

ADF&G STAFF PRESENTATION

King and Tanner Task Force – December 2020

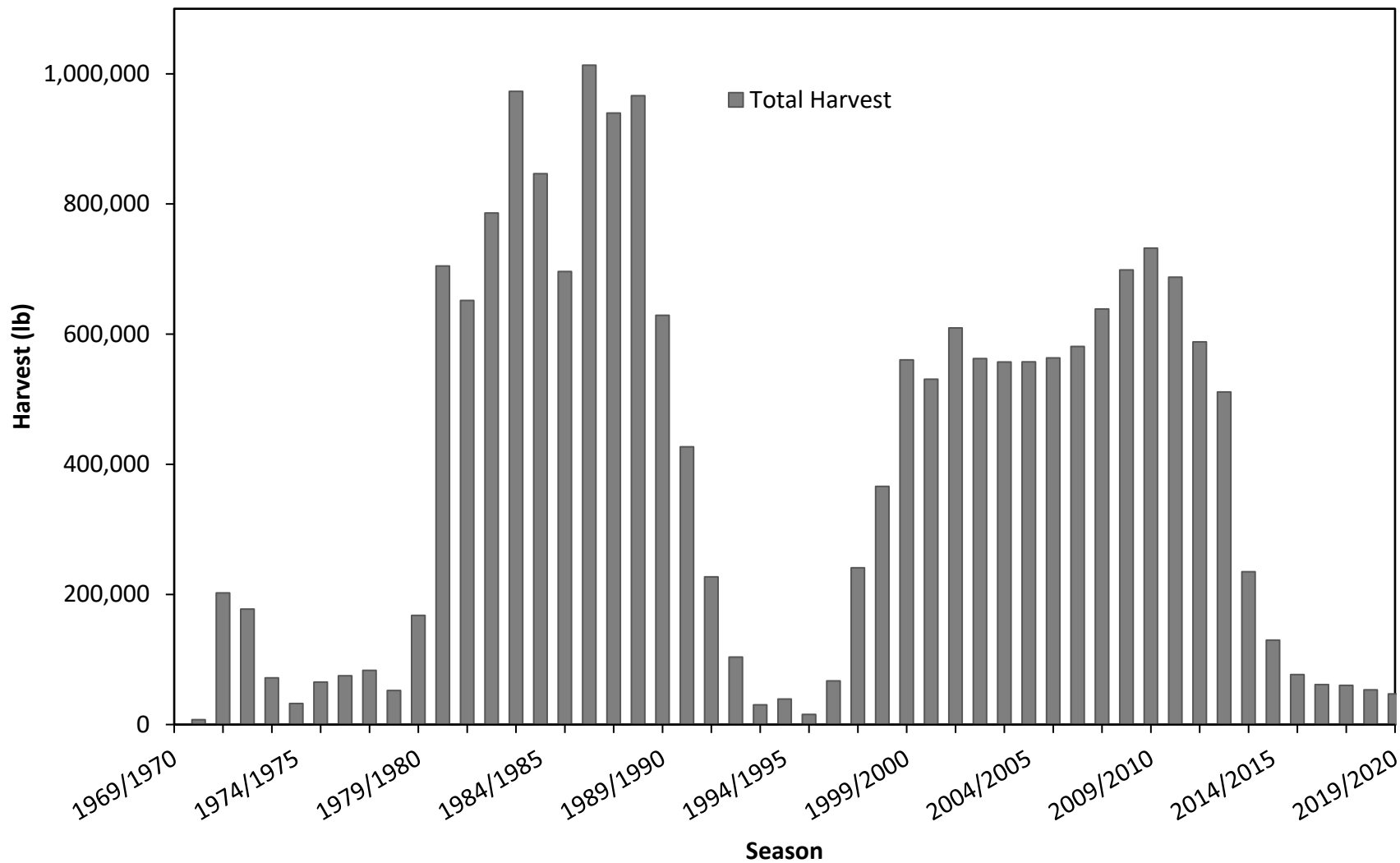


Golden King Crab Commercial Fisheries

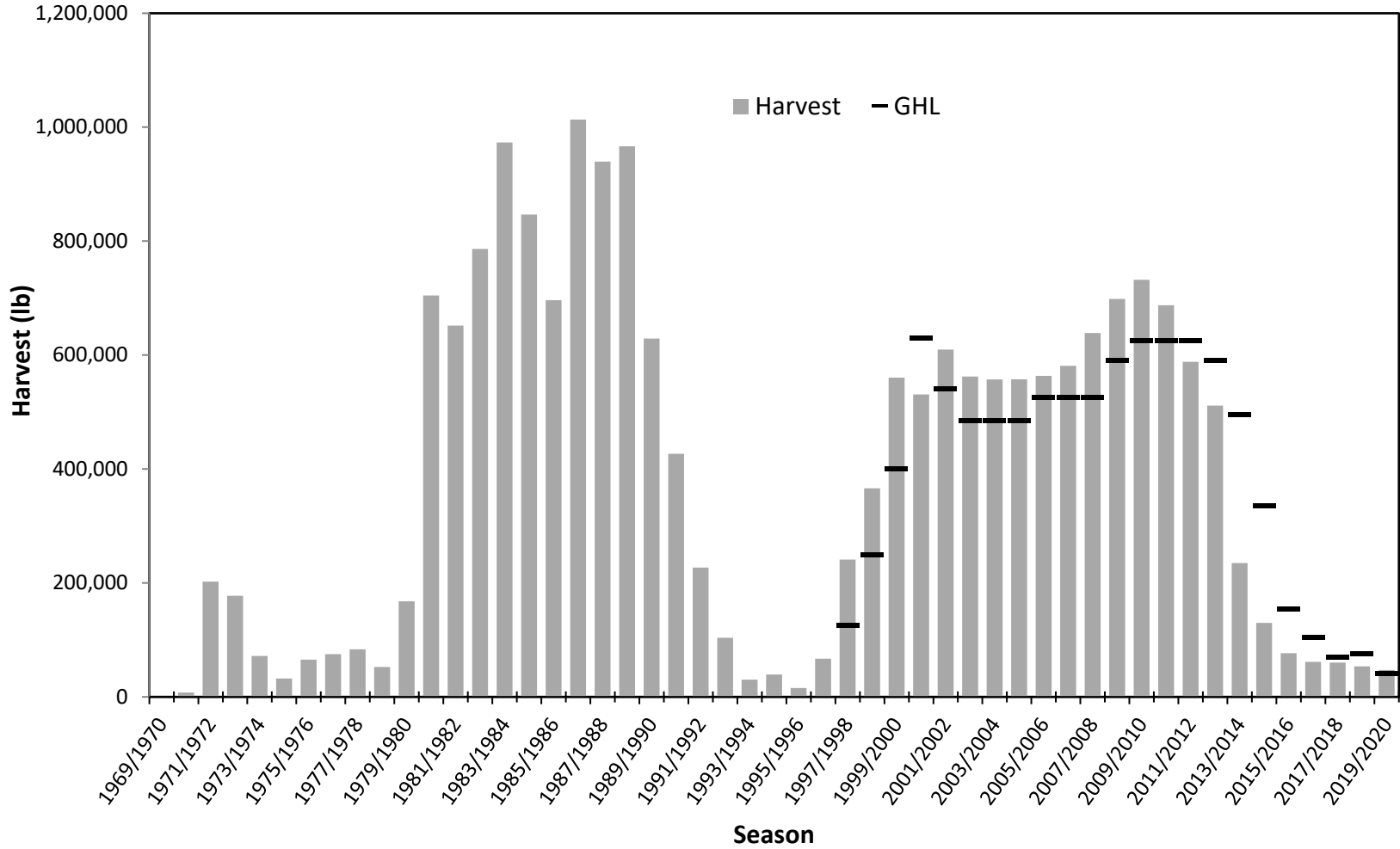
Joe Stratman, Lead Crab Biologist

Division of Commercial Fisheries, Southeast Region

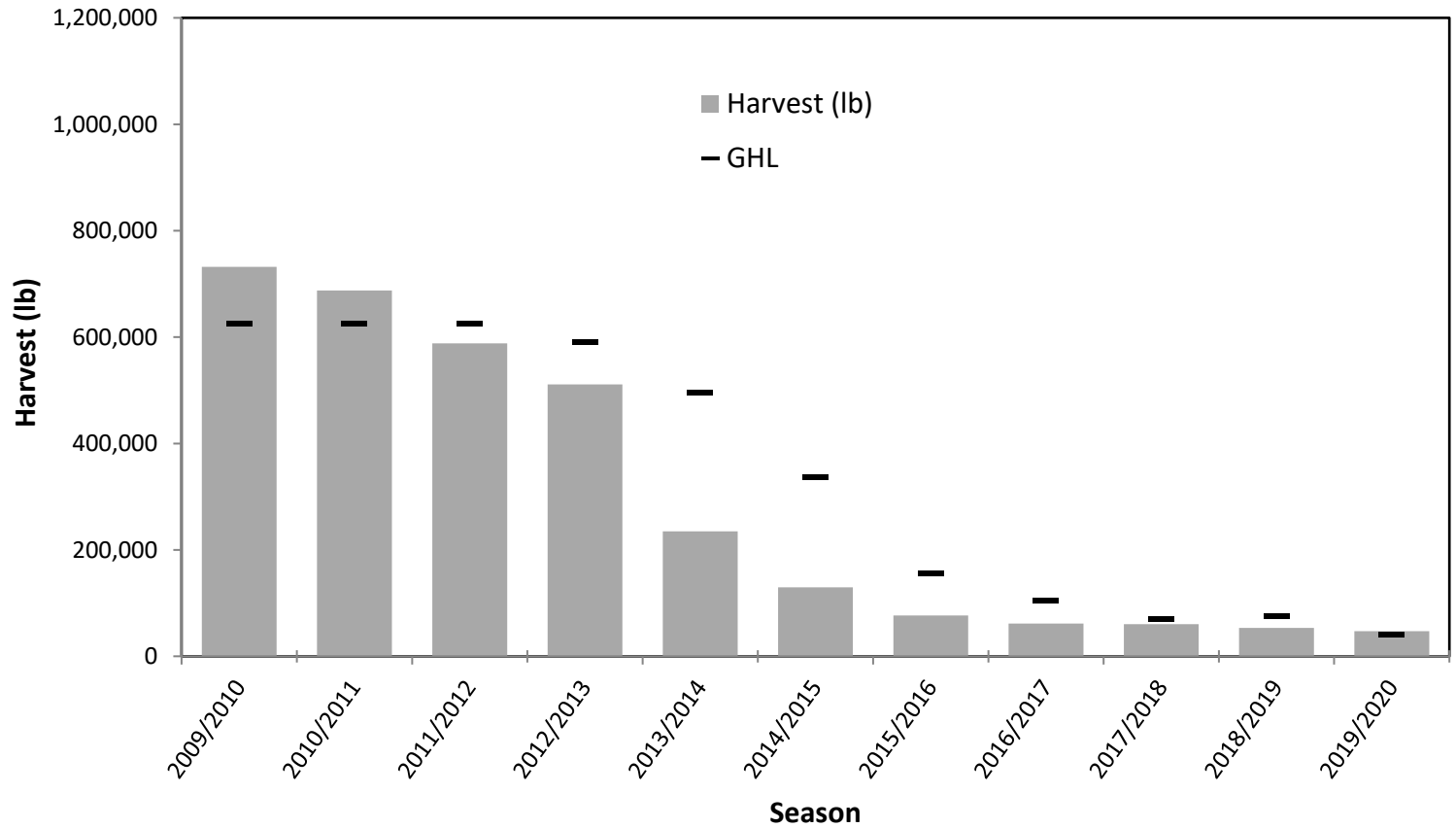
GKC Harvest and Average CPUE by Season



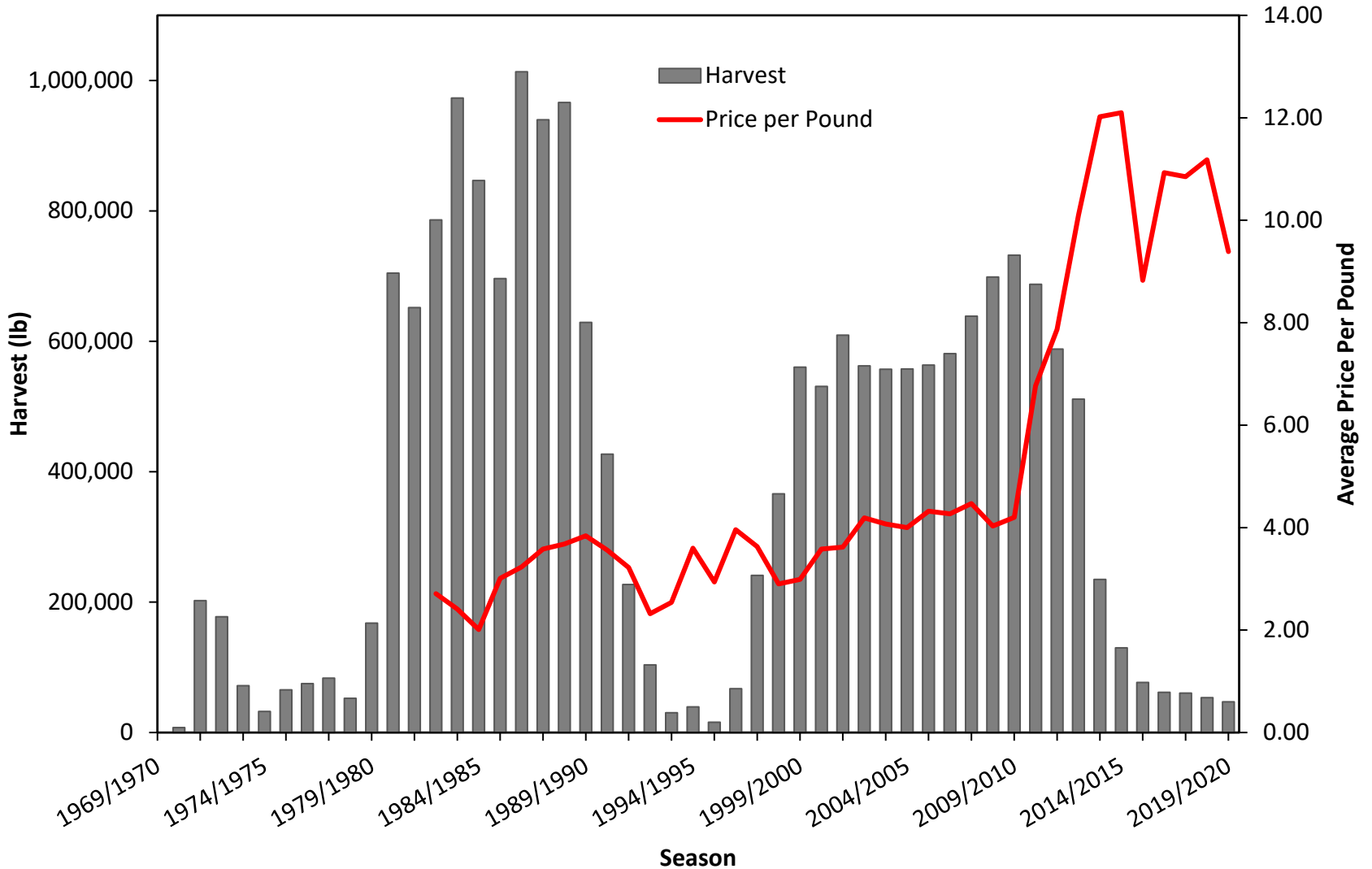
GKC Harvest and GHs by Season

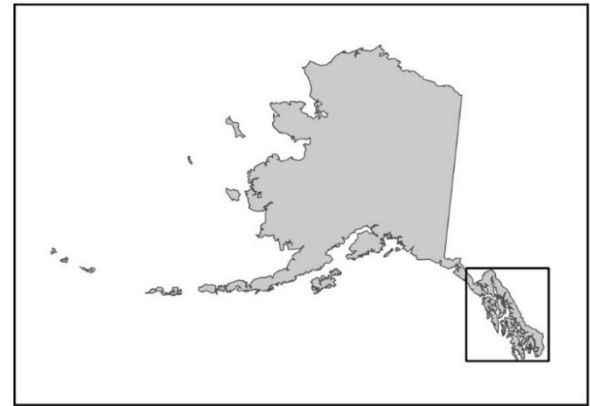
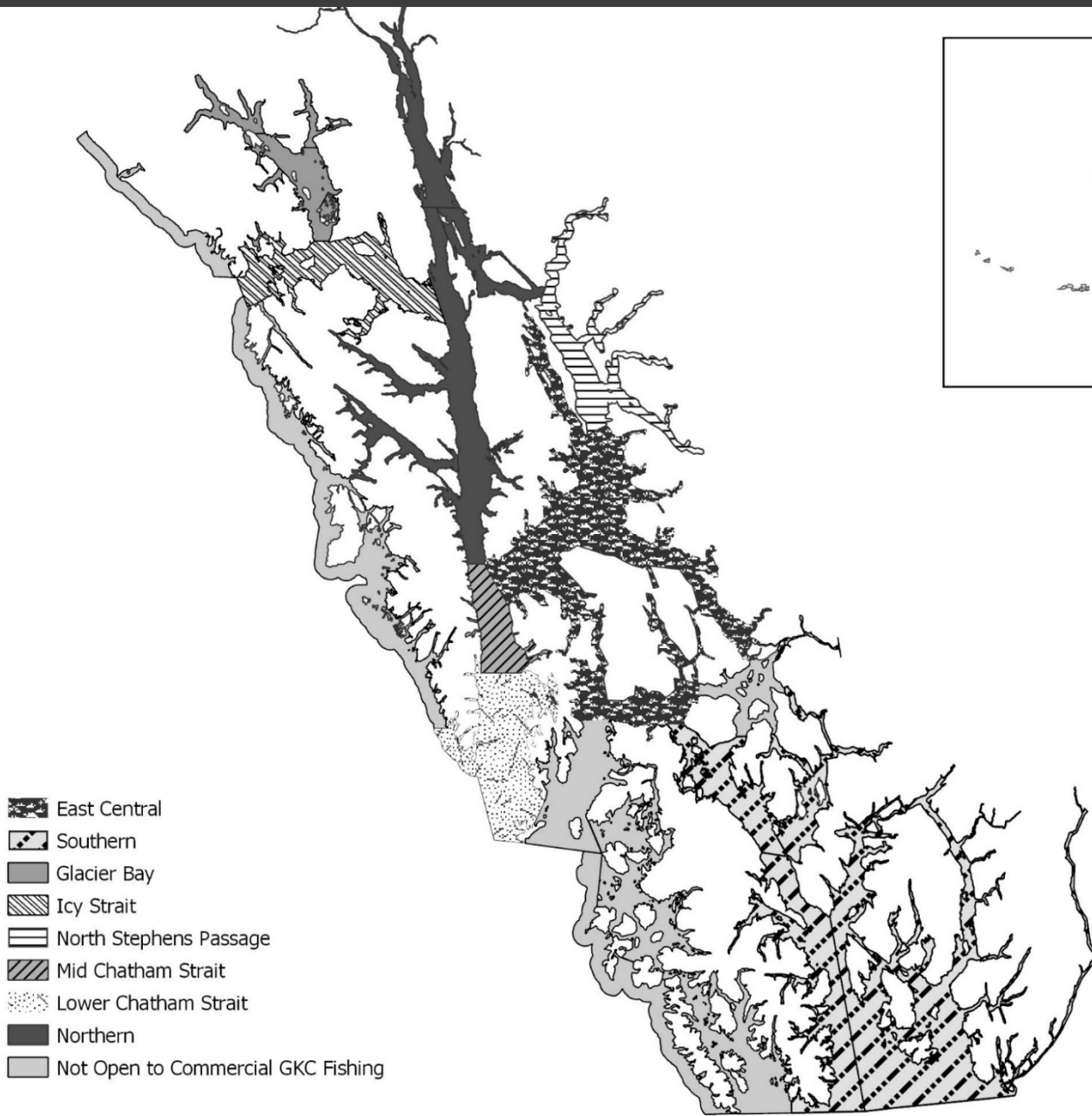


GKC Harvest and GHs by Season



GKC Harvest and Average Price Per Pound by Season





Summary – GHL Review

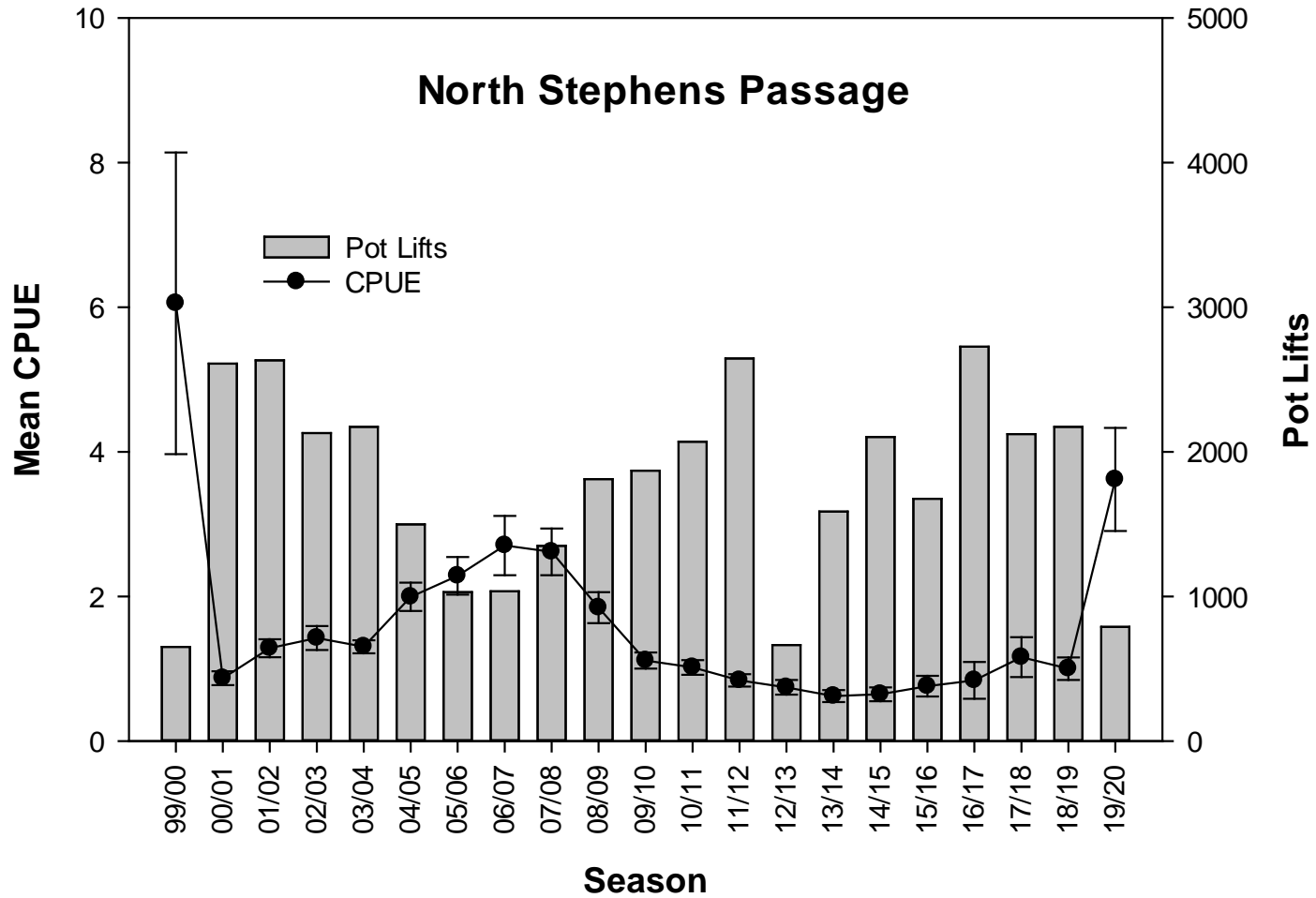
- GHL recommendations are made annually employing a precautionary approach to minimize the risk of recruitment failure.
- Three reasons for this approach:
 - 1) Recent fishery performance has been poor.
 - 2) Data poor fishery with no fishery independent stock assessment program.
 - 3) Golden king crabs 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

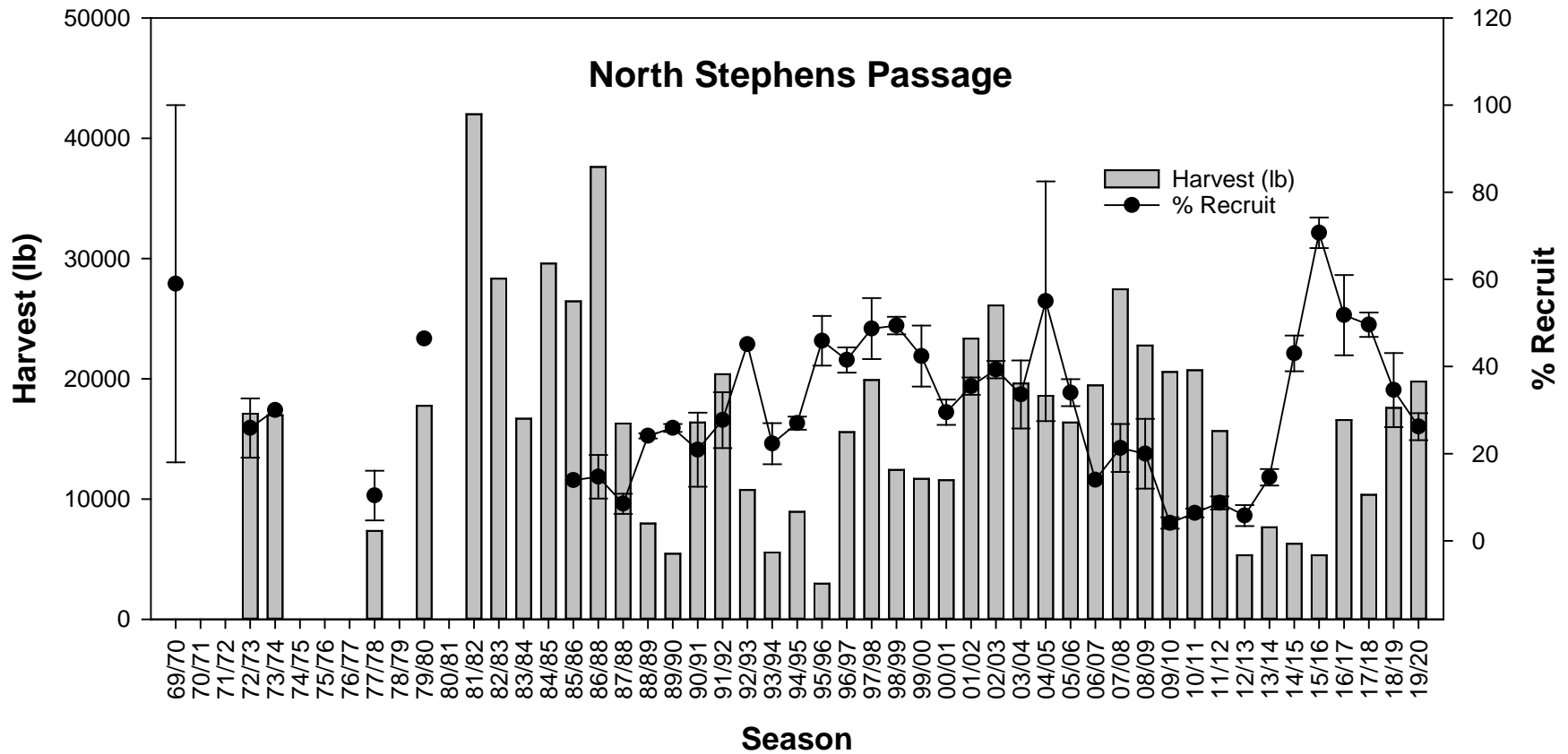
- All data currently available to assess GKC in Southeast Alaska are fishery dependent:
 - 1) Commercial CPUE - fish ticket and logbook. Logbooks have been used in the fishery since 2000.
 - 2) Dockside sampling percentage of recruit and post-recruit class crab (from the early 1970s to present).
 - 3)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



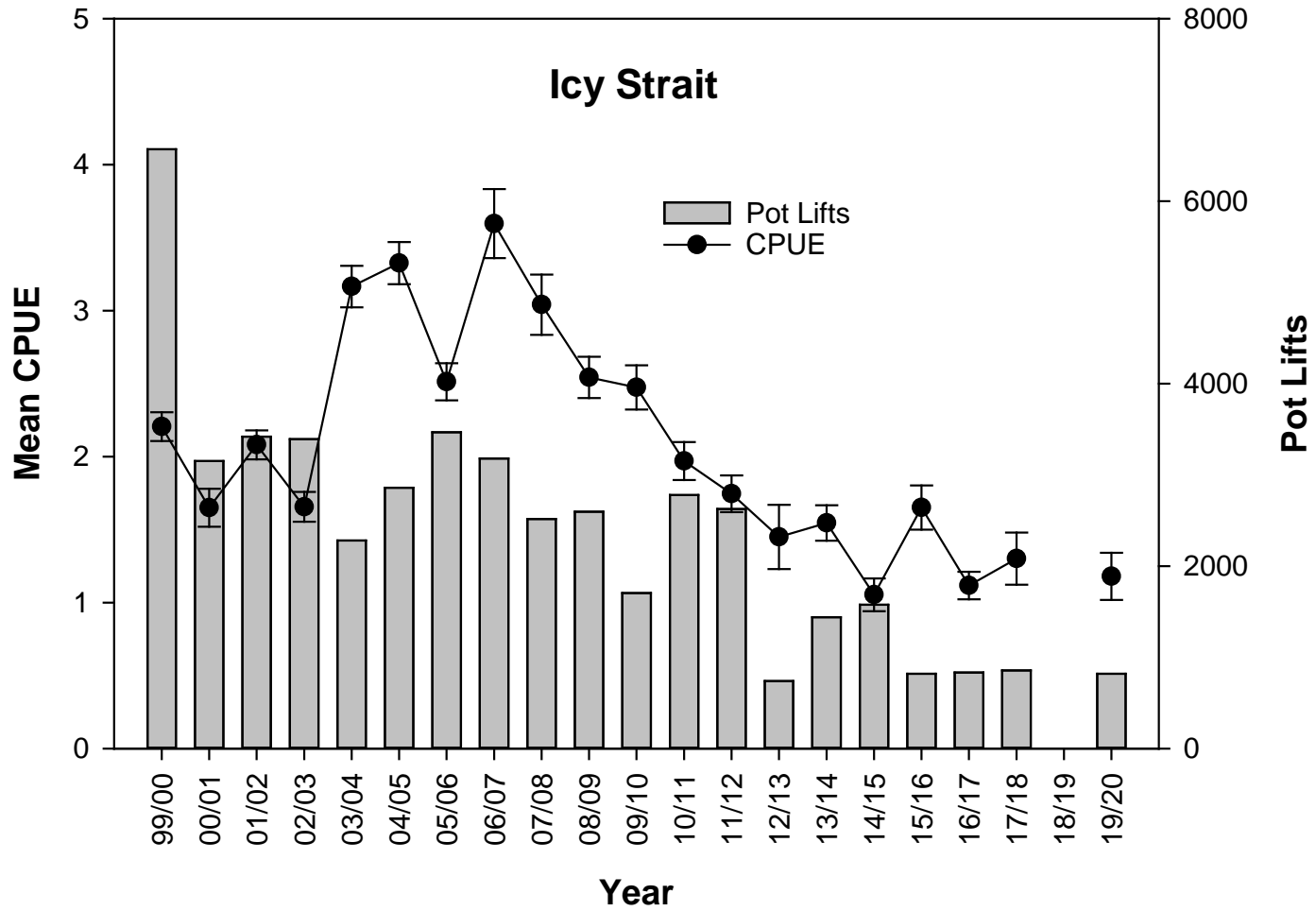
The average CPUE this season was 3.6 crab per pot.



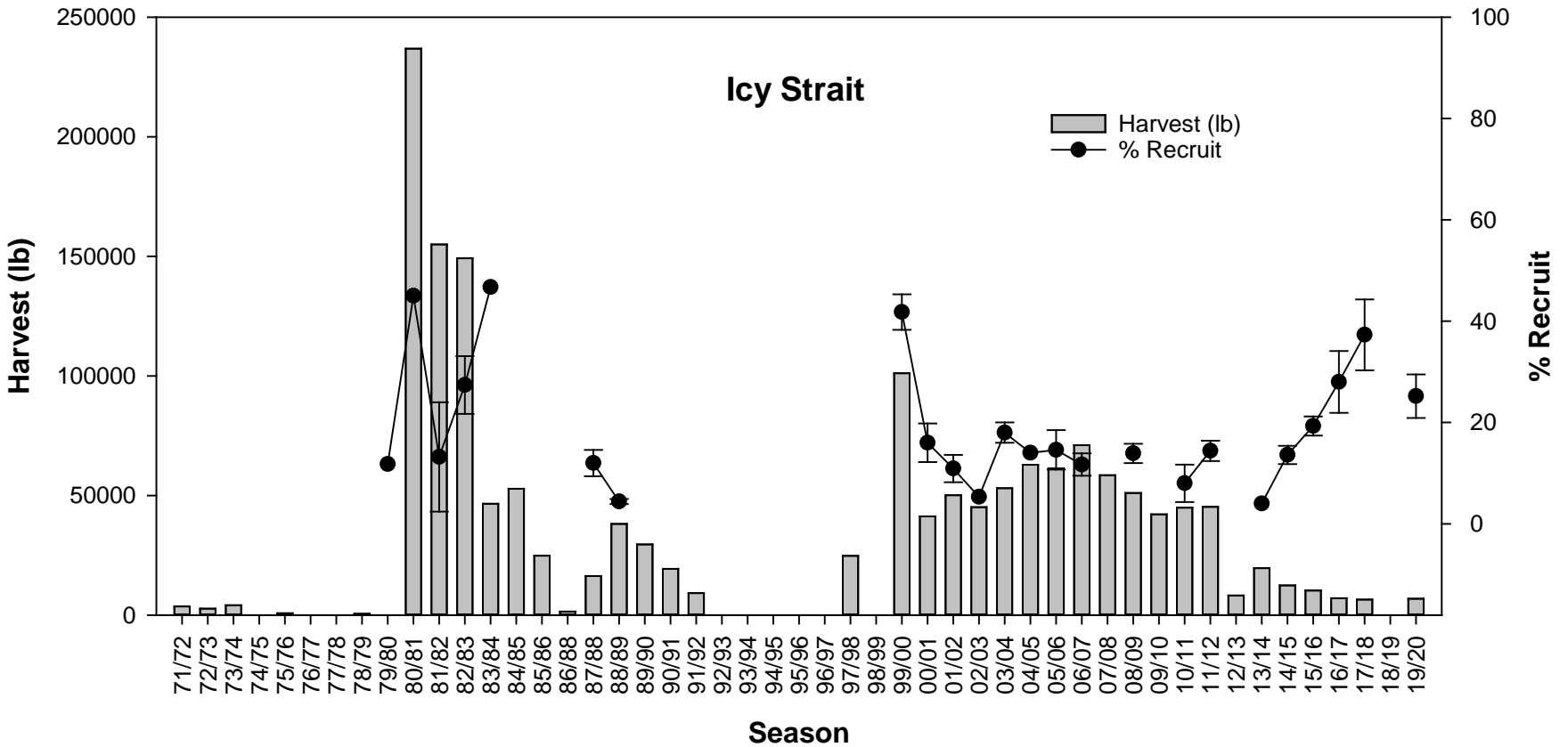
Harvest this season was 19,769 lb and % recruit has been trending down since 2016.

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.



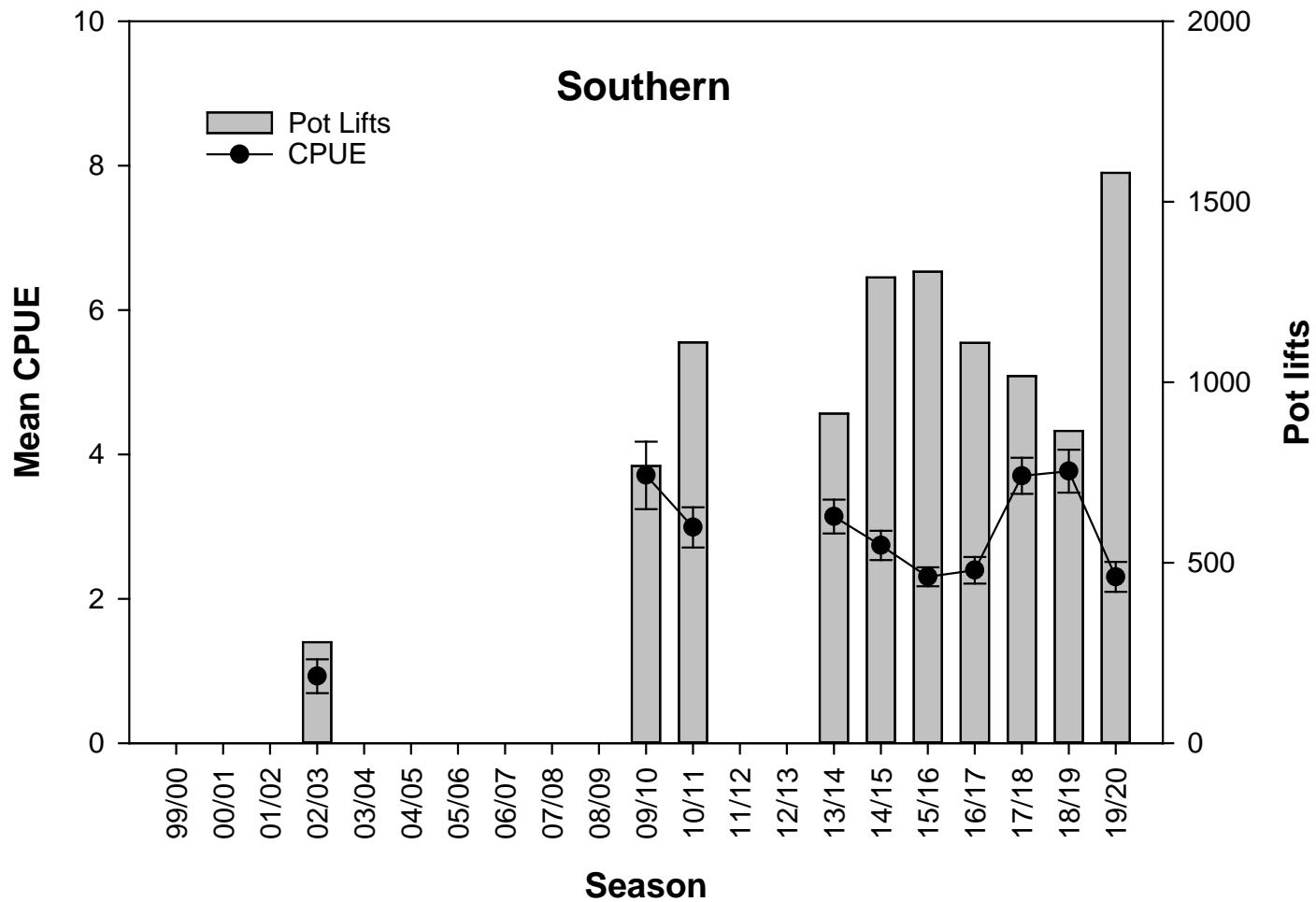
The average CPUE this season was 1.2 crab/pot.



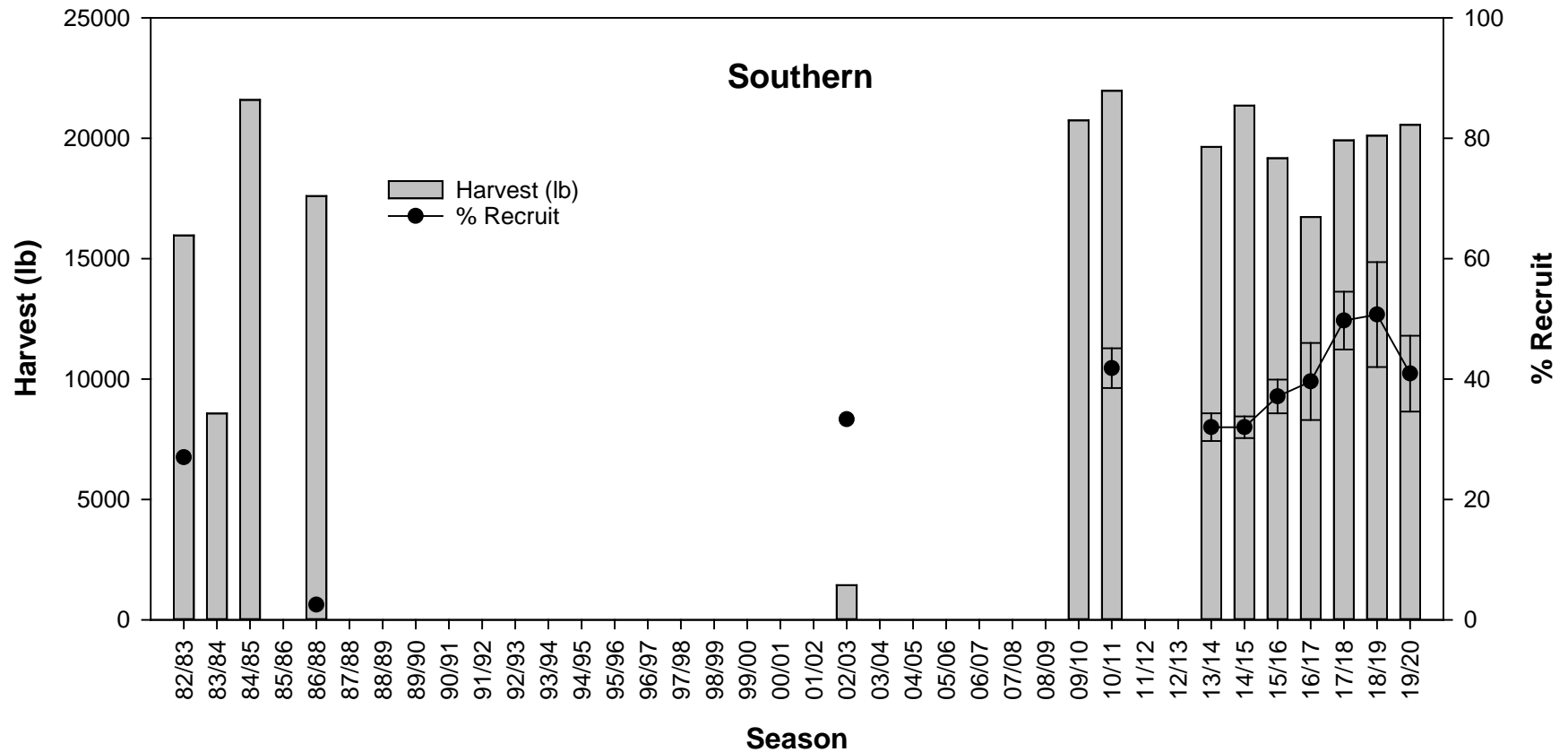
Harvest was 6,833 lb and % recruit was 25%, slightly above the historical average.

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.

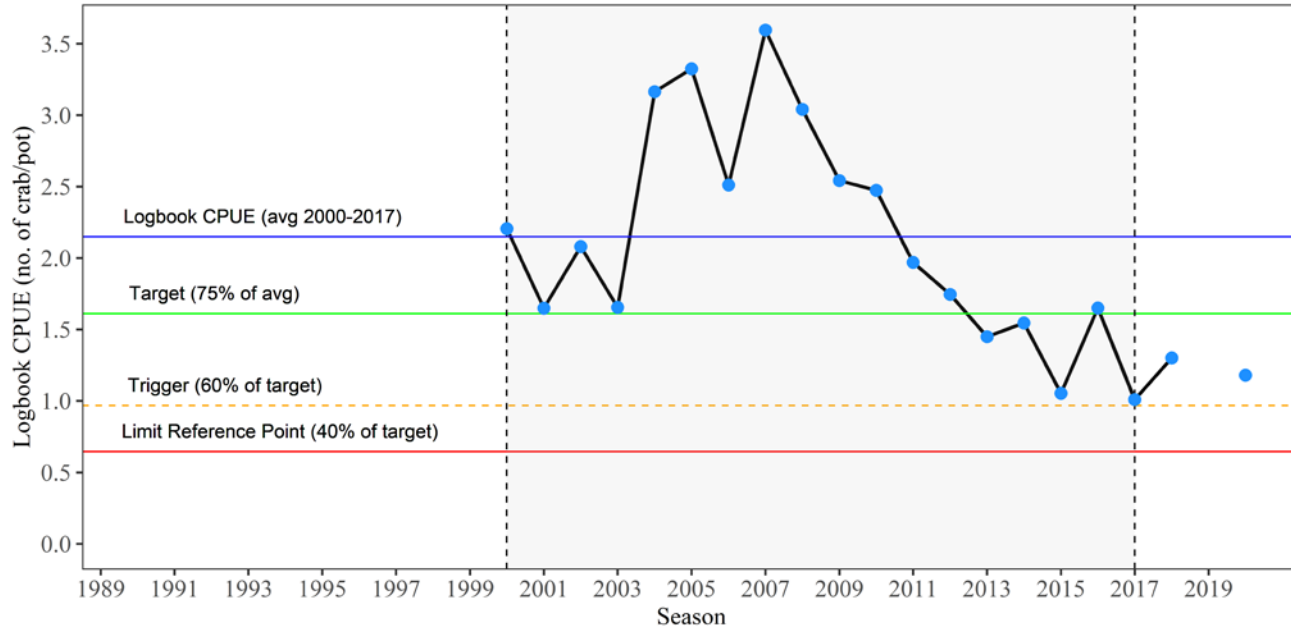
2020/2021 Fishery (cont.)

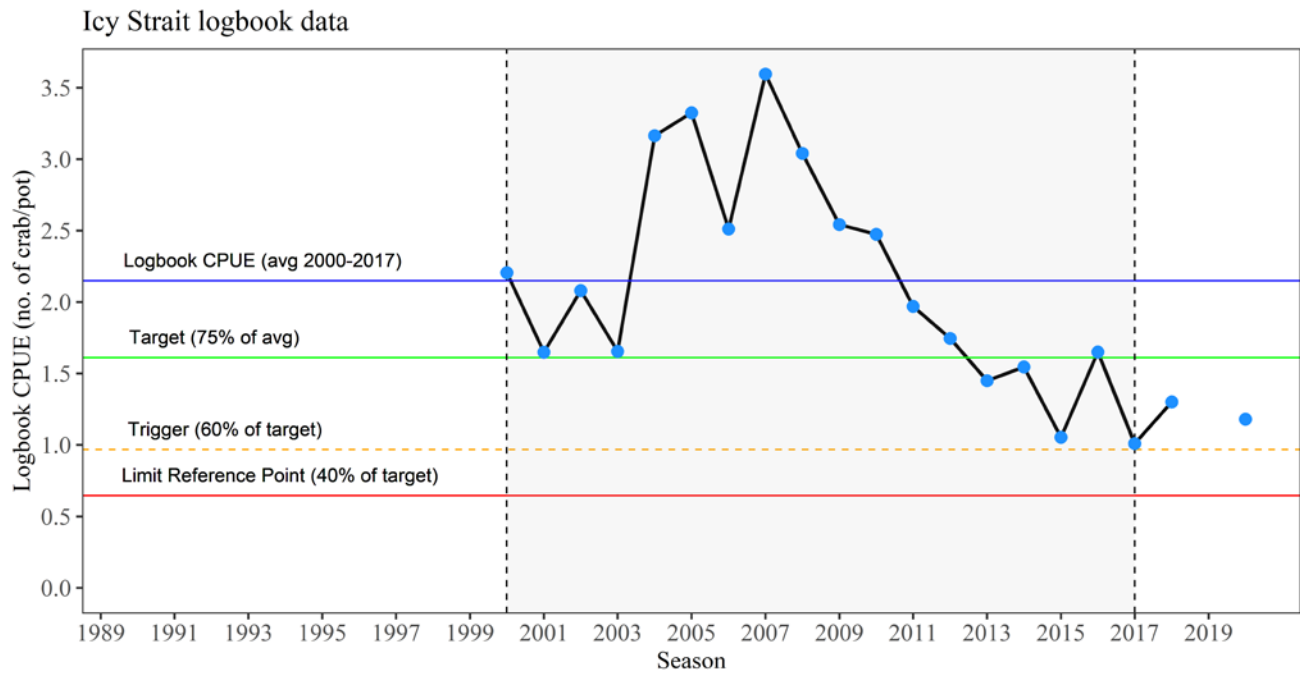
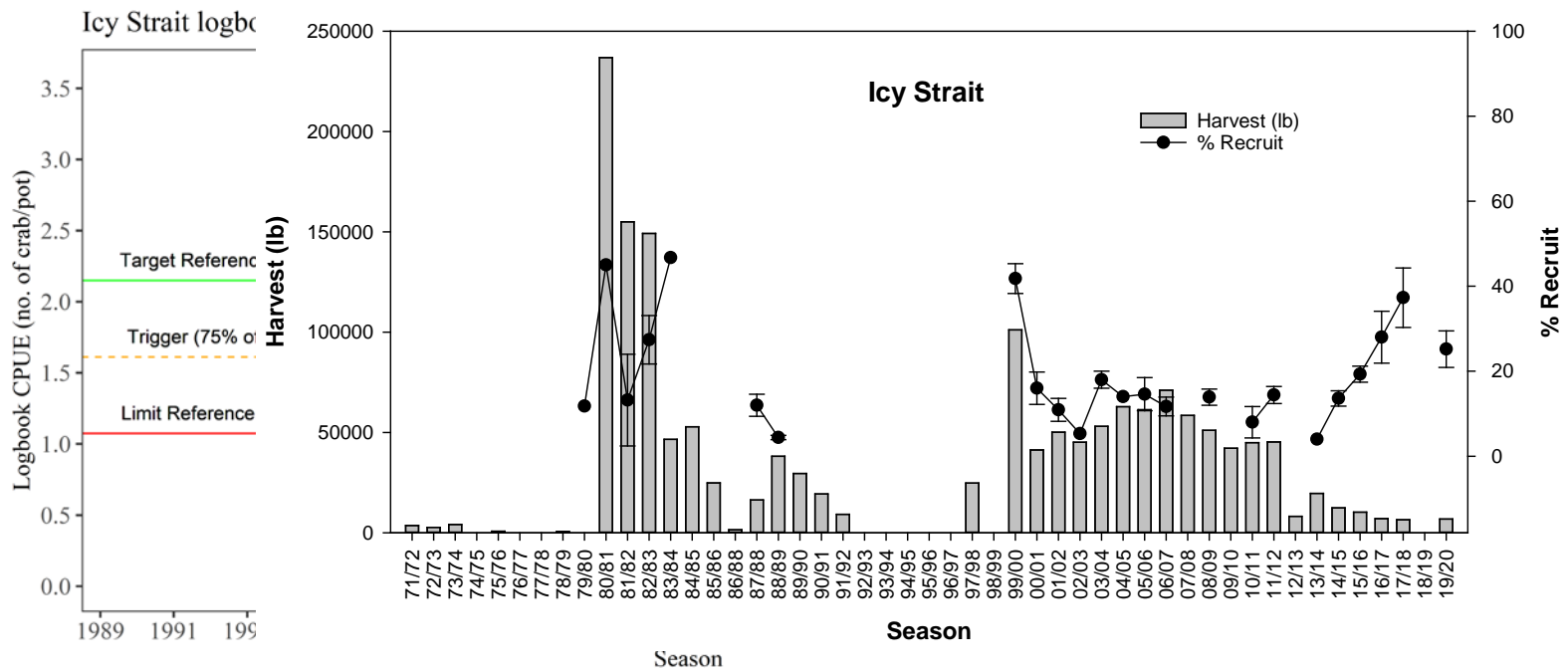
- For each, we reviewed postseason decision rules from the harvest strategy in its current form (i.e. target, trigger @ 75%, and limit @ 50%).
- We compared that to an industry proposed recommendation of lowering the reference points down to a target of 75% of avg., trigger @ 60%, and limit @ 40%.
-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

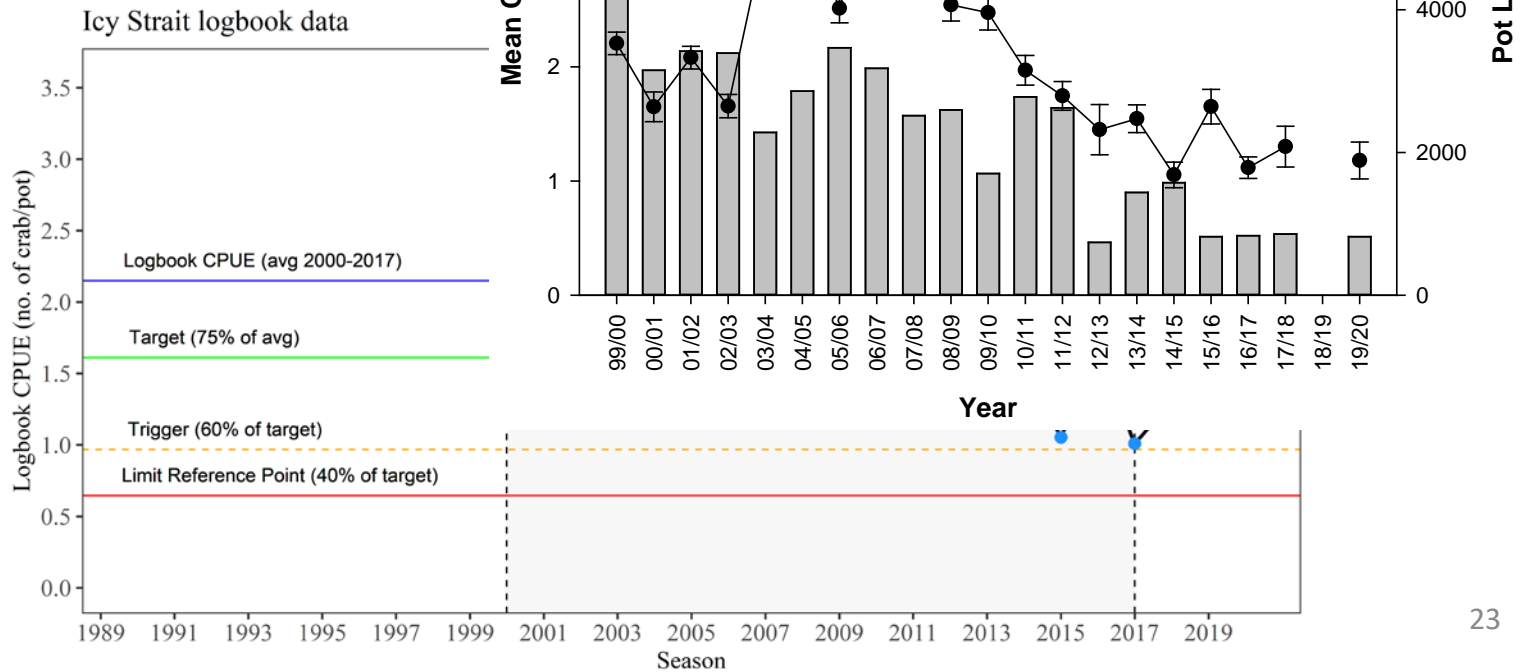
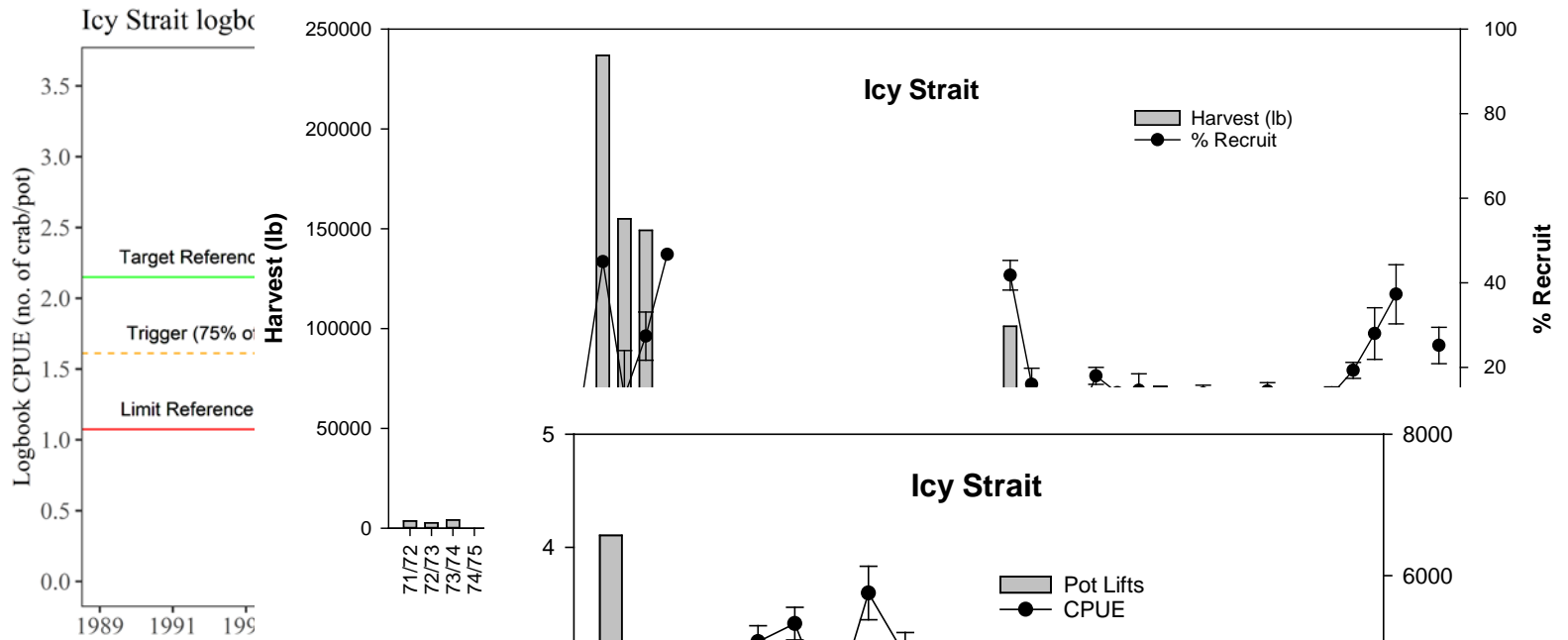
Icy Strait logbook data

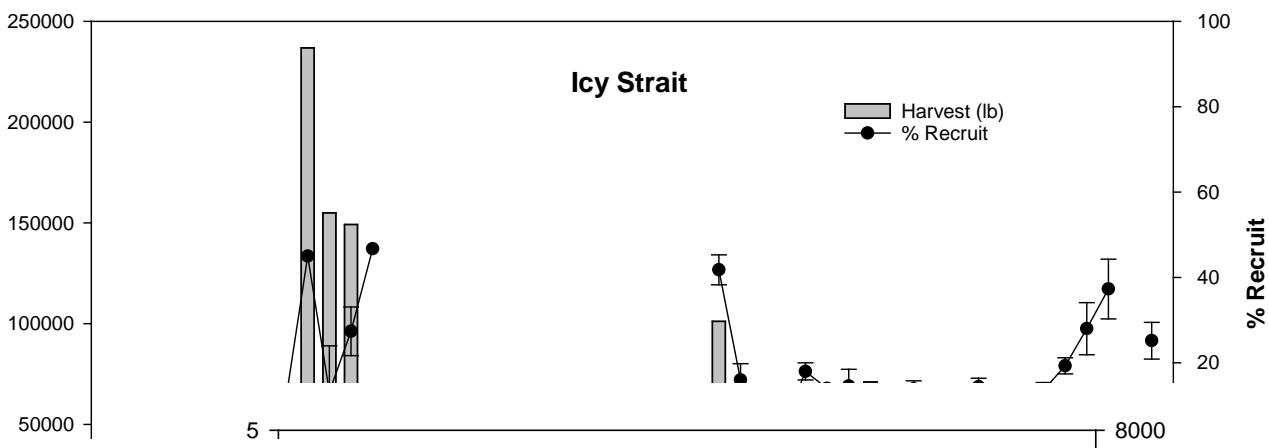
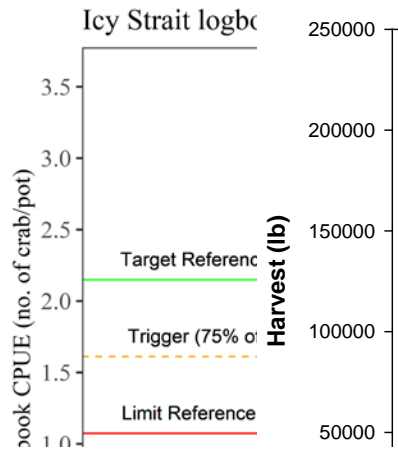


Icy Strait logbook data

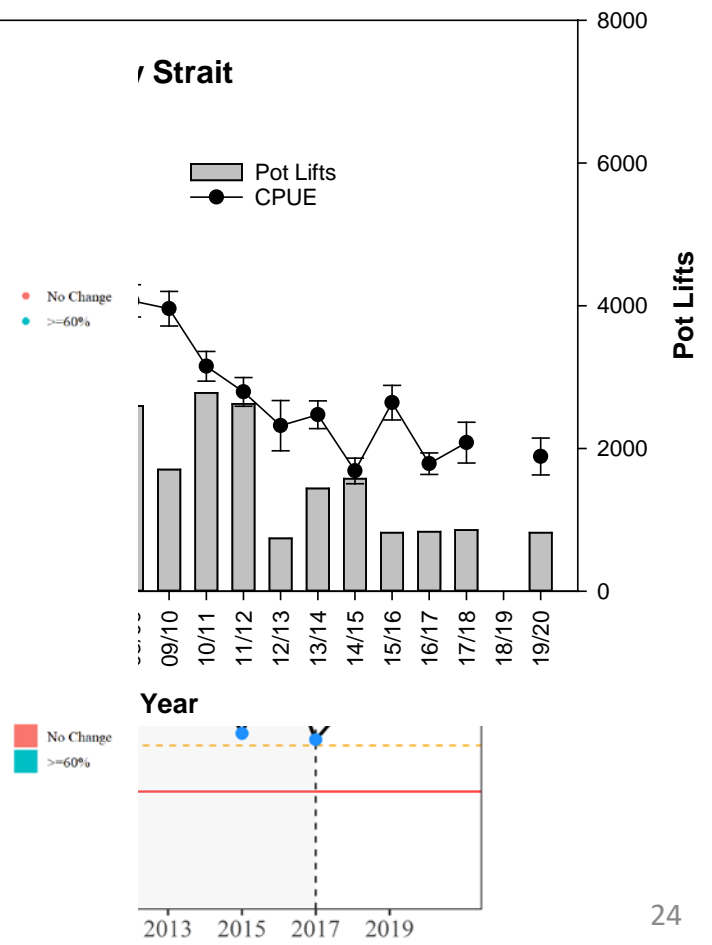
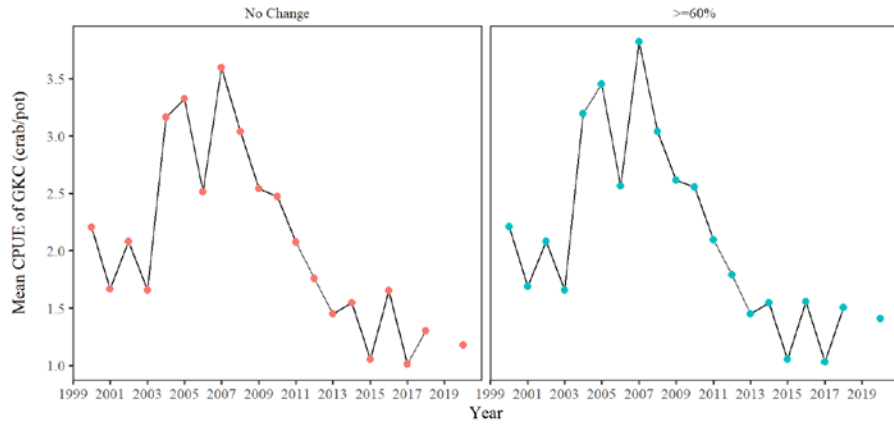


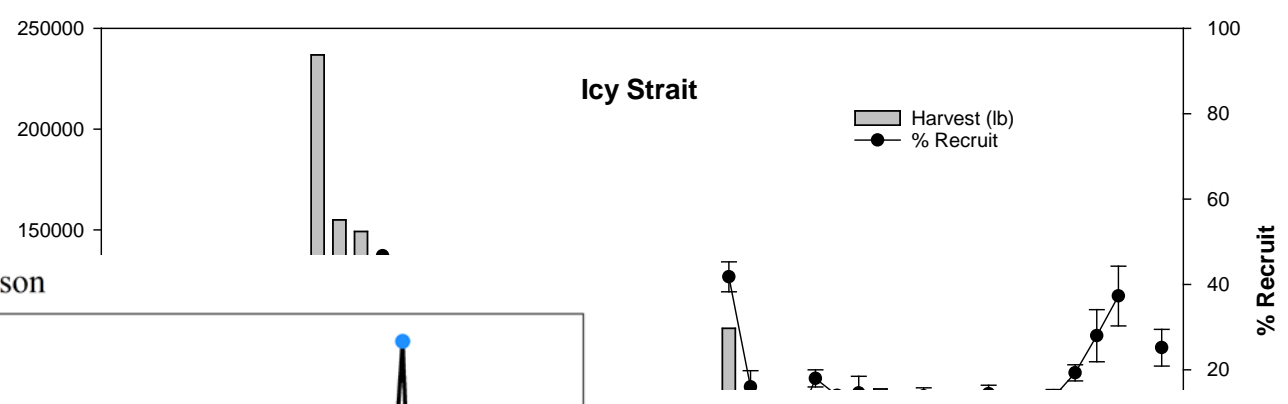
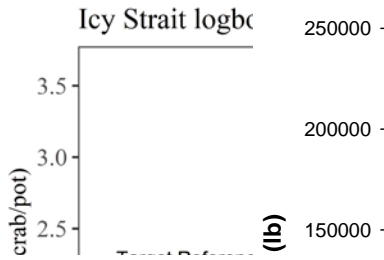




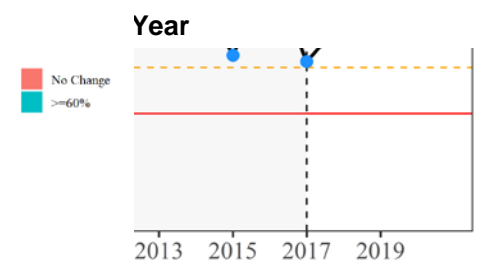
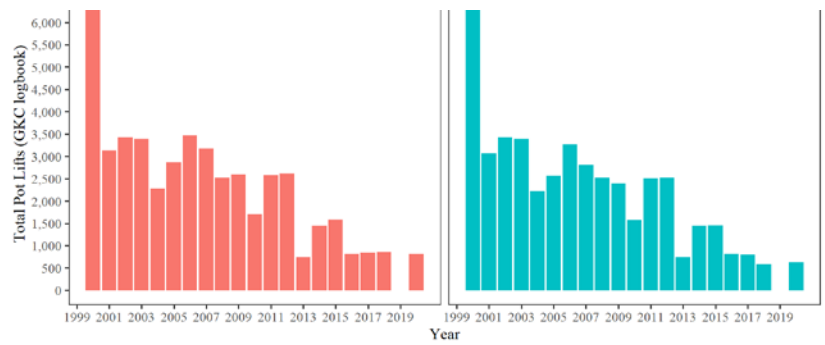
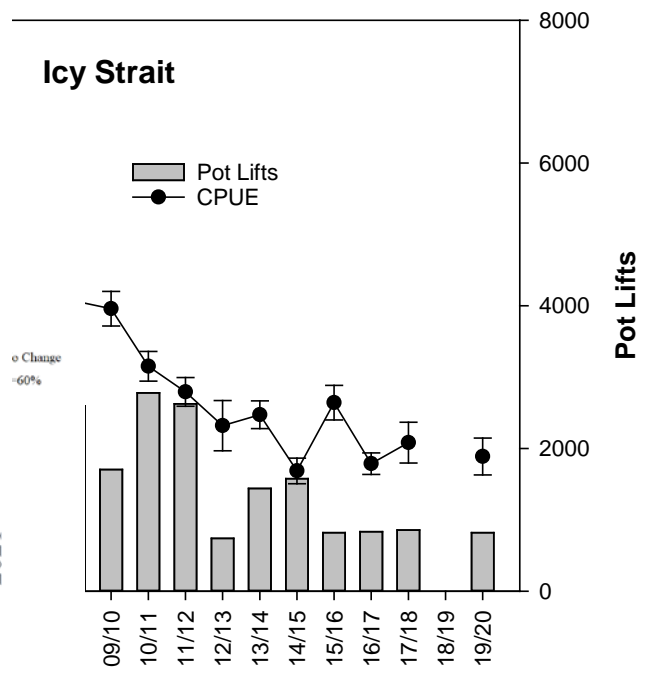
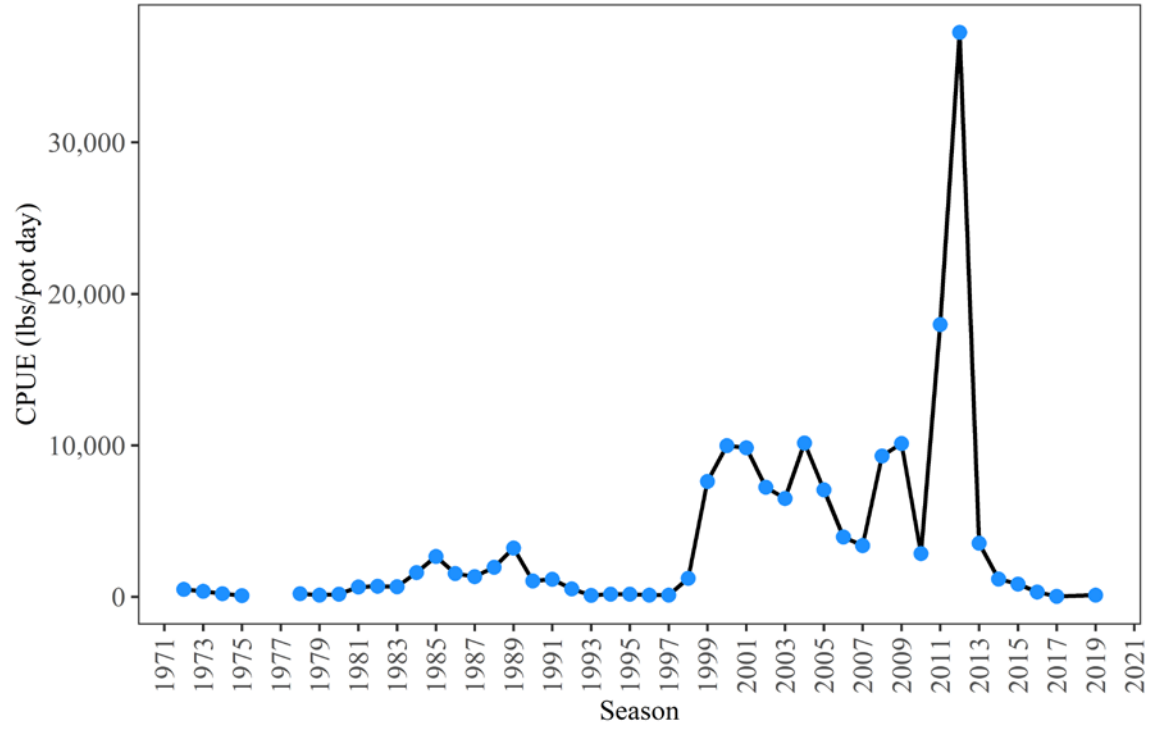


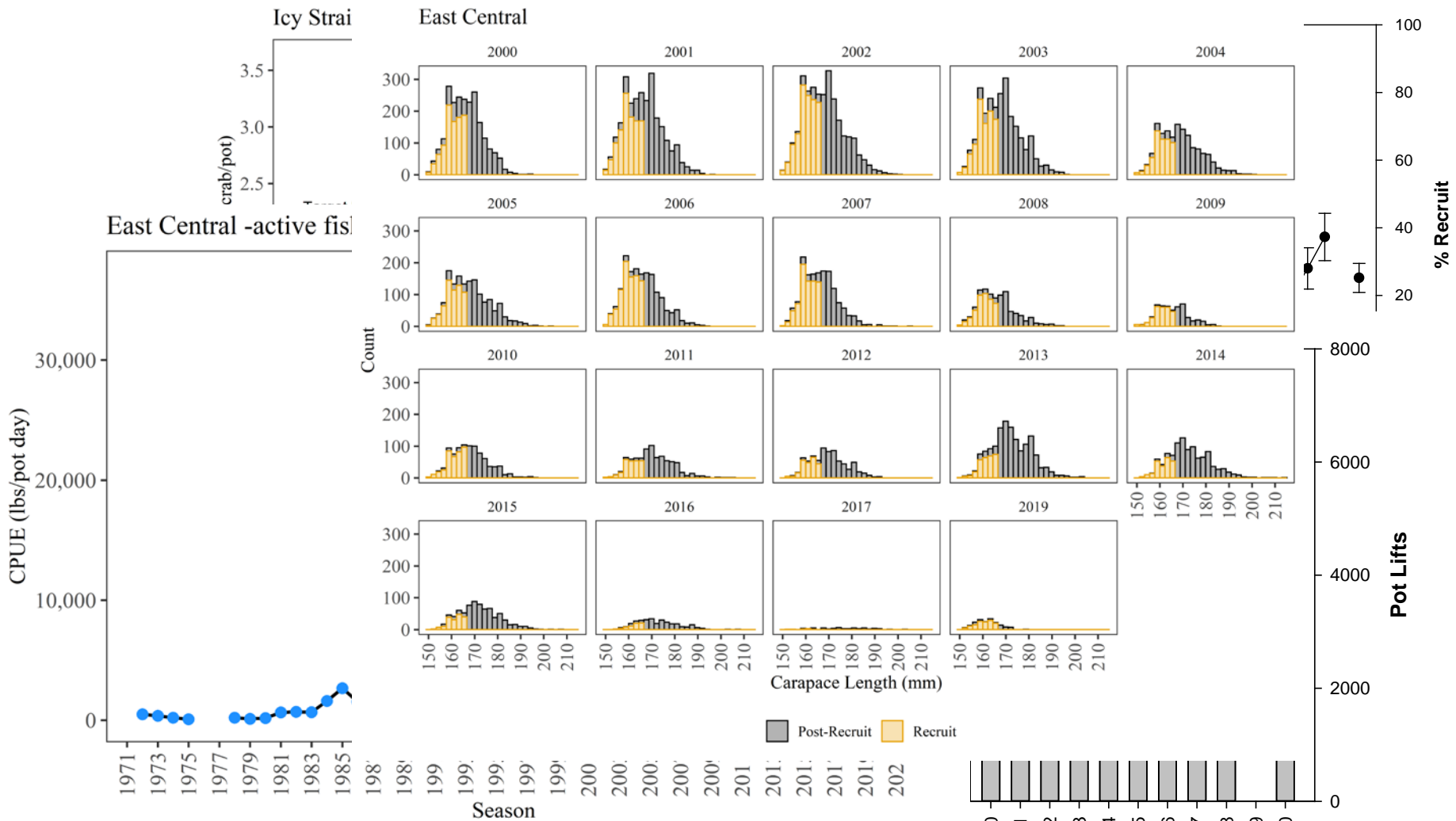
Icy Strait
Removing Tanner bycatch based on proportion of harvest from logbooks



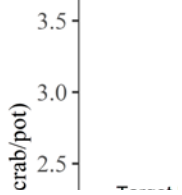


East Central -active fishing season

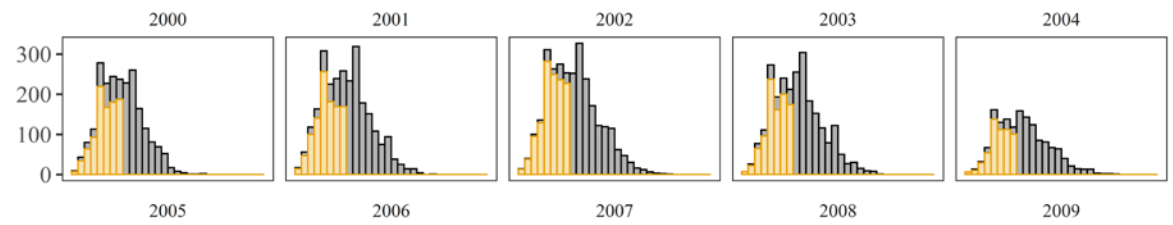




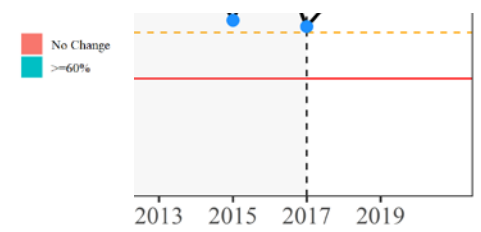
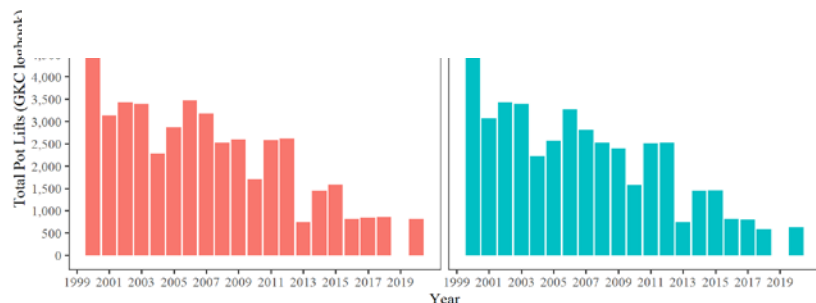
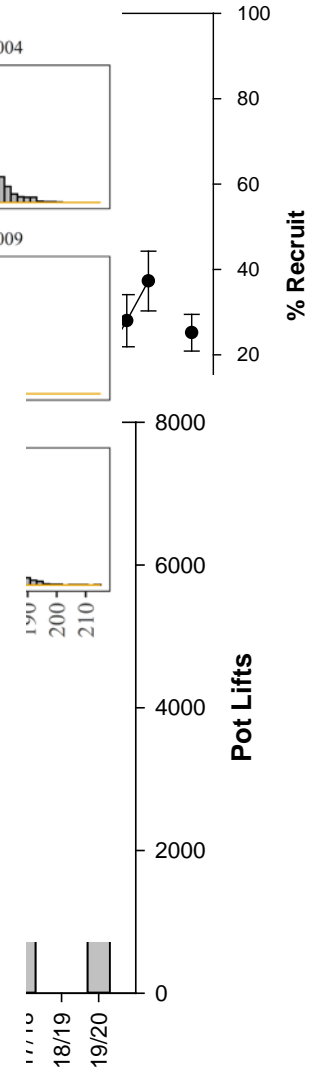
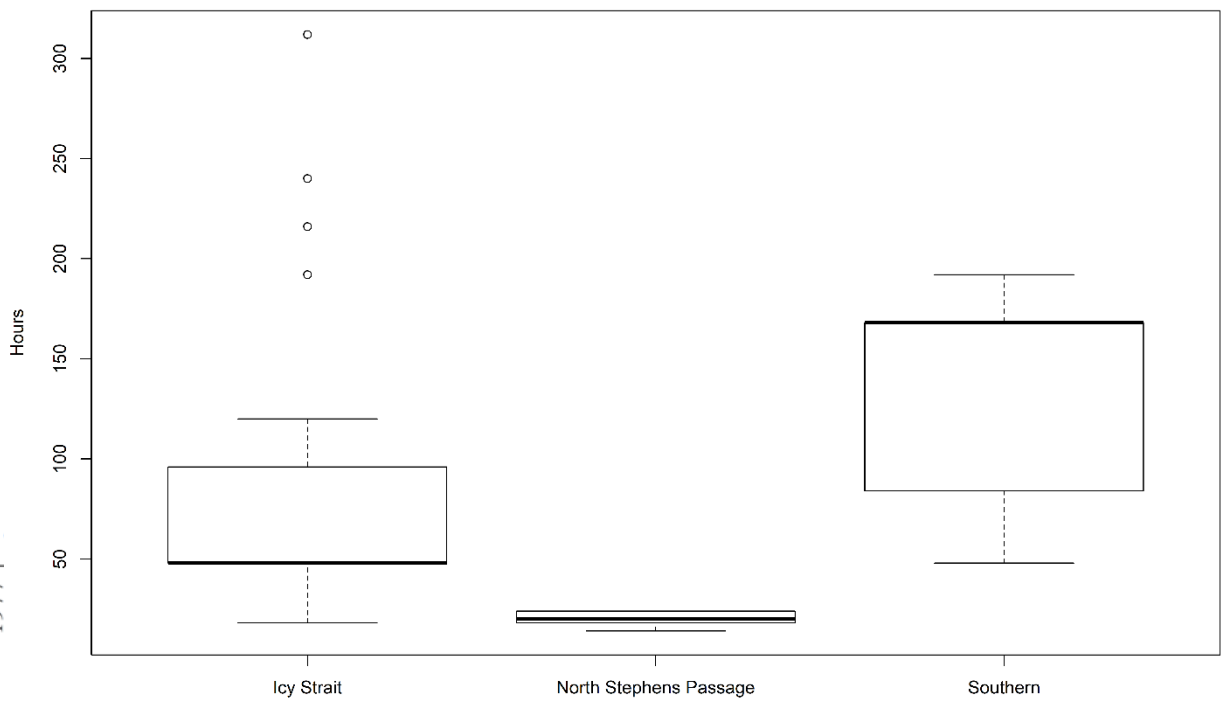
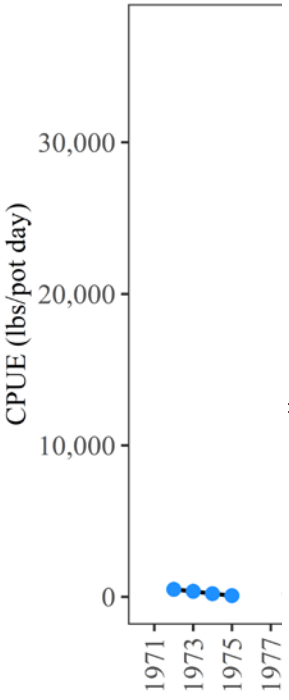
Icy Strai



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?