

ADF&G STAFF PRESENTATION

King and Tanner Task Force – December 2018

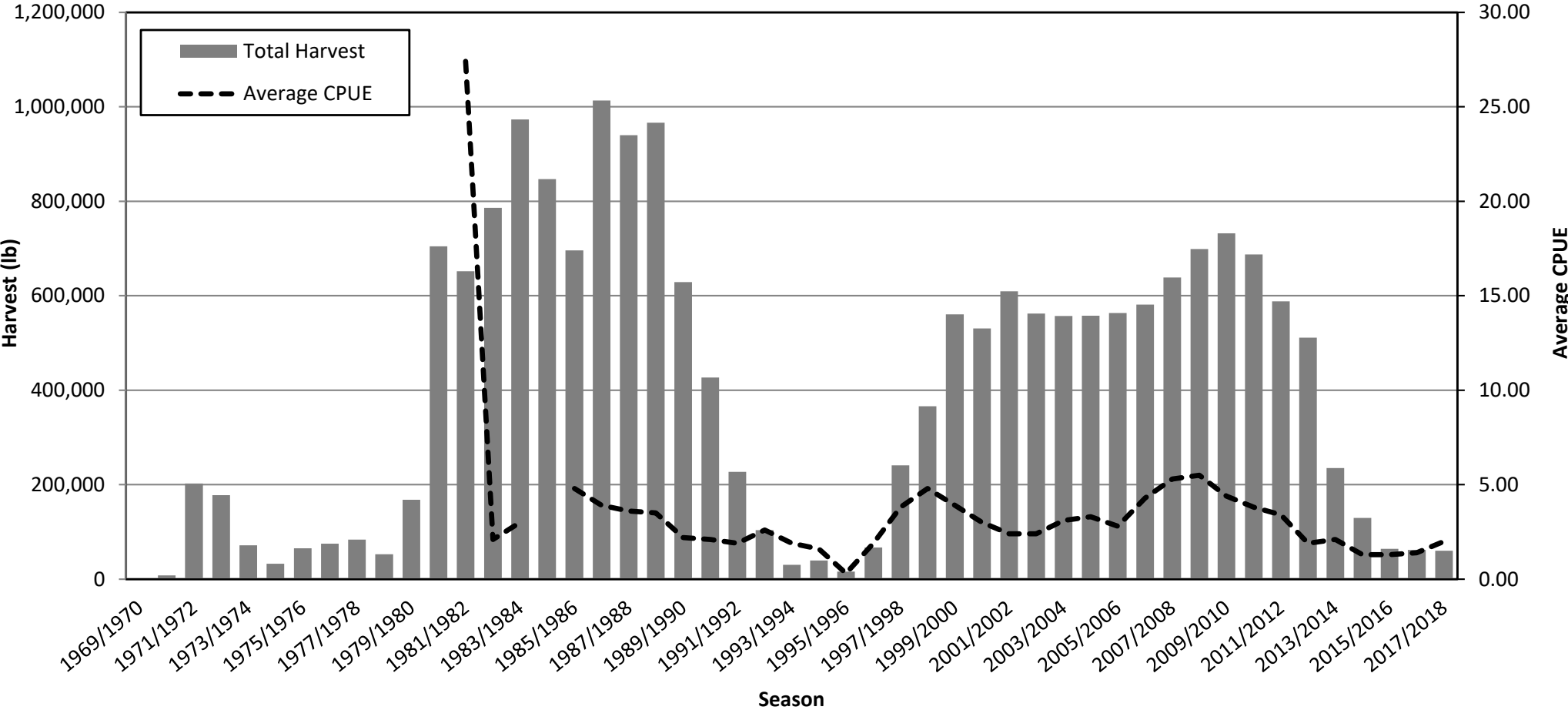


Golden King Crab Commercial Fisheries

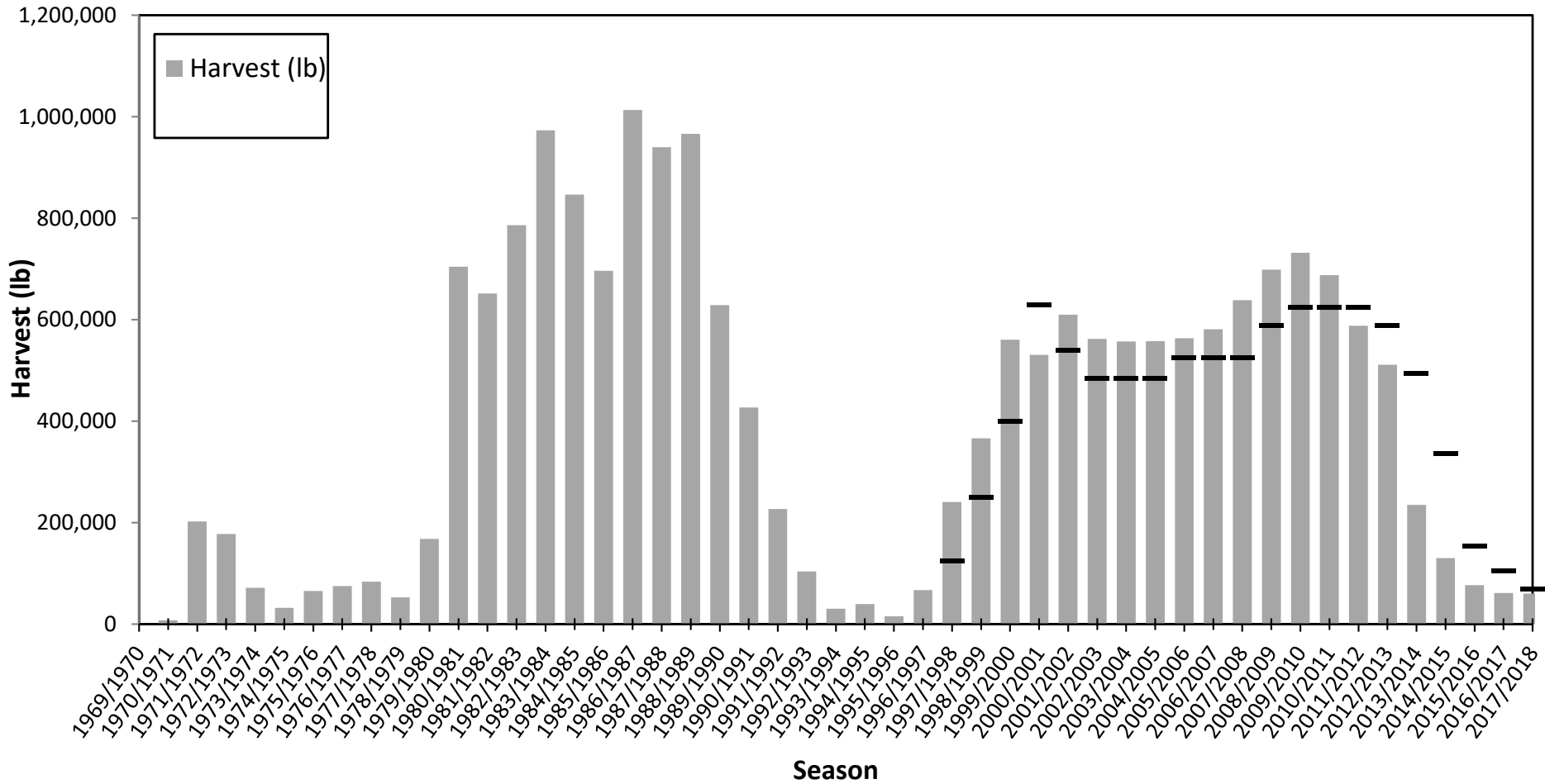
Joe Stratman, Lead Crab Biologist

Division of Commercial Fisheries, Southeast Region

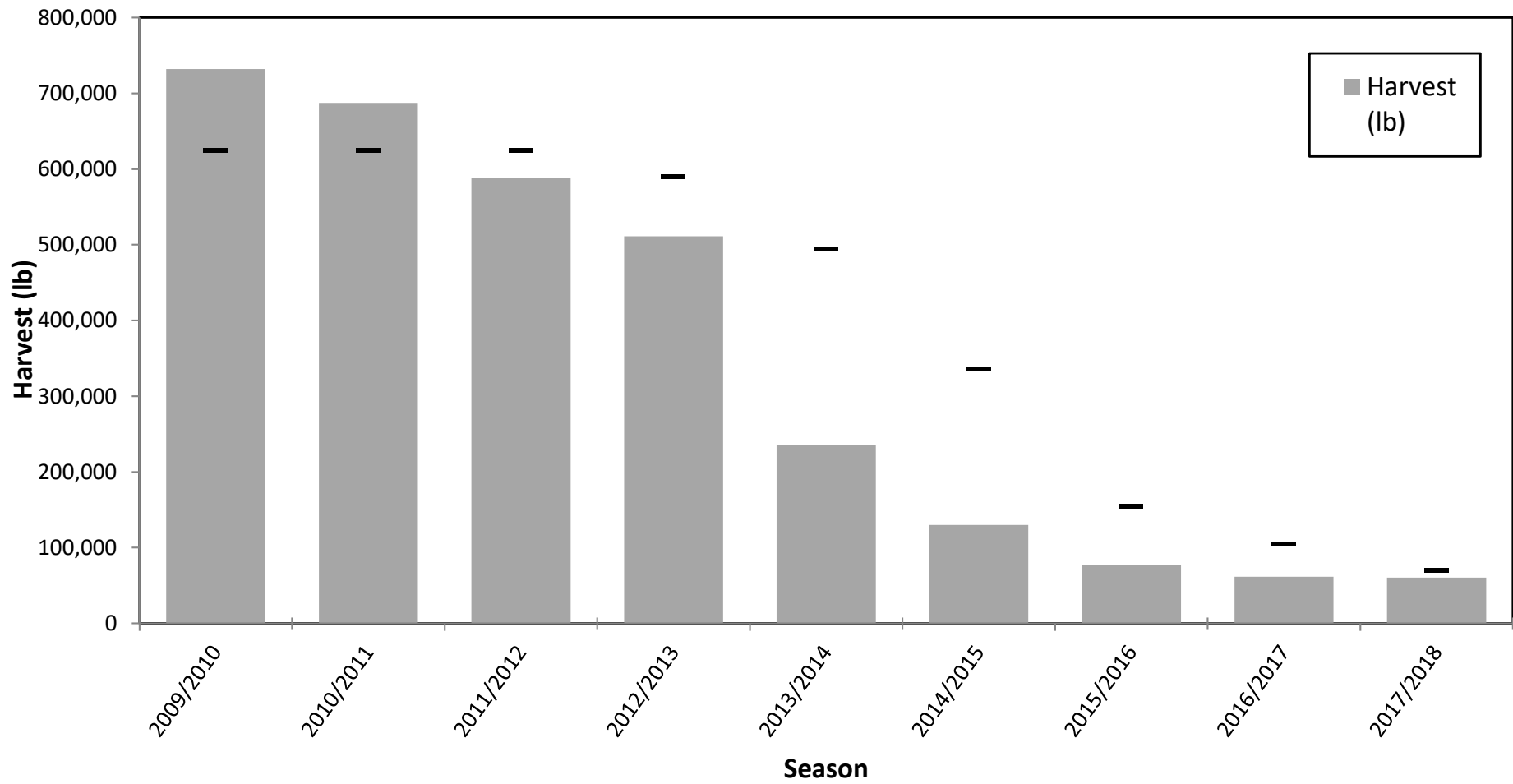
GKC Harvest and Average CPUE by Season



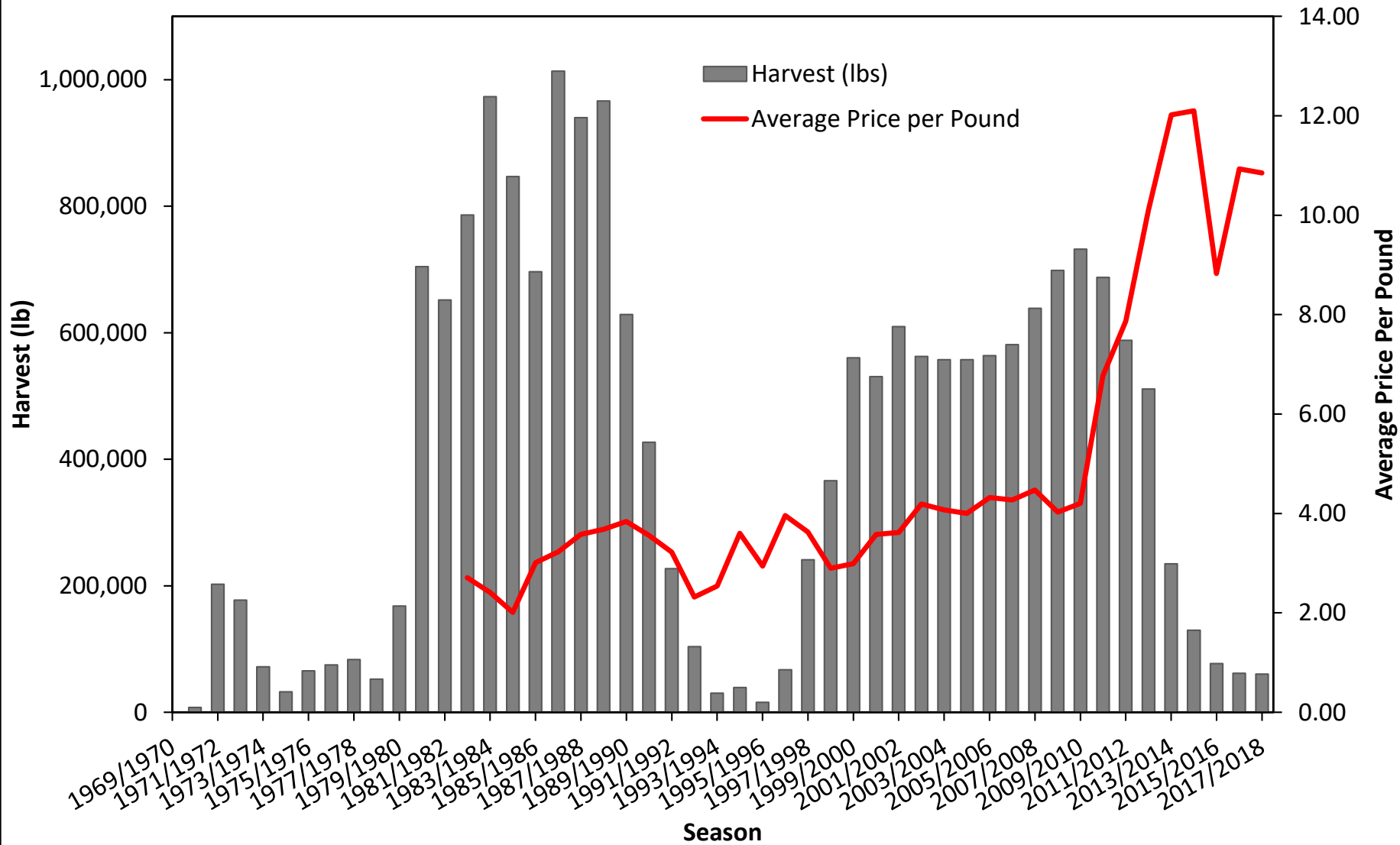
GKC Harvest and GHs by Season



GKC Harvest and GHGs 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 20-24 month reproductive cycle.

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).
- Each data type has specific limitations.

Commercial catch per unit effort (CPUE) from logbooks

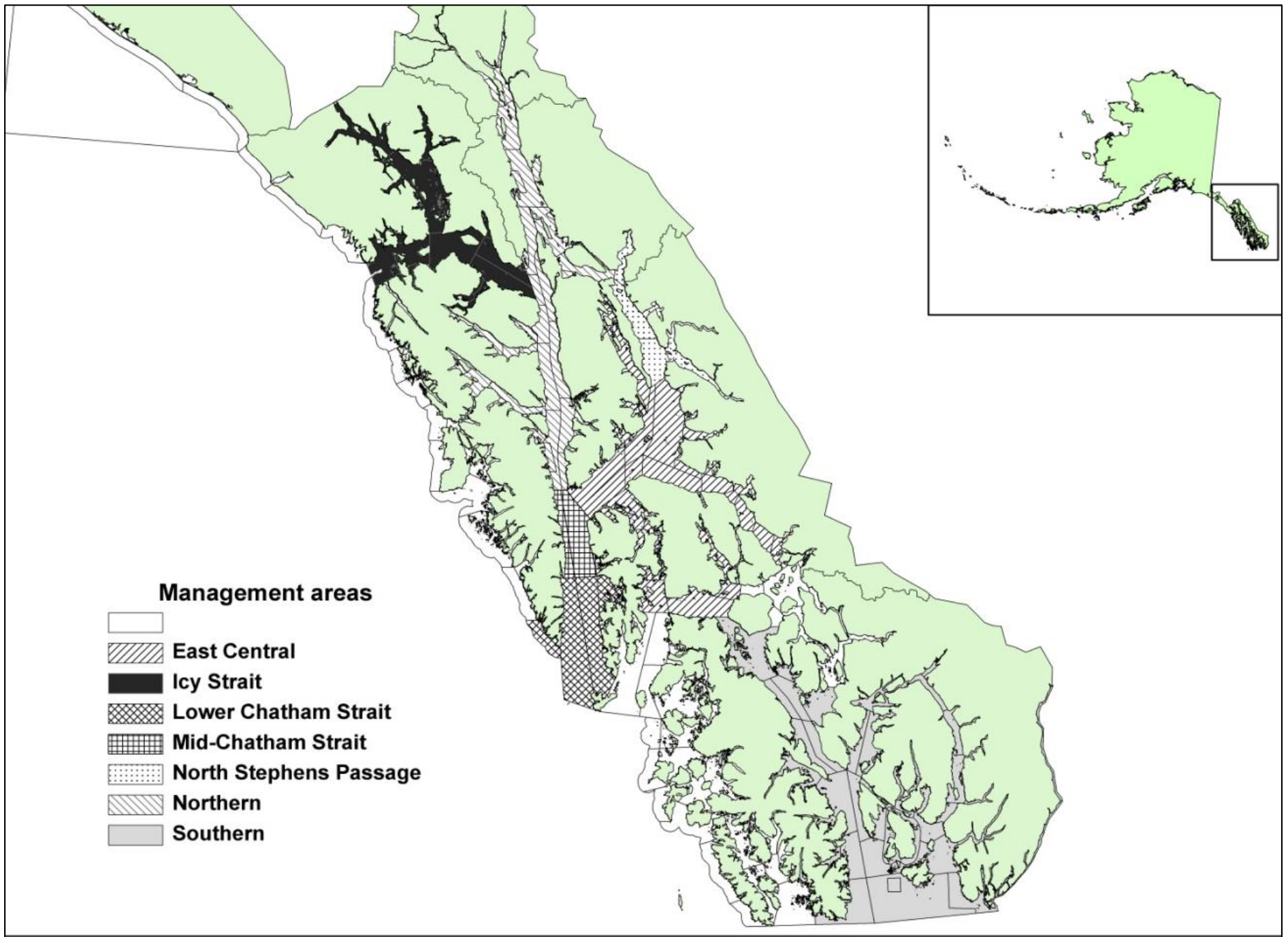
- Commercial CPUE from logbooks provides a broad view of fishery performance, but has limitations:
 - 1) Potential reporting errors (numbers of crab, pots lifted, etc.).
 - 2) Neither fish ticket nor logbook databases account for soak times, so soak times cannot be factored into catch/pot or catch/pot/day calculations.

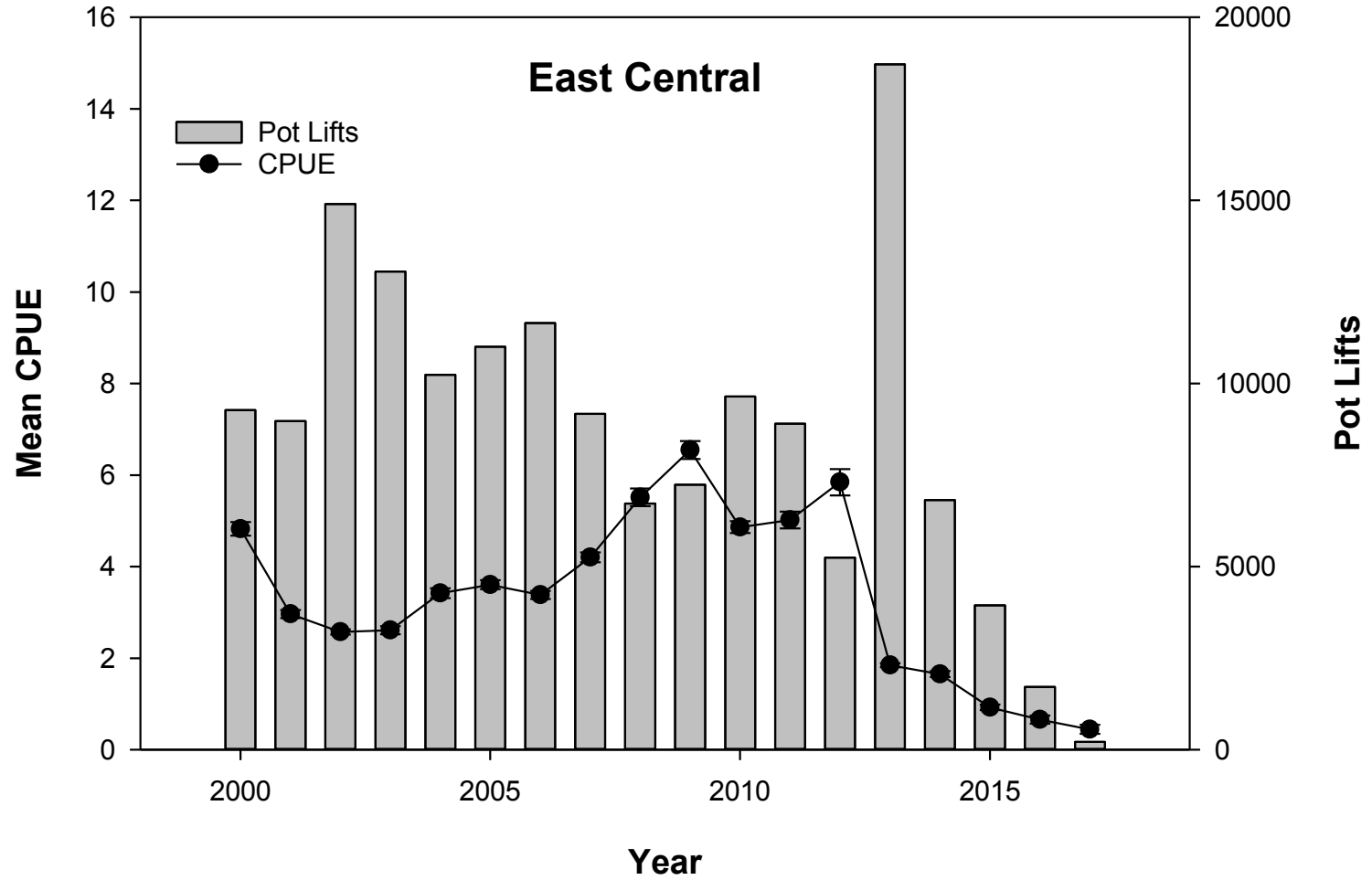
Port Sampling

- Dockside sampling provides a wider look at the fishing grounds than observer data but depends to a great degree on a large number of trips being sampled each year.
- Dockside information on changes in the proportion of recruit to post-recruit crabs is difficult to interpret.
- Although significant carry-over of post-recruits is desirable, pulsed recruitment and changes in population abundance confounds the interpretation of changes in proportions.
- Many deliveries are comprised of crab from more than one fishery area (mixed loads), though some voluntary efforts by fishermen have given port sampling the ability to sample these loads.

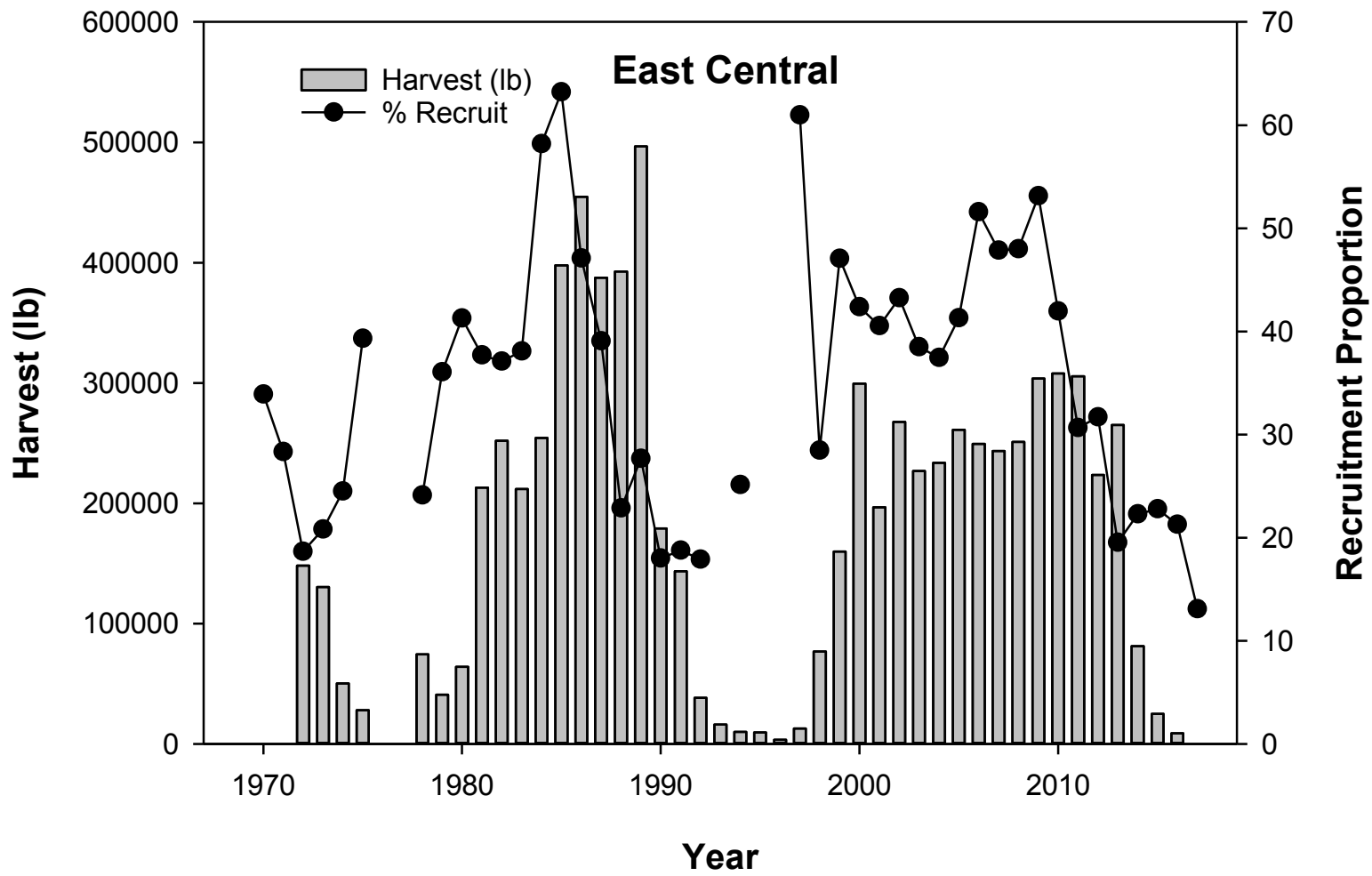
Observer Data

- Observer data line item was removed from the FY17 budget.
- Observer coordinator position was removed from the crab group due to the budget cut and no observing has been conducted the last two seasons.
- No onboard observing is planned for the upcoming 2019 season.



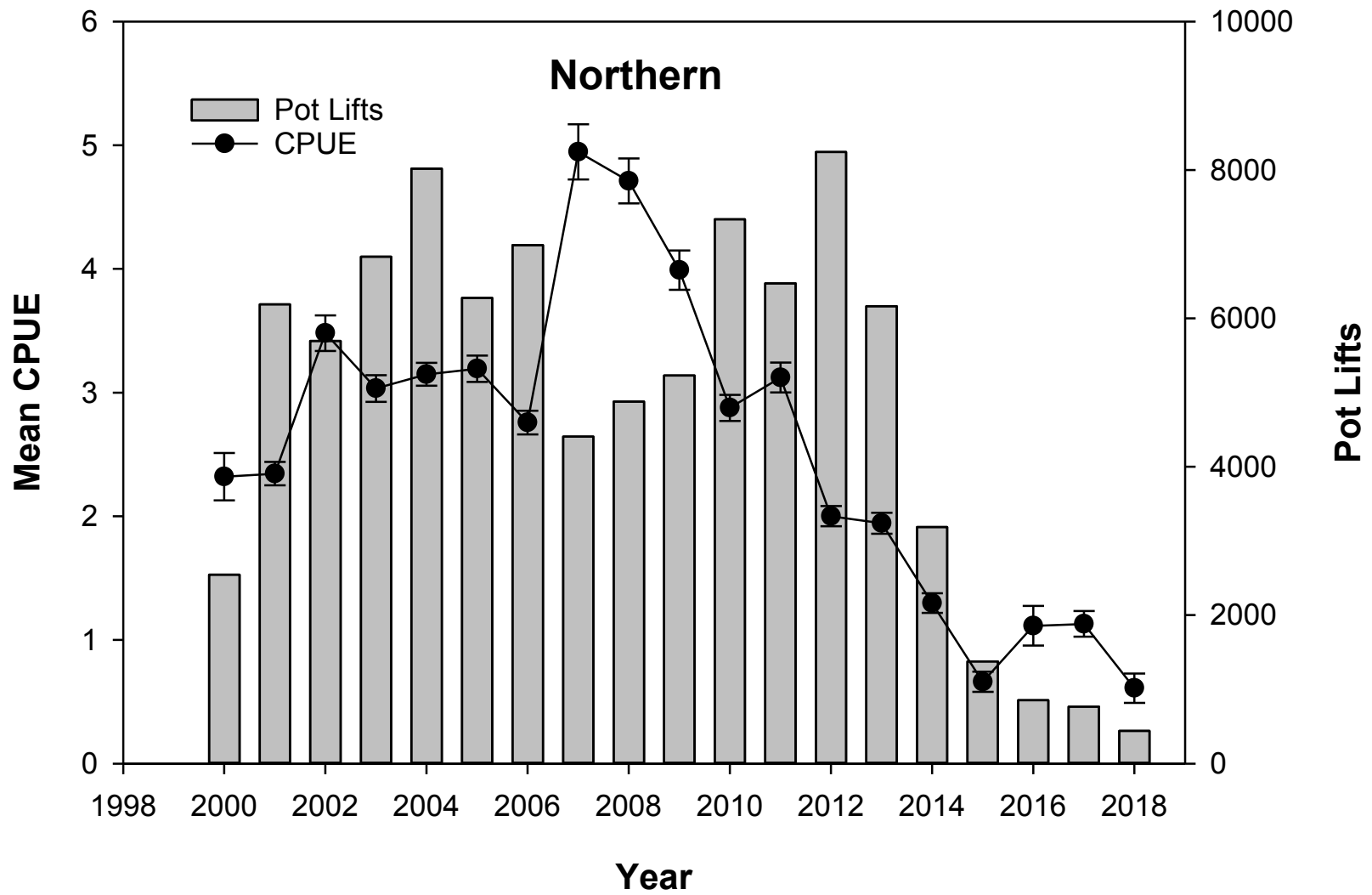


The area was closed in the 2017/2018 season.

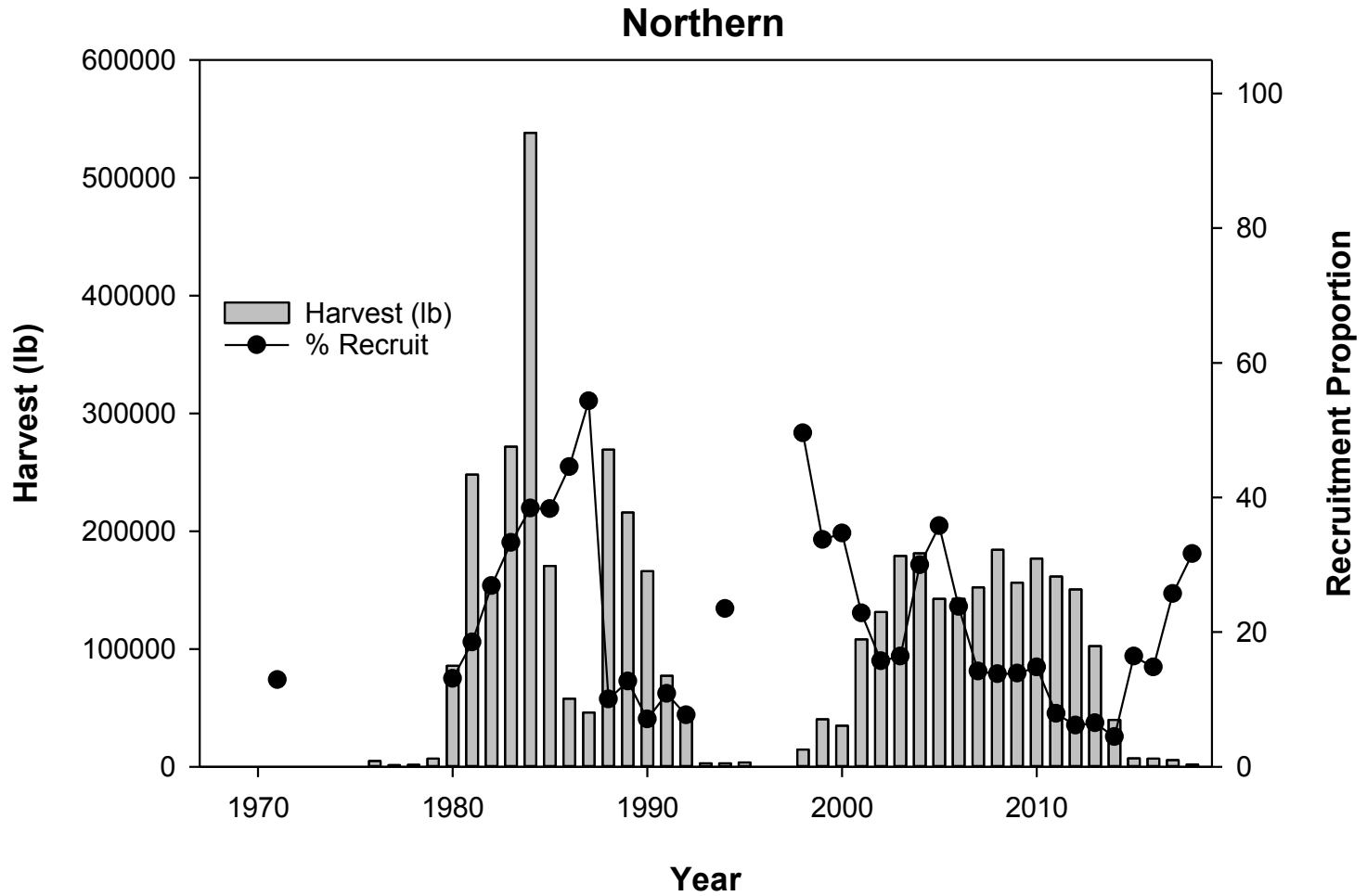


East Central

- The East Central management area was kept closed in 2018 for the following reasons:
 - 1) The 2017 season was closed early after 36 days of fishing by emergency order due to stock health concerns and continued poor fishery performance.
 - 2) Despite a 36 day season length in 2017 which exceeded the average of 33 days, total harvest was just 972 lb, 6% of the GHL, and well below the average season harvest of 220,675 lb.
 - 3) Logbook data showed historically low CPUE of 0.4 crab/pot, the lowest on record.
 - 4) Dockside port sampling data revealed that the percentage of recruit crab in the 2017 season (13%) was at an historic low.



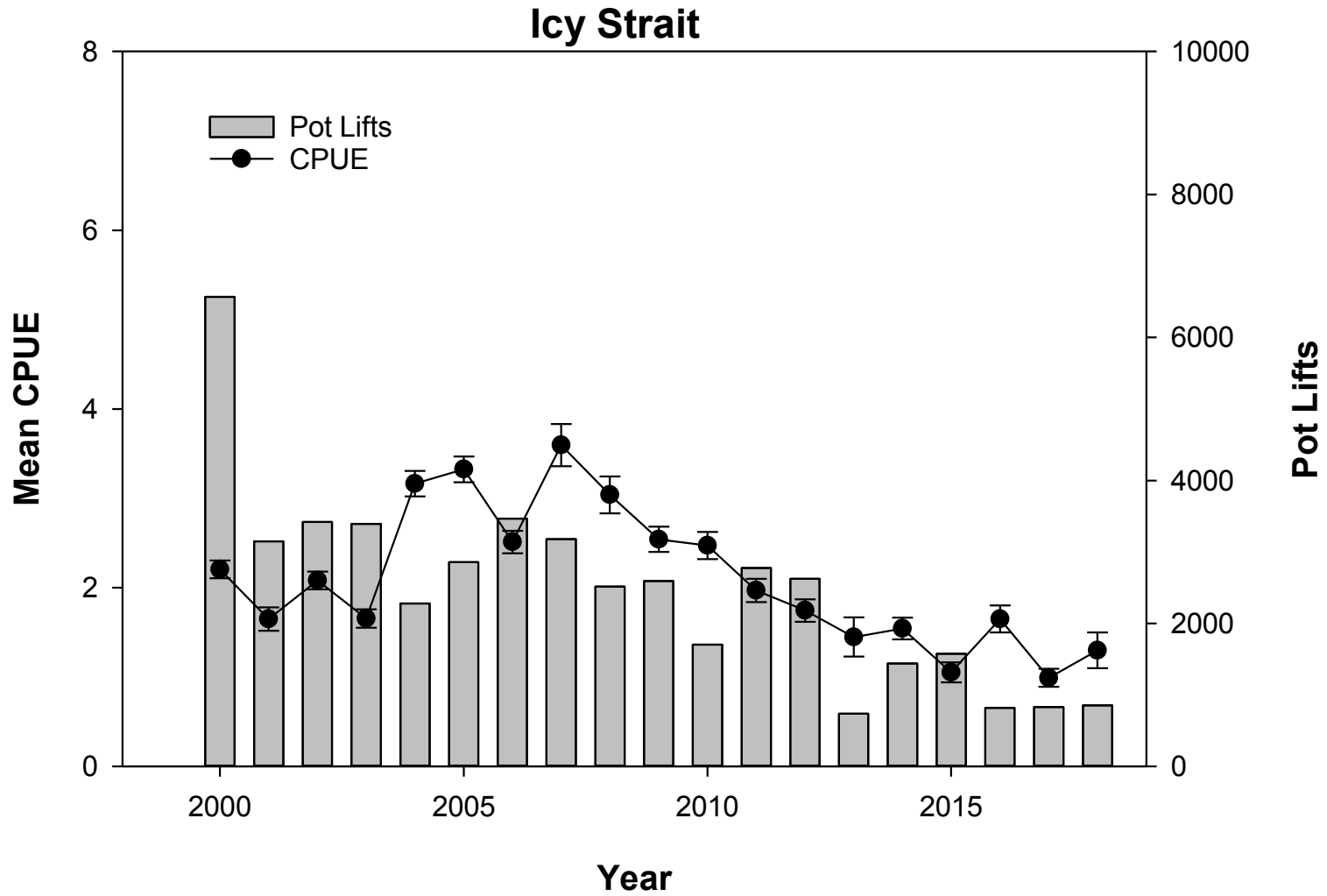
The average CPUE this season was 0.6 crab per pot.



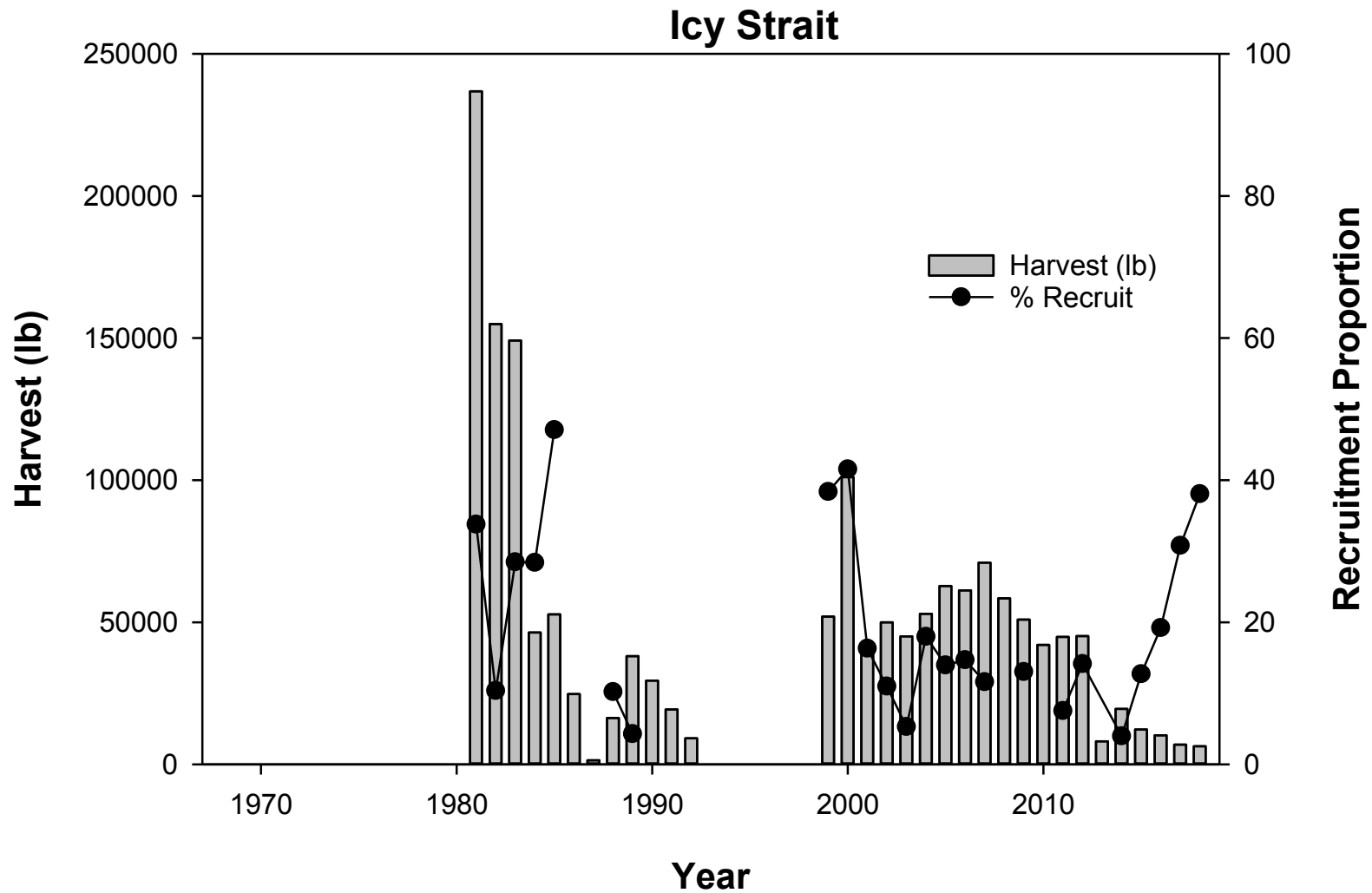
Harvest this season was 1,852 lb.

Northern

- The Northern management area was closed by emergency order (EO) on March 27, 2018 for the following reasons:
 - 1) The average CPUE this season of 0.6 crab is 22% of the average (2.7) and is the lowest CPUE in the past 18 seasons.
 - 2) Catch rates of golden king crab landed (13 pounds per boat/per day), were the lowest on record for the past 18 seasons and well below the 2000–2017 average of 207 pounds per boat/per day.



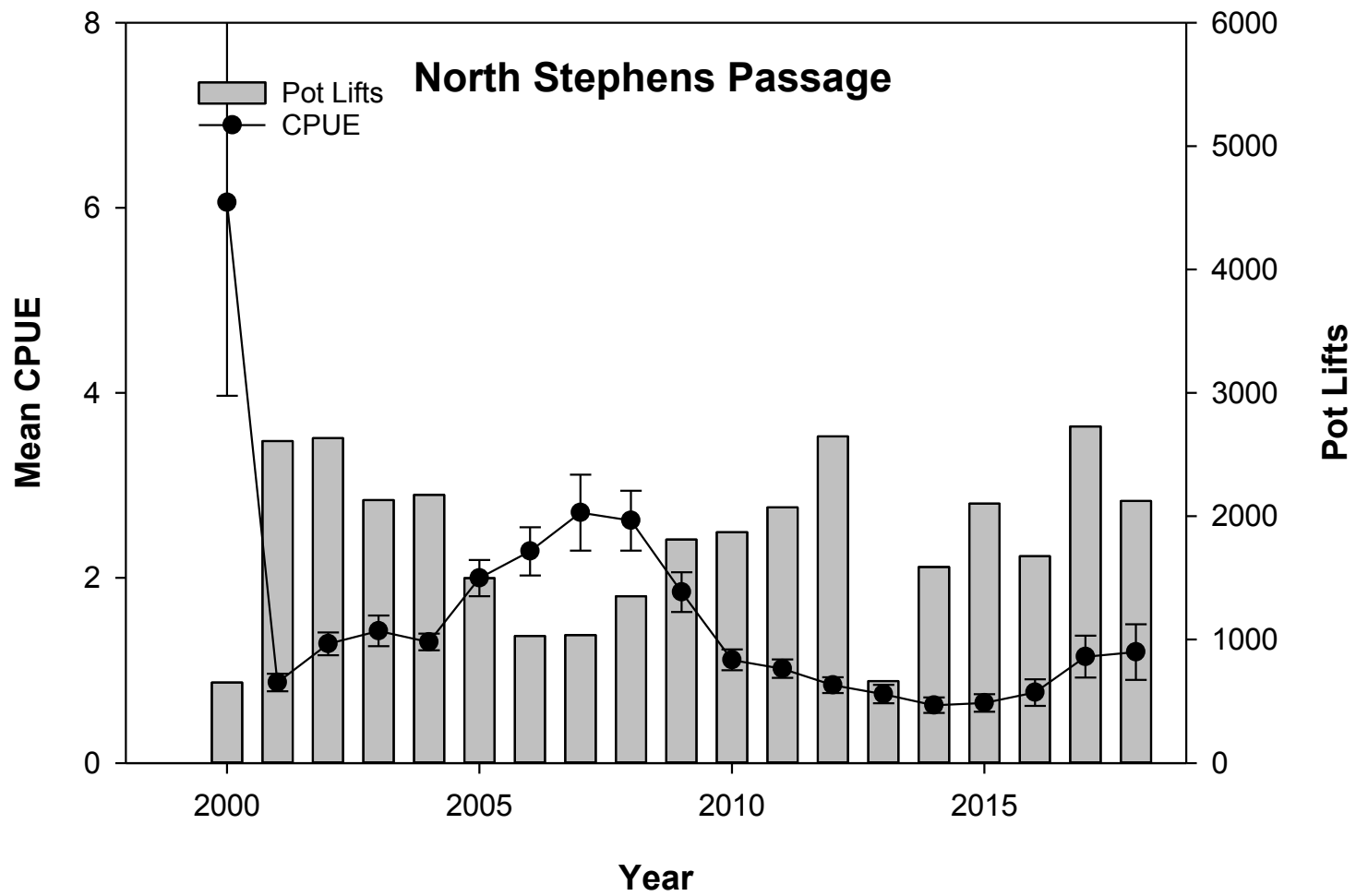
The average CPUE this season was 1.7 crab per pot.



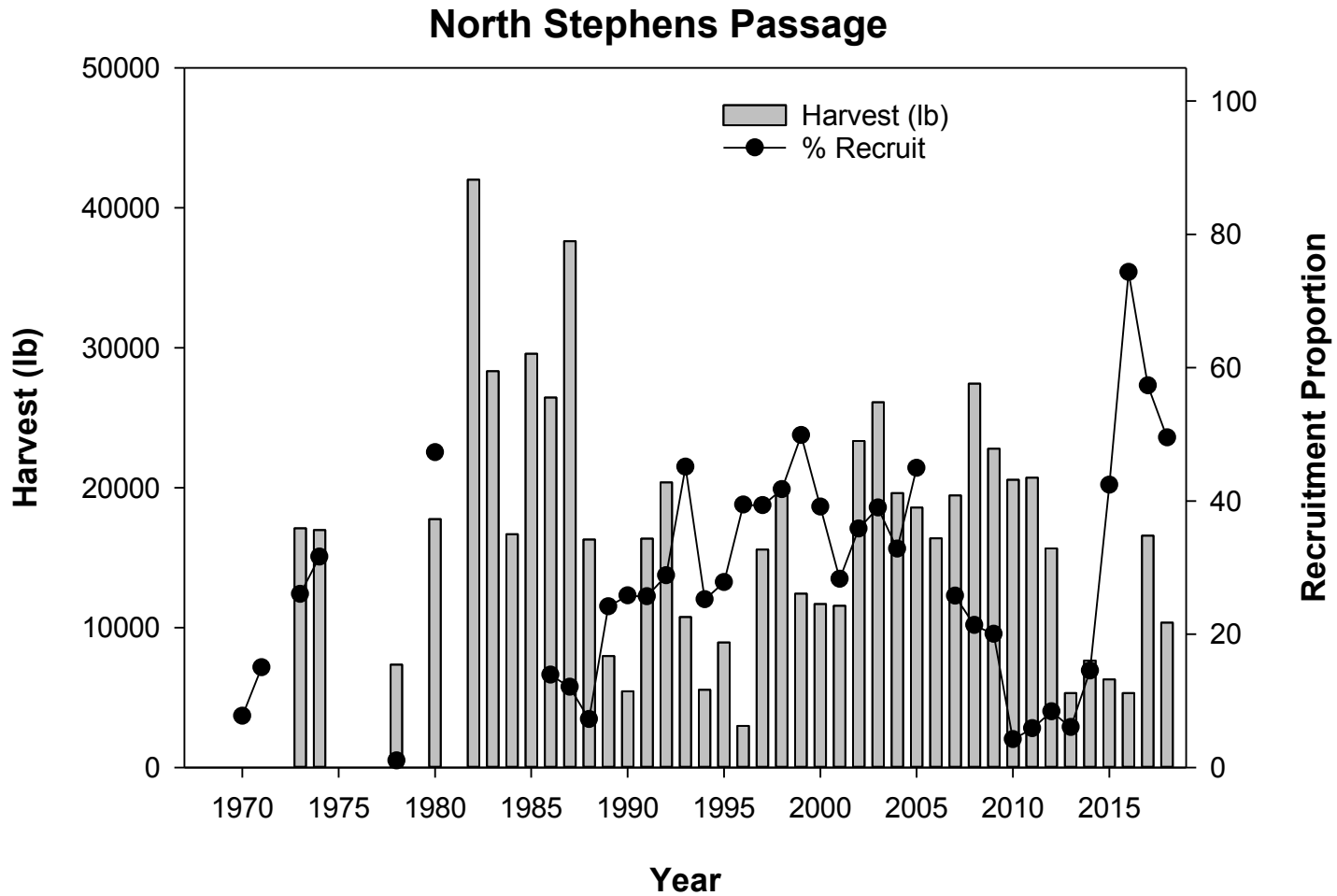
Harvest this season was 10,255 lb and % recruit has trended up the past four seasons.

Icy Strait

- The Icy Strait management area was closed by emergency order (EO) on March 27, 2018.
- 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.



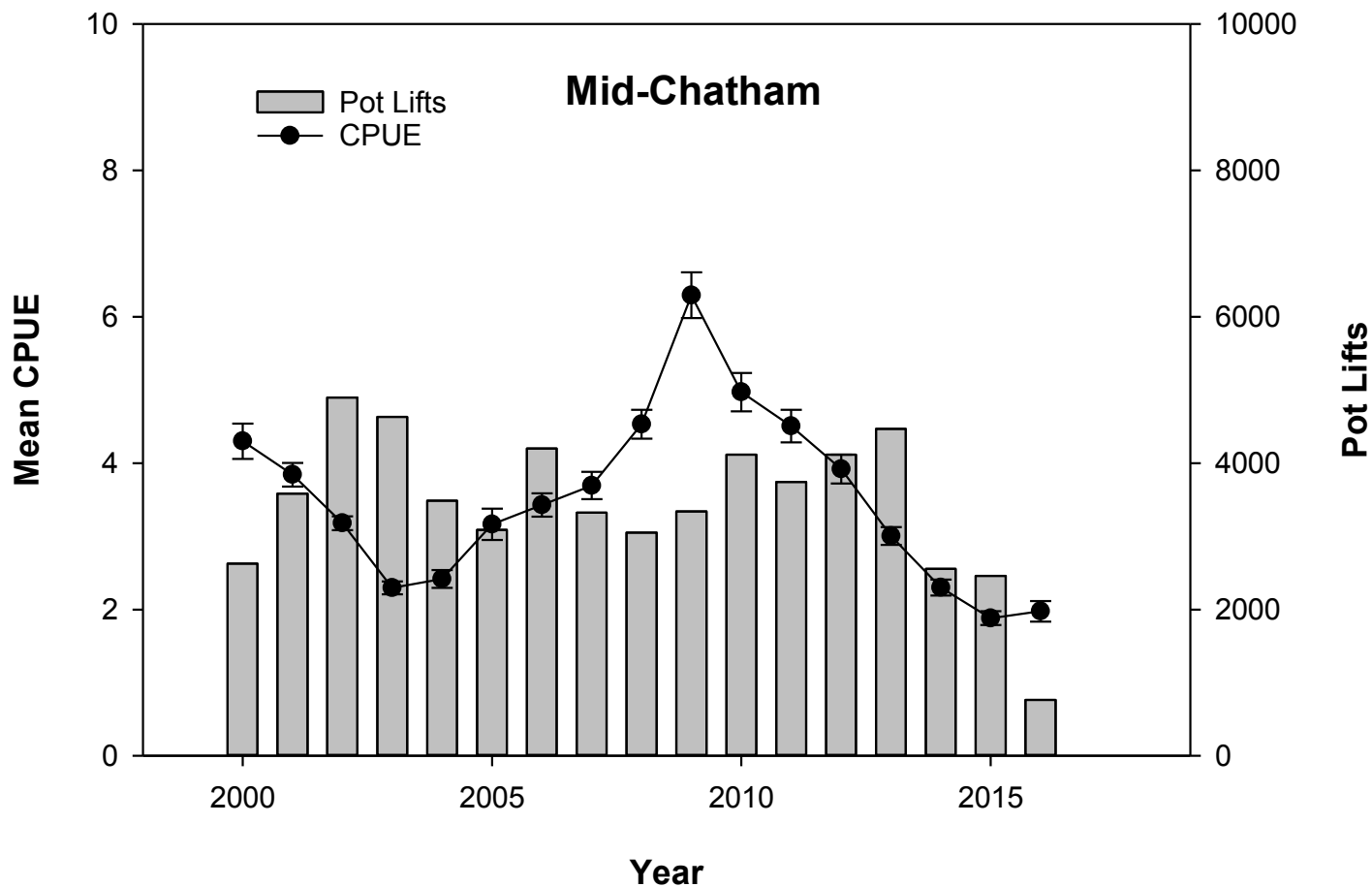
The average CPUE this season was 1.2 crab per pot.



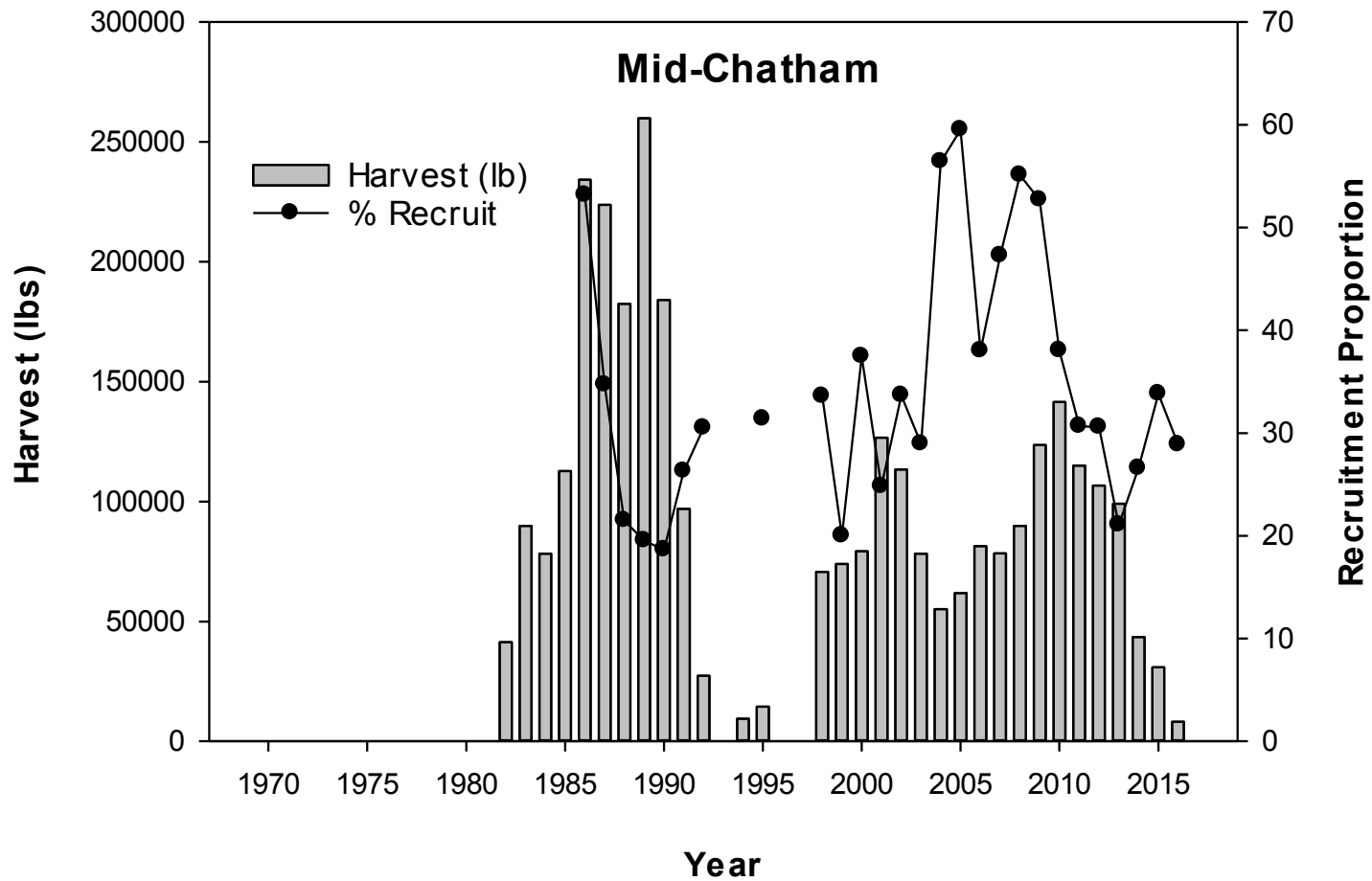
Harvest this season was 10,345 lb and % recruit is down from the past two seasons but remains historically high.

North Stephens Passage

- The North Stephens Passage management area was closed by emergency order (EO) on February 19, 2018 after nine 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 10,000-pound GHL for the North Stephens Passage Area.



The average CPUE this season was confidential with fewer than three permits fished, but was at a level comparable to the past two seasons.

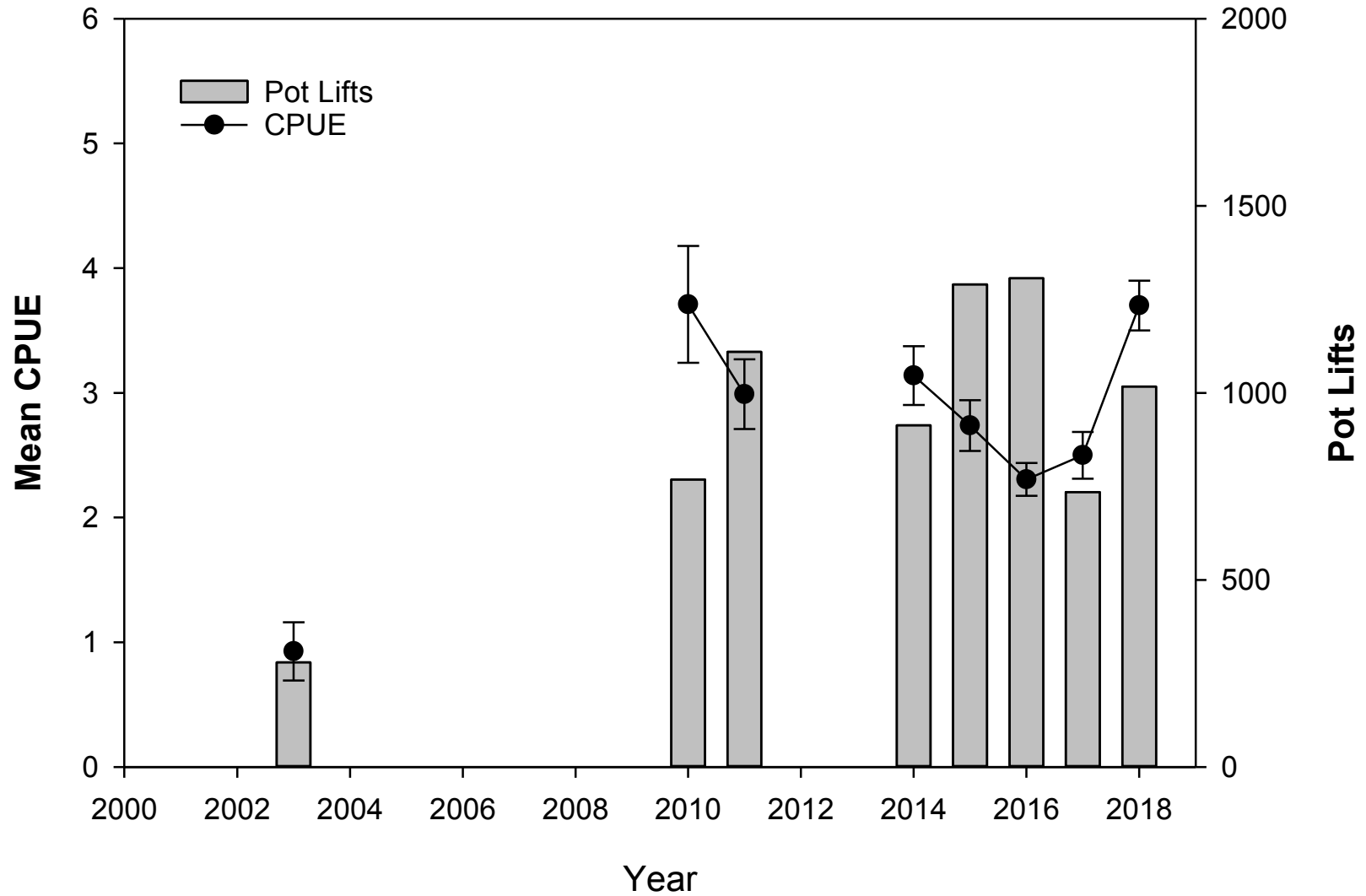


Harvest this season was confidential with fewer than three permits fished.

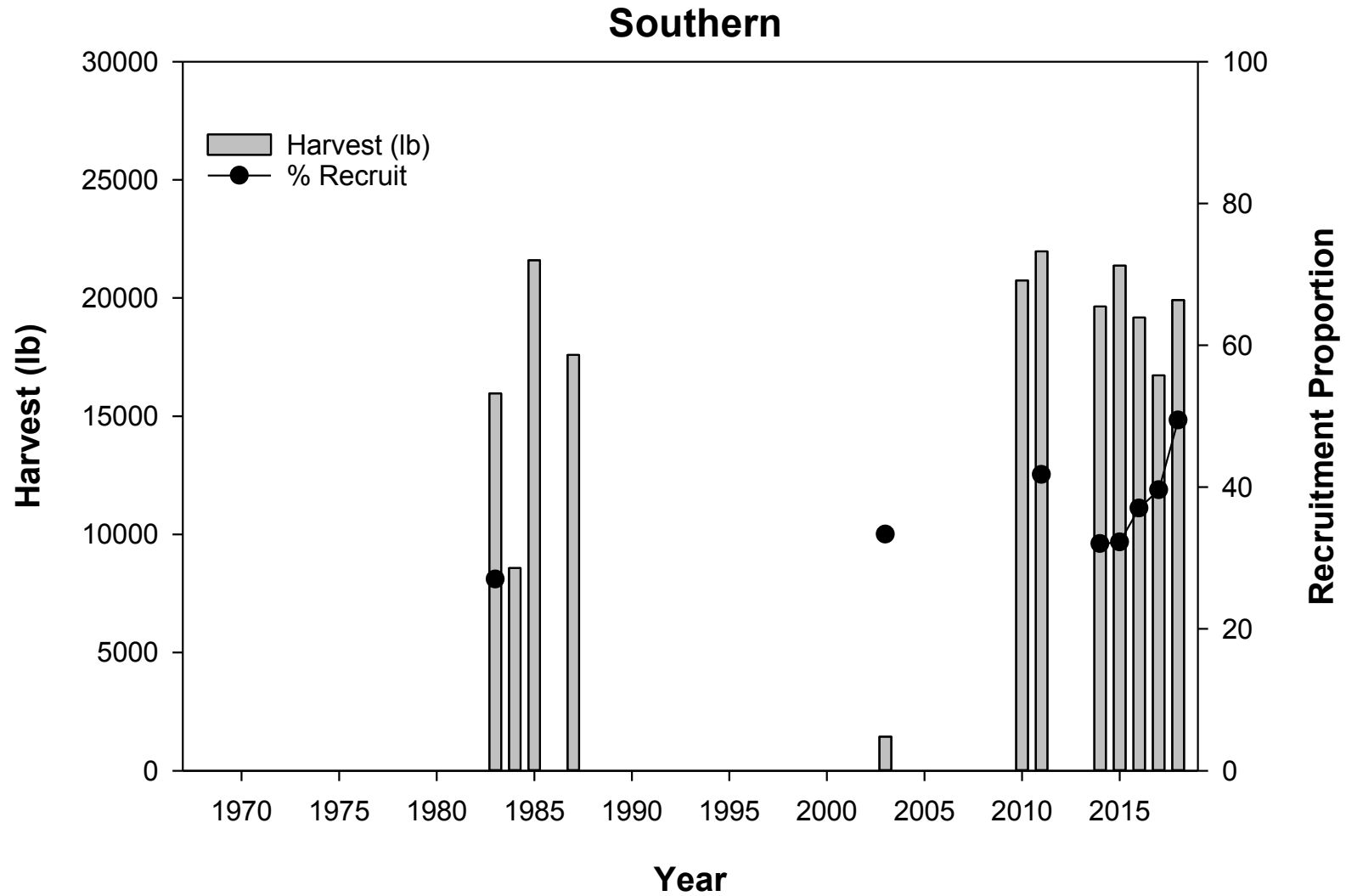
Mid-Chatham Strait

- The Mid-Chatham Strait management area was closed by emergency order (EO) on August 11, 2018 for the following reasons:
 - 1) The CPUE averaged 3.4 crab per pot during the period 2000-2017. The average CPUE this season is approximately 50% of the average for the past 18 seasons and matches the 2015 season for the second lowest CPUE since 2000.
 - 2) Port sampling data show the percentage of recruit crab to the harvest has also declined, from a peak of 60% during the 2005 season, to approximately 30% this season. The average contribution from the recruit portion of the stock for the period 1986-2017 from port sampling data is 37%.

Southern



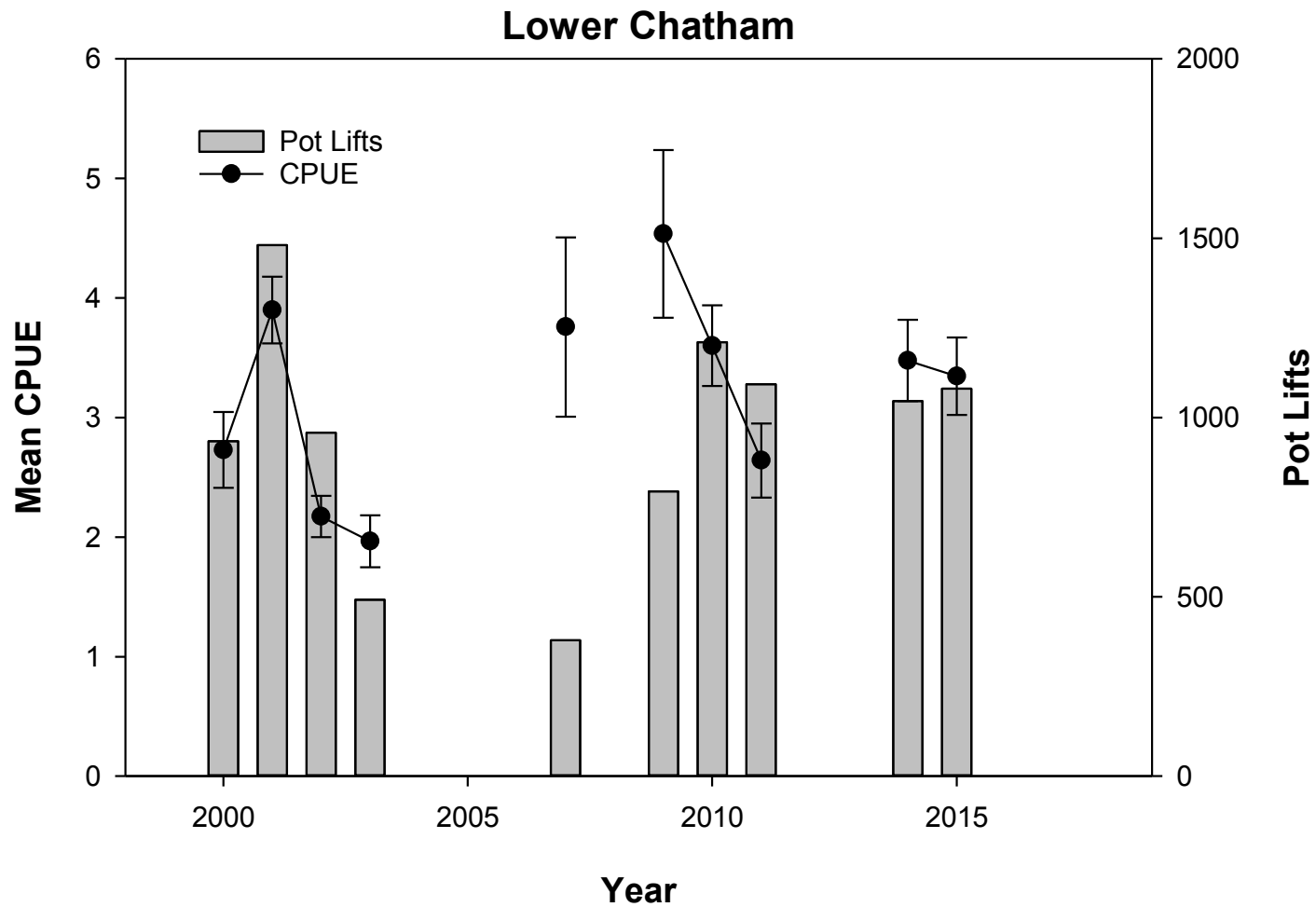
The average CPUE this season was 3.7 crab per pot.



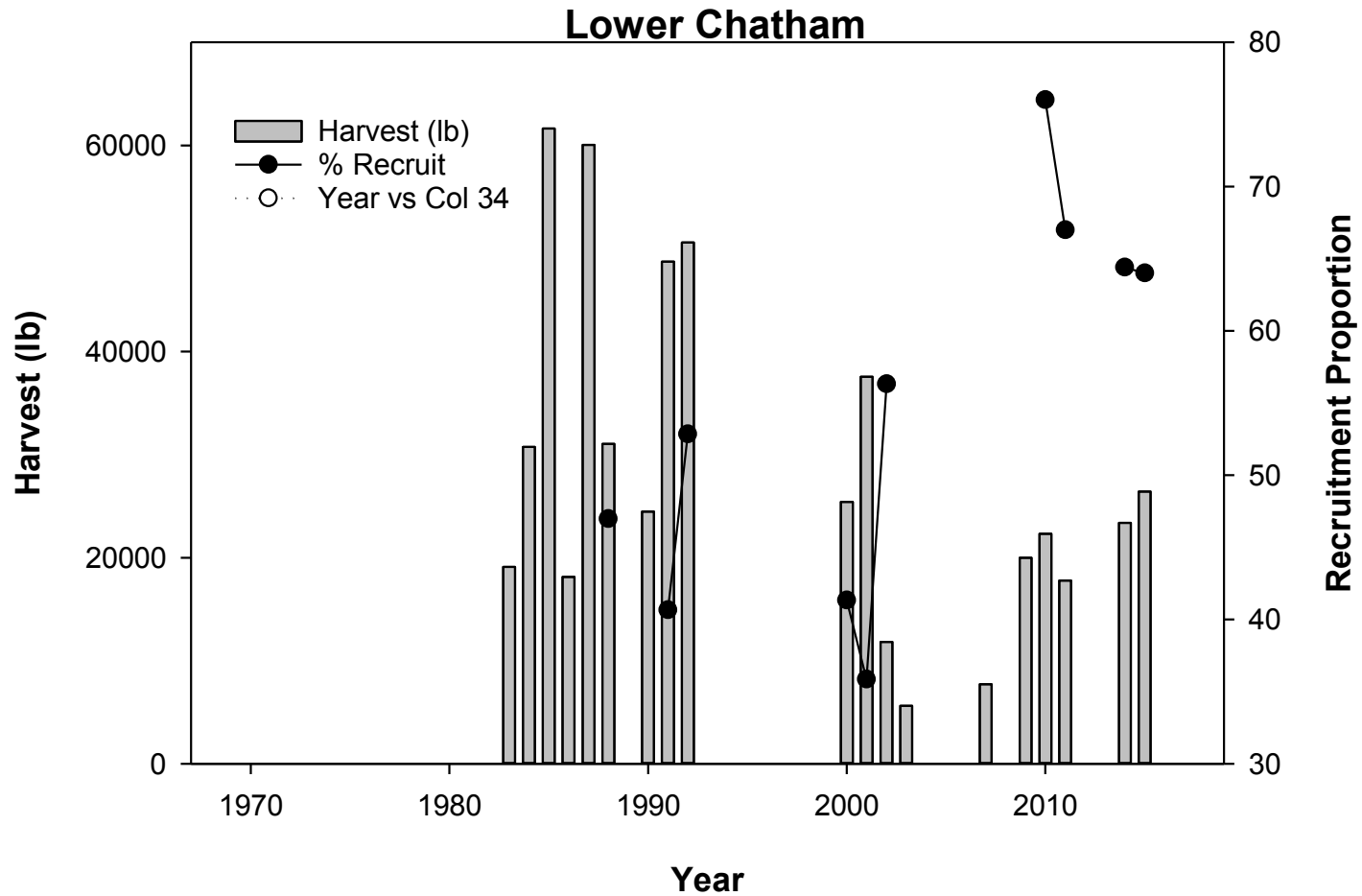
Harvest this season was 19,908 lb and % recruit is historically high.

Southern

- The Southern management area was closed by emergency order (EO) on May 23, 2018.
- Based on an analysis of effort levels and harvest projections, harvest as of the closure date was expected to reach the 19,000-pound guideline harvest level for the Southern Area.



Fewer than three permits fished this season,
so CPUE data are confidential.



Fewer than three permits fished this season, so harvest data are confidential.

Lower Chatham Strait

- The Lower Chatham Strait management area was closed by emergency order (EO) on November 13, 2018.
- Based on an analysis of effort levels and harvest projections, the harvest as of the closure date was expected to reach the 16,000-pound GHL for the Lower Chatham Strait Area.

In Conclusion

- This season, one fishery area (East Central) did not open. Two fishery areas (Northern and Mid-Chatham Strait) were closed short of their respective GHs for conservation concerns. Fishery area GHs were reached in four areas (North Stephens Passage, Icy Strait, Southern, and Lower Chatham Strait).
- The department has not finalized GHs for the upcoming 2019 GKC season, but is rather considering a range of options at this point.

FISHERY AREA	RANGE OF OPTIONS CONSIDERED
East Central	Department announced when the area was closed that it would be closed for one year, then reopen for the last GHL fished - 15,000 lb
Icy Strait	Leaving the GHL at it's current level of 7,500 lb or lowering the GHL 33% to 5,000 lb
Mid-Chatham Strait	Leaving the GHL at its current level of 10,000 lb, lowering the GHL 20% to 8,000 lb, or lowering the GHL 50% to 5,000 lb.
North Stephens Passage	Leaving the GHL at its current level of 10,000 lb, raising the GHL 15% to 11,500 lb, raising the GHL 20% to 12,000 lb.
Northern	Leaving the GHL at its current level of 7,500 lb or closing the area for 2019.
Lower Chatham Strait	Lowering the GHL 6% to 15,000 lb, lowering the GHL 10% to 14,500 lb, lowering the GHL 13% to 14,000 lb, and lowering the GHL 33% to 10,000 lb were all discussed.
Southern	Leaving the GHL at its current level of 19,000 lb, raising the GHL 5% to 20,000 lb, or raising the GHL 10% to 21,000 lb.



QUESTIONS?