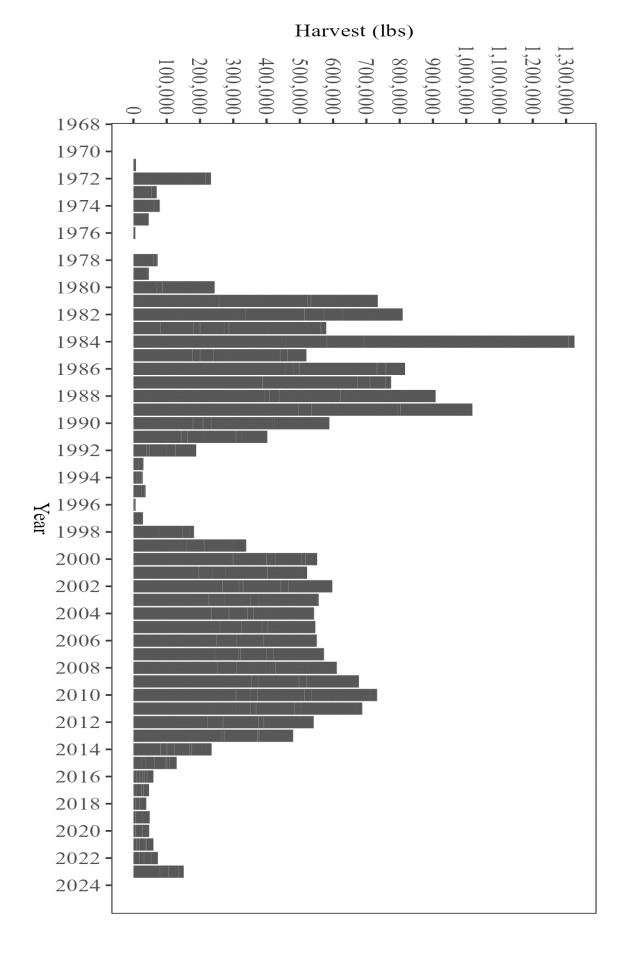
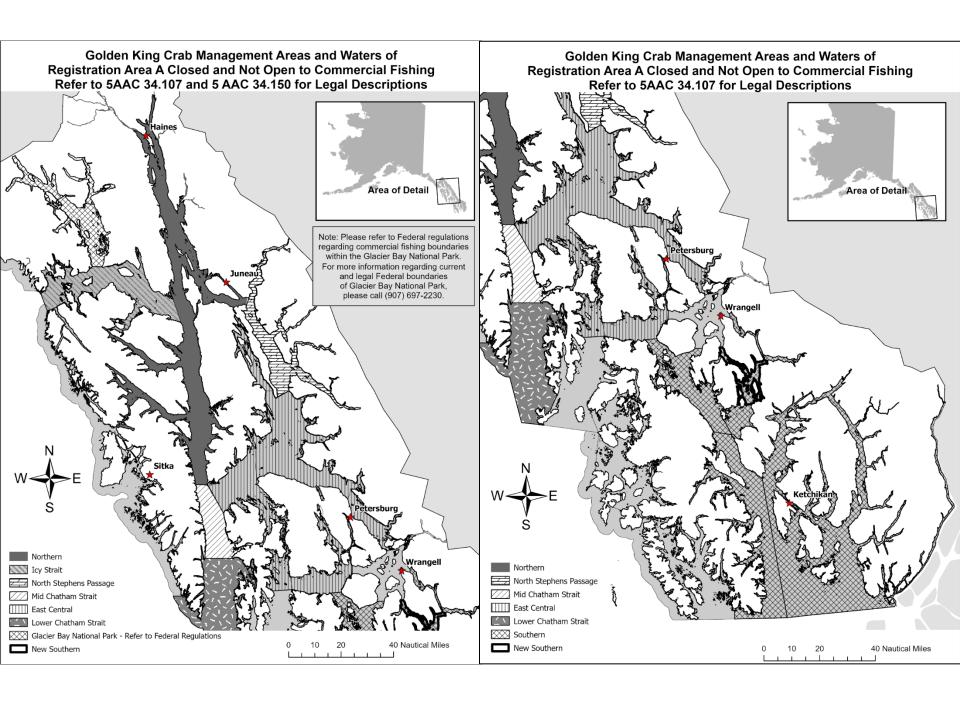
#### ADF&G STAFF PRESENTATION King and Tanner Task Force – November 2023



Golden King Crab Commercial Fisheries

Adam Messmer, Lead King/Tanner Shellfish Biologist Division of Commercial Fisheries, Southeast Region





## Summary – GHL Review

- GHL recommendations are made annually following a GKC harvest strategy (when applicable) to minimize the risk of recruitment failure.
- Reasons for this approach:
  - 1) Recent fishery performance had been poor in some areas.
  - 2) Data poor fishery with no fishery independent stock assessment program.
  - 3) Golden king crabs are a long-lived deep-water species, on a 20-month asynchronous reproductive cycle with non-feeding larvae that remain at depth; are less fecund than RKC and size at maturity varies across management areas.
  - The department acknowledges that the current GKC harvest strategy is a working document providing a guide to set GHLs and it may be more reasonable to reset GHLs when populations increase at record rates.

#### Data Sources

- All data currently available to assess GKC in Southeast Alaska are fishery dependent:
  - 1) Commercial CPUE fish ticket and logbook. Logbooks have been used in the fishery since 2000.
  - 2) Dockside sampling length frequencies of crab by recruit class (recruit and post-recruit) from the early 1970s to present.
  - 3) Future data source Juvenile and pre-recruit survey partnership.

# 2023 Fishery

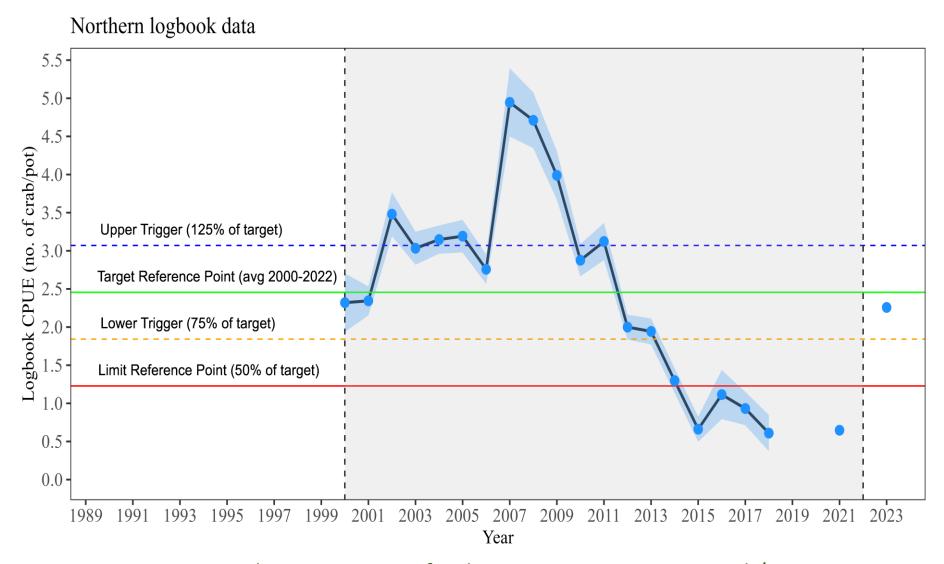


- All seven fishery areas were open:
  - 1) Northern 10,150 lb
  - 2) Icy Strait 11,138 lb
  - 3) North Stephens Passage 18,000 lb
  - 4) East Central 13,255 lb
  - 5) Mid-Chatham Strait 8,250 lb
  - 6) Lower Chatham Strait 7,500 lb
  - 7) Southern 22,000 lb

Total Region GHL--- 90,293 lb.

#### Northern 600,000 -550,000 -500,000 -450,000 -400,000 Harvest (lbs) 350,000 - 250,000 -200,000 -150,000 -100,000 -50,000 -0 -1980 -1998-1974 -1978 1982 1984 1986 1988 1990 1992 1994 1996 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 2024 Year

Harvest this season was 11,789 lb.

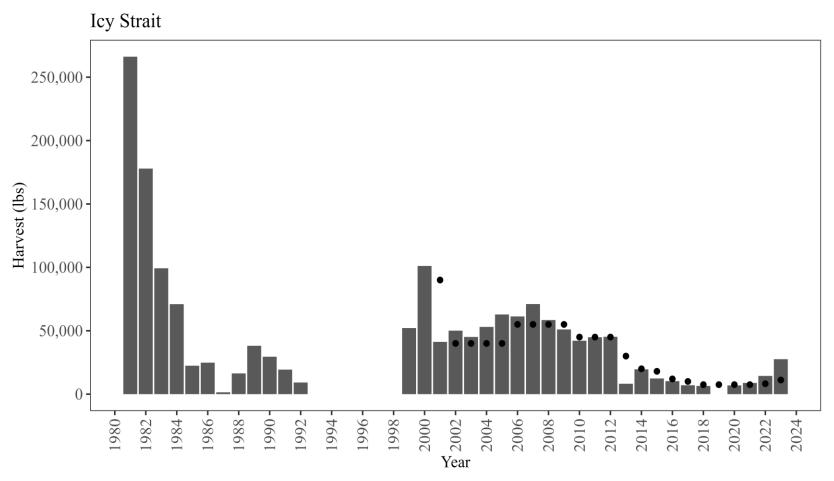


The average CPUE for the 2023 season was 2.26 crab/pot.

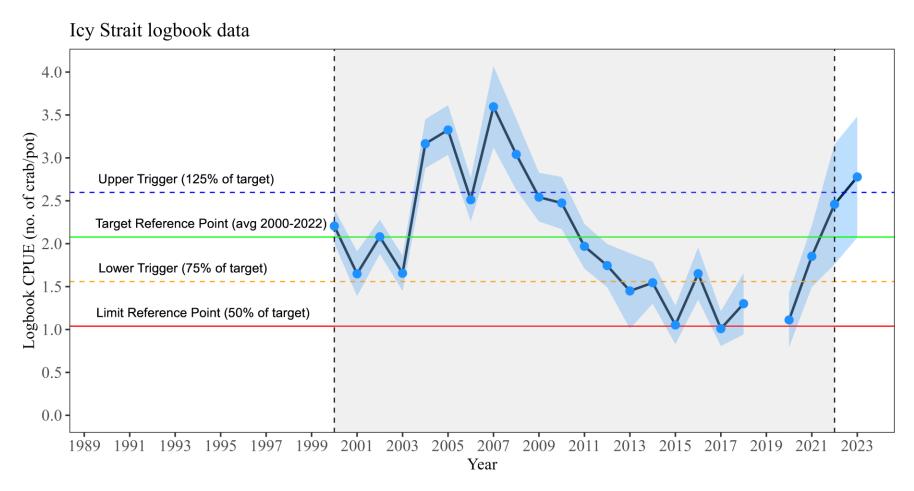
#### Northern

- The Northern area closed by EO on March 1, 2023.(17 days)
- Based on an analysis of effort levels and harvest projections, the harvest was expected to reach the 10,150 lb GHL for the Northern management area by the closure date





Harvest this season was 27,569 lb.

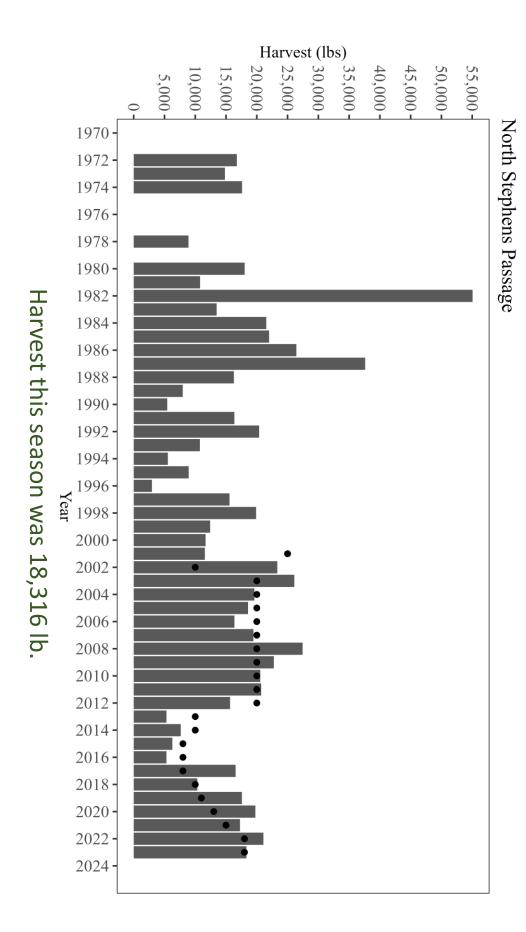


The average CPUE this season was 2.78 crab/pot.

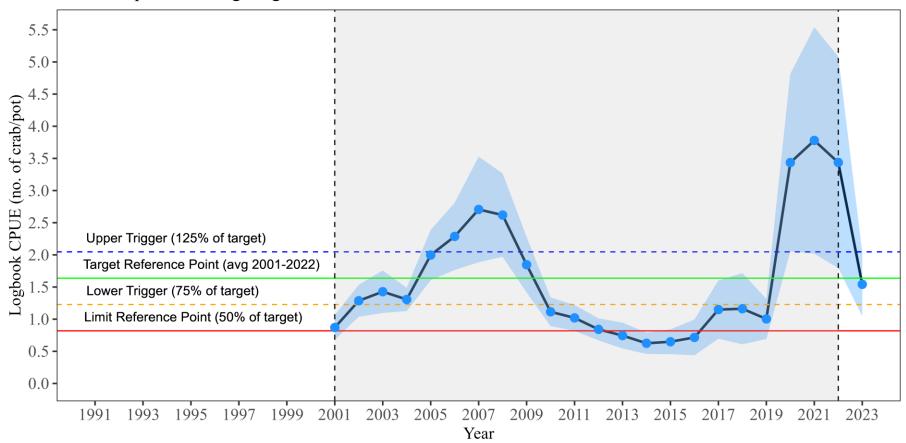


# Icy Strait

- The Icy Strait management area was closed by EO on February 18, 2023. (6 days)
- Based on an analysis of effort levels and harvest projections, the harvest was expected to surpass the 11,138 lb GHL for the Icy Strait management area by the closure date.



#### North Stephens Passage logbook data

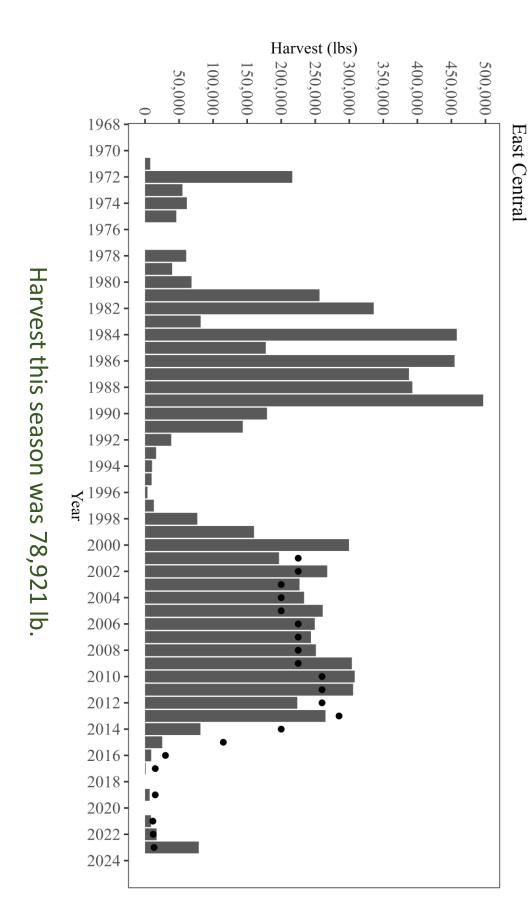


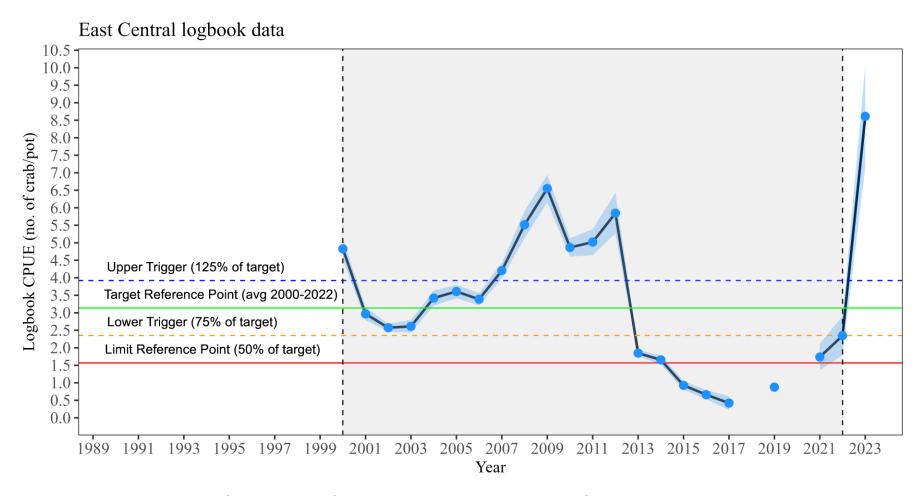
The average CPUE this season was 1.67 crab per pot.

# North Stephens Passage

- The North Stephens Passage management area was closed by emergency order (EO) on February 25, 2023 (13 days).
- Based on an analysis of effort levels and harvest projections, harvest as of the closure date was expected to reach the 18,000 lb guideline harvest level for the North Stephens Passage management area.





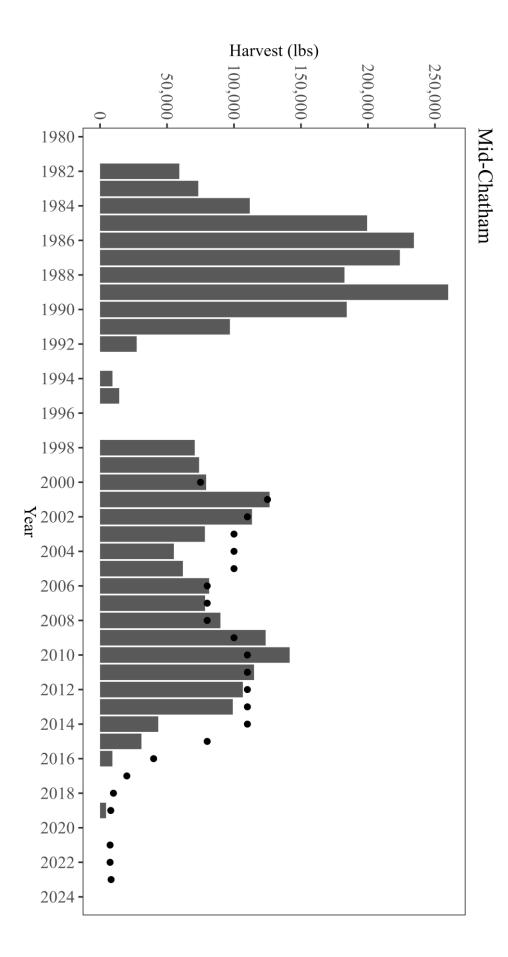


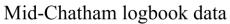
The CPUE this season was 8.61 crab per pot.

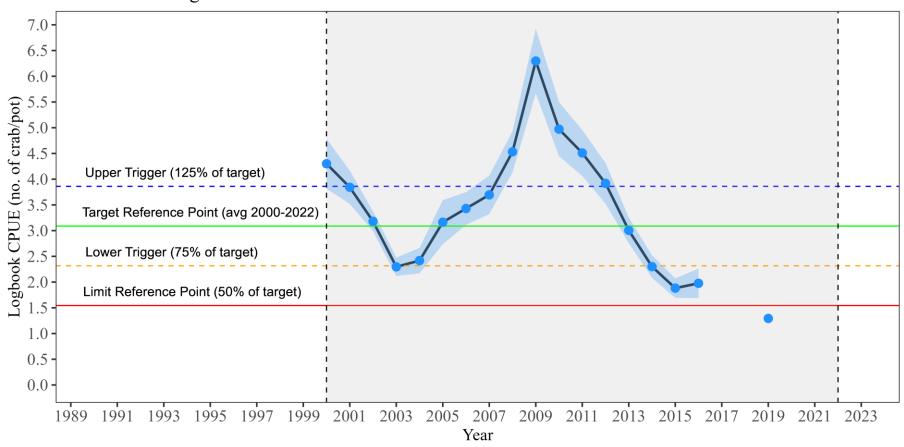
#### East Central

- The East Central management area was closed by emergency order (EO) on February 16, 2023 (4 days).
- Based on an analysis of effort levels and harvest projections, harvest as of the closure date was expected to exceed the 13,255 lb guideline harvest level for the East Central management area.







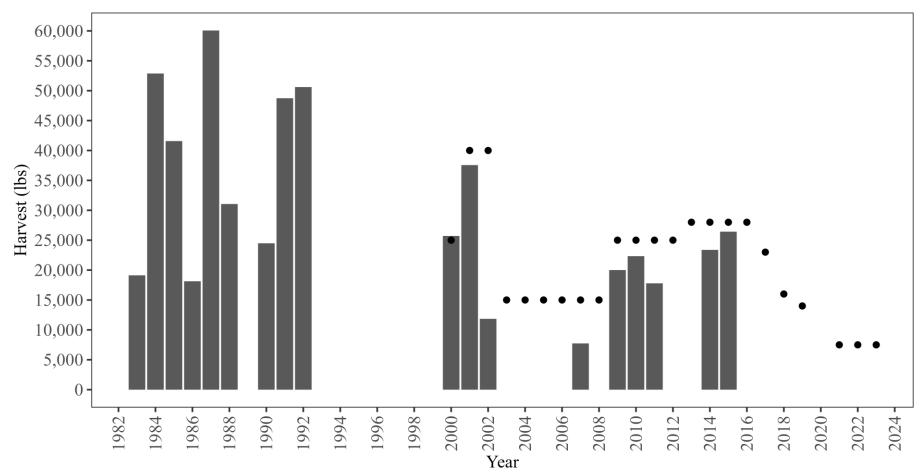


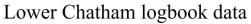
### Mid-Chatham Strait

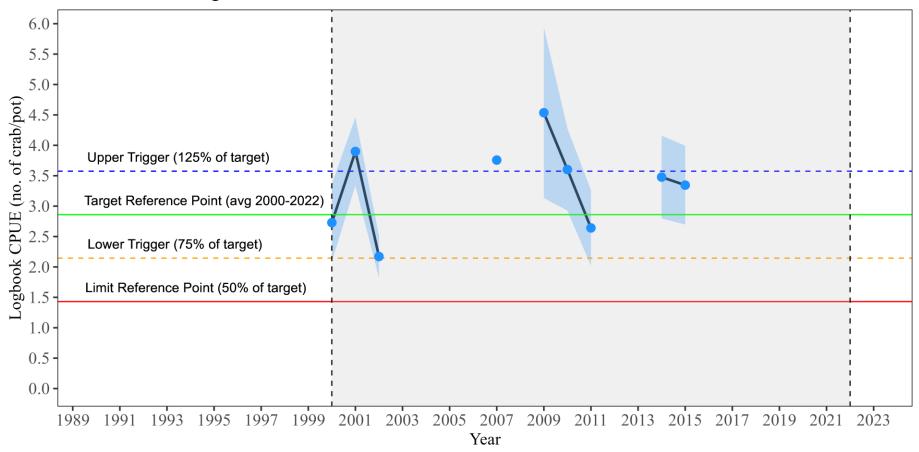
- The Mid-Chatham Strait management area was closed by emergency order (EO) on March 1, 2023 (17 days).
- Based on an analysis of effort levels and harvest projections, harvest as of the closure date was expected to reach the 11,707 lb guideline harvest level for the Mid-Chatham Strait management area.











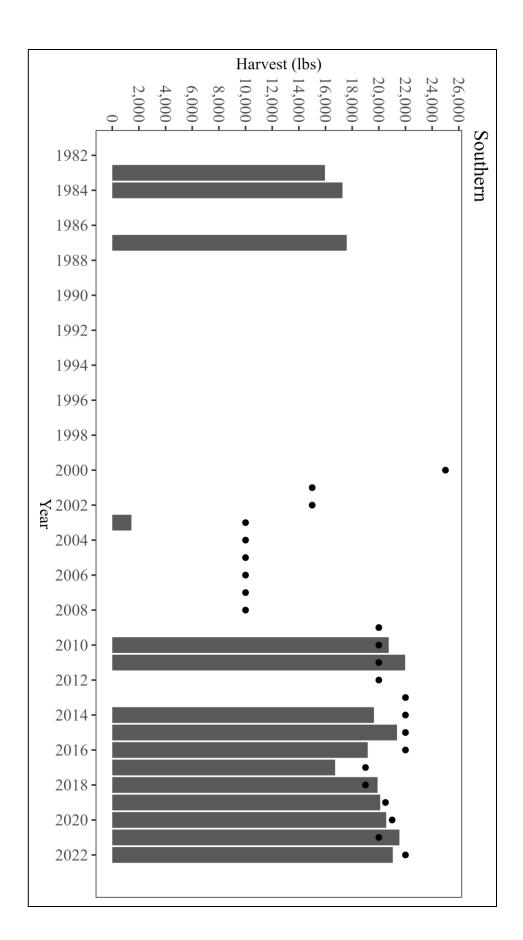
### Lower Chatham Strait

• The Lower Chatham Strait management area saw very few pot lifts in 2023, much fewer than the 500-pot lift threshold, so no inseason decision rules in the harvest strategy were triggered.

• The Lower Chatham Strait management area will be closed by regulation [5]

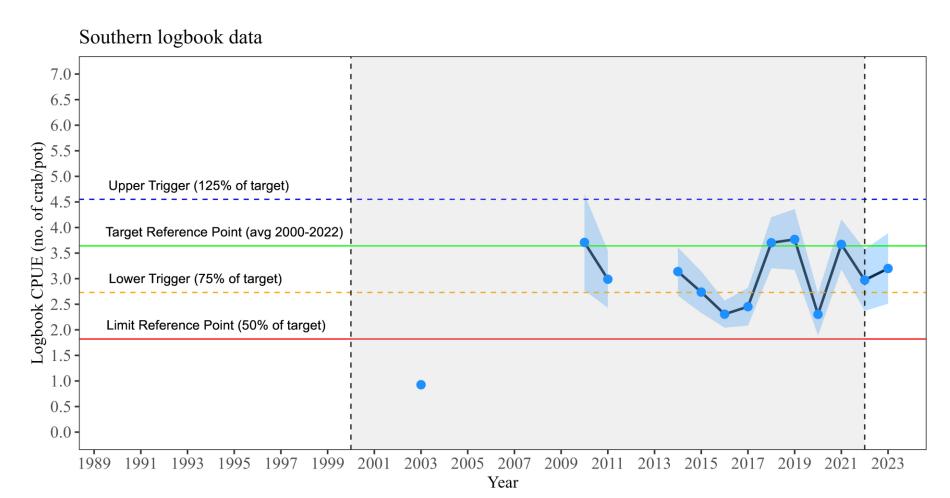
AAC 34.110(b)] on December 1, 2023.





25

Harvest this season was 21,050 lb.



The CPUE this season was 2.39 crab per pot.

## Southern

• The Southern management area was closed by EO on May 4, 2023 (81 days).

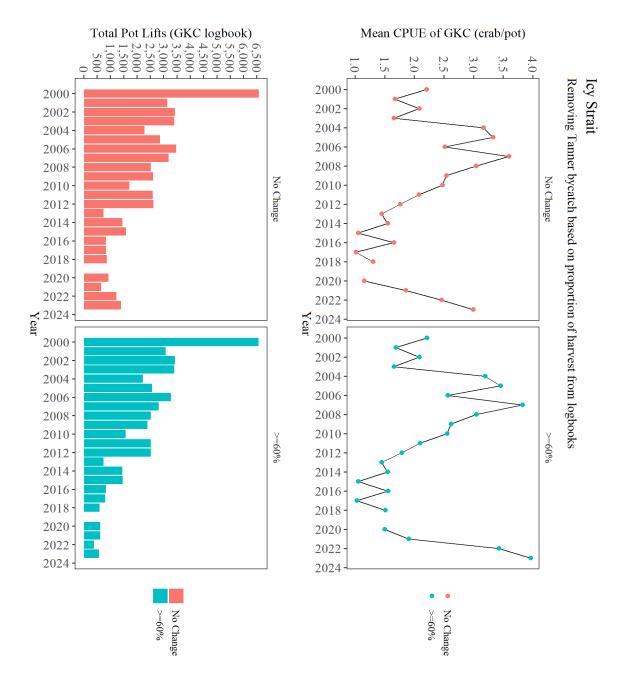
• Based on an analysis of effort levels and harvest projections, the harvest was expected to reach the 22,000 lb GHL for the Southern management area by

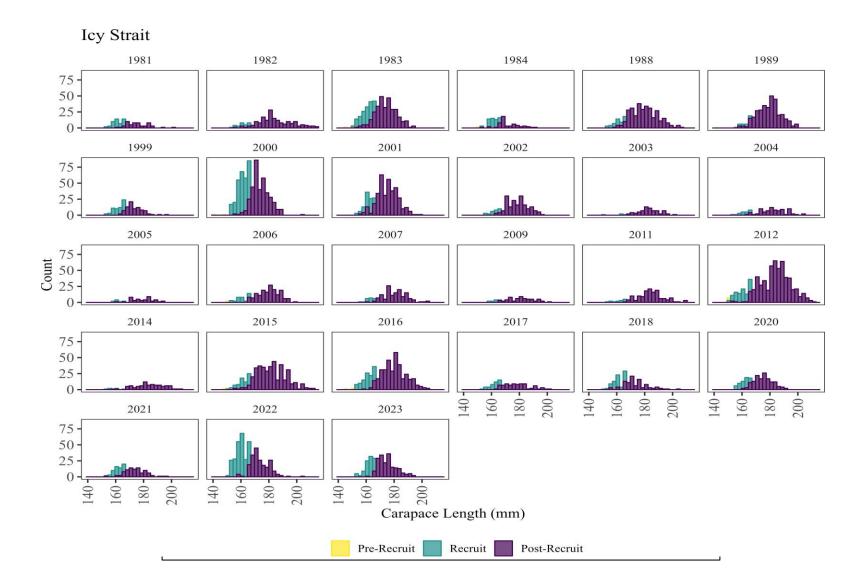
the closure date.

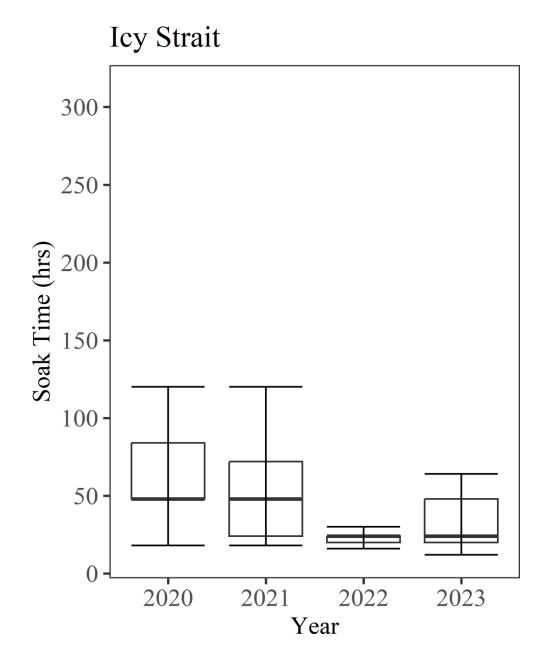


# 2024 Fishery

- The season will open on February 17, 2024.
- The department has been in the process of refining a harvest strategy used for the third time last season, with in-season and post-season decision rules defining management actions.
- For each area, we reviewed postseason decision rules from the harvest strategy in its current form using reference points for CPUE (i.e. Limit @ 50%, Lower Trigger @ 75%, Target @ 100%, and Upper Trigger @ 125%)
- We also considered secondary performance indicators to refine the recommendations.







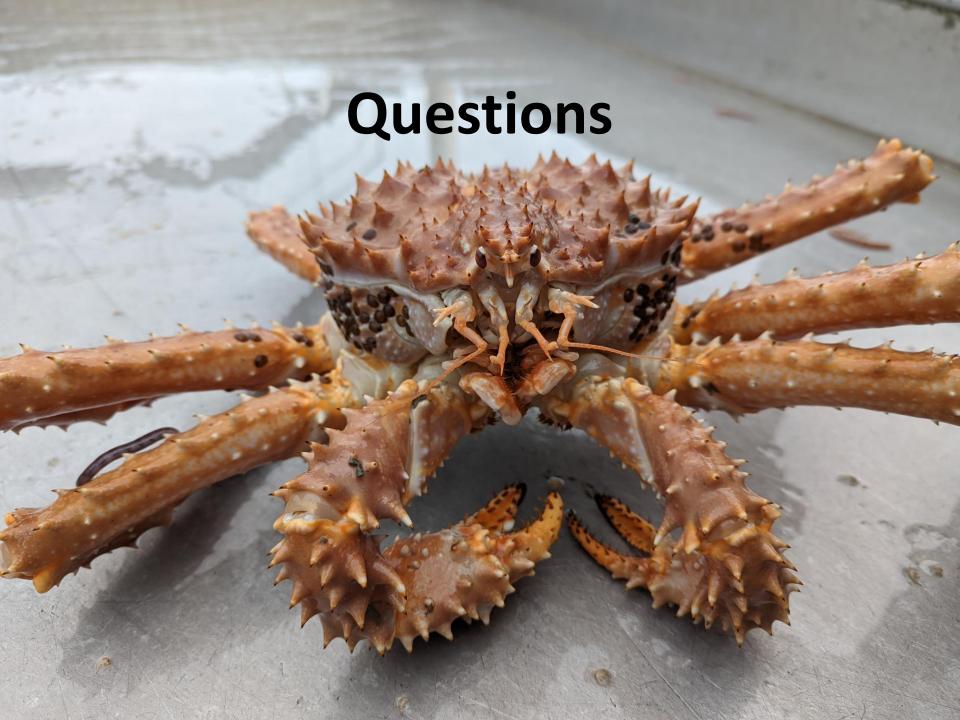
## Preliminary GHLs for 2024 Fishery

- After analysis of all seven areas:
  - ➤ Northern: Open for with a 16% increase to 12,000 lb.
  - >Icy Strait: Re-set the GHL to 35,000 lb.
  - > North Stephens Passage: Reopen with a 12% decreased GHL to 16,000 lb.
  - **East Central:** Re-set the GHL to **150,000** lb.
  - ➤ Mid-Chatham Strait: Re-set the GHL to 30,000 lb.
  - **Lower Chatham Strait:** Reopen with the same GHL **7,500** lb.
  - >Southern: Reopen for the same GHL 22,000 lb.

This reflects a 182,207 lb increase from 2023 to the regional GHL for 2024.

- Daily call-ins are mandatory and will be enforced by AWT in 2024.
- 1-907-772-5200
  - Name/vessel name/ADFG #
  - Date
  - Stat-area fished
  - # of pots
  - # of crab
- Call-ins will start February 16<sup>th.</sup>

Fishermen are required to state what management area they plan on starting in.



ADF&G/Industry Golden king crab (GKC) Juvenile and Pre-Recruit Monitoring Program in the East Central Management Area.

Objective: to collect Juvenile, pre-recruit and female GKC information from the East Central Management Area in 2024.

 Project 1 – Sampling 10 closed pots by ADF&G employee.

Project 2 – Closed pots crab accounting by industry

volunteers



# Project 1 – Sampling 10 closed pots by ADF&G employee

- After the management area is closed, one vessel will be allowed to sew up the escape rings (using bio twine) on 10 pots and place them on high density juvenile GKC areas. These areas will be mutually agreed on by the fleet and the department. Stipulations for the monitoring program include:
- Within 30 days of the management area closure, a vessel will take an observer onto the grounds to retrieve the 10 pots
  that were previously sewn up and set. The observer will measure all of the crab. The vessel may not haul closed pots
  without a ADF&G representative onboard.
- The vessel participating in the program will be awarded up to a \$4,900 stipend to cover the cost of fuel and food. If 10 pots are not hauled, the full stipend will not be awarded; \$490 will be deducted for every pot less than 10 pots.
- The vessel participating will get juvenile location information from vessels participating in Project 2.
- The vessel must be finished actively fishing in the 2024 commercial GKC/Tanner fishery to participate.
- The vessel must contact the department before setting gear.
- Pots are required to soak for a minimum of 48 hours and must be retrieved within 6 days of setting, weather permitting.
- There will be no retention of caught crab in survey pots.
- If more than one vessel is interested in participating in Project 1, interested fishermen and KTTF co-chairs will work together to determine who will conduct the survey.
- The vessel operator will fill out a logbook recording latitude and longitude of each Project 1 pot and the time that the pot is set and hauled.

# Project 2 – Closed pots crab accounting by industry volunteers

- Up to 5 vessels may request a wavier to close (sew up) their escape rings on 5 of their commercial GKC pots (bio twine) during the season within the East Central District, to try to catch Juvenile, pre-recruits and female GKC.
- The first 5 vessels interested in participating will be allowed to close (sew up) escape rings in 5 of their pots. These are not extra pots; the pot limit remains 80.
- Interested vessels must contact ADF&G at least one week prior to the season start date to get authorization and keep the ADF&G letter aboard the vessel allowing the vessel to set and pull 5 pots with closed escape rings.
- Pot tag numbers of pots with closed escape rings must be predetermined before the start of the fishery and reported to ADF&G and Alaska Wildlife Troopers (AWT).
- Five additional pot tags (a different color than the current years GKC/Tanner tag) will be issued to participating vessels
  and these will be added to their buoy setups; this will result in 2 buoy tags for each set up. This extra buoy tag will help
  AWT identify which pots are closed.
- Each time a closed pot is hauled, the latitude and longitude of the pot will be recorded on the logbook. If the pot is hauled and the escape rings are no longer closed (bio twine is broken), that should also be noted.
- If time allows, a count of undersize males and females will be recorded along with a picture of the pot.
- If time does not allow to count crab, a picture of the pot with contents intact (crab not dumped) will be taken with the pot tag number, date, and time visible in the photo.
- When moving gear to another management area, all escape rings must be opened, and extra buoy tags must be removed from each pot.

# BOF Dept. Proposals.

- Expand definition of Pybus bay survey area.
- RKC Management plan:
  - -Individual Catch Limits.

#### Red King Crab Management Plan ADF&G Proposal

 BOF 2022 - Same language as RC 10, department regulatory language with the exception of using "Individual Catch Limits" in place of "Equal Quota Share"

- Plan elements
  - Harvest strategy goals
  - Biological reference points based on legal male biomass
  - Harvest rates which vary according to stock status
  - Each permit holder receives an equal harvest level, which is dependent on biomass estimates
  - Commissioner's ability to reduction of personal use bag and possession limit if biomass legal male crab estimates are < 50% of avg surveyed and non surveyed biomass