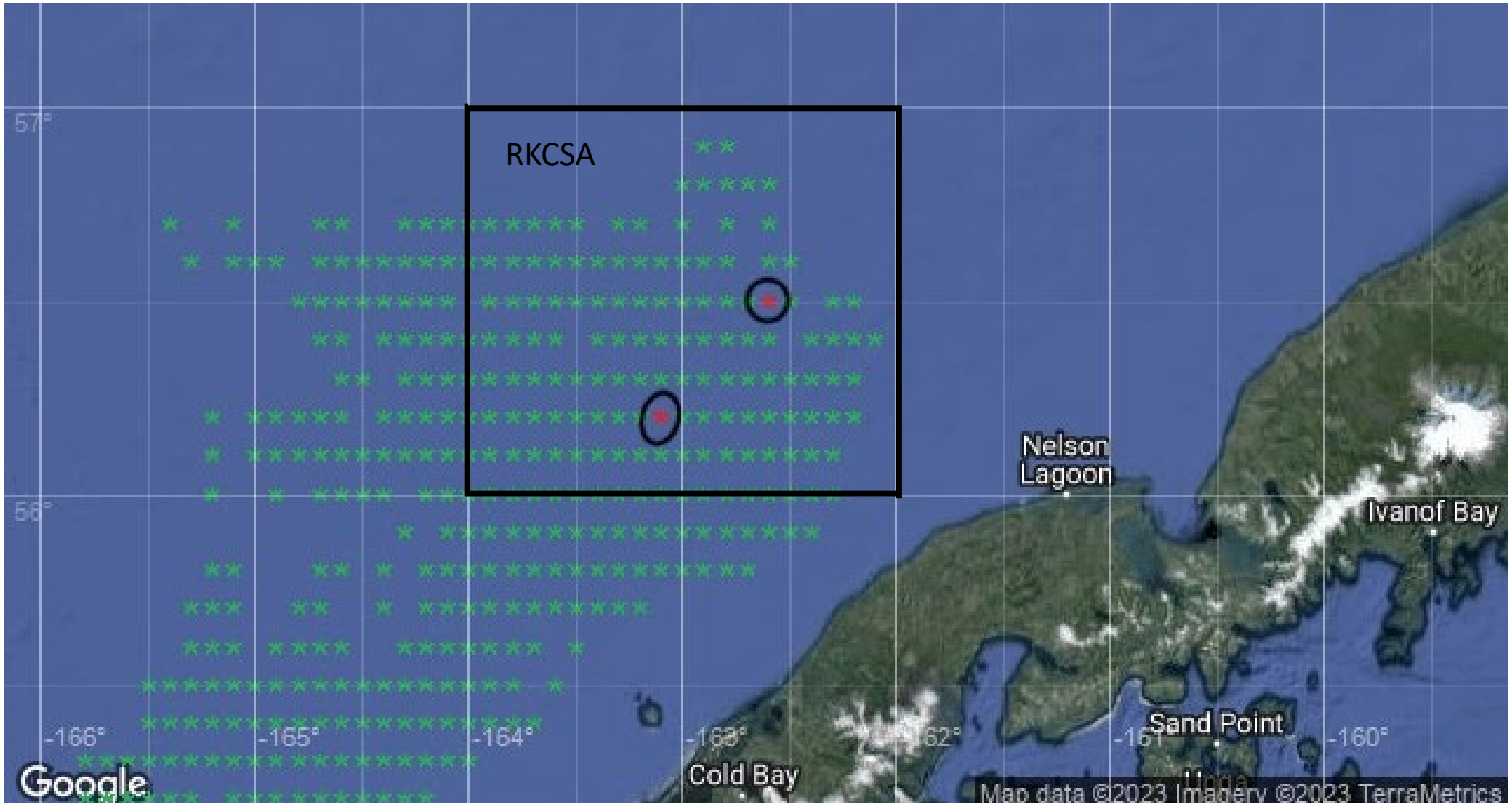
Additional Voluntary Actions by the AFA CP pollock fleet

1. APU Research Plan
2. Present RKC crab stock status information and survey crab density information at PCC Annual Skipper's Meeting—particularly the juvenile and female distributions
3. Encourage on grounds communication between vessels when crab is encountered. Distribute Bycatch Alarms for ALL RKC crab encounters while directed pollock fishing
4. Add RKC crab bycatch to bi-weekly PCC reporting in the A-season.
5. Present Opilio crab stock status information and survey crab density information at PCC Annual Skipper's Meeting—particularly juvenile and female distributions
6. Encourage on grounds communication between vessels when Opilio crab is encountered. Distribute Bycatch Alarms for ALL Opilio crab encounters while directed pollock fishing
7. Add Opilio bycatch to weekly PCC reporting in the B-season.

2023 AFA CP Pollock Directed Fishery Red King Crab Encounters (4,891 Unique Hauls in 2023)

Hauls with Red King Crab	Number of RKC encountered in partial haul samples	TOTAL RKC PSC Mortality (number of animals)	All Catch occurred within RKCSA	Haul Encounter Rate
2	4	6	YES	0.04%

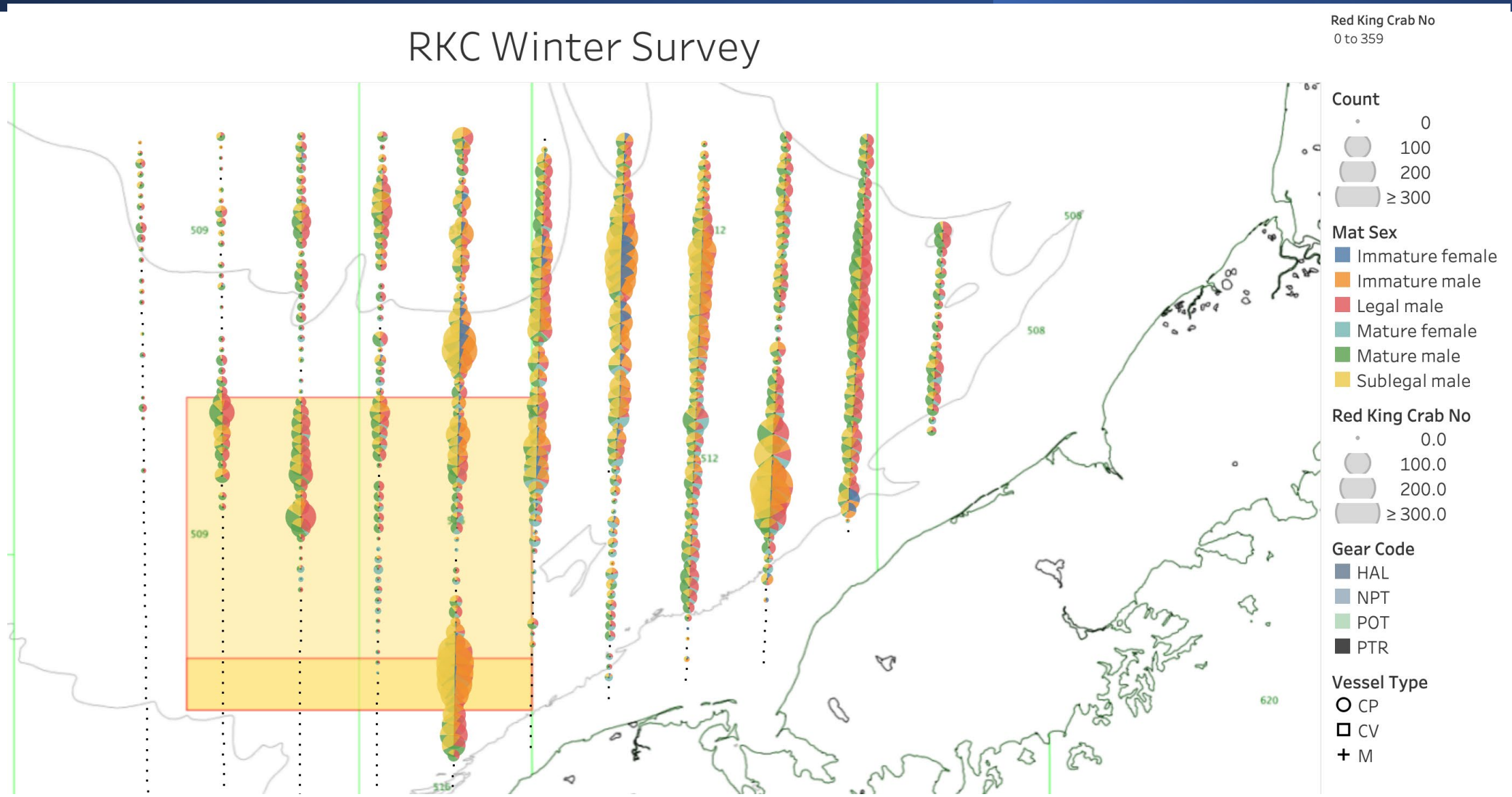
2023 AFA CP Pollock Directed Fishery location of 2/4,891 hauls that encountered RKC



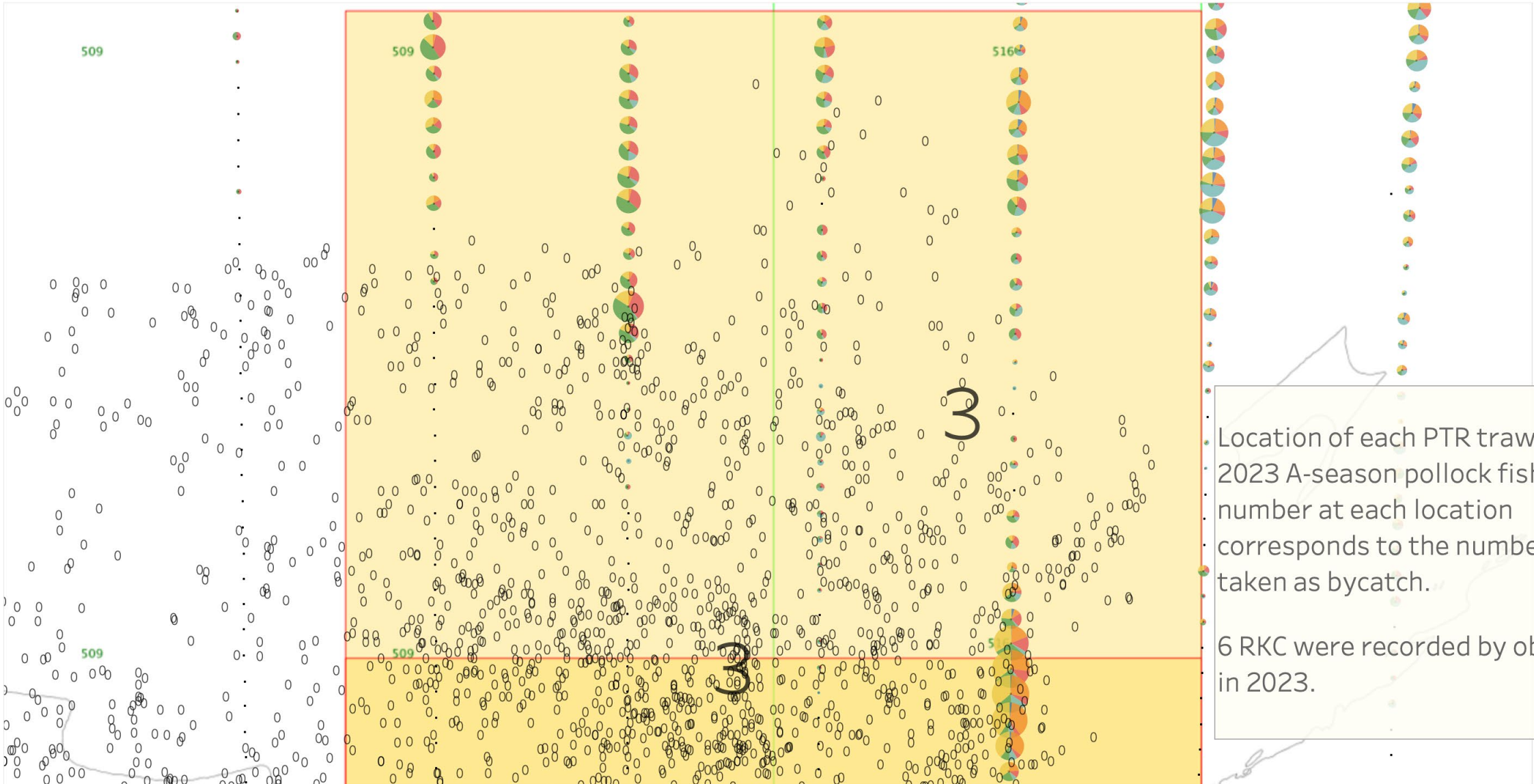
Assessment of CP sector pollock fishing locations relative to known Red King Crab Distributions

- Winter survey data on crab distributions was not available until post-season, however a retrospective look shows the pollock fishery and BBRKC high density areas incurred minimal overlap.
- The two hauls that had observed interactions with RKC occurred largely in areas where the winter pot survey encountered no crab.

AFA CP Pollock fishing predominantly occurred within the Southwest corner of the RKCSA where no RKC were present in the Winter pot survey



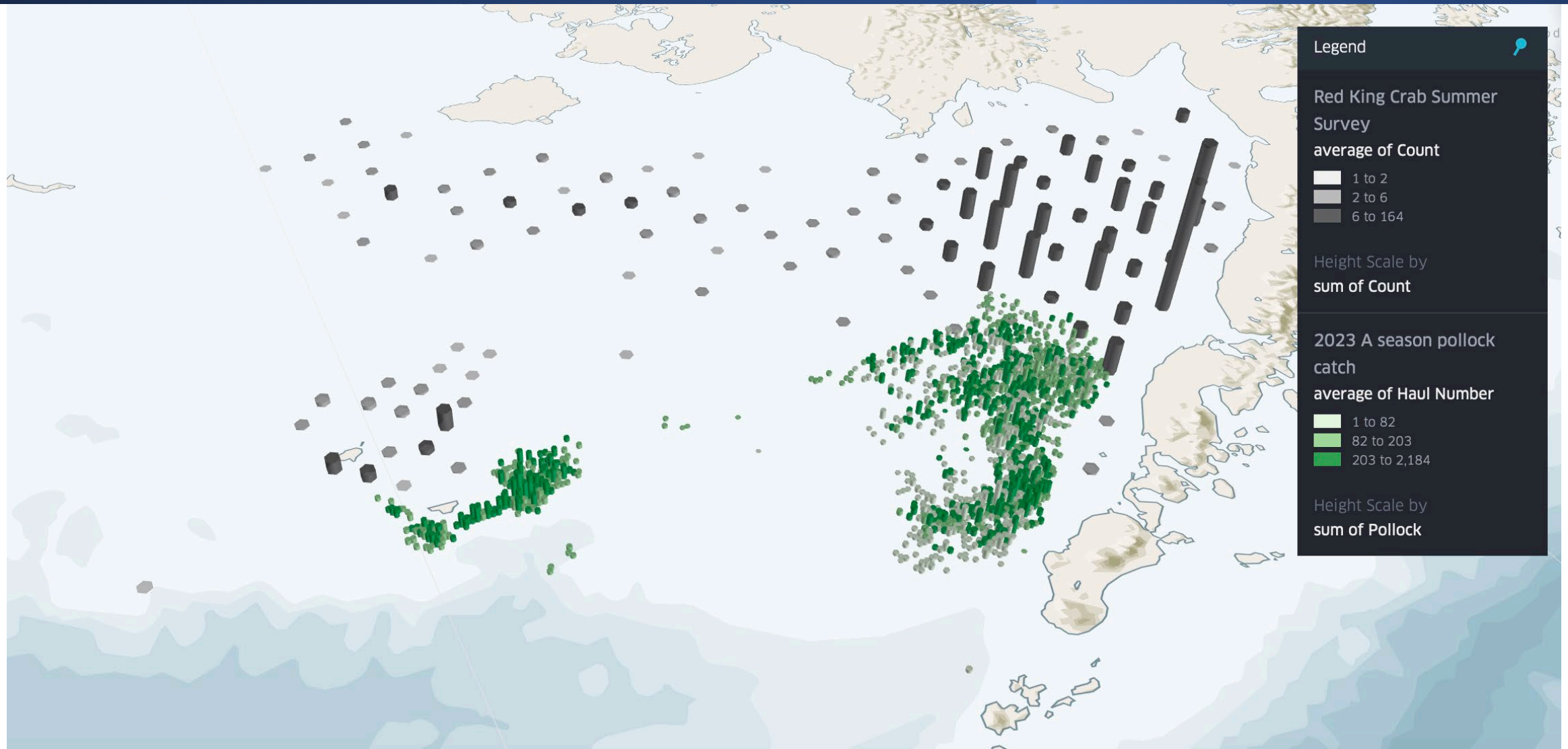
2023 Winter RKC ‘Survey’ and AFA CP Pollock Trawl Locations



Location of each PTR trawl for the 2023 A-season pollock fishery. The number at each location corresponds to the number of RKC taken as bycatch.

6 RKC were recorded by observers in 2023.

2023 AFA CP Pollock Directed Fishery A-season locations relative to EBS summer trawl survey RKC distribution



2023 AFA CP Pollock Directed Fishery Opilio Crab encounters (4,891 Unique Hauls in 2023)

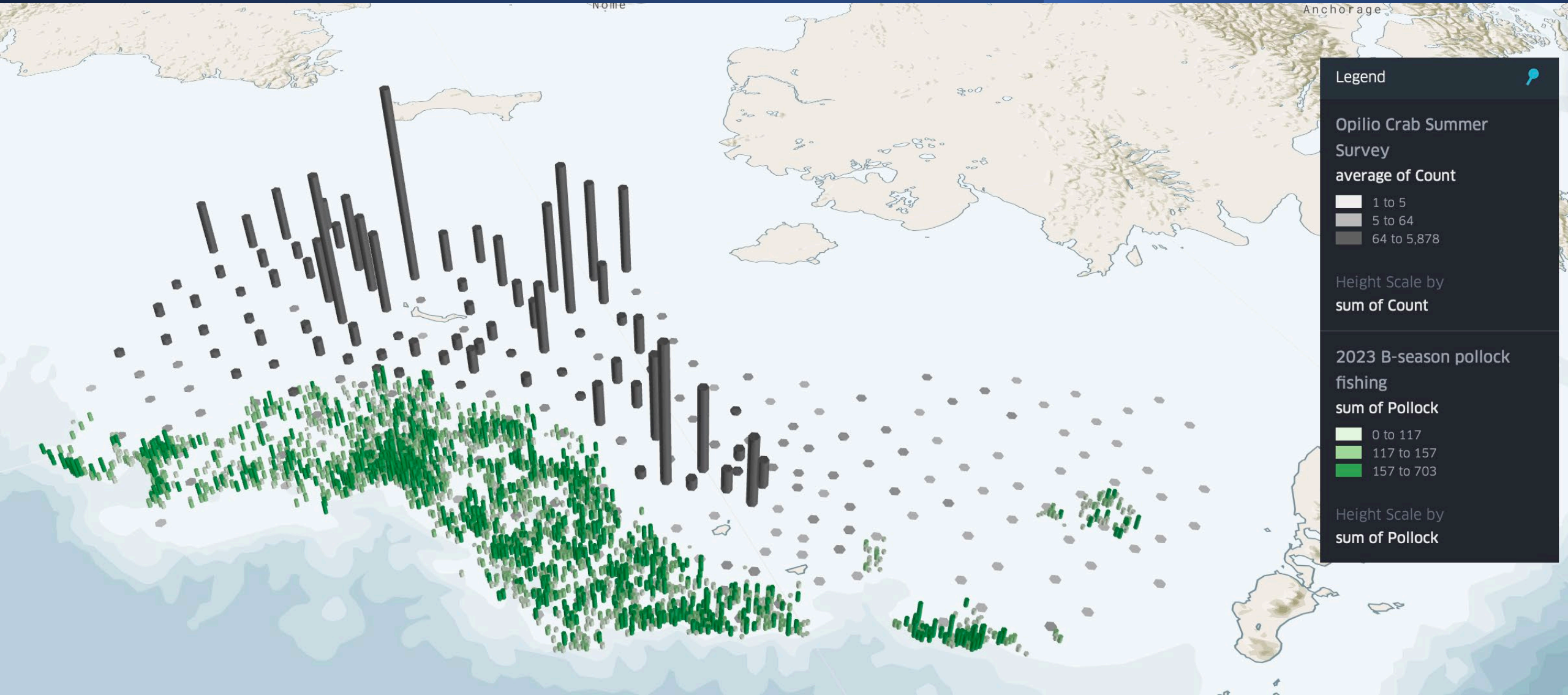
Hauls with Opilio Crab	Number of Opilio encountered in partial haul samples	TOTAL Opilio PSC Mortality (number of animals)	All Catch occurred within COBLZ	Haul Encounter Rate
8	14	45	NO	0.16%

2023 AFA CP Pollock Directed Fishery location of 8/4,891 hauls that encountered Opilio

Assessment of CP sector pollock fishing locations relative to known Opilio Crab Distributions

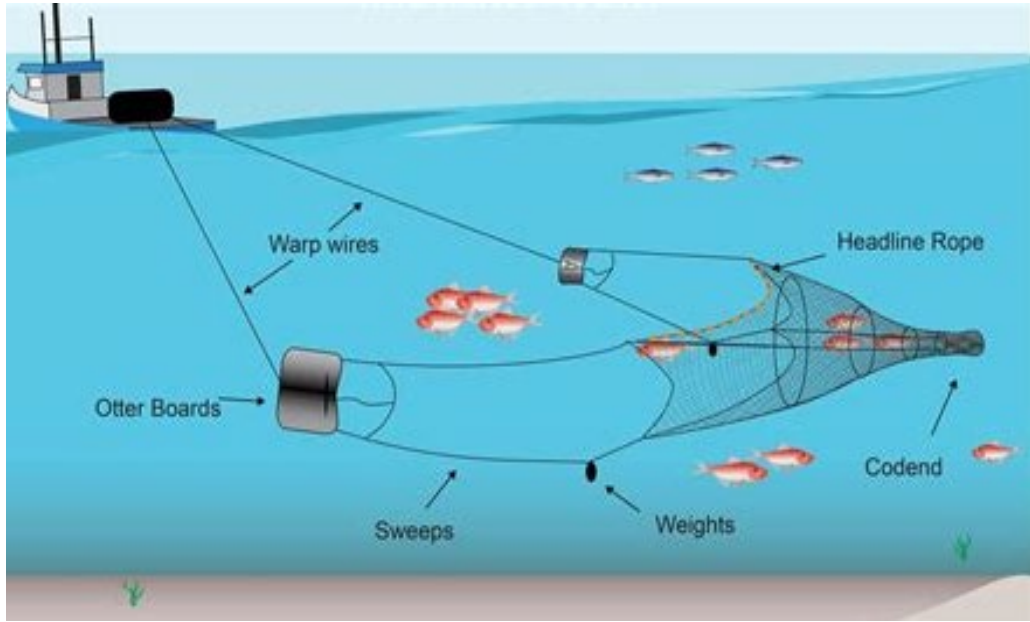
- Summer survey data on crab distributions is not available until post-season, however a retrospective look shows the pollock fishery and Opilio high density areas incurred minimal overlap.
- The eight hauls that had observed interactions with Opilio occurred across an extremely broad area.

2023 Summer BT Survey Opilio distributions and B season AFA CP Pollock Trawl Locations



Pollock Conservation Cooperative Gear Research Plan Goals-The What and Why?

- Estimated Bottom Contact by pelagic trawl gear is based on conservative assumptions in the Fishing Effects (FE) model because it cannot be empirically and accurately measured in the field in real time.
- The only empirical and controlled research done to date measuring bottom contact of a pelagic trawl suggests the current FE model bottom contact assumptions are overestimated.
- Bottom Contact as measured within the Fishing Effects Model for any given fishing event that occurs in the North Pacific is:
  - **NOT** a binary Yes/No assessment
  - **NOR** is it simply a percent (often misrepresented as a Bottom Contact Area Ratio or gear contact adjustment ratio)



Pollock Conservation Cooperative Gear Research Plan Goals-The STEPwise Process

1. Understand the different gear designs as well as the range of fishing behaviors
2. Simulate gear performance across the range of gear designs and vessel operator behavior
3. Use simulation results to inform empirical research design.
4. Empirical research results will inform the fishing effects model
5. Fishing Effects model assesses EFH with the best scientific information available