



# ADF&G STAFF PRESENTATION

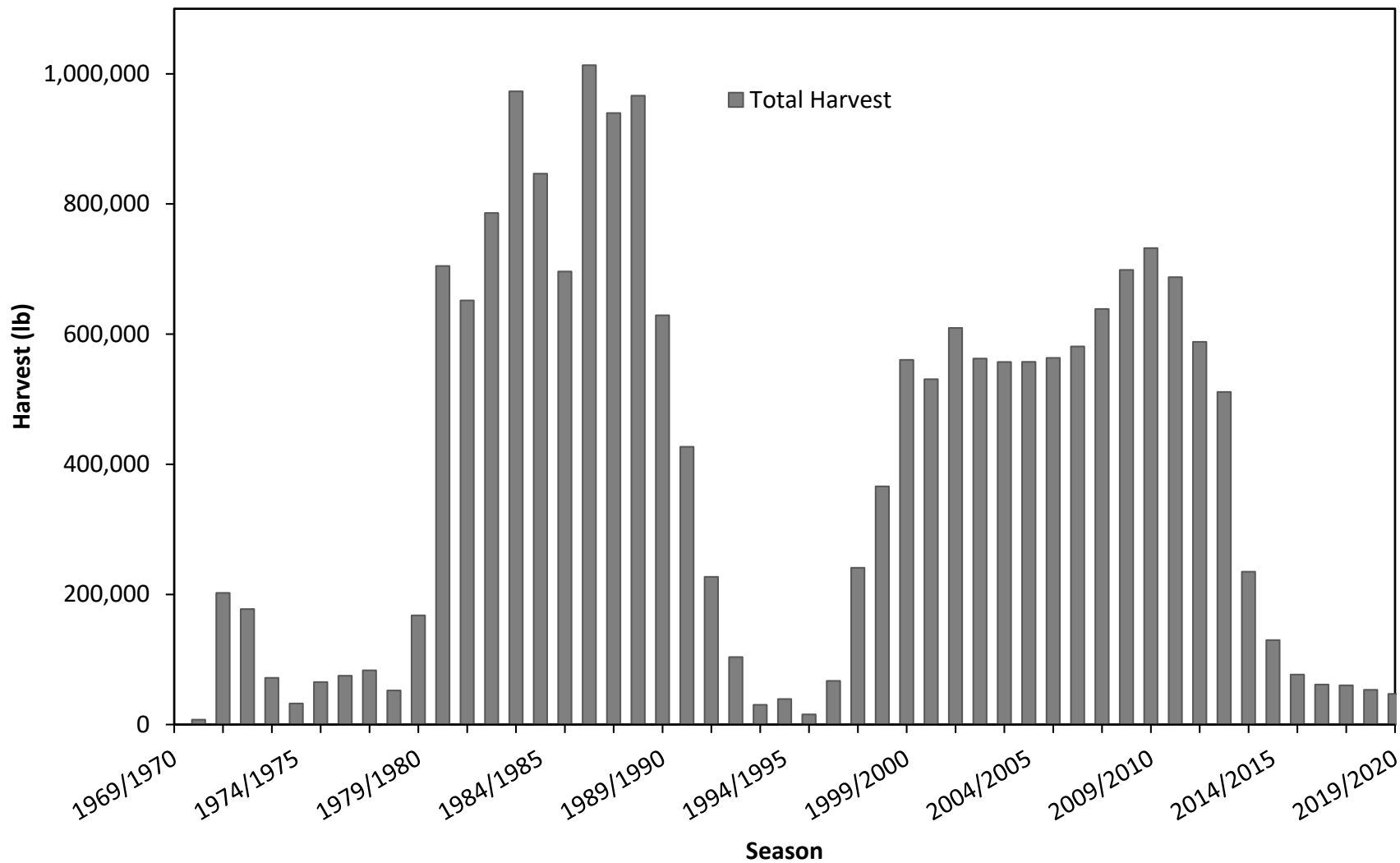
## King and Tanner Task Force – December 2020



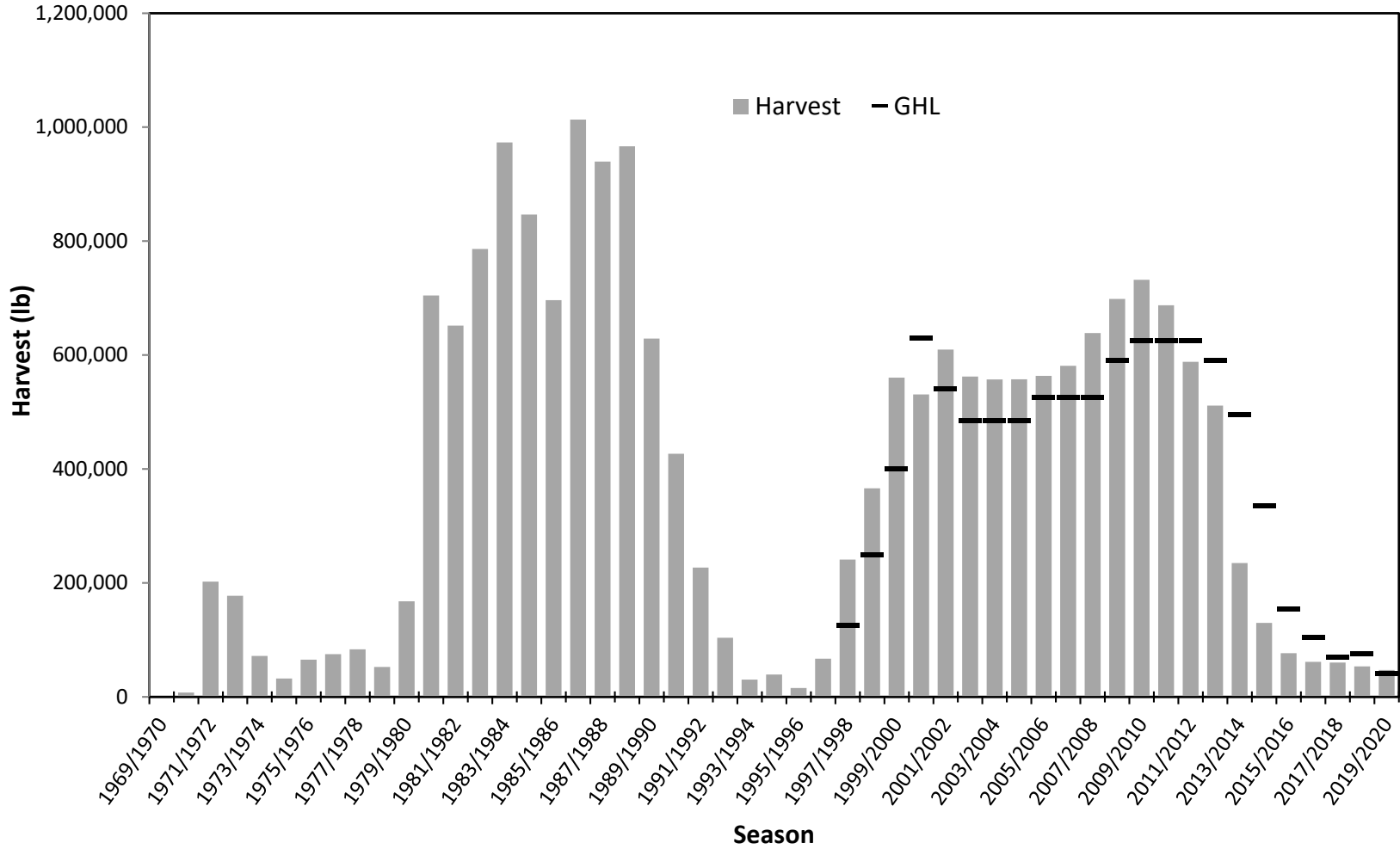
### Golden King Crab Commercial Fisheries

Joe Stratman, Lead Crab Biologist  
Division of Commercial Fisheries, Southeast Region

## GKC Harvest and Average CPUE by Season

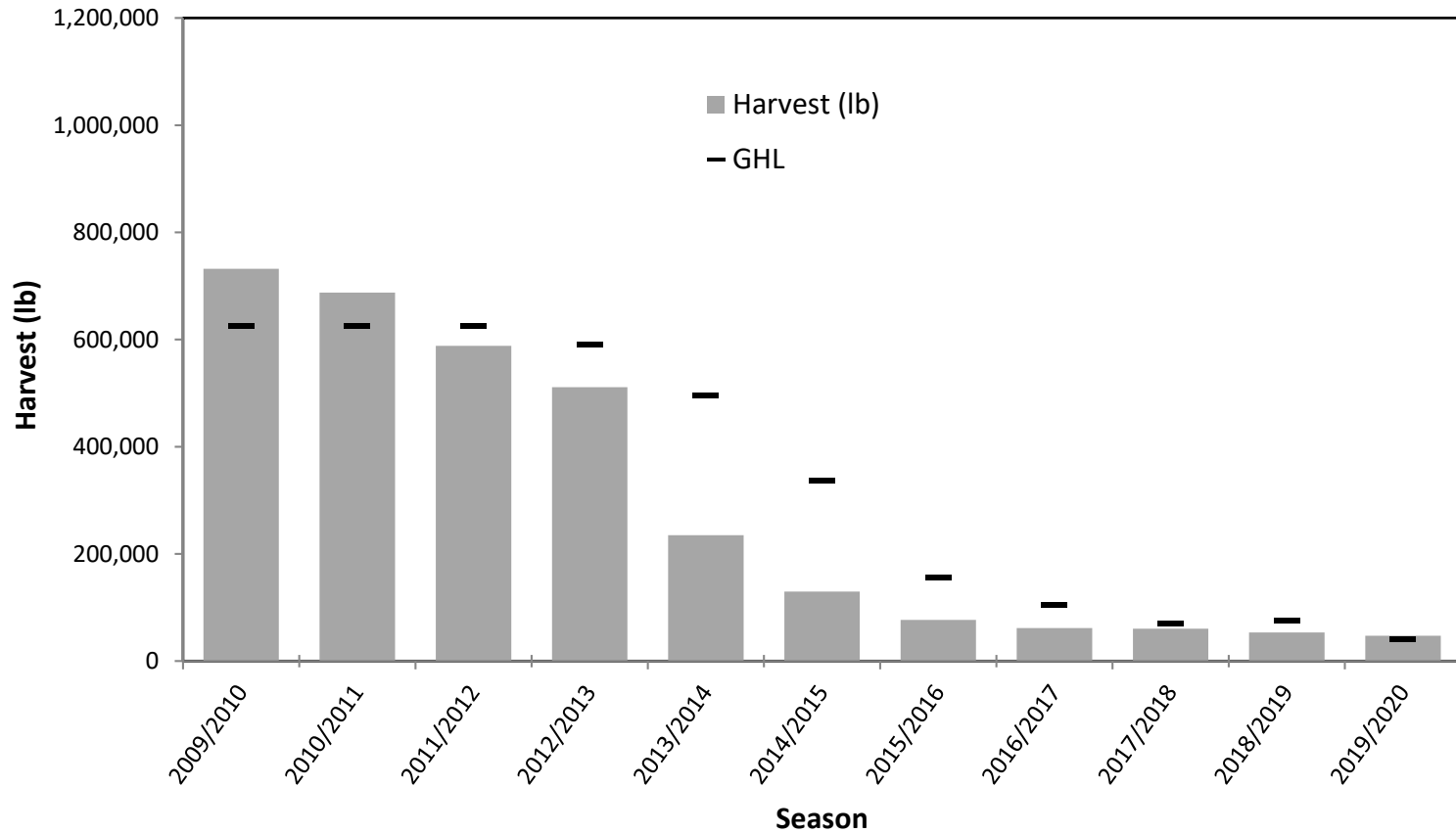


# GKC Harvest and GHs by Season

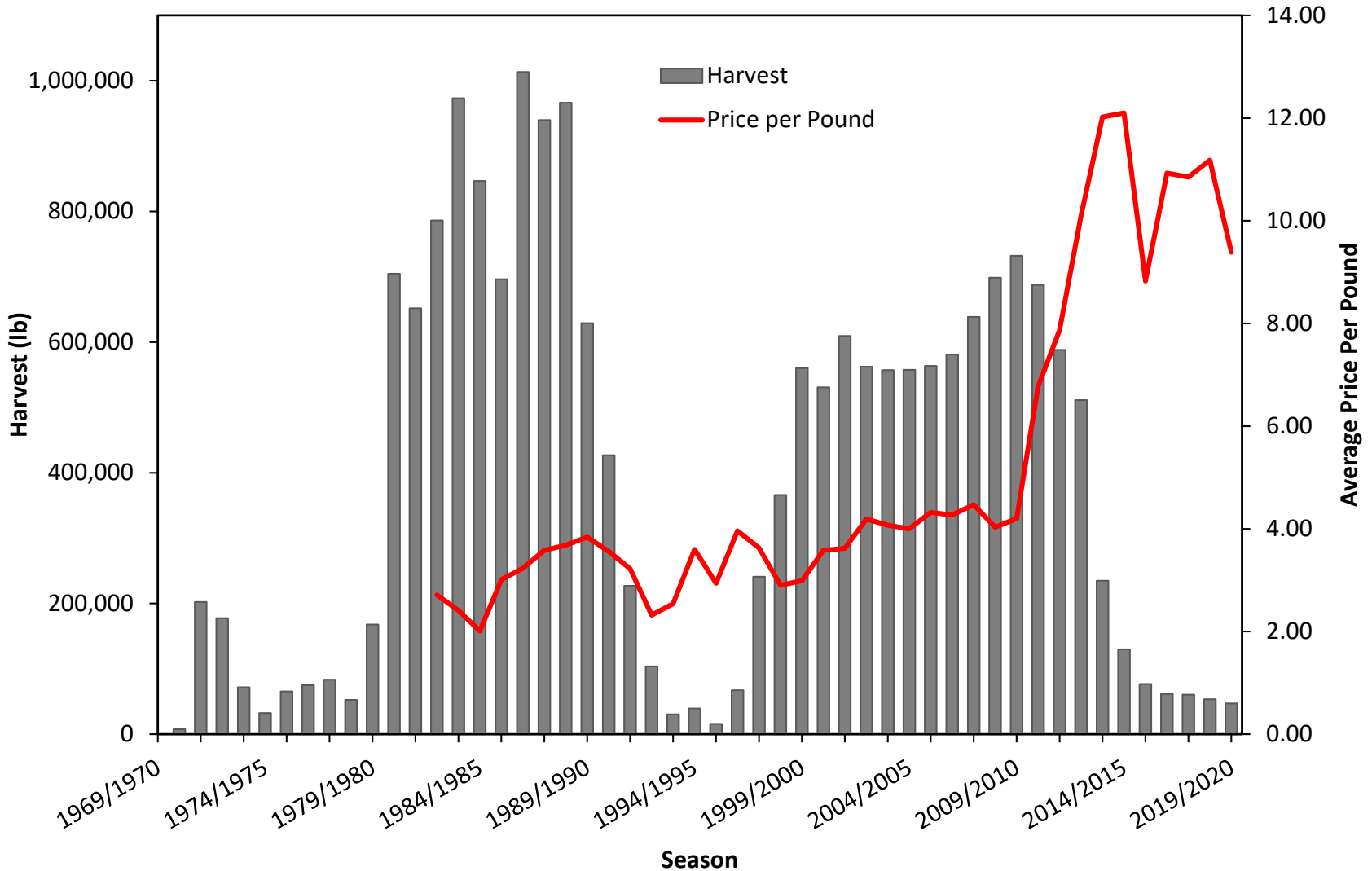


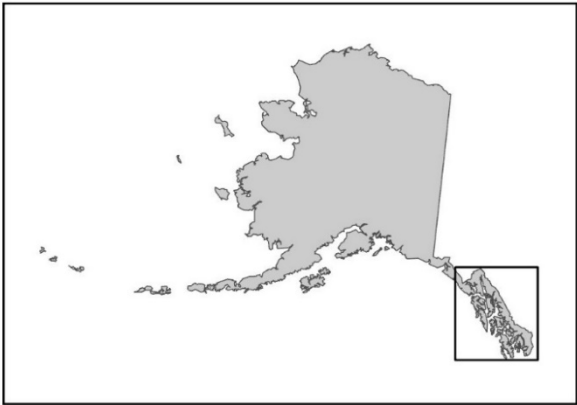
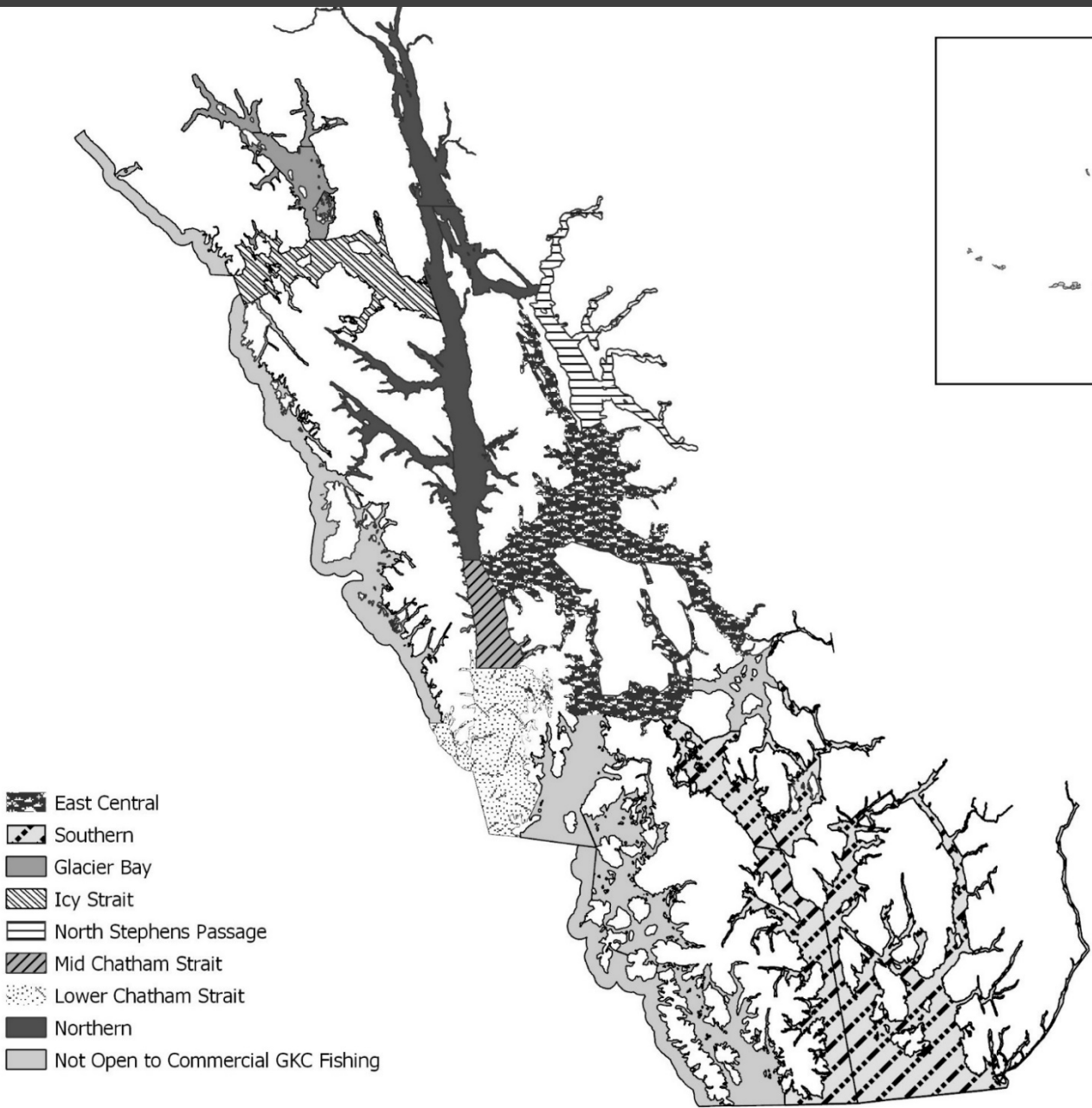


## GKC Harvest and GHs by Season



## GKC Harvest and Average Price Per Pound by Season





# Summary – GHL Review

- GHL recommendations are made annually employing a precautionary approach to minimize the risk of recruitment failure.
- Three reasons for this approach:
  - 1) Recent fishery performance has been poor.
  - 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.



# Data Sources

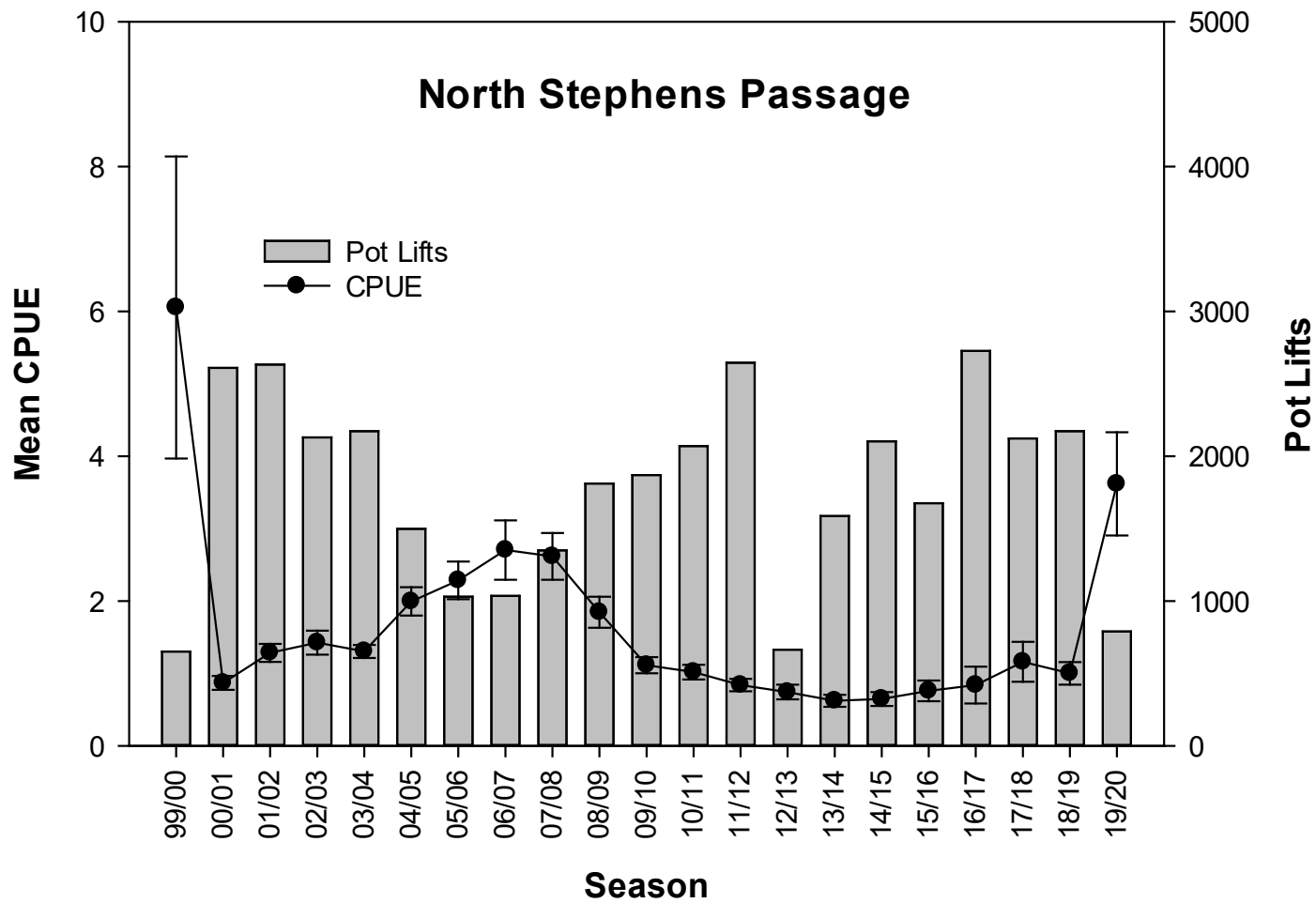
- All data currently available to assess GKC in Southeast Alaska are fishery dependent:
  - 1) Commercial CPUE - fish ticket and logbook. Logbooks have been used in the fishery since 2000.
  - 2) Dockside sampling percentage of recruit and post-recruit class crab (from the early 1970s to present).
  - 3) ~~Onboard observer data (late 1990s through 2016).~~



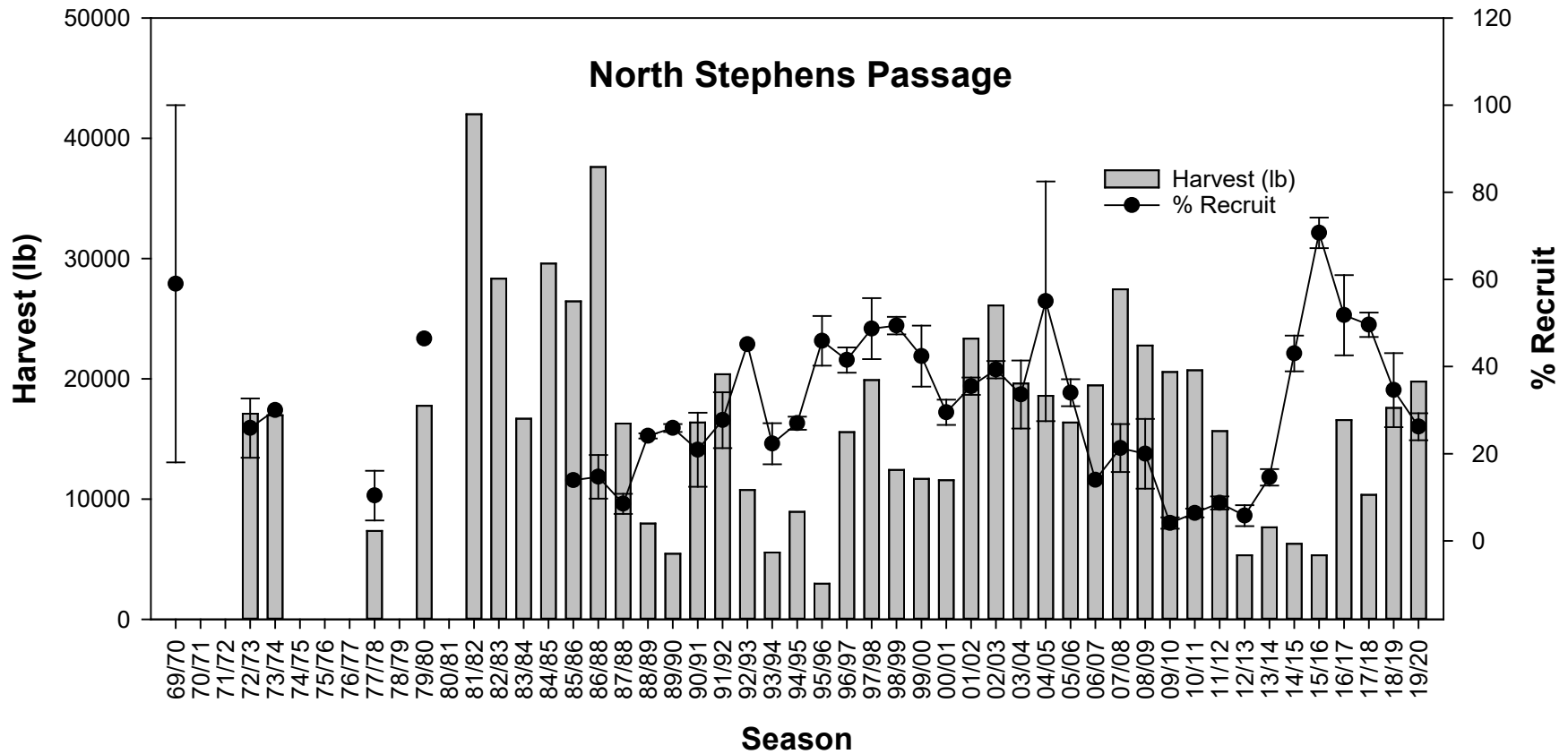


# 2019/2020 Fishery

- Three fishery areas were open:
  - 1) North Stephens Passage – 13,000 lb.
  - 2) Icy Strait – 7,500 lb.
  - 3) Southern – 21,000 lb.
- Four fishery areas were closed: Lower Chatham Strait, Mid-Chatham Strait, Northern, and East Central.



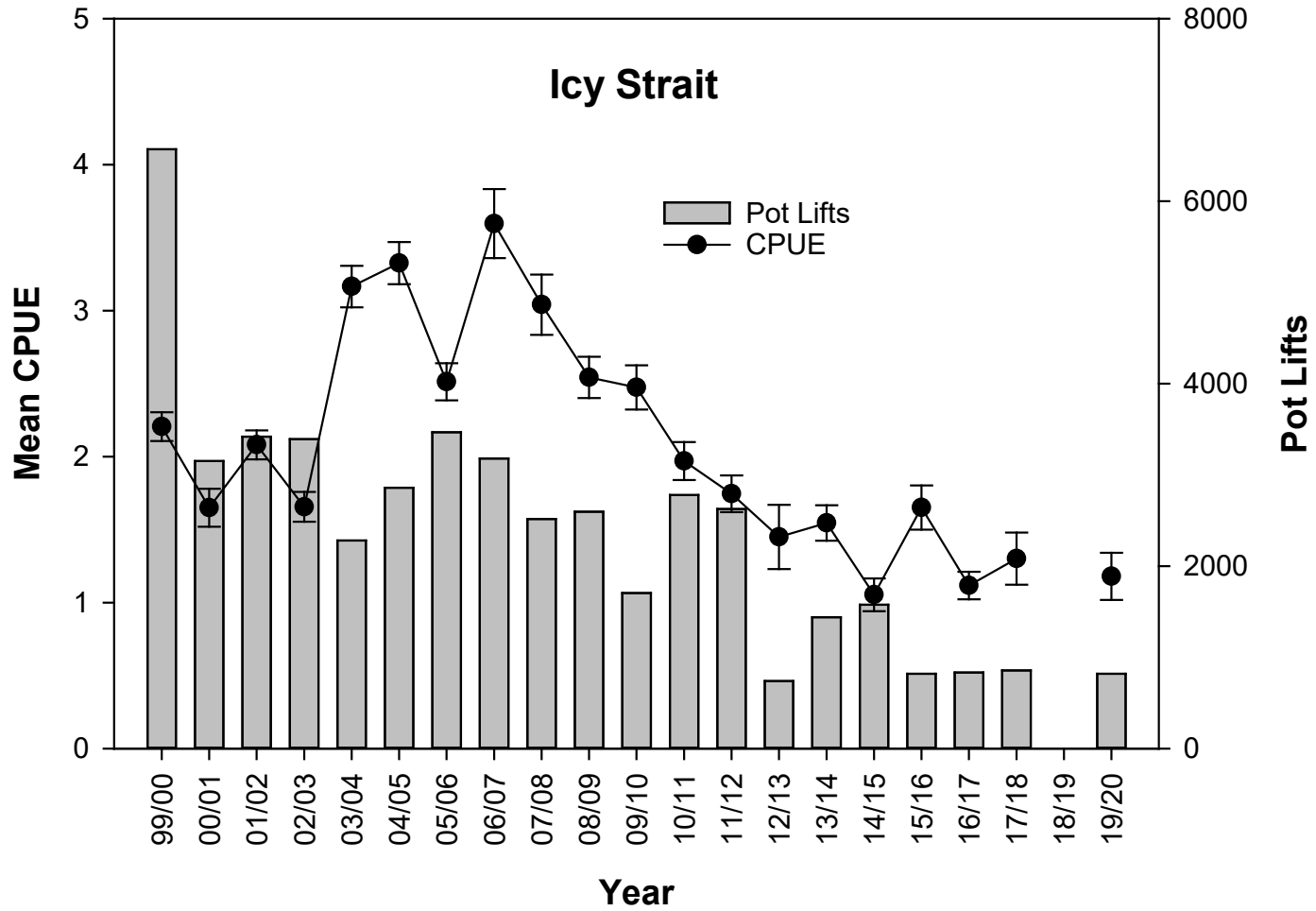
The average CPUE this season was 3.6 crab per pot.



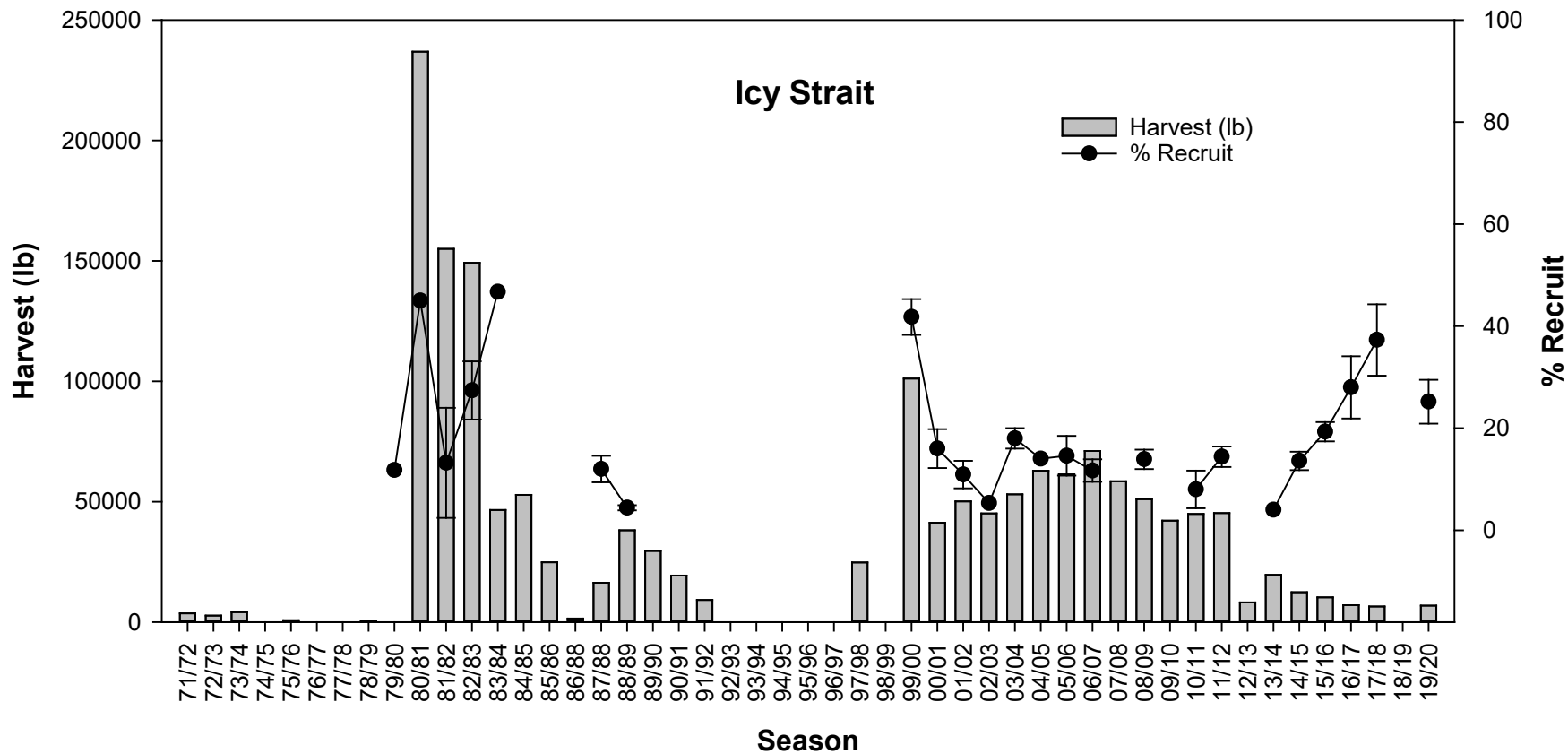
Harvest this season was 19,769 lb and % recruit has been trending down since 2016.

# North Stephens Passage

- The North Stephens Passage management area was closed by emergency order (EO) on February 19, 2020 after just over two days of fishing.
- Based on an analysis of effort levels and harvest projections, the harvest as of the closure date was expected to reach the 13,000-pound GHL for the North Stephens Passage Area.



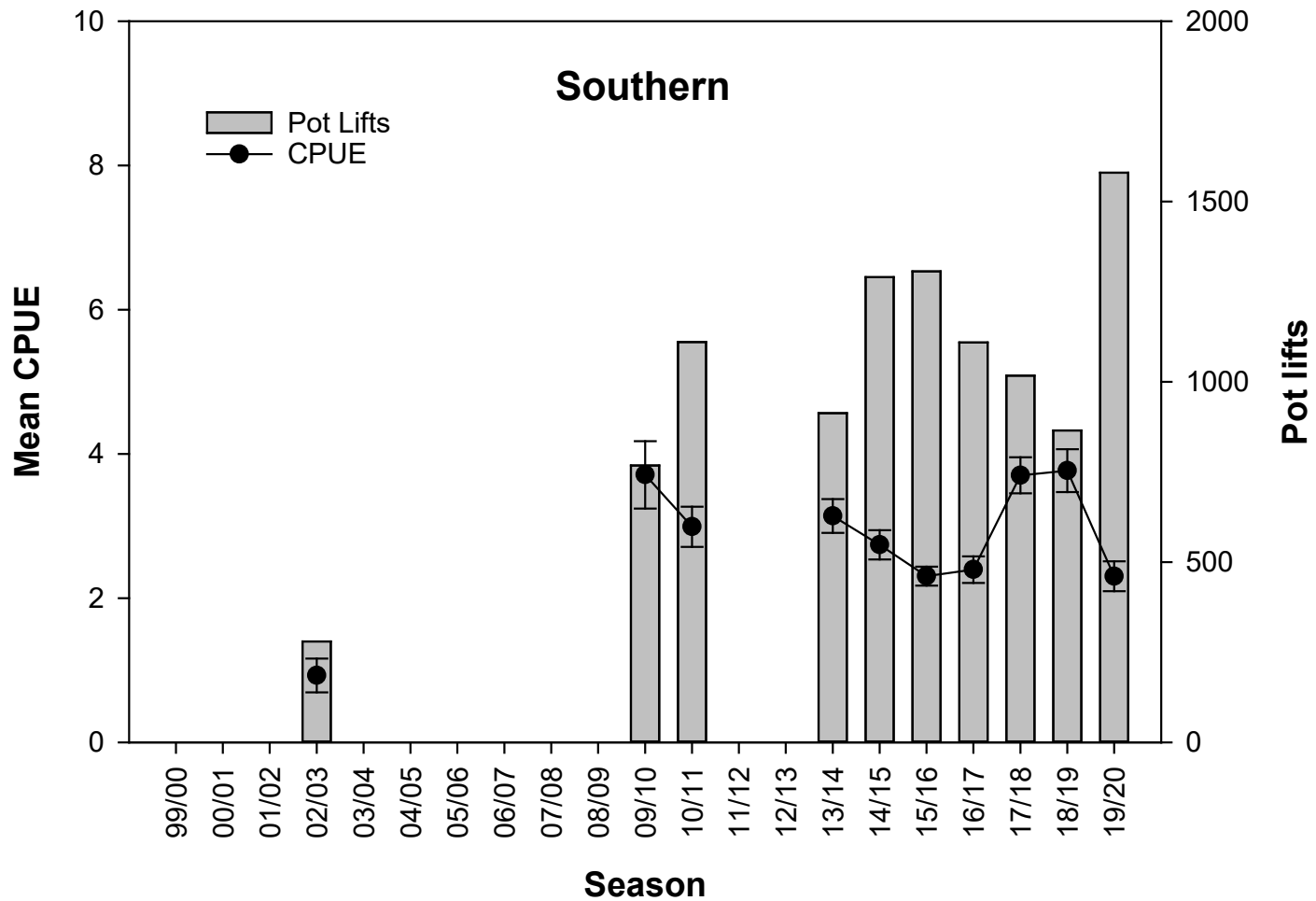
The average CPUE this season was 1.2 crab/pot.



Harvest was 6,833 lb and % recruit was 25%, slightly above the historical average.

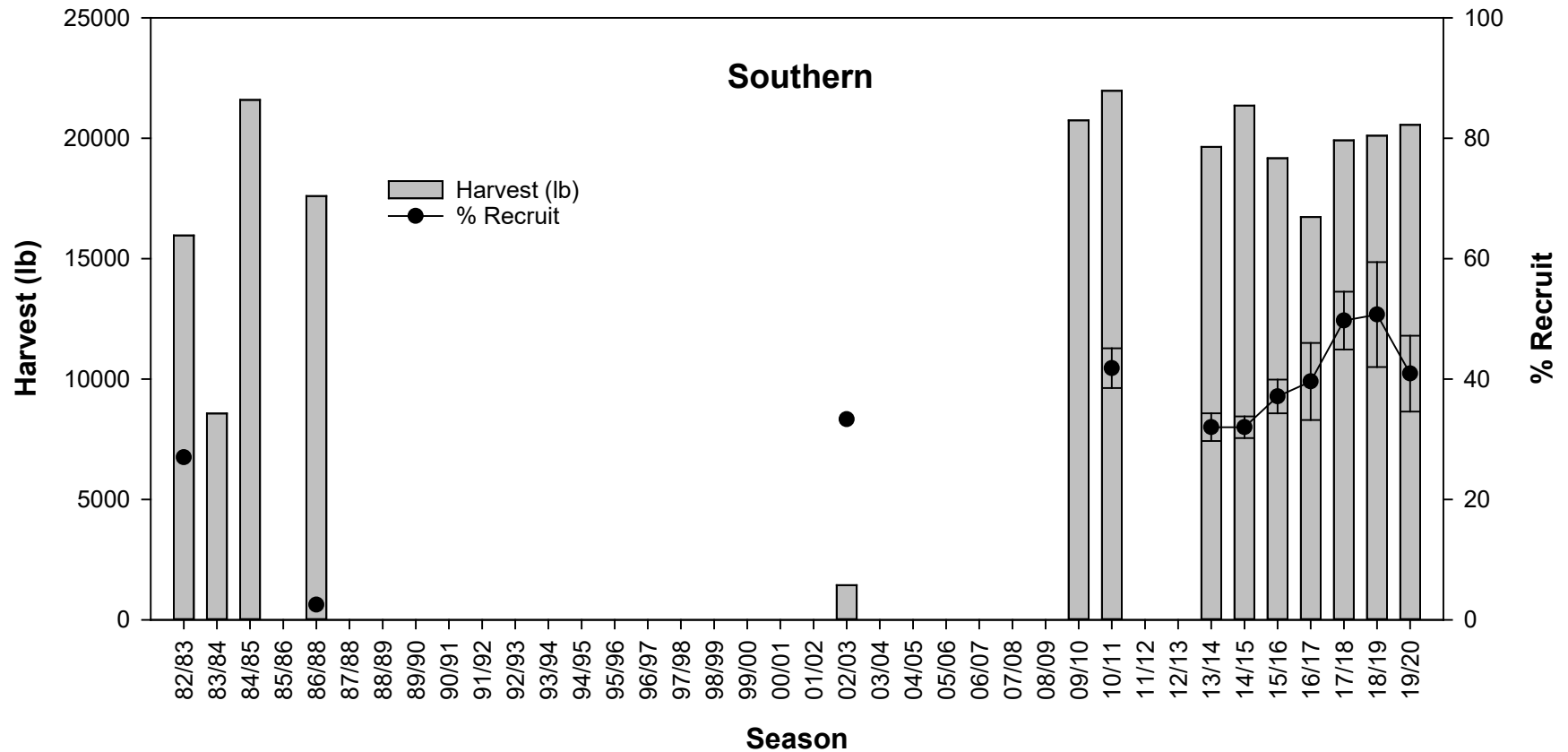
# Icy Strait

- The Icy Strait management area was closed by EO on March 22, 2020.
- Based on an analysis of effort levels and harvest projections, the harvest was expected to reach the 7,500-pound GHL for the Icy Strait Area by the closure date.



The average CPUE this season was 2.3 crab per pot.





Harvest this season was 20,557 lb and % recruit is down somewhat from the historical high in 2019.

# Southern

- The Southern management area was closed by emergency order (EO) on March 27, 2020.
- Based on an analysis of effort levels and harvest projections, harvest as of the closure date was expected to reach the 21,000-pound guideline harvest level for the Southern Area.

# 2020/2021 Fishery

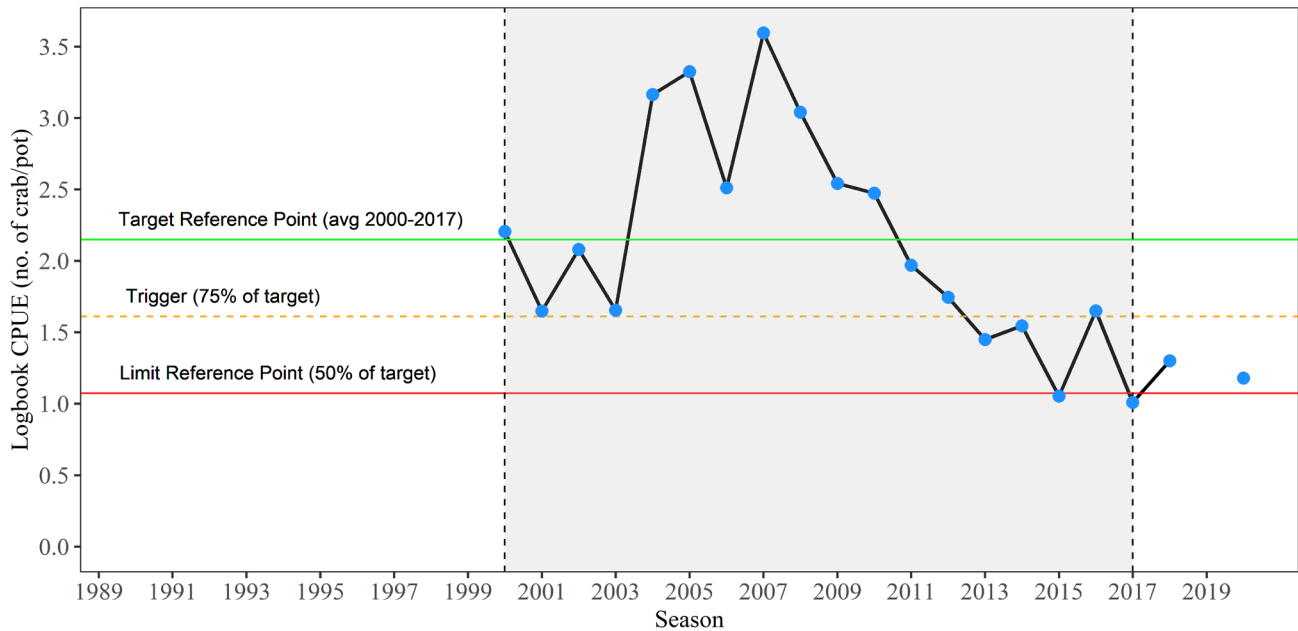
- The season will open on February 17, 2021 and GHs have not been finalized.
- The department has been in the process of developing a harvest strategy with decision rules.
- For those areas open last season (North Stephens Passage, Icy, and Southern), crab management staff were tasked with assessing harvest levels for 2021 season.

# 2020/2021 Fishery (cont.)

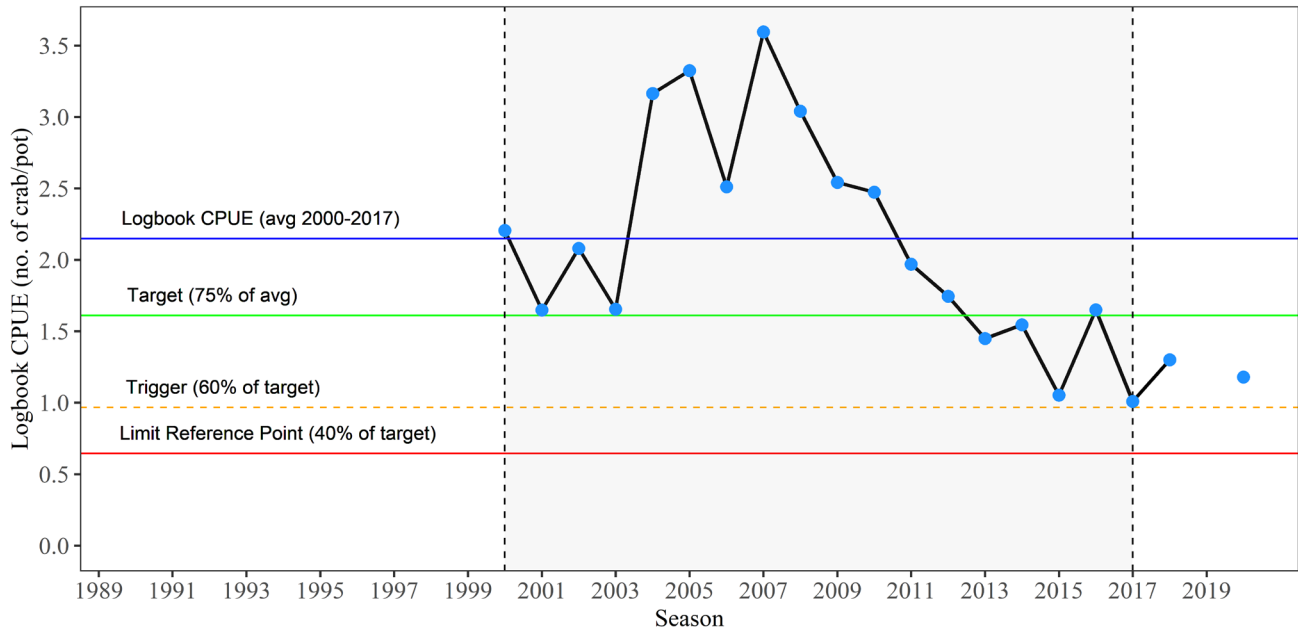
- For each, we reviewed postseason decision rules from the harvest strategy in its current form (i.e. target, trigger @ 75%, and limit @ 50%).
- We compared that to an industry proposed recommendation of lowering the reference points down to a target of 75% of avg., trigger @ 60%, and limit @ 40%.
- We also considered secondary performance indicators to refine the recommendations.

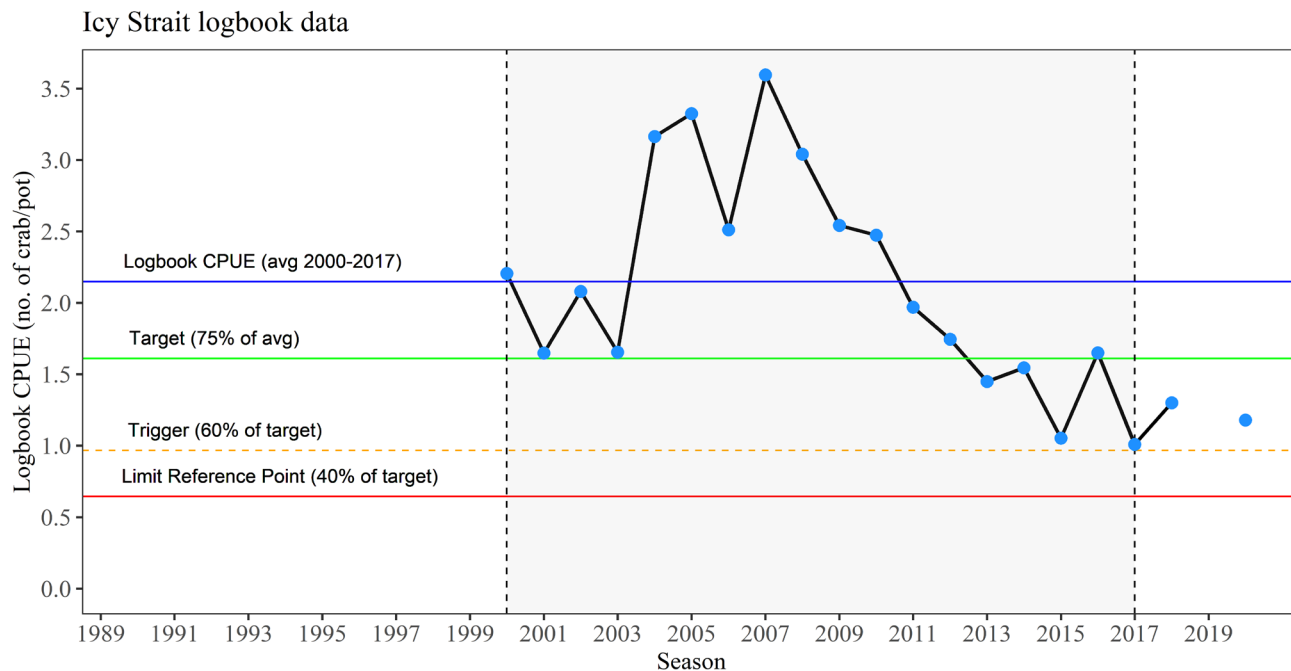
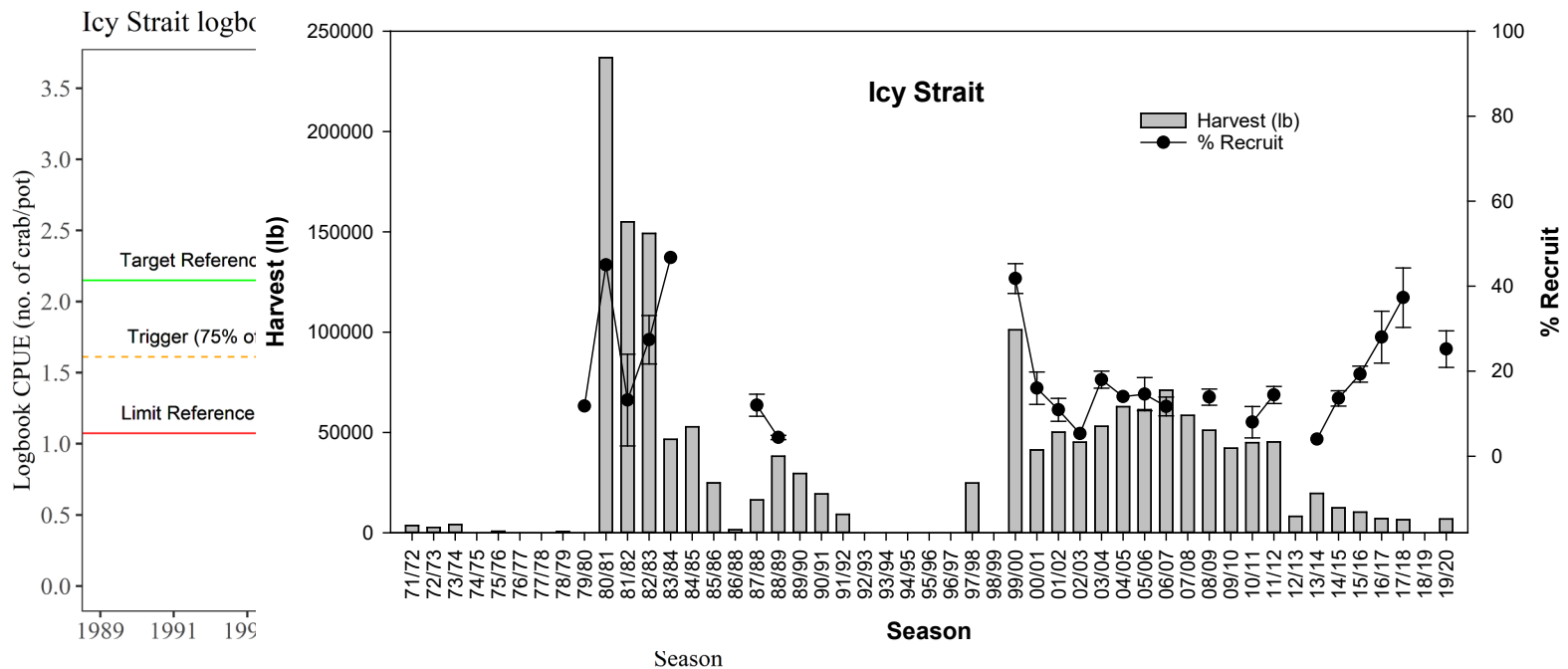


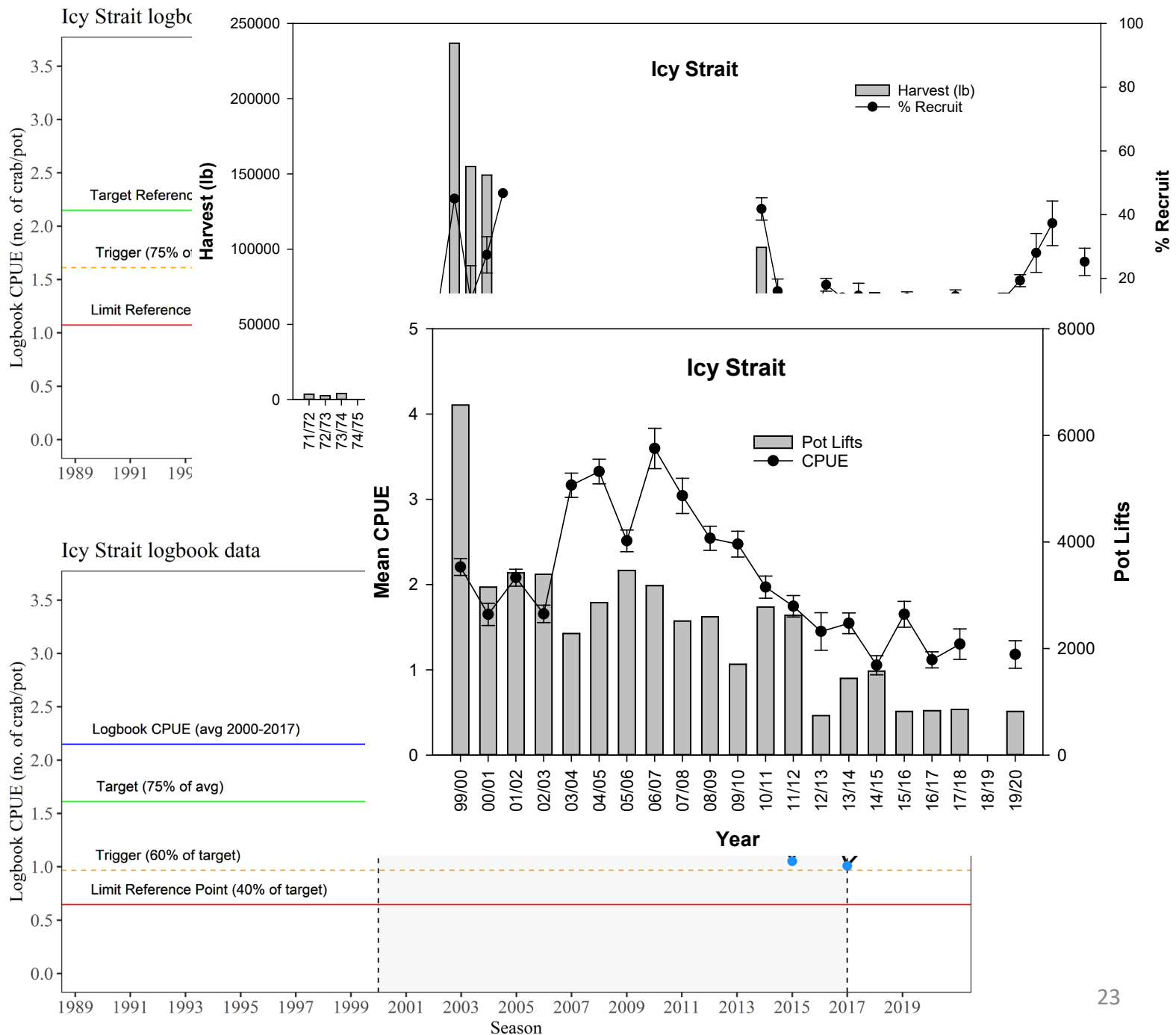
Icy Strait logbook data



Icy Strait logbook data

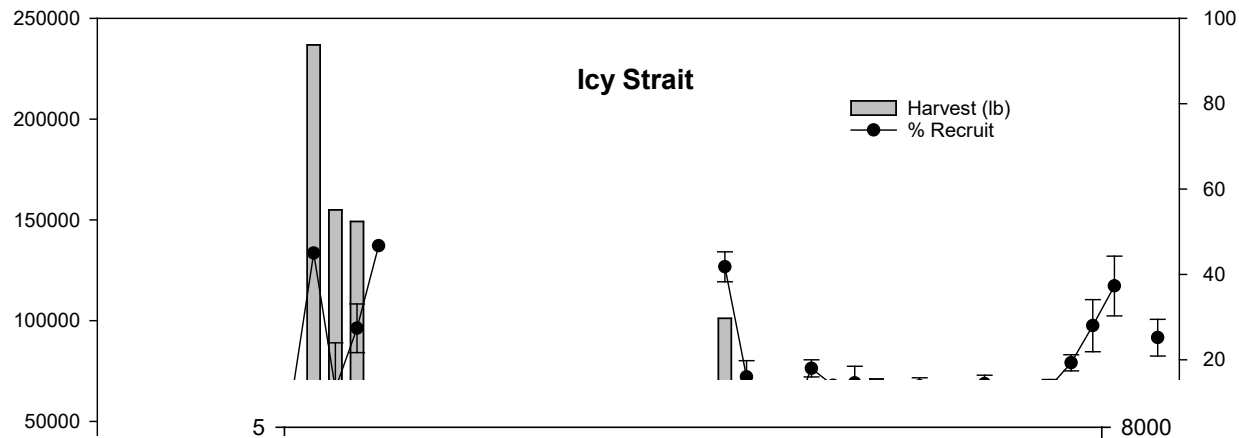
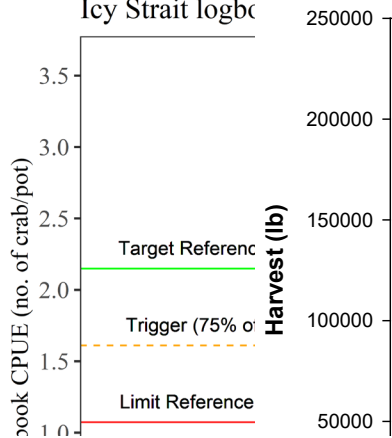






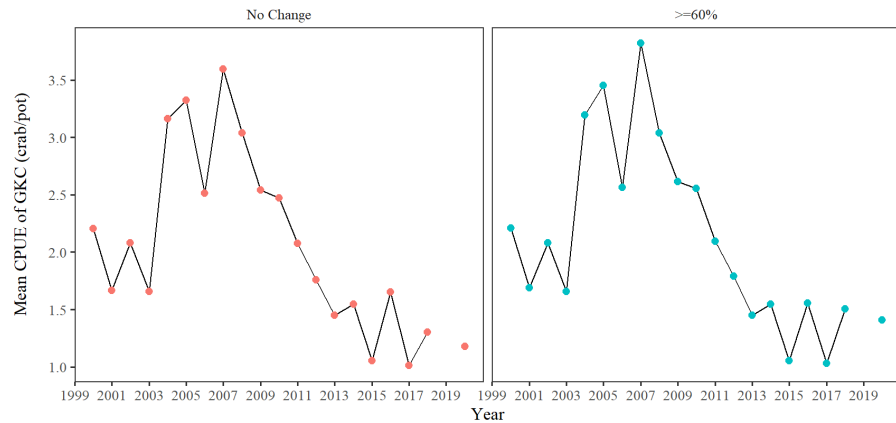


### Icy Strait logbc

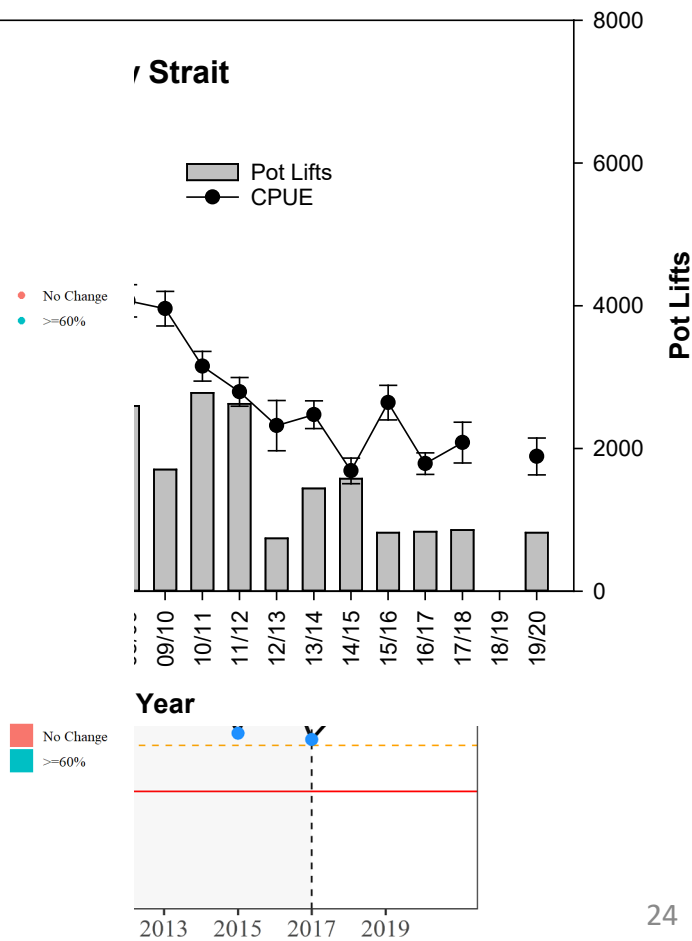


### Icy Strait

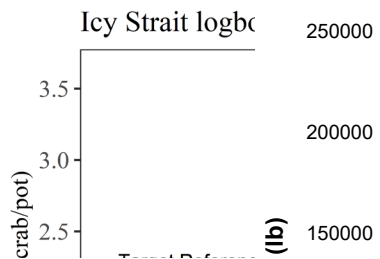
Removing Tanner bycatch based on proportion of harvest from logbooks



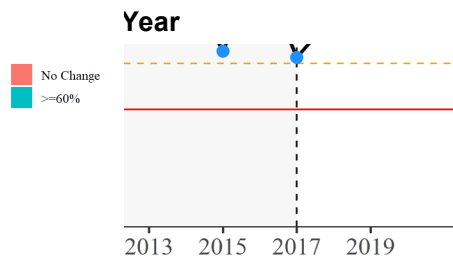
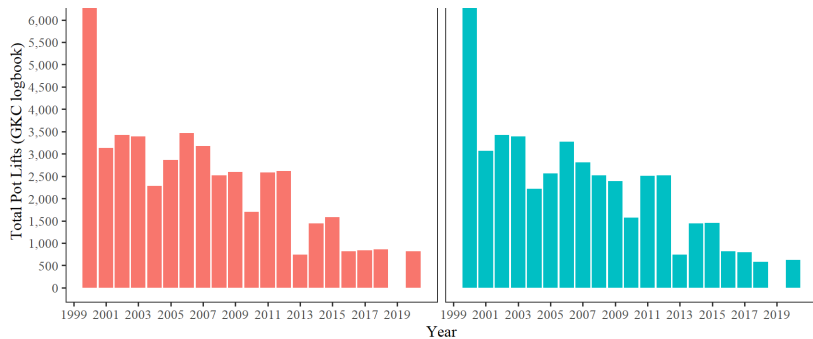
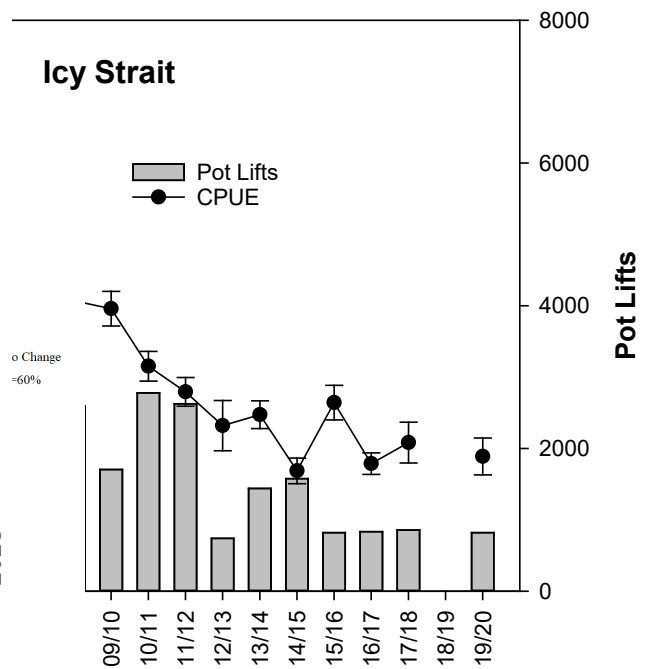
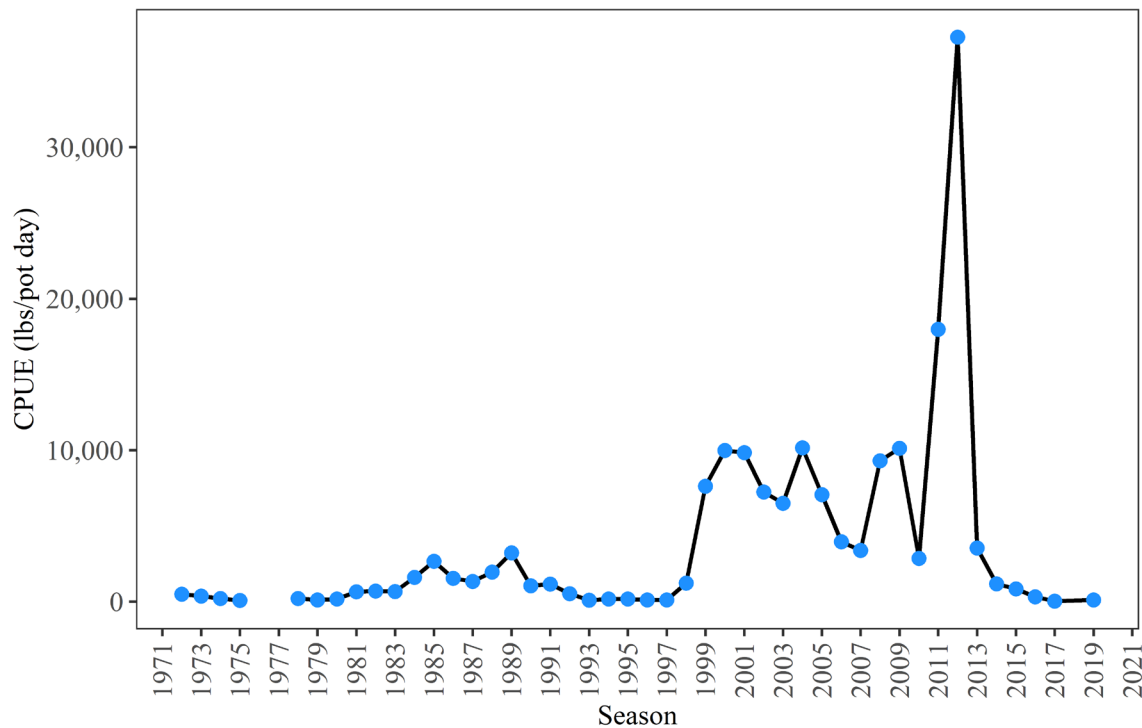
### Icy Strait





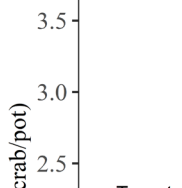


East Central -active fishing season

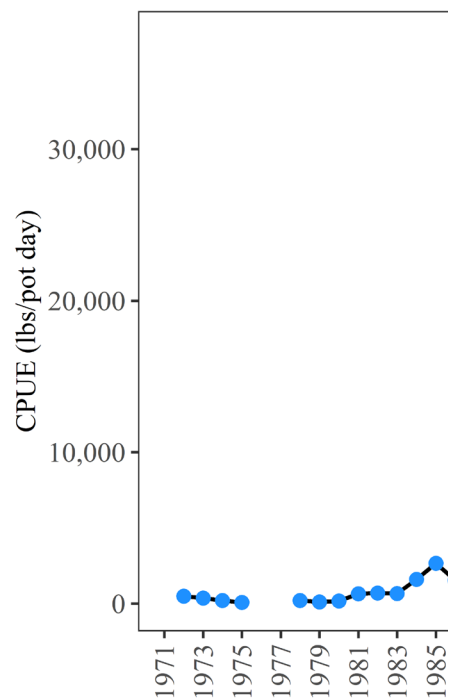




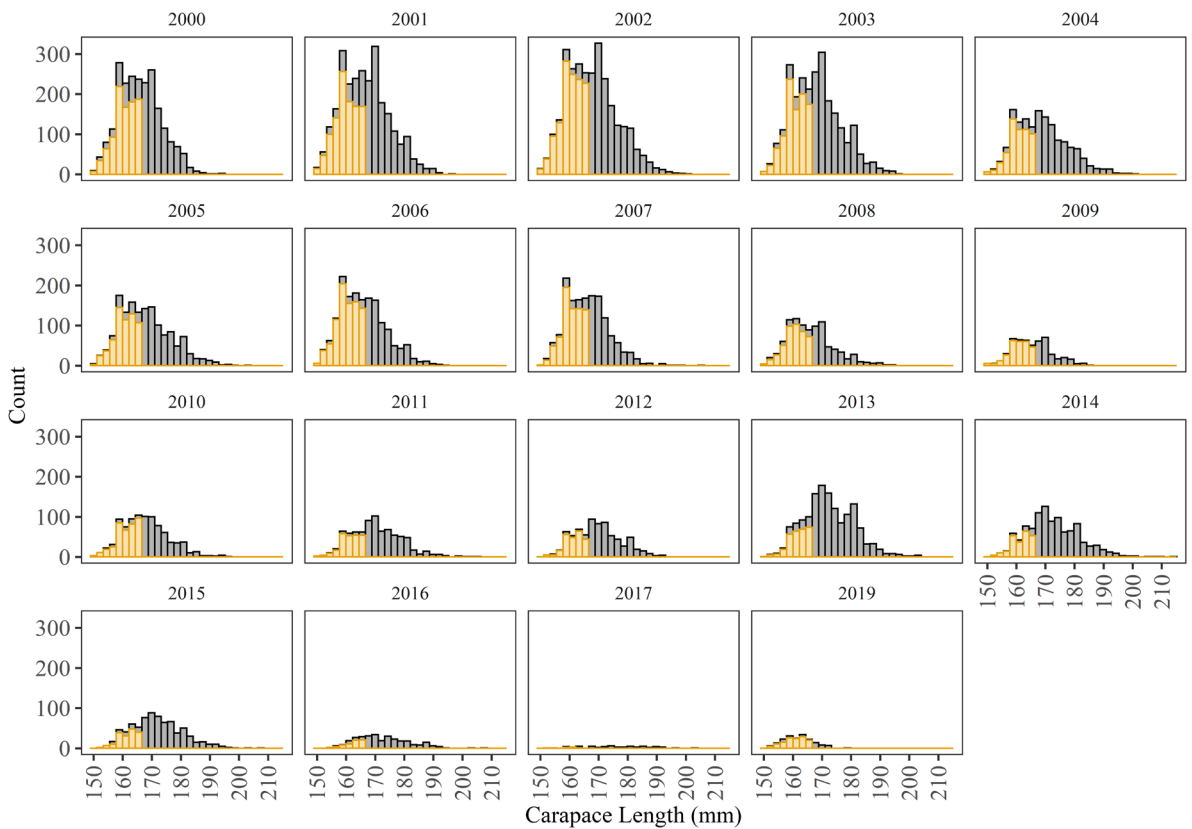
### Icy Strai



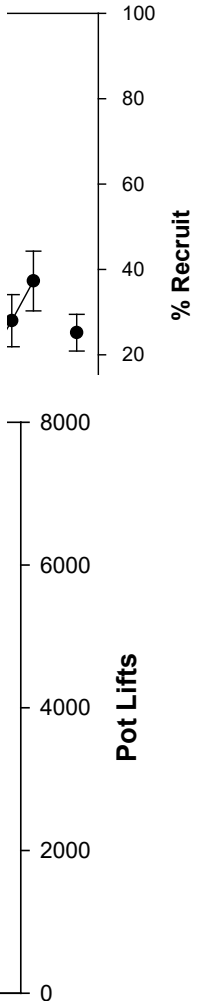
### East Central -active fish



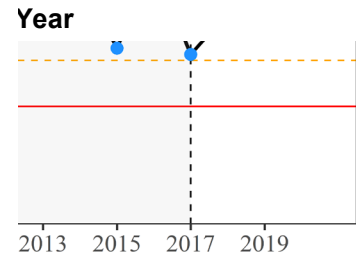
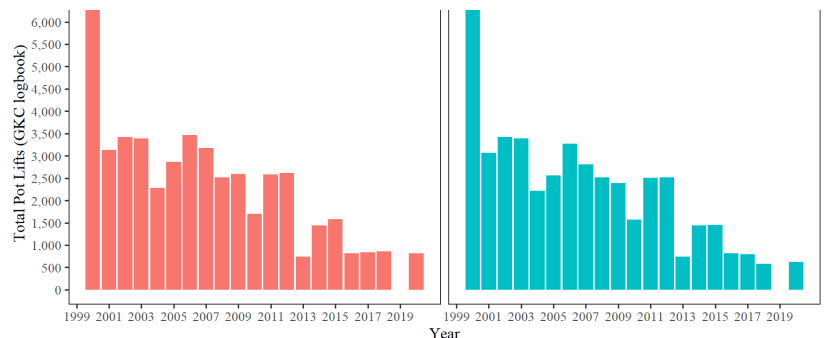
### East Central



Post-Recruit Recruit

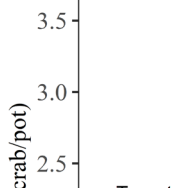


Pot Lifts

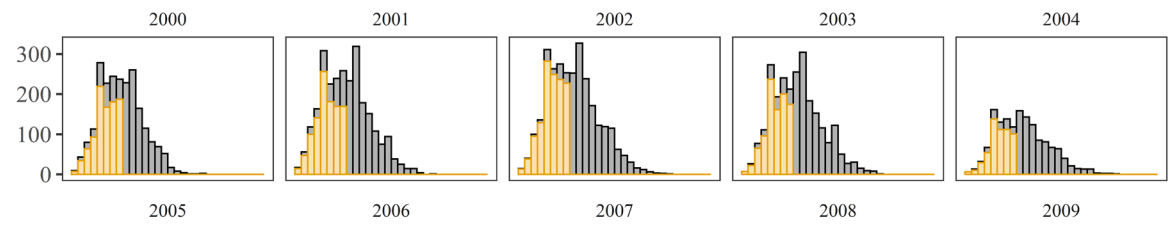




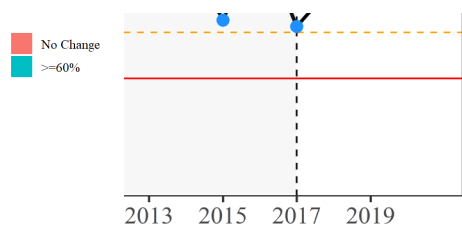
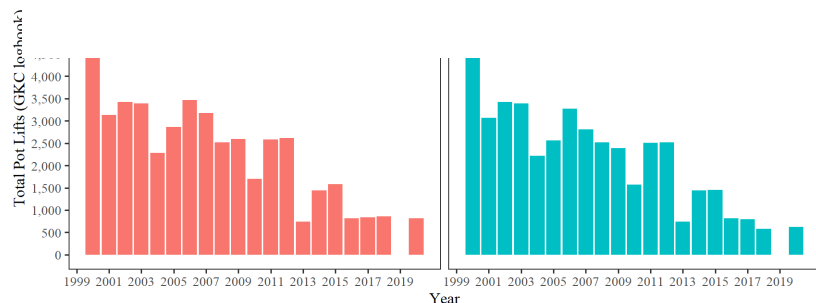
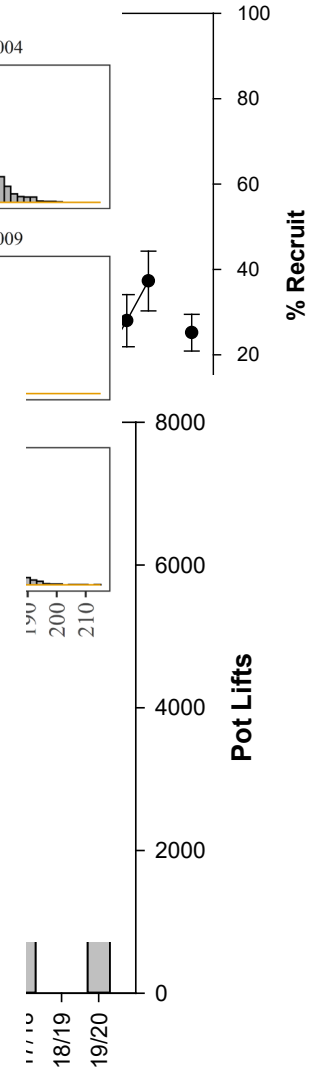
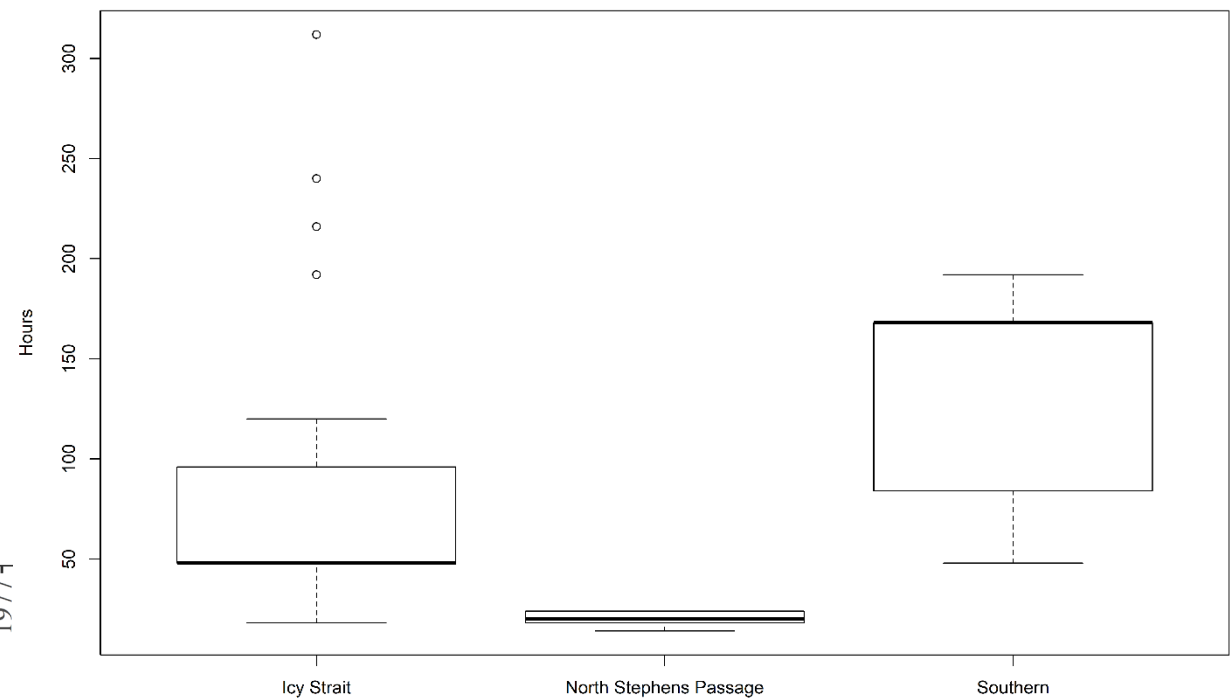
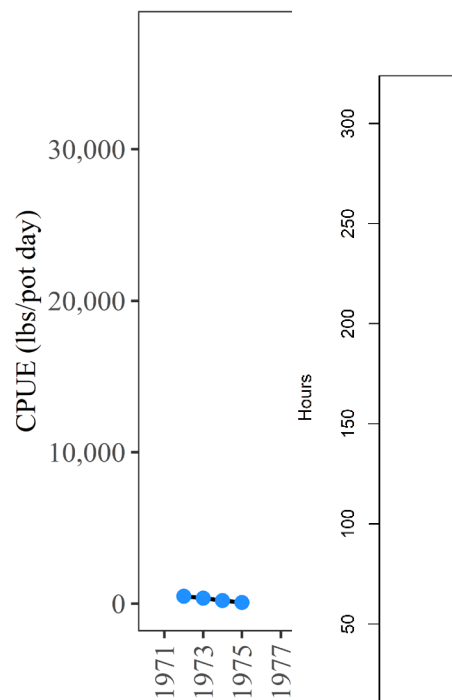
### Icy Strai



### East Central



### East Central -active fish



# 2020/2021 Fishery (cont.)

- After the analysis for these three areas, some potential courses of action include:
  - a. North Stephens Passage GHL increase of 11.5% – 20%.
  - b. Icy Strait GHL to remain the same or a reduction of 13% - 33%.
  - c. Southern GHL reduction of 7% - 20%.

# 2020/2021 Fishery (cont.)

- For those areas not open last season (Lower Chatham, Mid-Chatham, Northern, and East Central):
  - a. All four of these areas will open in 2021.
  - b. The decision rules in the current harvest strategy would reopen all these areas at 7,500 lb each.
  - c. However, the management team discussed other potential reopening amounts such as 10,000 lb.
  - d. The team also discussed the reopening GHL as a function of the top end of the GHR (i.e. reopen at a % of the top end of the GHR) or reopen for some amount based on the last GHL fished.



QUESTIONS?