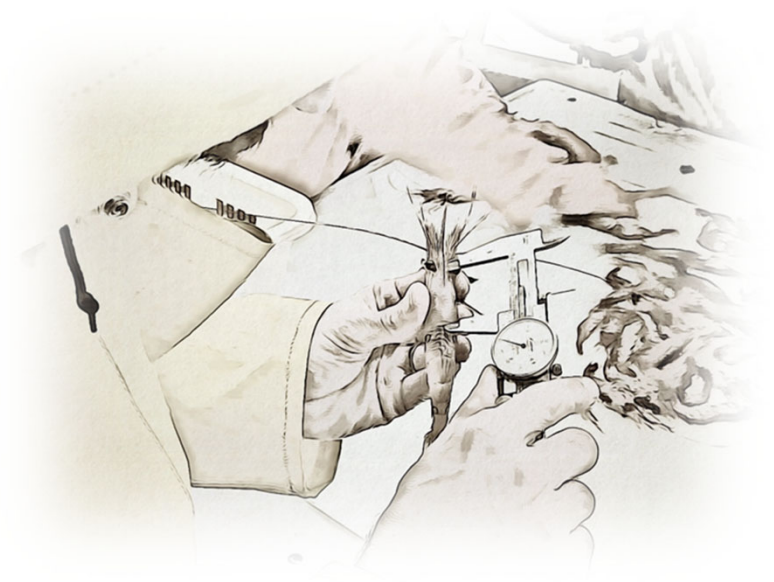


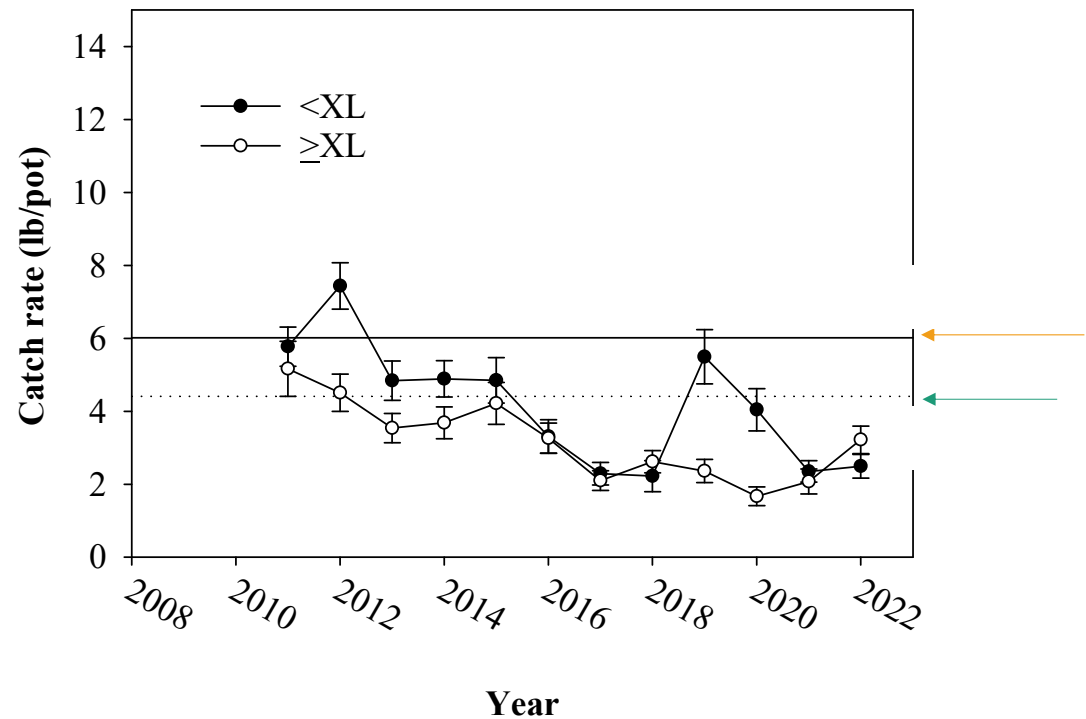
Southeast Shrimp Surveys

1. Introduction
2. Spring Survey Review
3. Annual Survey Results
4. 2024 Survey Plans
5. Stock Status



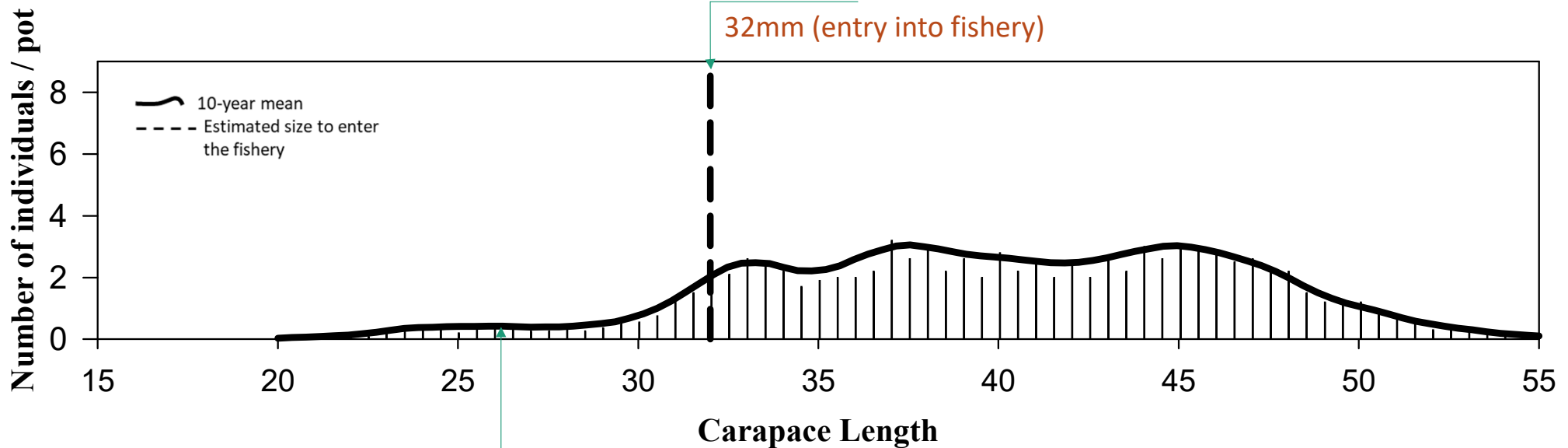
Introduction: Catch Rates

- Split into size classes
 - <XL (19.5g - 40g)
 - \geq XL (greater than 40.5g)
 - Shown through survey years
- Baseline for <XL and \geq XL
- Tested against baseline & 4-year trends



Intro: Carapace Length Frequency Histograms

- Giving the best look at population structure



10-Year mean of individuals per pot

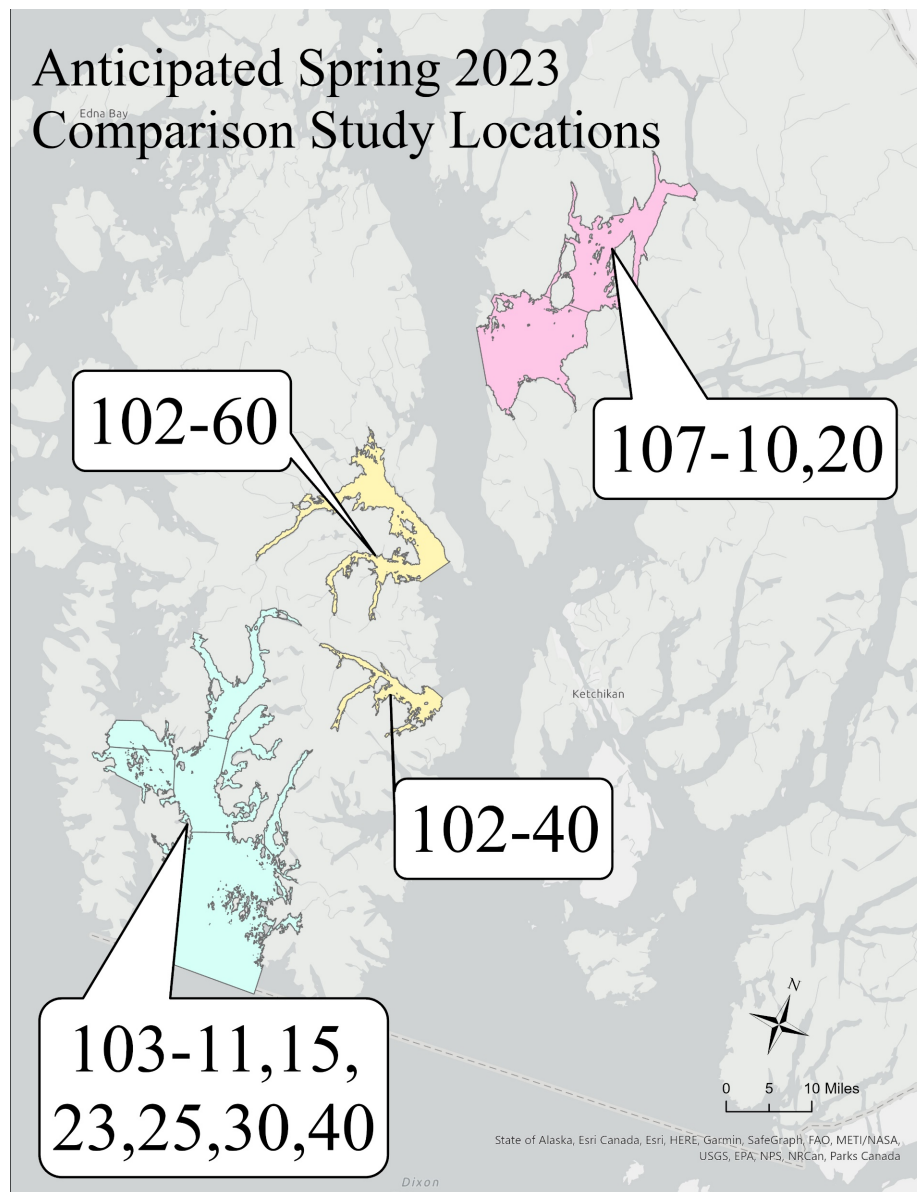
2023 Spring Shrimp Survey

May 1 -14, 2023

Comparison study between fall 2022 and spring 2023 in select areas.

Spring Locations:

- D2: Kasaan Bay & Chomondelay Sound
- D3: Hetta Inlet, Nutkwa Inlet & Skowl Arm
- D7: Onslow, Deer & Niblack Islands



Fall 2022 Vs Spring 2023

- Catch rates : **increased** or no significant change, except Lower Cordova Bay (decreased)
- Carapace length : **increased** or no significant change, except for Lower Cordova Bay (decreased)
- Mean percentage of soft-shelled shrimp **increased** nearly 3 times that of fall 2022 (1.20% to 4.47%)
- Presence of eggs : overall percent of shrimp with eggs **decreased** about 76%
 - High variation between districts, likely due to actively hatching eggs over the 2-week survey.

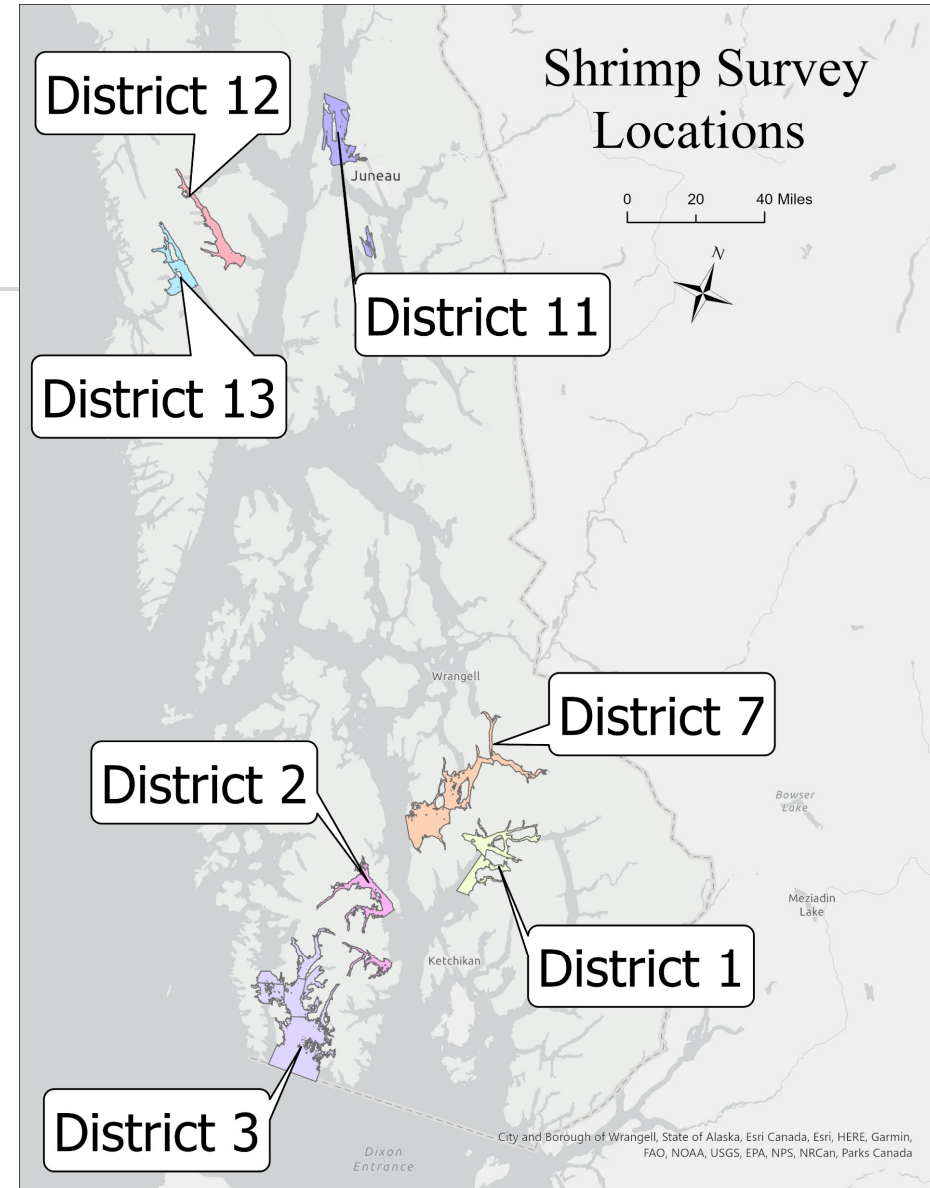
Spring 2023 Vs Fall 2023

- Catch Rates : All areas surveyed in the spring either had no significant change or **decreased** in both size classes.
- Carapace Length : Variable, 4 areas **decreased**, 2 **increased** and 2 had no significant change
- Mean percentage of soft-shelled shrimp: Mean percentage of soft-shelled shrimp similar of 2022 fall survey (4.47% to 1.45%)
- Presence of eggs : overall mean rose back to 2022 fall survey level

Shrimp Survey Overview

Survey Locations:

- D1: Back Behm & West Behm
- D2: Kasaan & Chomondelay
- D3: Hetta & Nutkwa, Cordova
- D7: Bradfield & Ernest Sound
- D11: alternating Seymour & Juneau
- D12: West Tenakee
- D13: Hoonah Sound



Fall Survey Results Summary



Larger L50



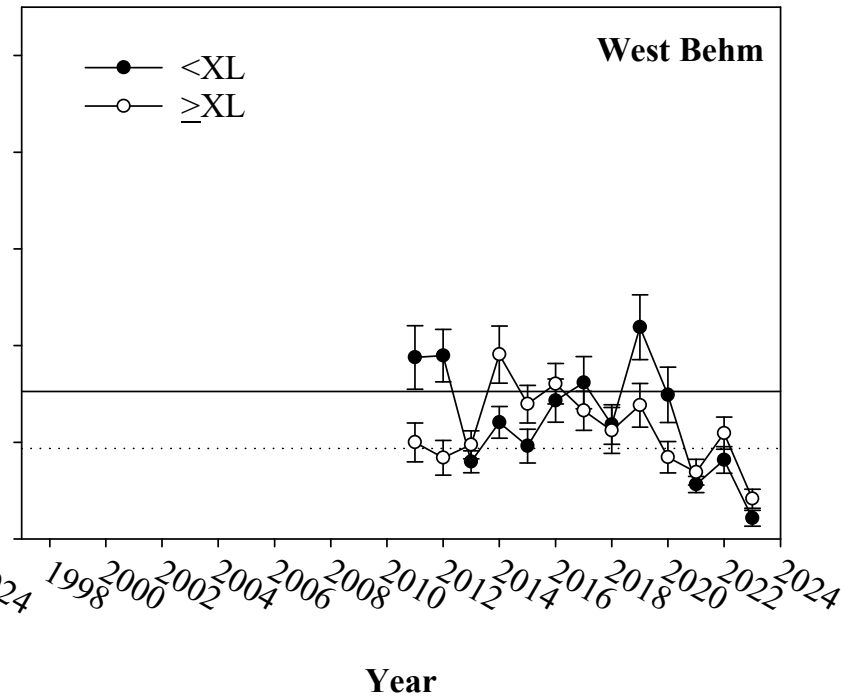
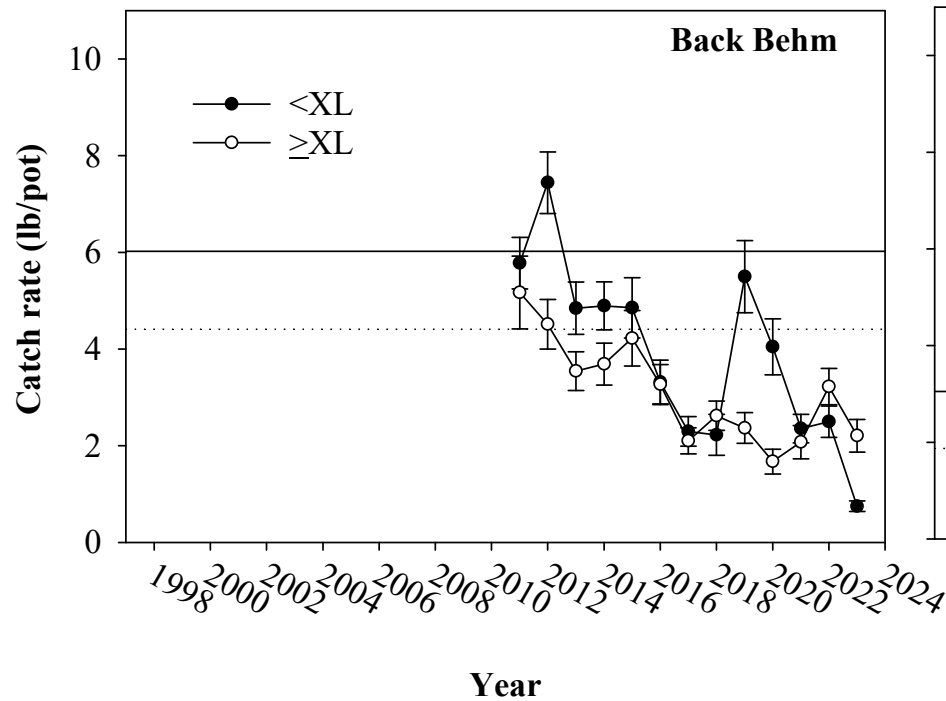
Potential for more eggs per individual female

Survey

Management unit	Analysis area	Catch Rate \geq XL	L50
District 1	Back Behm Canal	-1	1
	West Behm Canal	-1	0
District 2	Cholmondeley Sound	-1	1
	Kasaan Bay	0	1
Section 3-A	Hetta Inlet	-1	-1
	Lower Cordova Bay	-1	0
	Mid Cordova Bay	-1	1
	Upper Cordova Bay	-1	0
Northern Clarence	Upper Clarence Strait	-	-
	Bradfield Canal	-1	0
District 7	Lower Ernest Sound	0	1
	Upper Ernest Sound	0	1
Northern Frederick Sound	Hobart/Windham Bays	-	-
	Port Houghton	-	-
	SE Admiralty	-	-
Seymour	Seymour Canal	-1	0
Tenakee	West Tenakee Inlet	-1	-1
Section 13 C	Hoonah Sound	1	0

Ketchikan District 1: Behm Canal

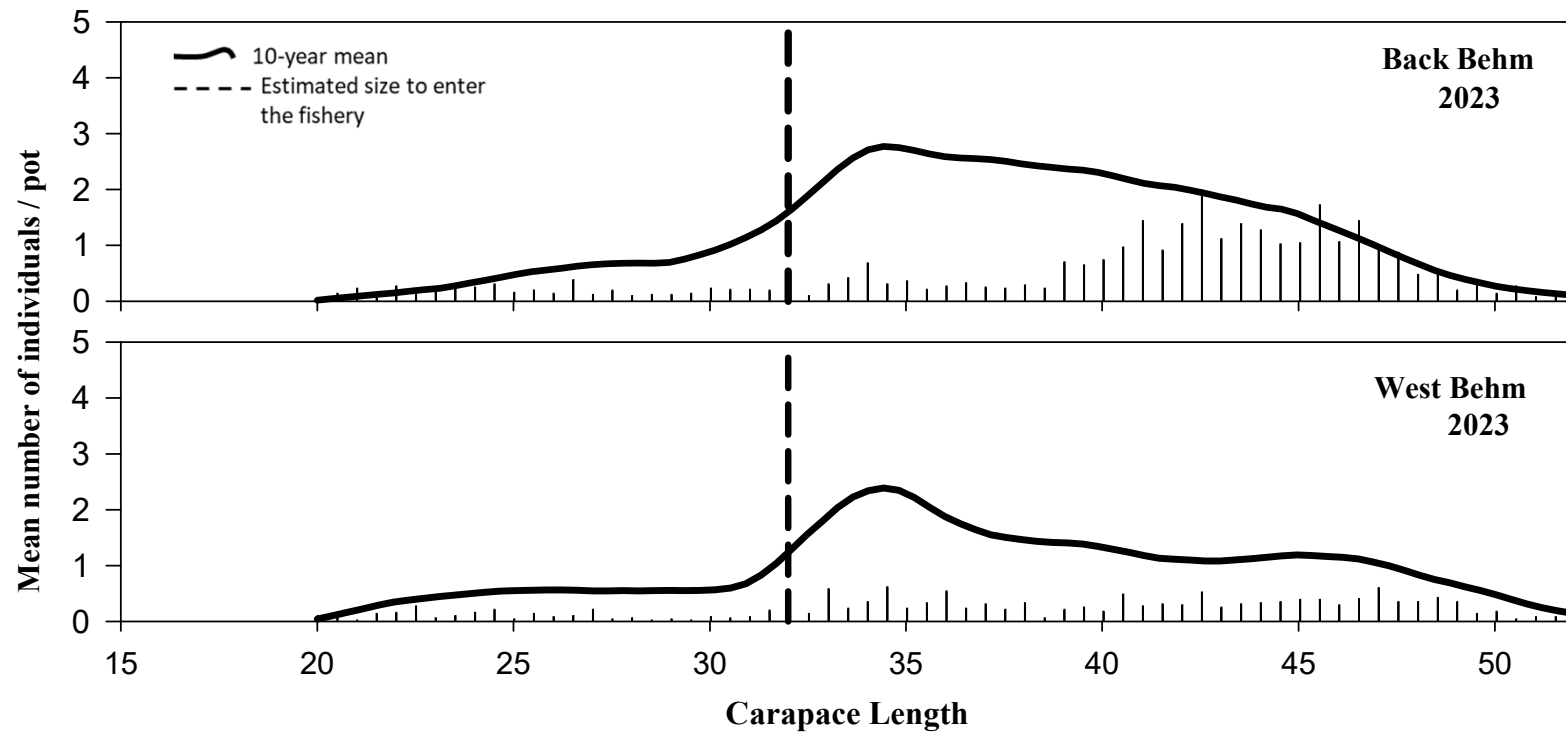
- Back Behm and West Behm catch rates **below** baseline and at record **low**.



Fall 2023 Survey

Ketchikan

District 1: Behm Canal

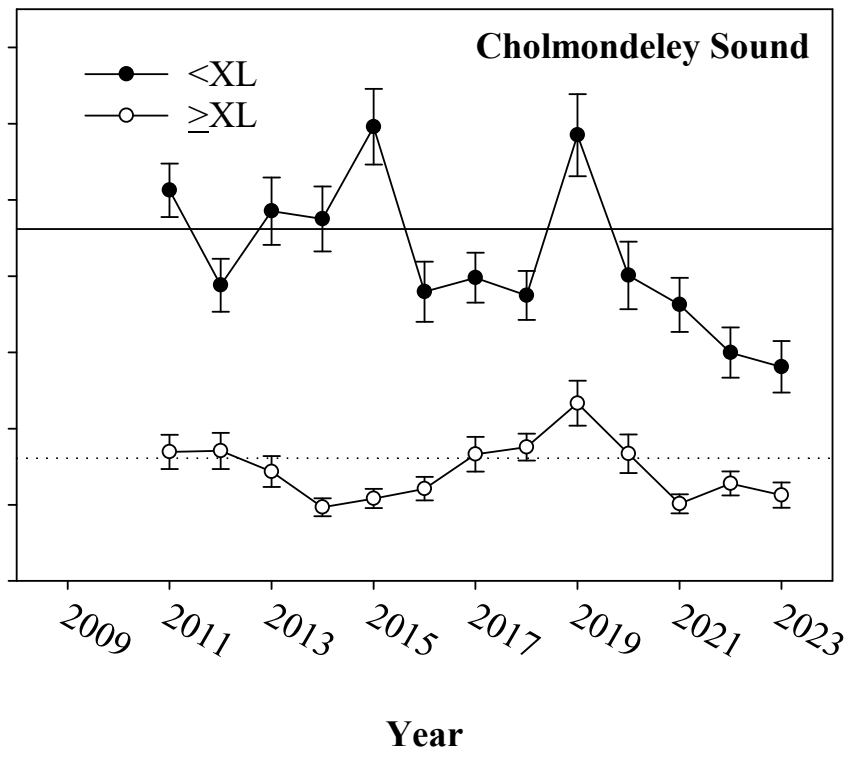
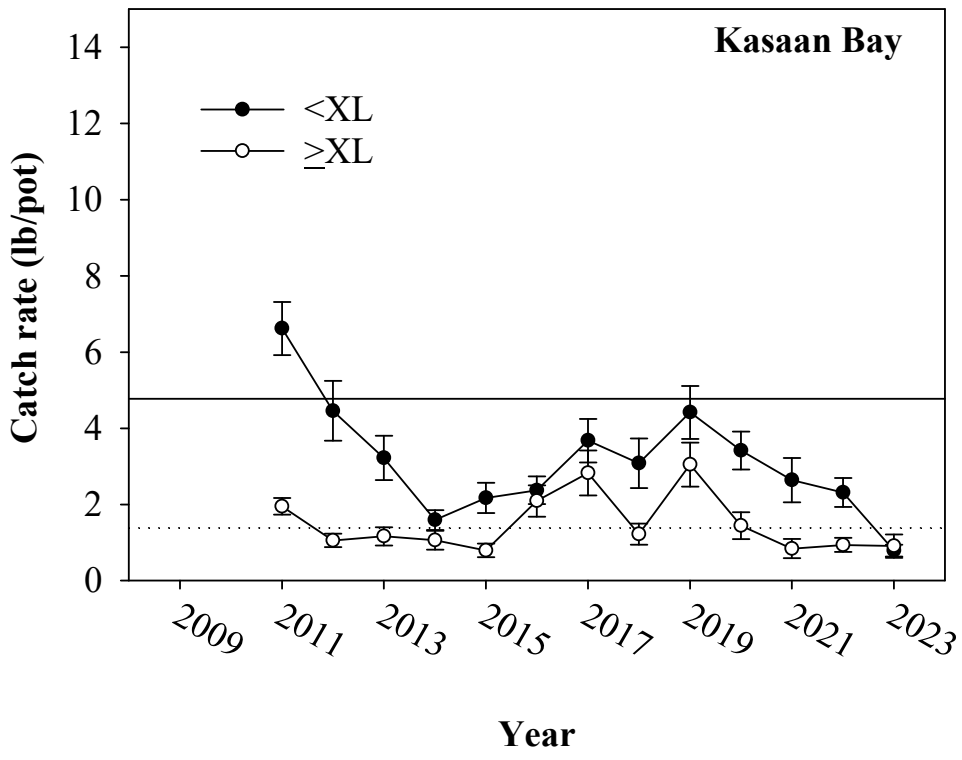


Fall 2023 Survey

Ketchikan

District 2: Cholmondeley Sound & Kasaan Bay

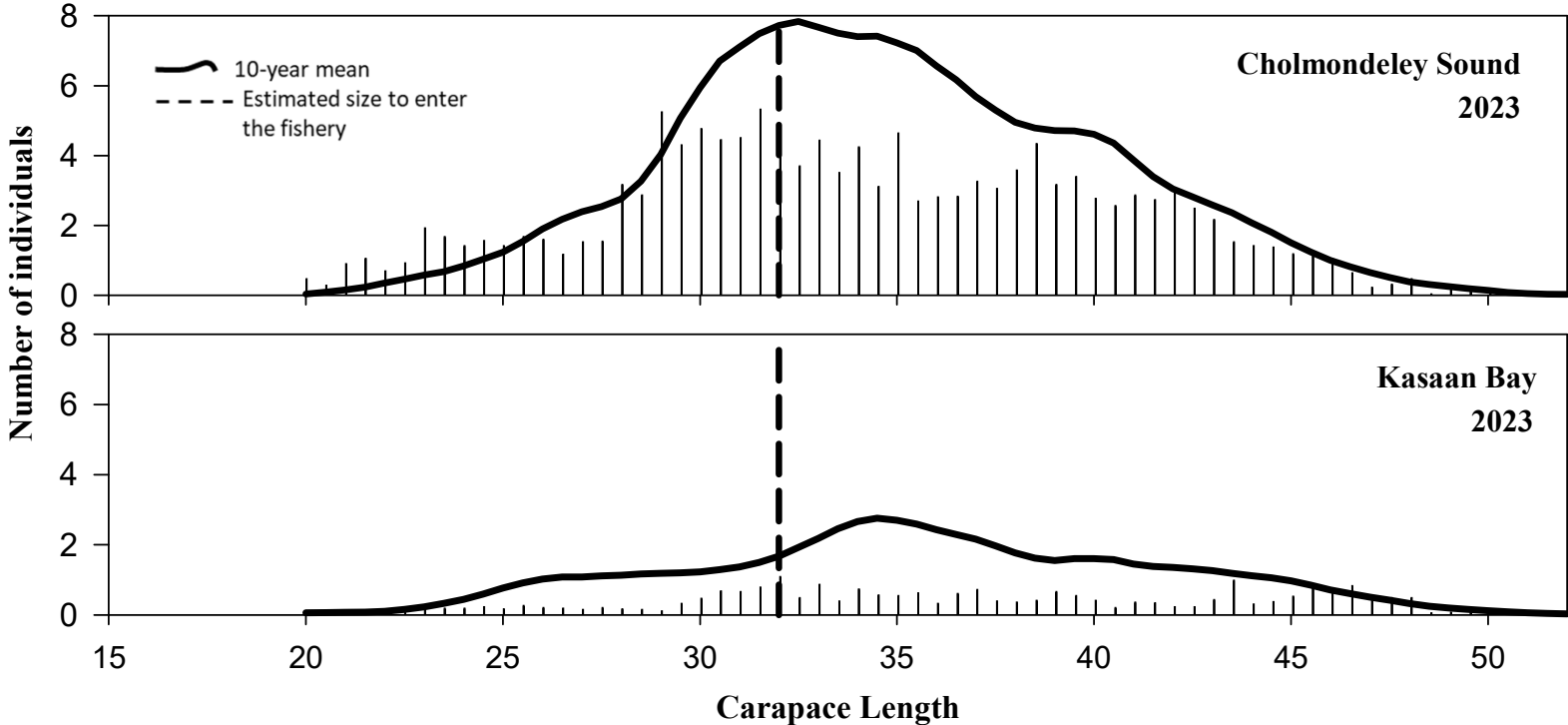
- Catch rates **below** baseline in Cholmondeley
- Near baseline in Kasaan
- 4-year trend **declining** of small class shrimp and **below** baseline in both areas



Fall 2023 Survey

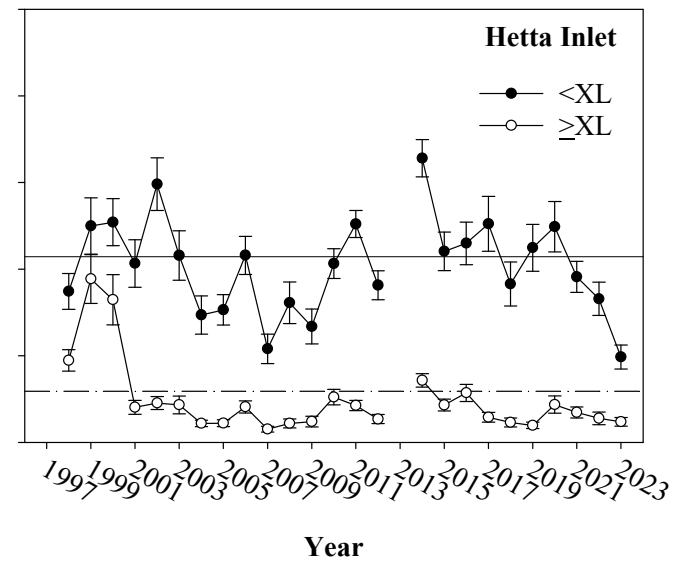
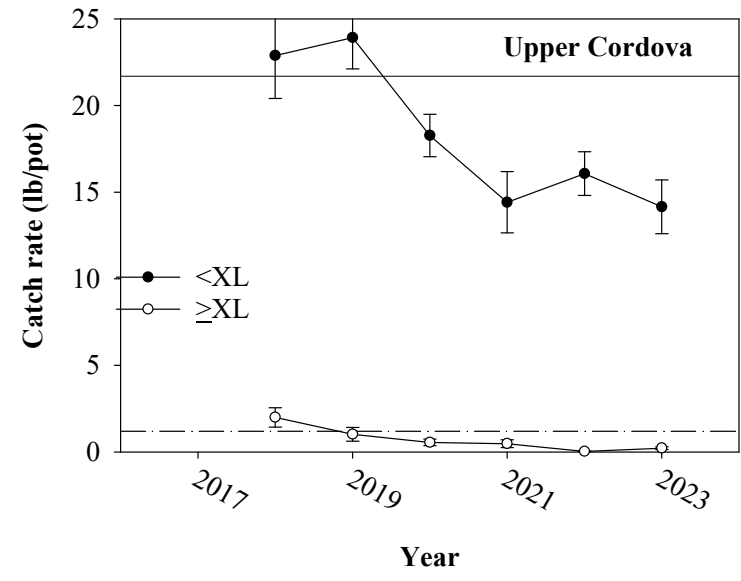
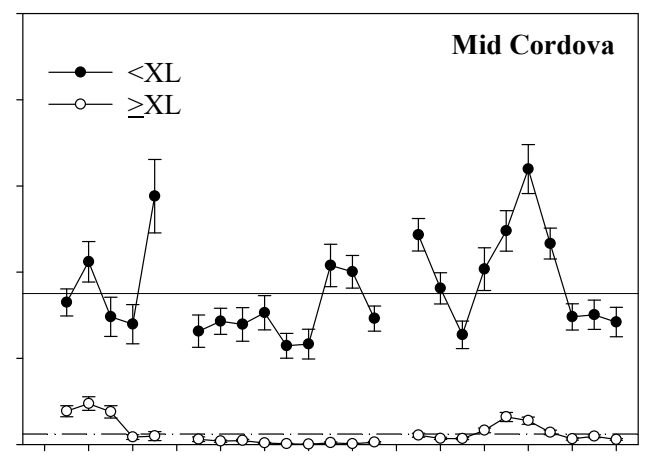
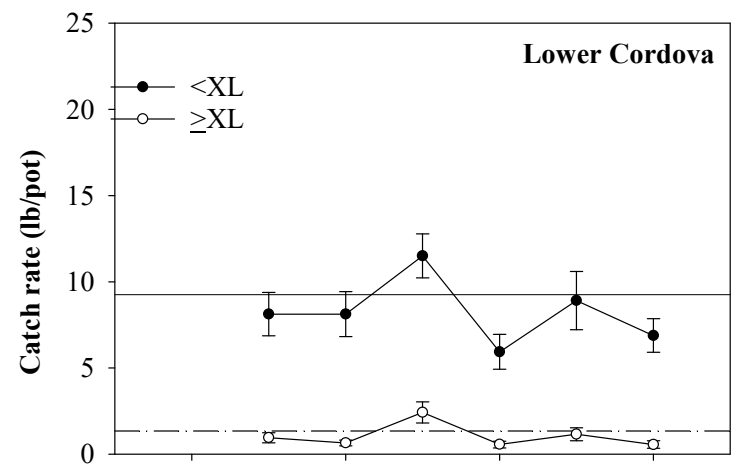
Ketchikan

District 2: Cholmondeley and Kasaan

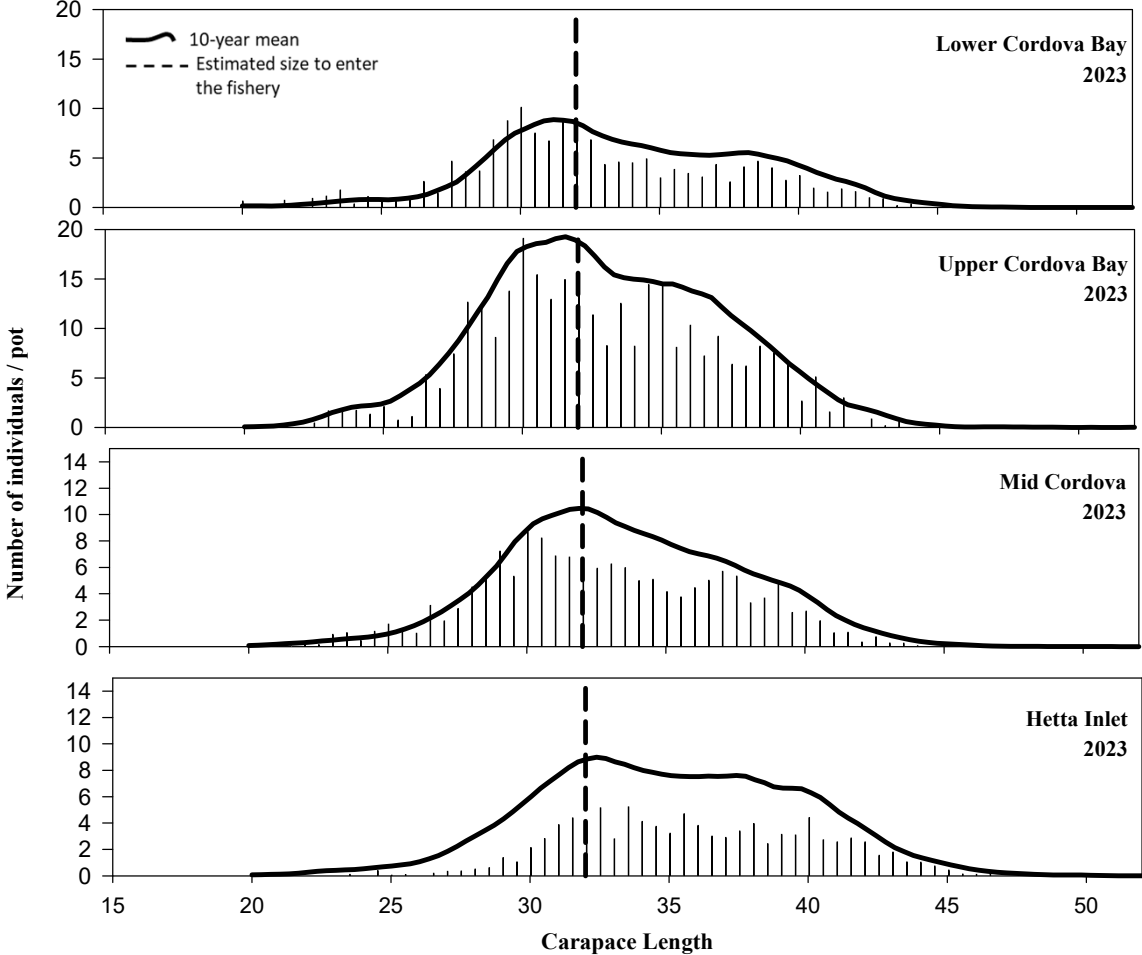


Ketchikan District 3: Hetta Inlet & Cordova Bay

- All area catch rates are **below** baseline



Ketchikan District 3: Hetta & Cordova Bay

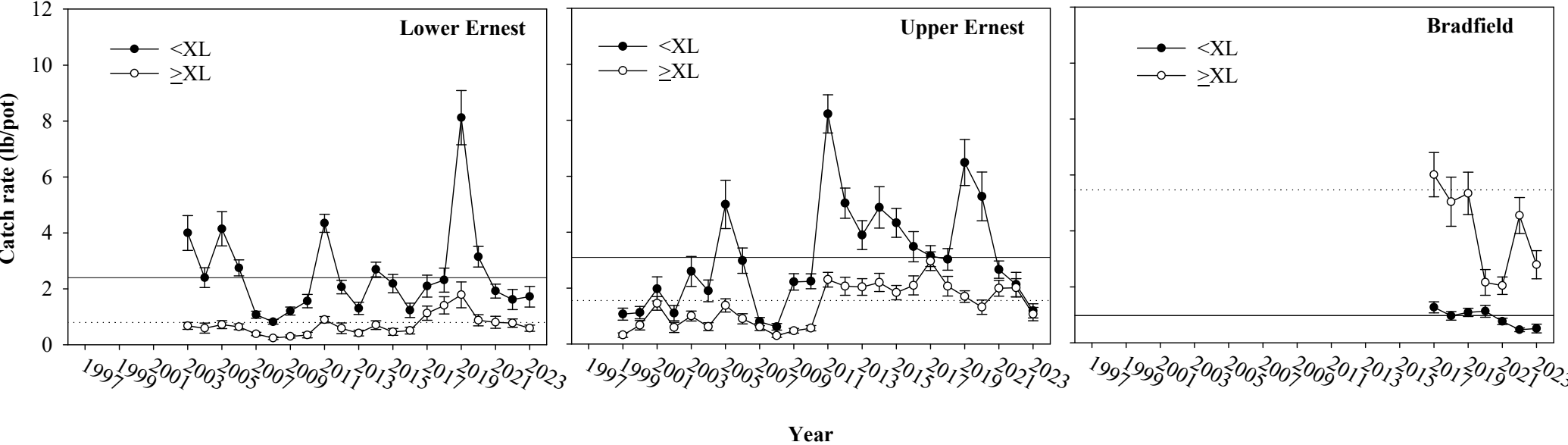


Fall 2023 Survey

Petersburg

District 7: Ernest Sound and Bradfield

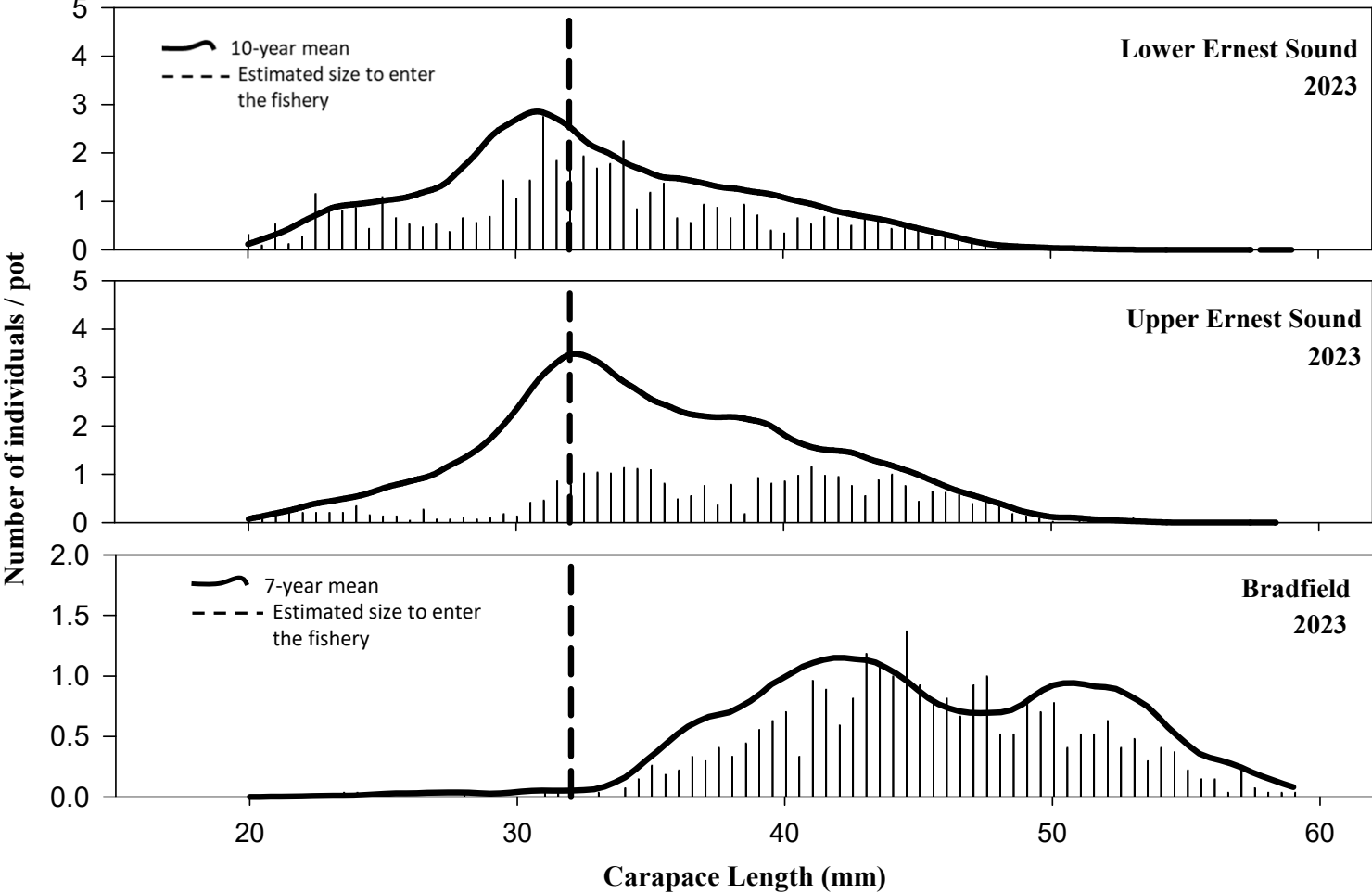
- Catch Rates of \geq XL **near** baseline in Ernest Sound
- **Below** baseline in Bradfield
- CR of $<$ XL shrimp are **below** baseline in all areas surveyed



Fall 2023 Survey

Petersburg

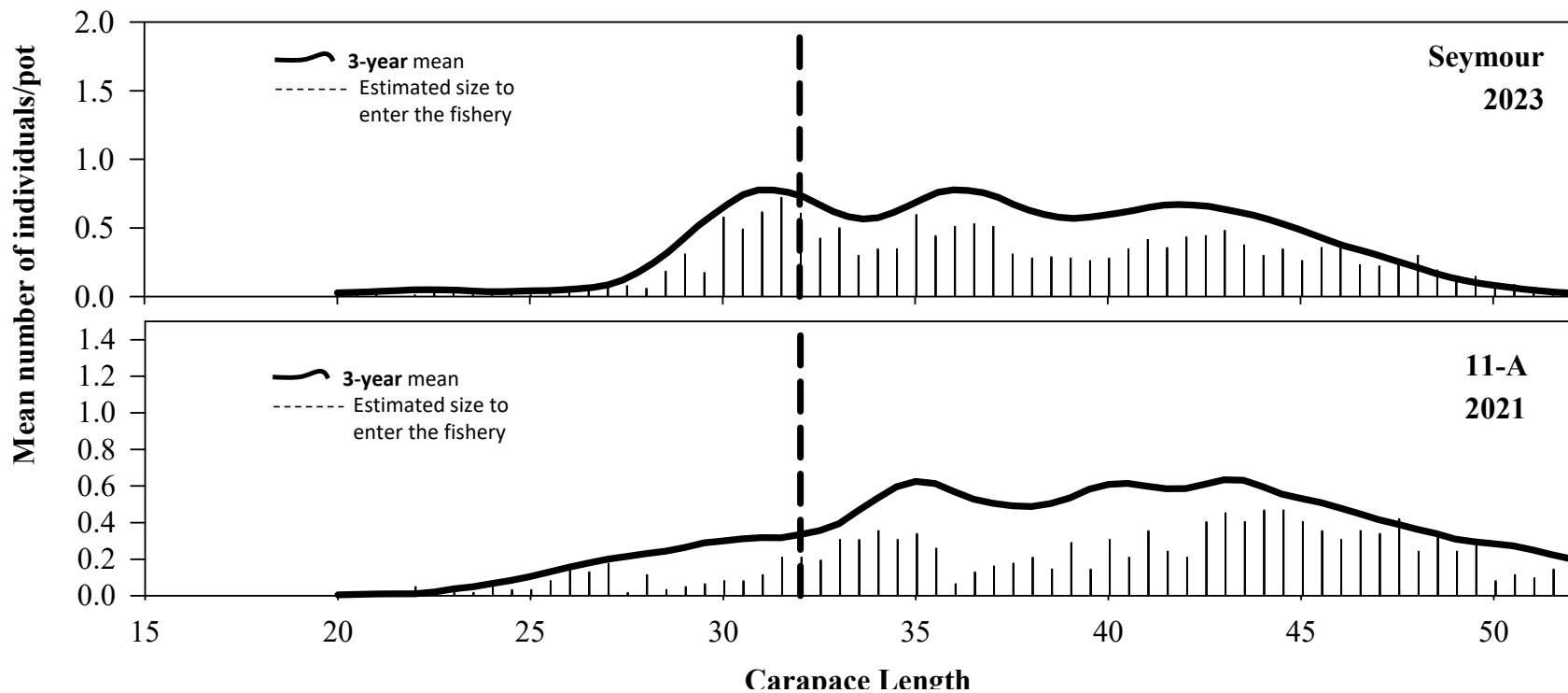
District 7: Ernest Sound



Juneau

District 11: Seymour Canal and Juneau area

- 2021 Juneau Area (scheduled to be surveyed 2024)
 - Declining catch rate >XL, below baseline
- Collecting baseline data in Seymour...

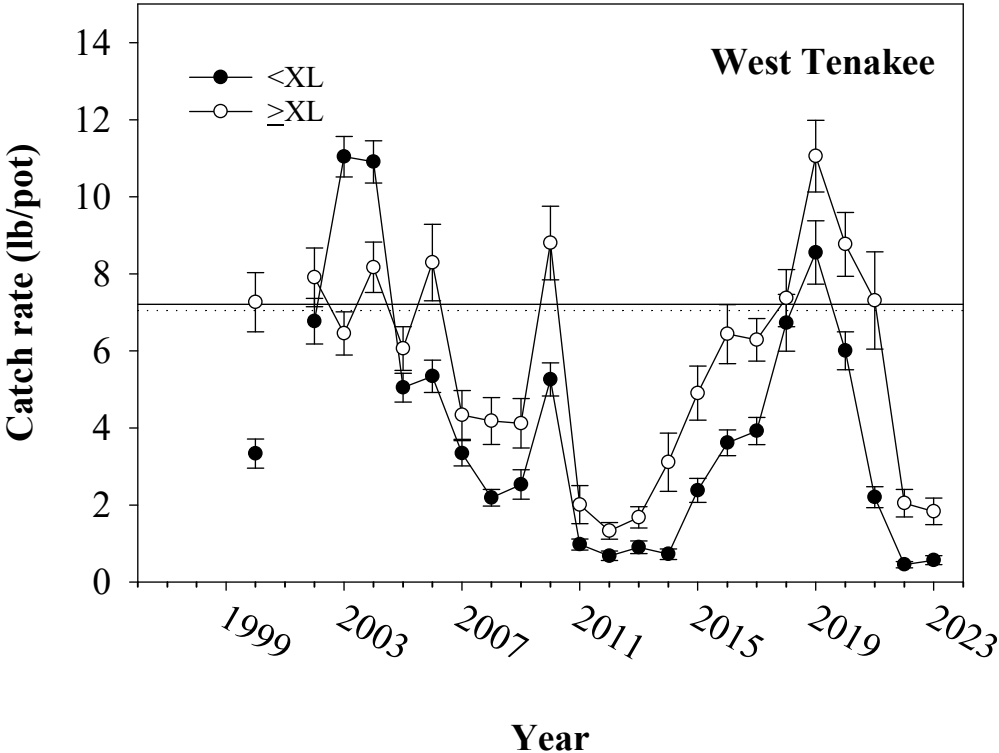


Fall 2023 Survey

Juneau

District 12: Tenakee Inlet

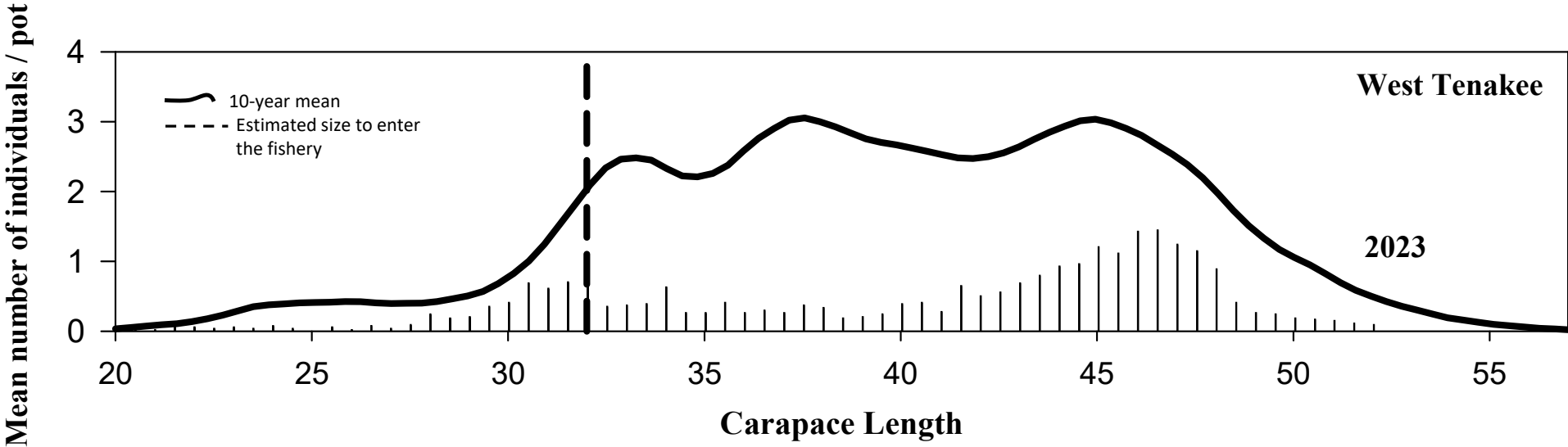
- Catch rate **below** baseline
- 4-year trend decreasing



Fall 2023 Survey

Juneau

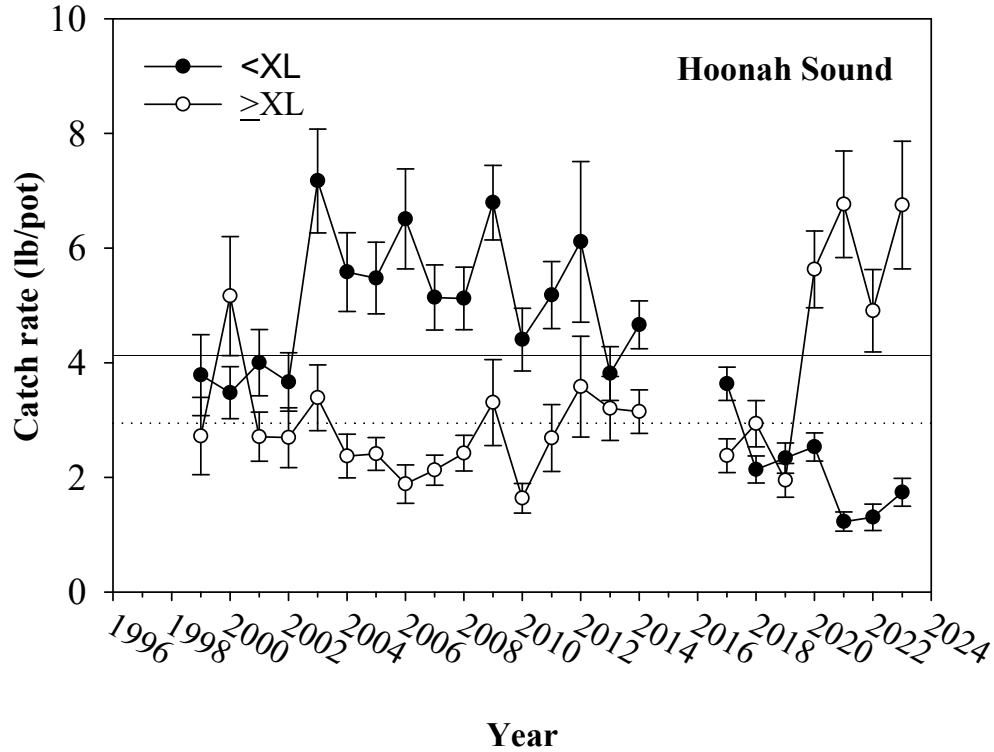
District 12: Tenakee



Sitka

District 13: Hoonah Sound

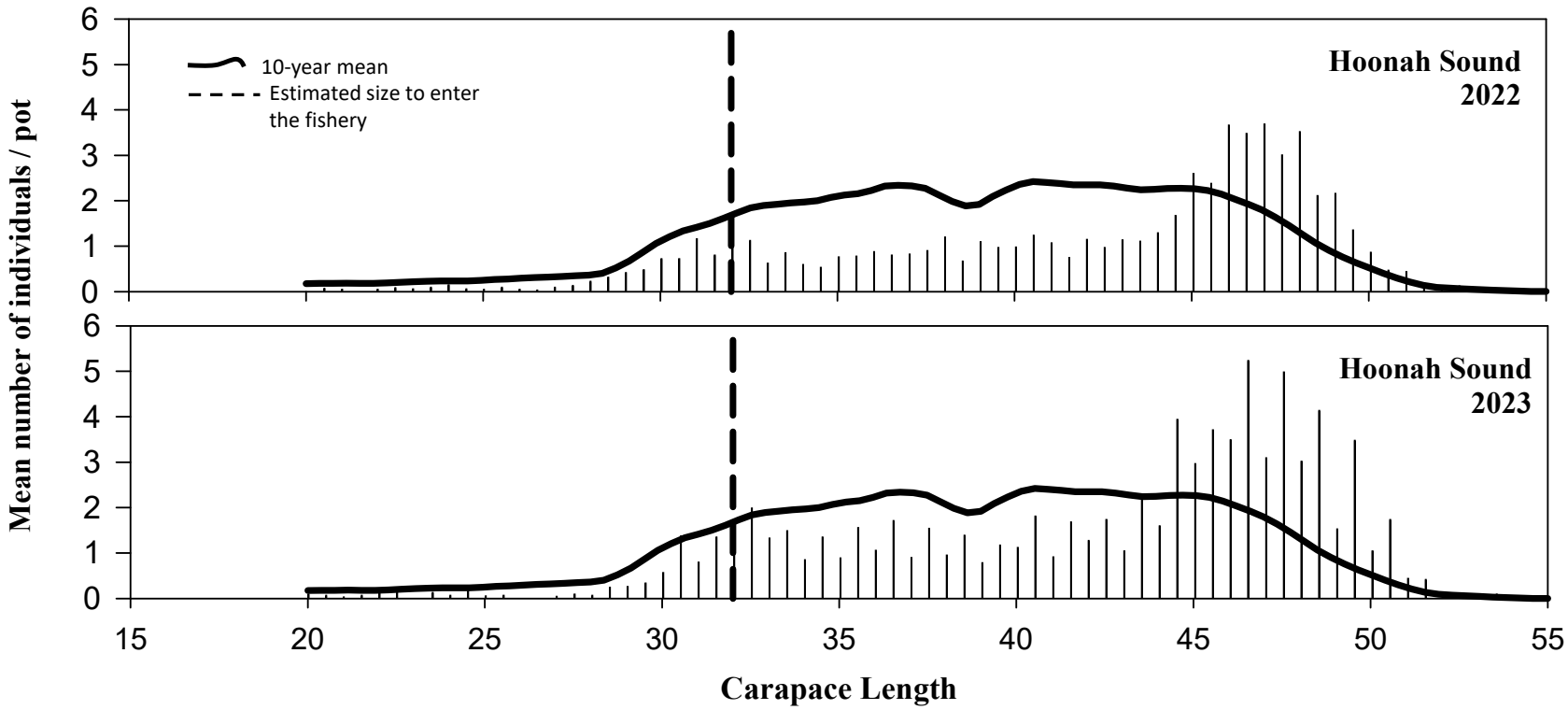
- Catch rate >XL well above baseline
- CR of <XL remain low



Fall 2023 Survey

Sitka

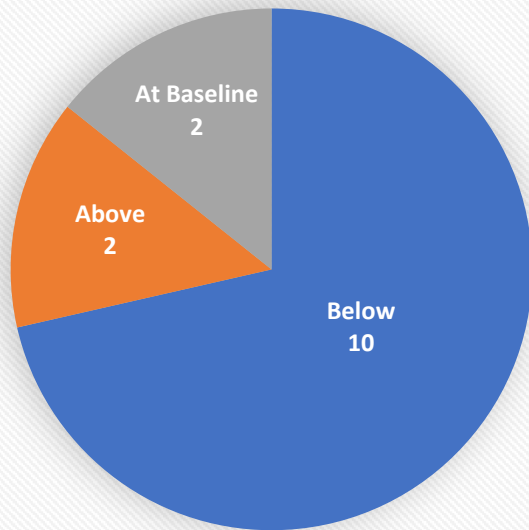
District 13: Hoonah Sound



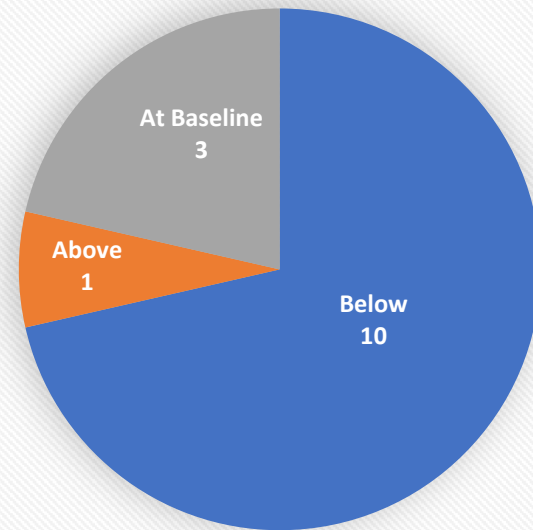
Survey Summary

District/Section Fall 2023 Survey compared to baselines.
(Not Weighted)

<XL Catch Rate by # of Analysis Areas



≥XL Catch Rate by # of Analysis Areas



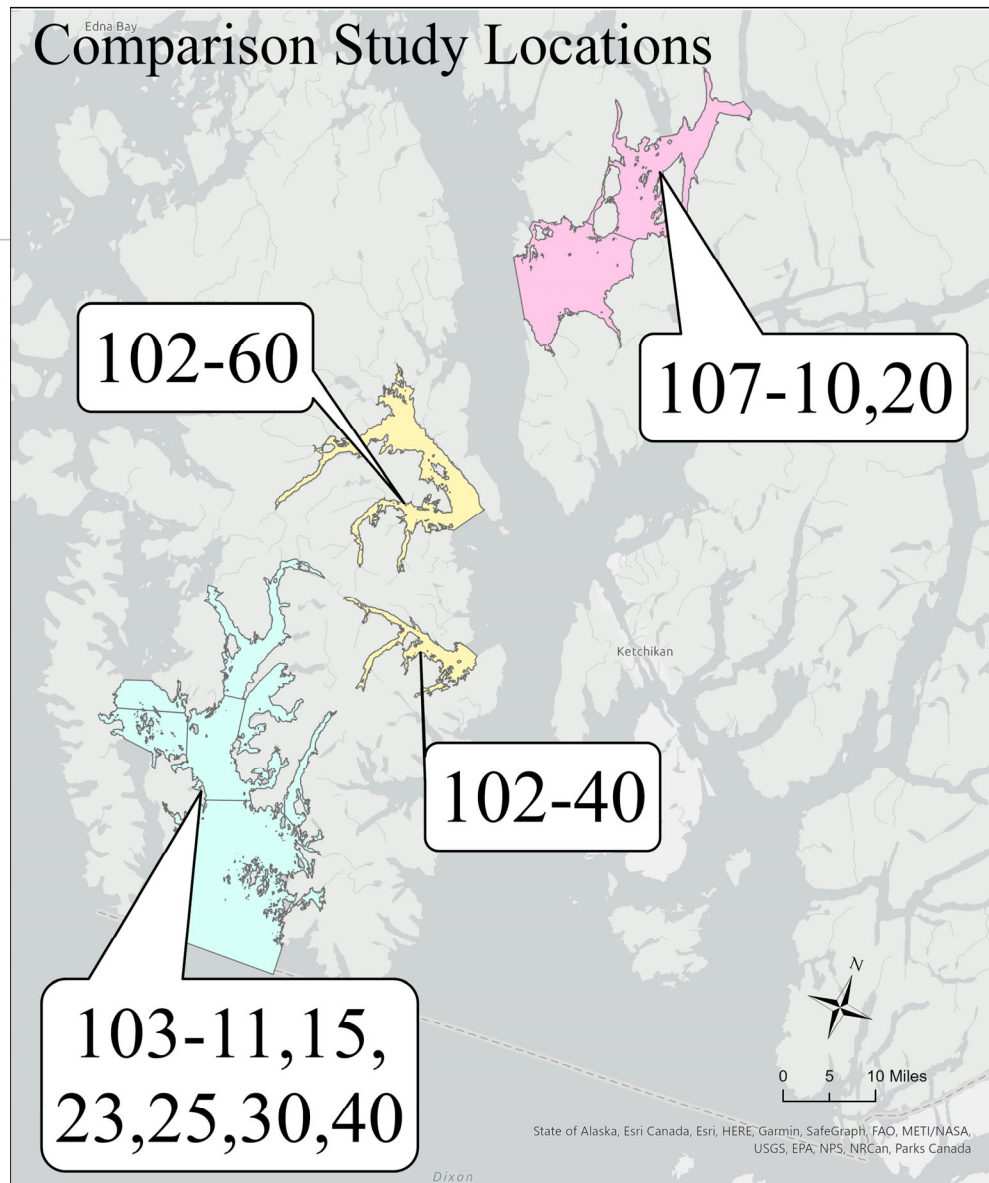
Spring Shrimp Survey

May 1 -14

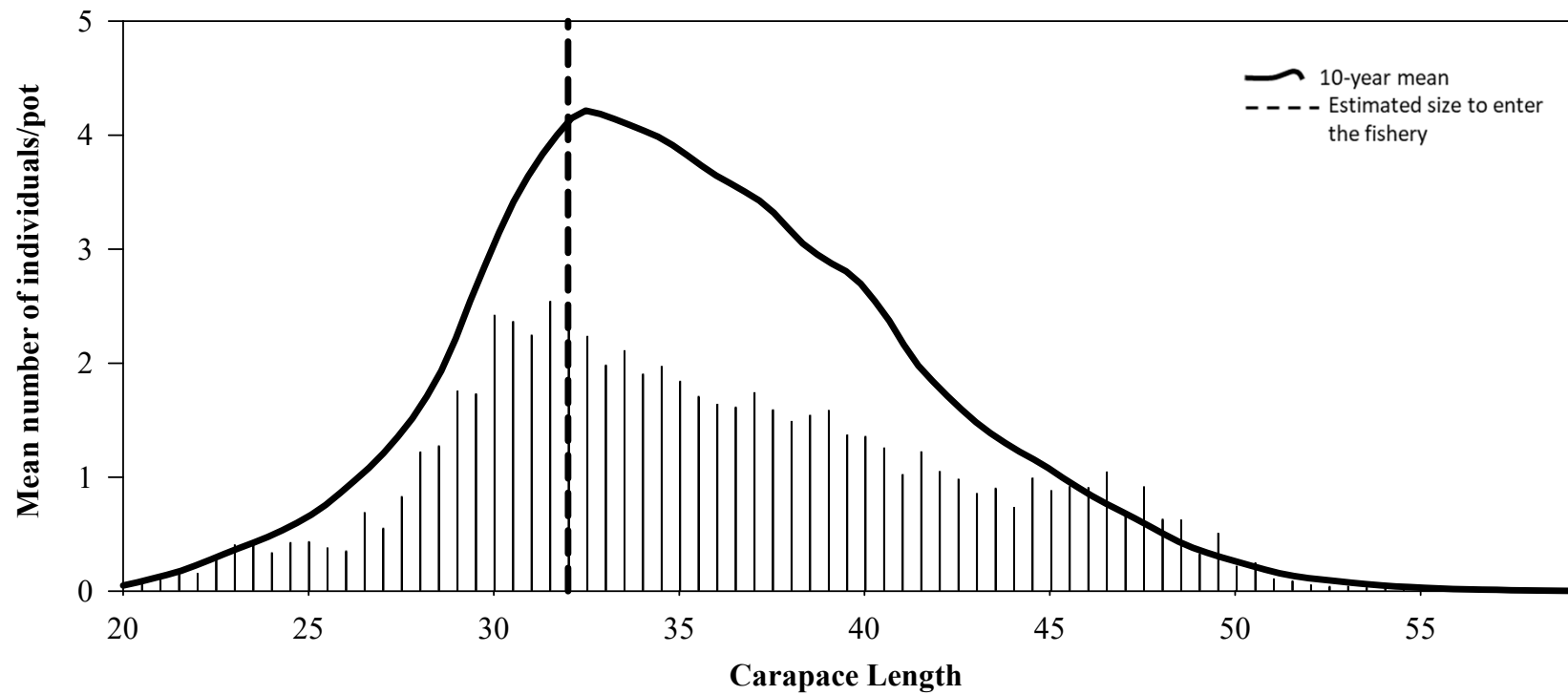
A second comparison investigation between fall and spring in select areas to increase robustness of the first study.

Spring Locations:

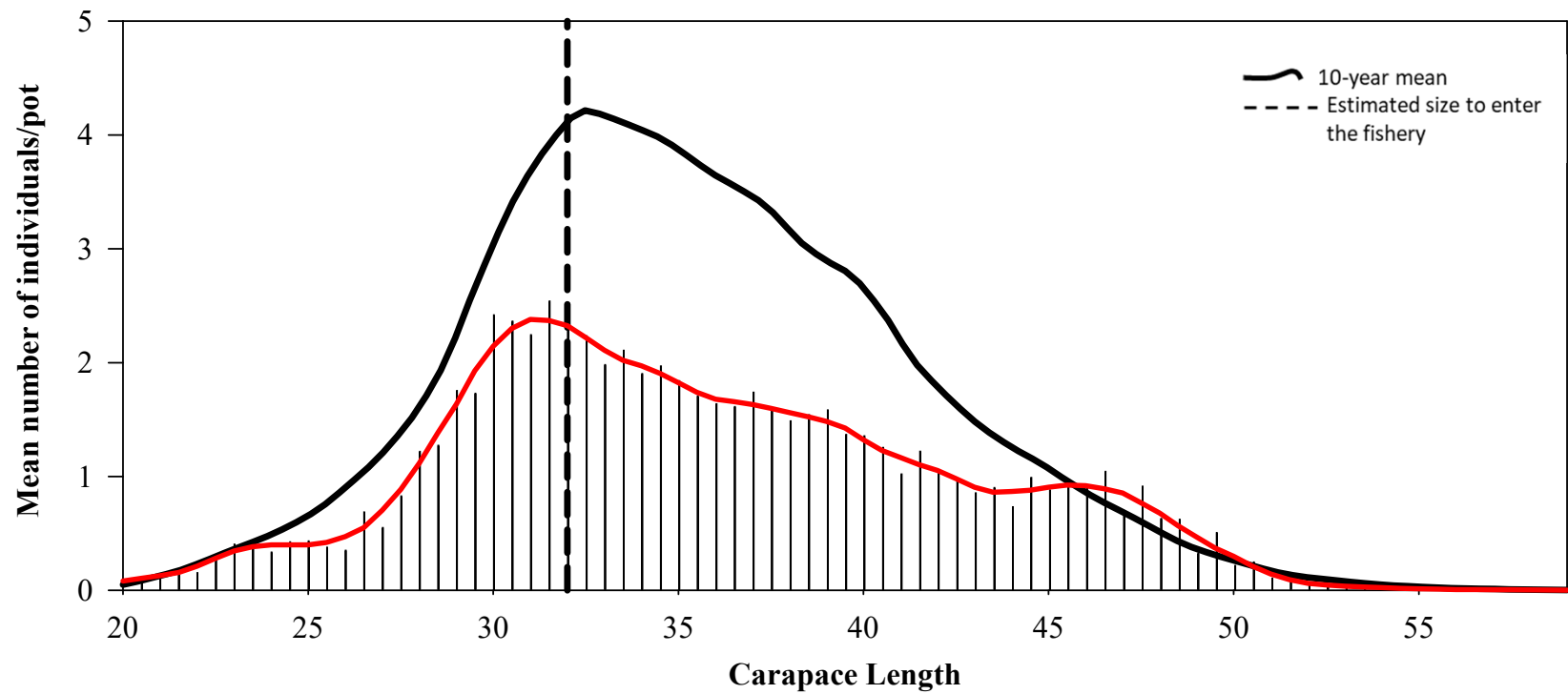
- D2: Kasaan Bay & Chomondelay Sound
- D3: Hetta Inlet, Nutkwa Inlet & Skowl Arm
- D7: Onslow, Deer & Niblack Islands



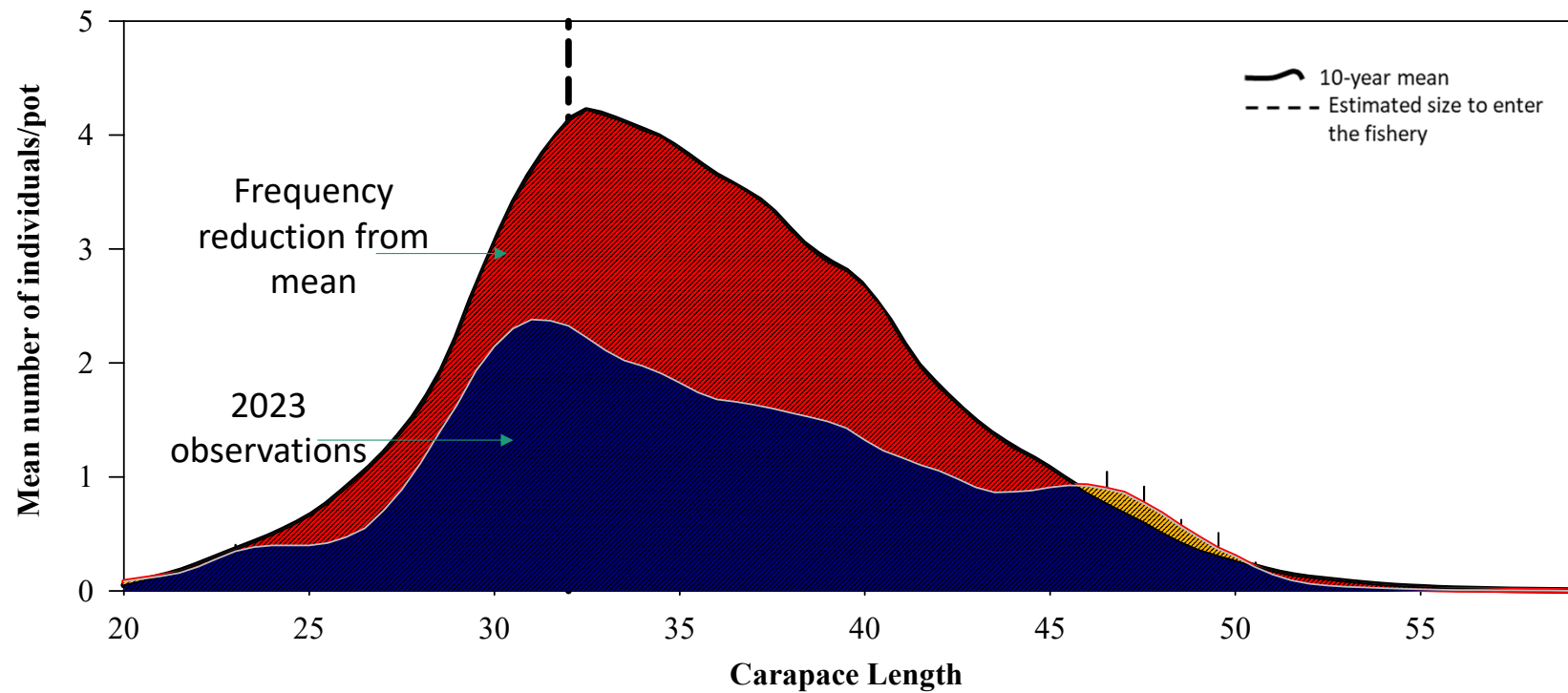
2023 Region 1 Overall Stock Status



2023 Region 1 General Stock Status



2023 Region 1 Overall Stock Status



More information

Southeast Alaska pot shrimp survey operational plan:

<https://www.adfg.alaska.gov/FedAidPDFs/ROP.CF.1J.2018.07.pdf>



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