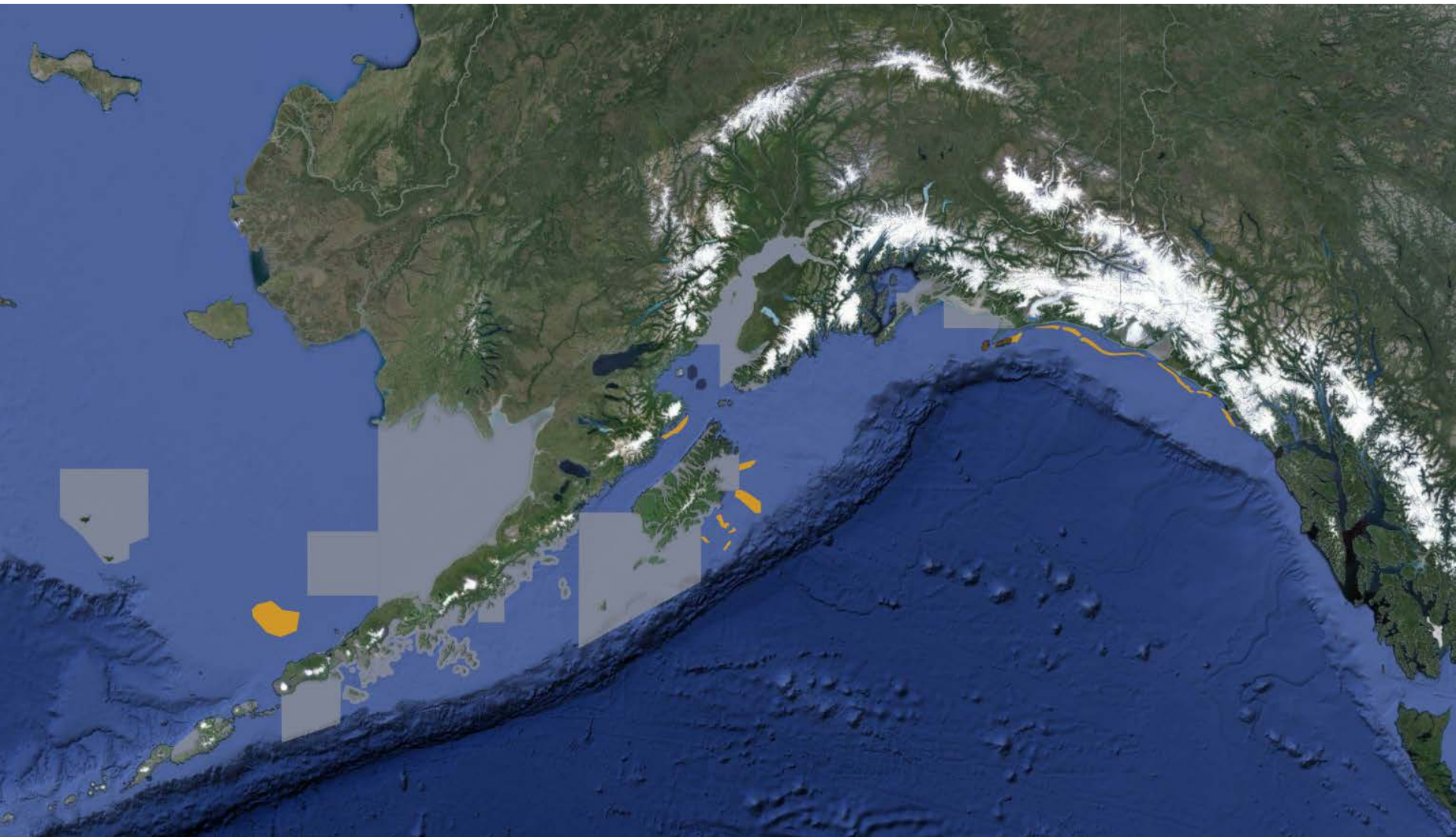


# STOCK ASSESSMENT AND FISHERY EVALUATION REPORT FOR THE WEATHERVANE SCALLOP FISHERY OFF ALASKA

Compiled by the Scallop Plan Team, March 2019

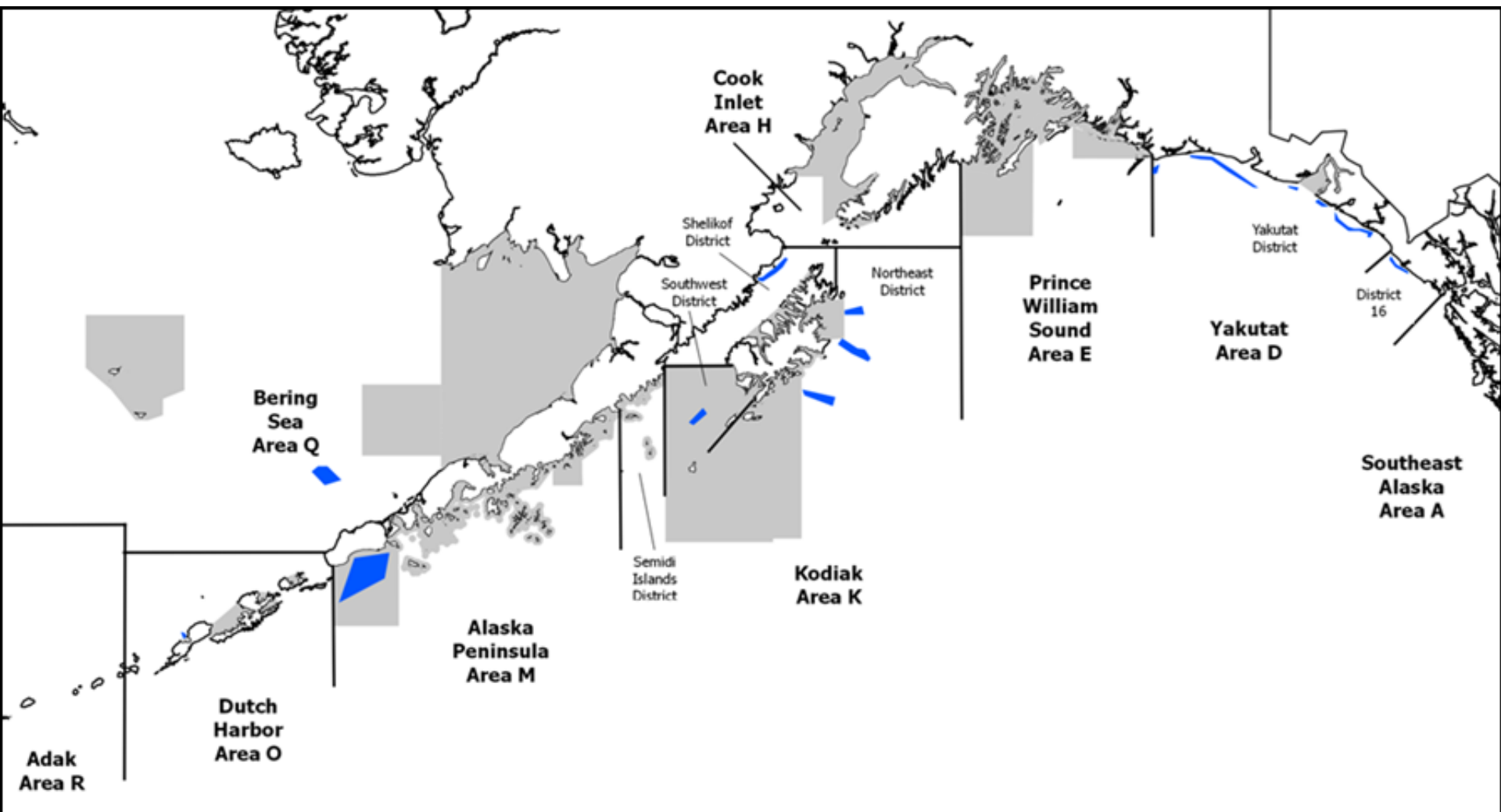


- FISHERY OVERVIEW
- MANAGEMENT OVERVIEW
- 2018 ASSESSMENT RESULTS
- RECENT FISHERY PERFORMANCE
- PROGRAM UPDATES

# Fishery Overview

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# Weathervane Scallop Fishing Areas



- Grey-shaded areas closed to scallop fishing
- Blue polygons denote areas with persistent effort

# Weathervane Scallop Fishery Overview

## Federal Waters

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### 9 Federal LLPs

- 7 LLPs permitted to deploy two 15 ft dredges
- 2 vessels permitted to deploy two 10 ft dredges
- Cook Inlet: single 6 ft dredge

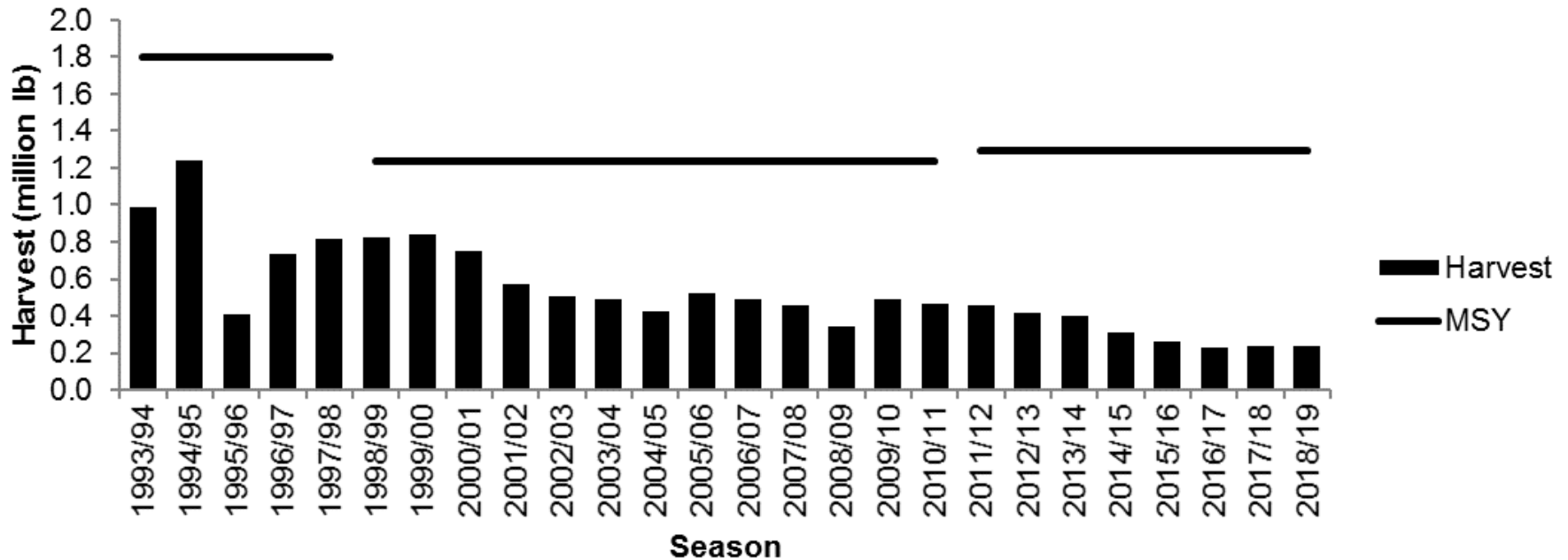


## State waters

- Open access state water fishery beginning in 2014
- State waters closed to scallop fishing in many places
- Known scallop beds in state waters not closed to scallop fishing: District 16, Yakutat District, Area E (Kayak Island), Kodiak Shelikof District, and Area O (Dutch Harbor)

# MSY, OY, and Overfishing Definition

Statewide Weathervane Scallop Fishery  
Harvest and MSY Levels



- MSY = 1.29 million lb scallop meats
- MSY definition based on average 1990-1997 harvest with 1995 excluded
- In absence of spawning biomass estimate the OFL defaults to MSY
- maxABC = 90% of OFL
- SPT recommendation for ABC = 1.161 mil lb (90% of OFL) for 2019/20

# Management Overview

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# Stock Assessment

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## Pre 2016

- 5% of harvest comes from locations with fishery independent assessment
- 95% of harvest managed from fishery dependent data sources

## Post 2016

- Statewide survey to cover Shelikof Strait and Yakutat area biennially (~70% of mean harvest)



# Observer Program

100% mandatory observer coverage (except in Cook Inlet)

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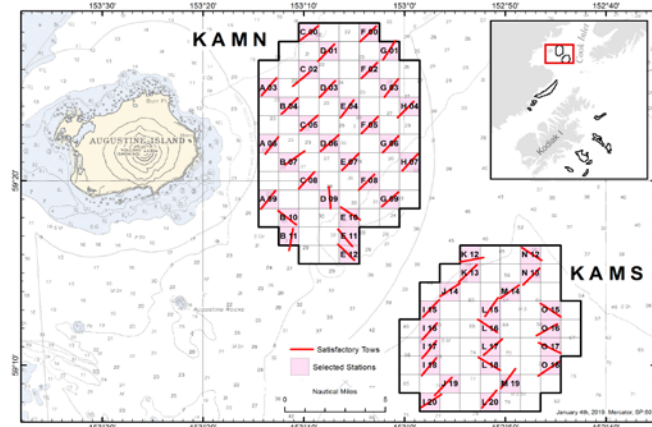
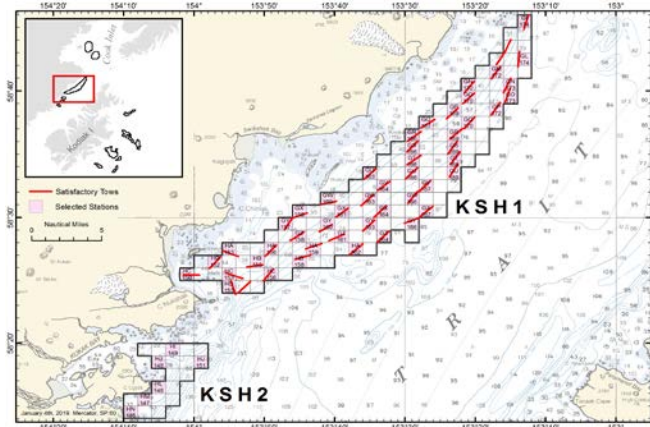
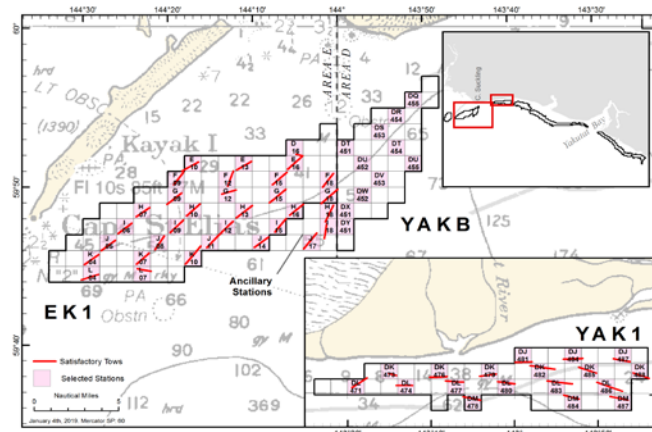
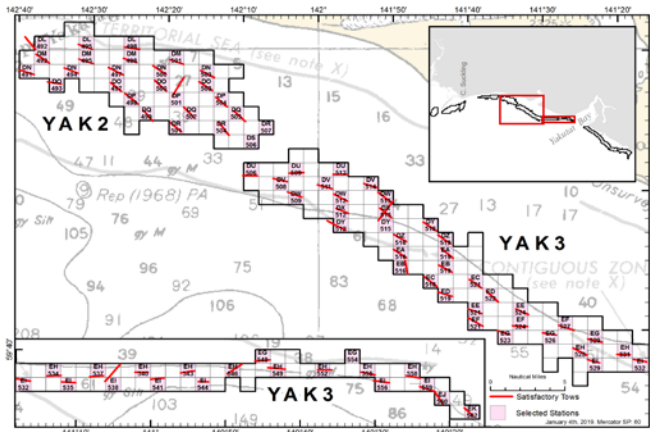
- CPUE
- Shell height
- Age
- Discard rates & condition
- Catch composition
- Harvest location
- Harvest depth
- Bycatch



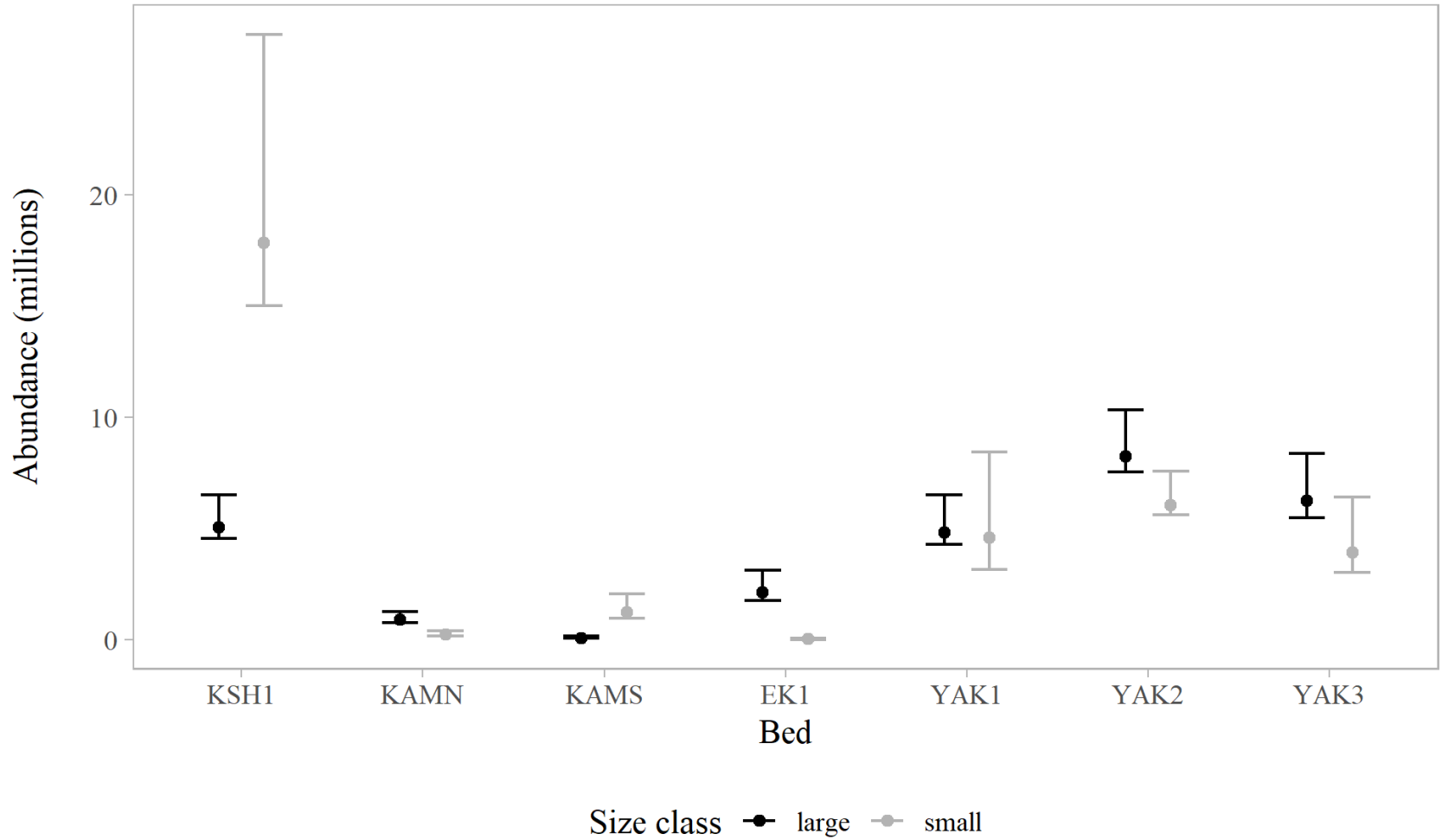
# 2018 Assessment Results

(see SAFE Chapter 2)

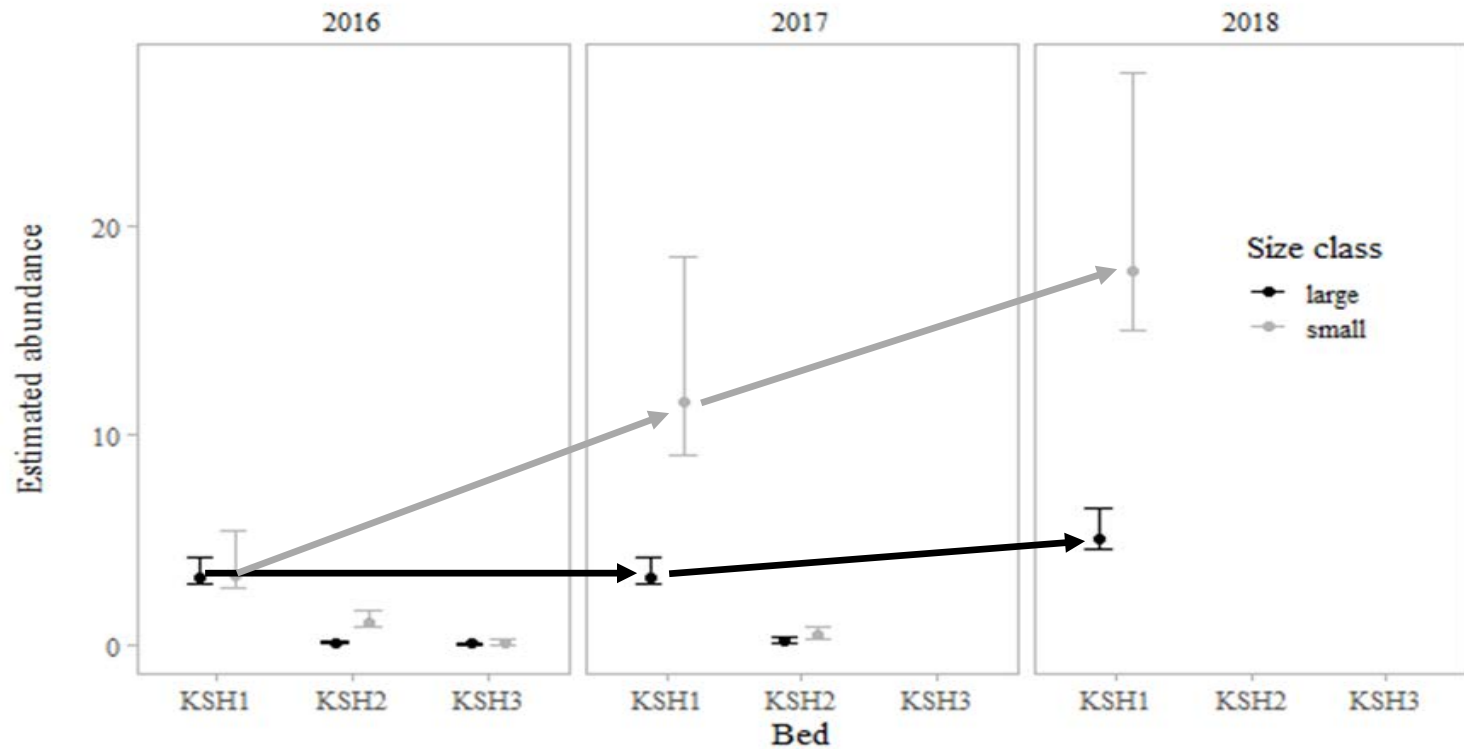
Surveyed Yakutat, Shelikof, Kayak, and Kamishak



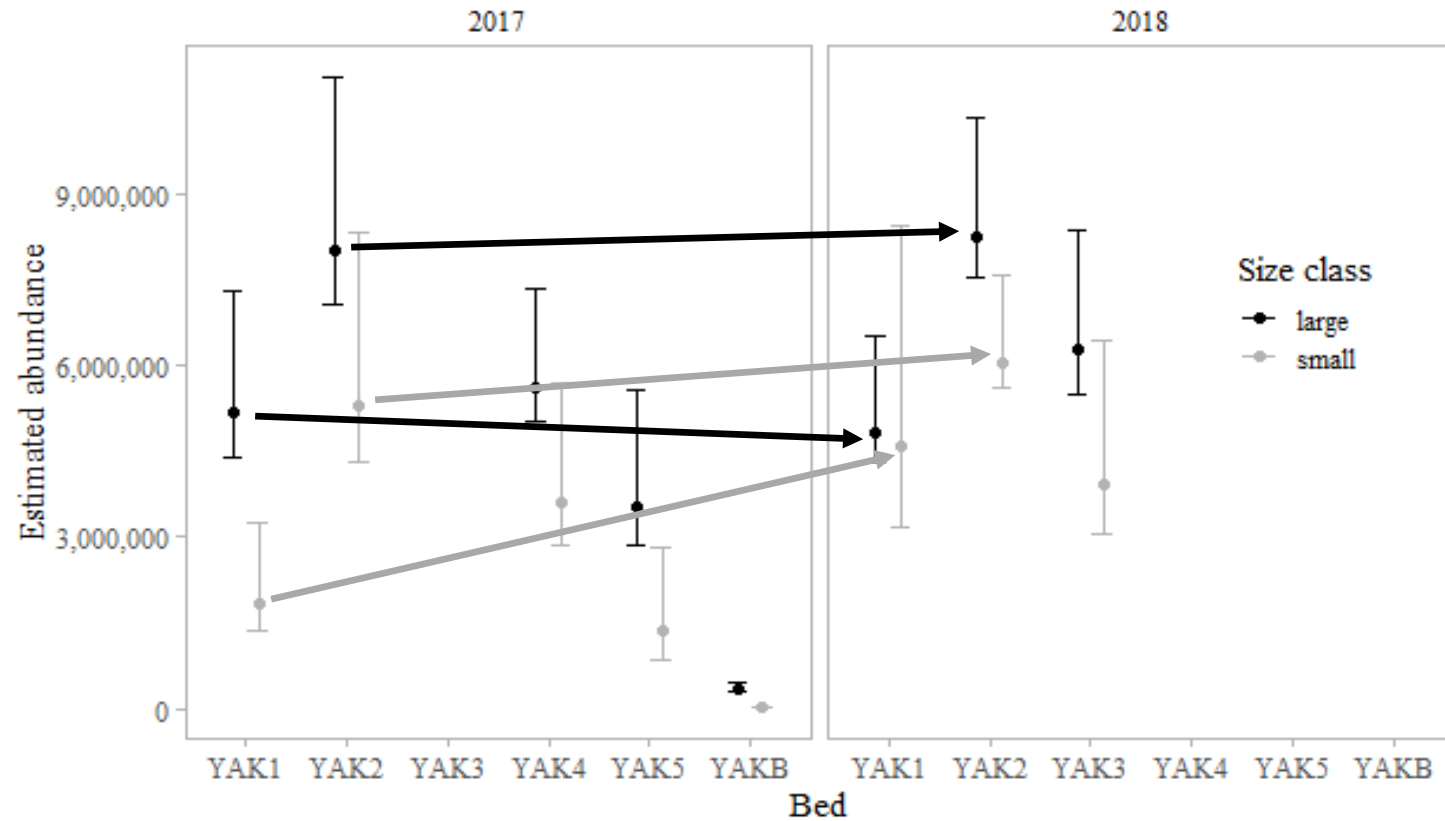
# Abundance Estimate



# Abundance Comparison



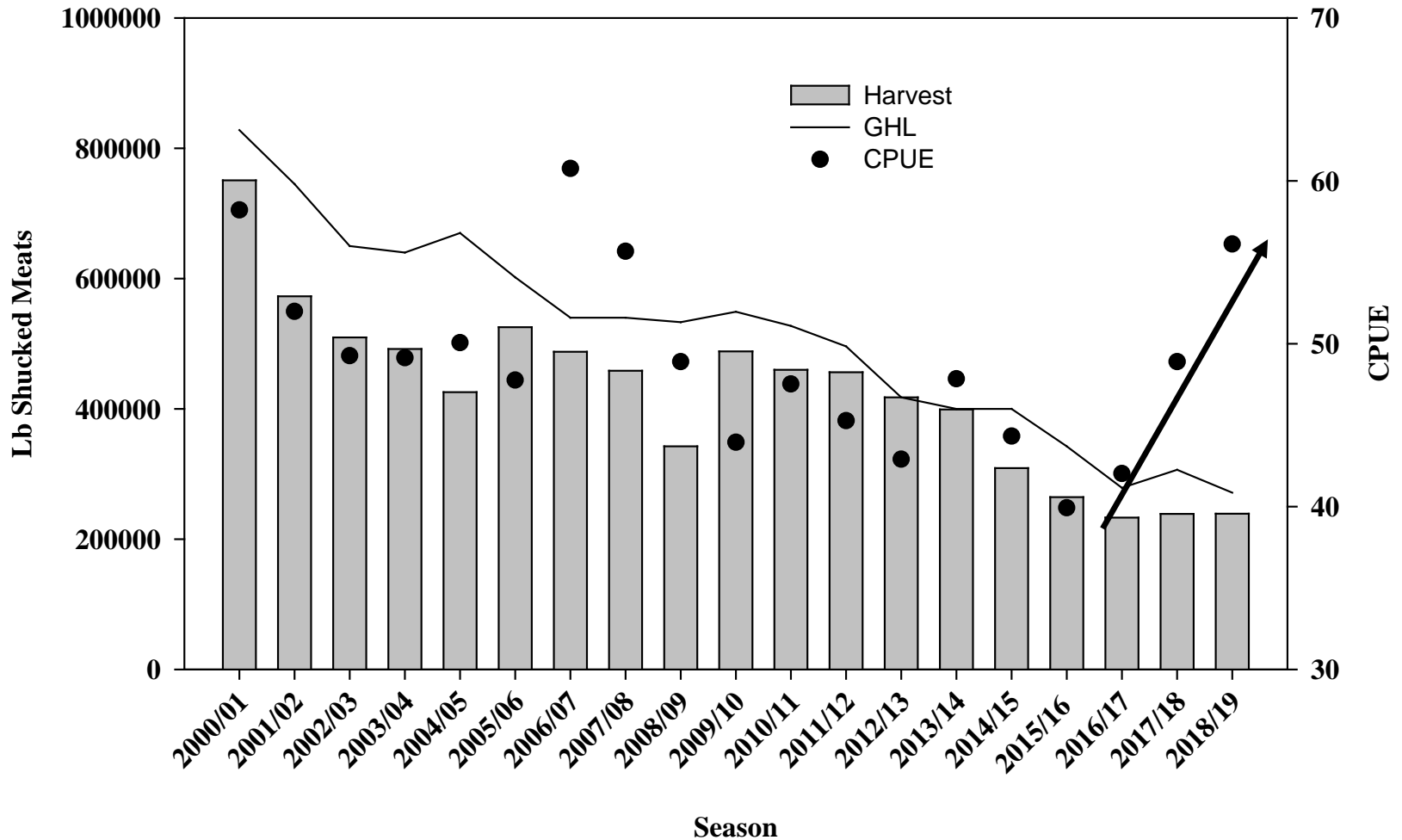
# Abundance Comparison



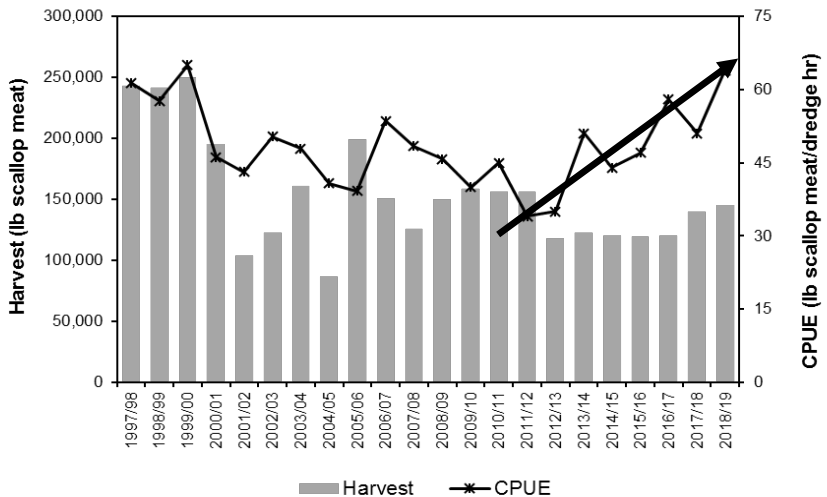
# Recent Fishery Performance

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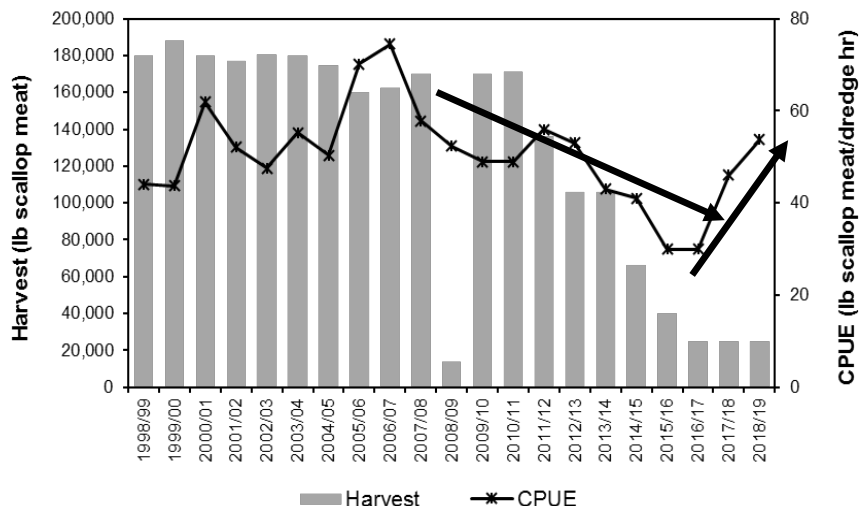
# Statewide Harvest



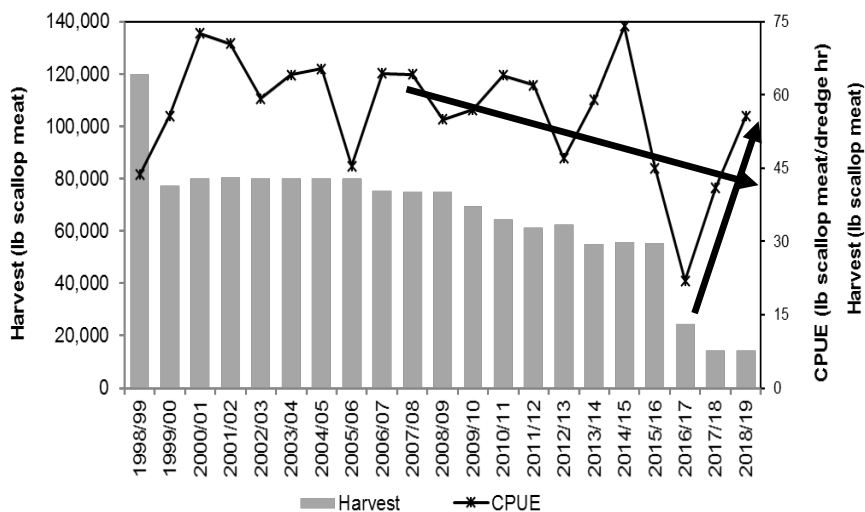
**Yakutat District**



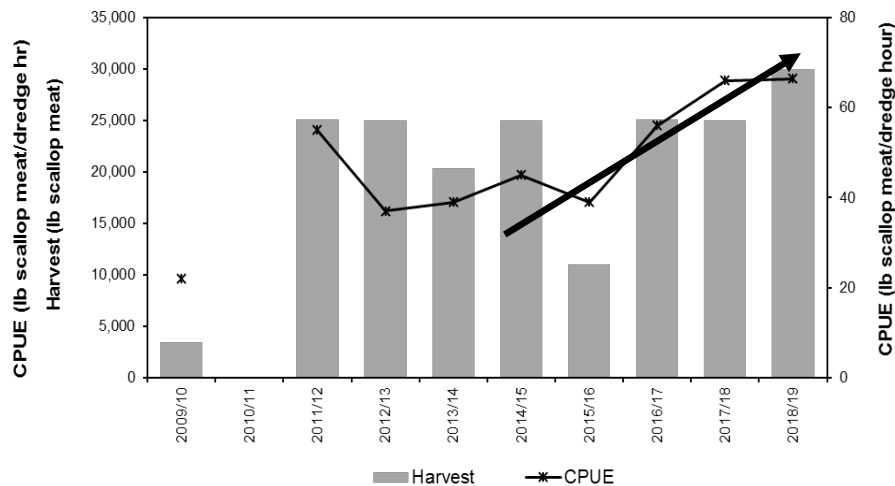
**Kodiak Shelikof District**



**Kodiak Northeast District**

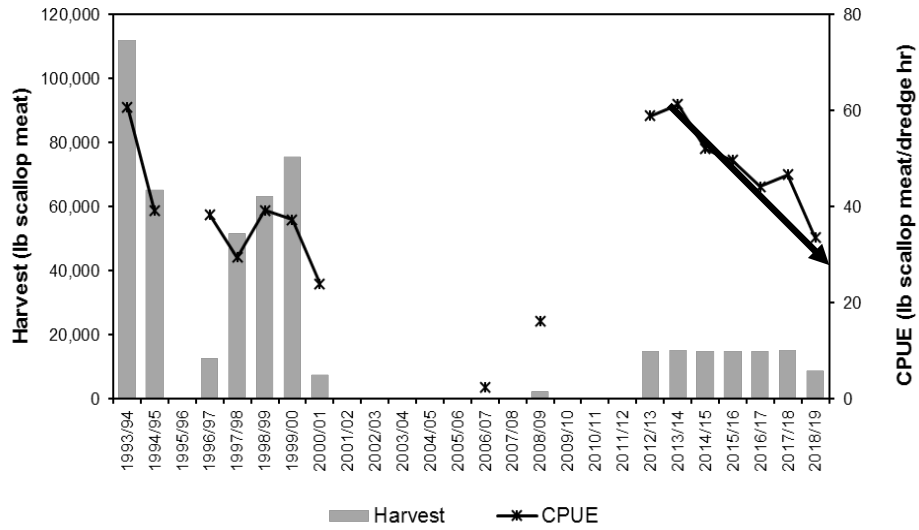


**Kodiak Southwest District**

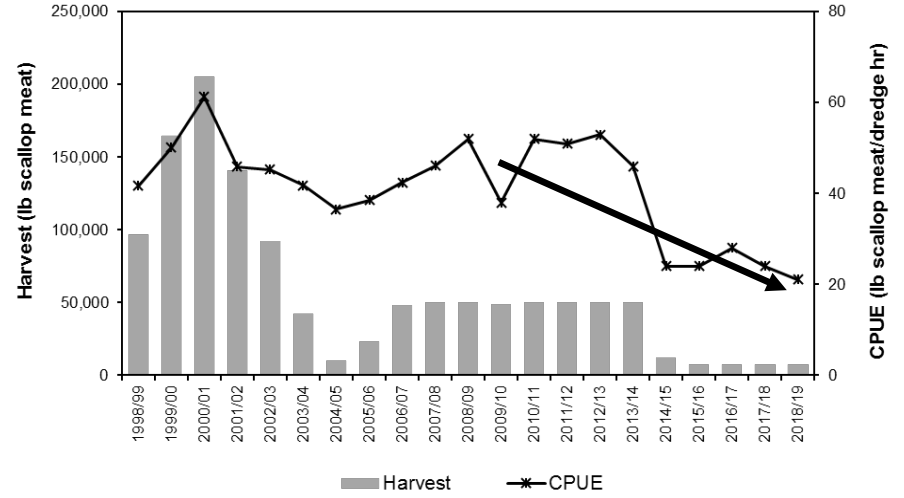




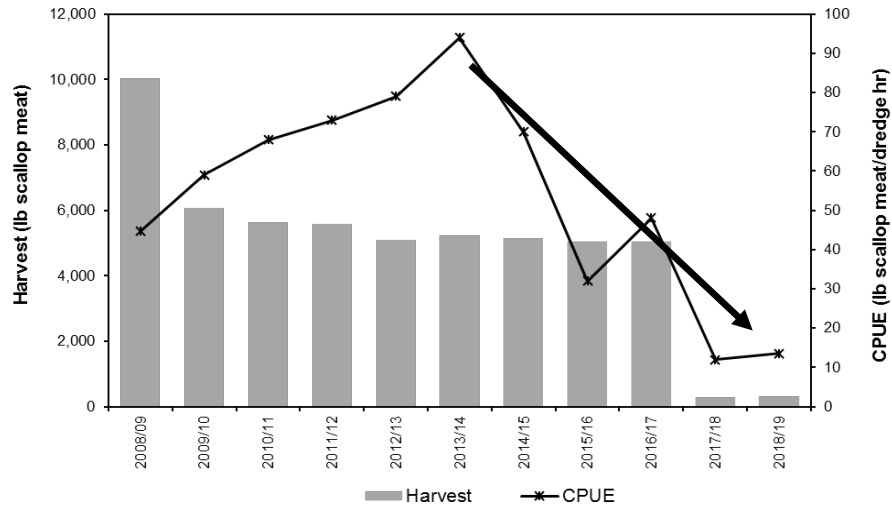
### Alaska Peninsula Area



### Bering Sea Area



### Dutch Harbor Area



# 2017/18 Scallop Fishery Tanner Crab Bycatch

SAFE Table 3-4

Area/District	Chionoecetes bycatch cap	Est number crab	% of cap	Est weight (lb) <sup>a</sup>
Yakutat District	NE	2,083	NA	164
Yakutat District 16	NE	44	NA	0.2
Prince William Sound	1,600	75	4.7%	1
Cook Inlet	3,933	0	0.0%	0
Kodiak Northeast District	19,388	5,593	28.8%	1,512
Kodiak Shelikof District	63,926	3,639	5.7%	2,155
Kodiak Southwest District	12,000	6,945	57.9%	706
Alaska Peninsula Central District	NE	0	NA	0
Alaska Peninsula Unimak Bight District	12,000	5,058	42.2%	357
Dutch Harbor	10,000	8	0.1%	1
Bering Sea <i>C. bairdi</i>	65,000	6,905	10.6%	5,590
Bering Sea <i>C. opilio</i> and hybrids	300,000	4,199	1.4%	5,638
Statewide total	487,847	34,549	7.1%	16,124

# Commercial Weathervane Scallop Real Wholesale Value

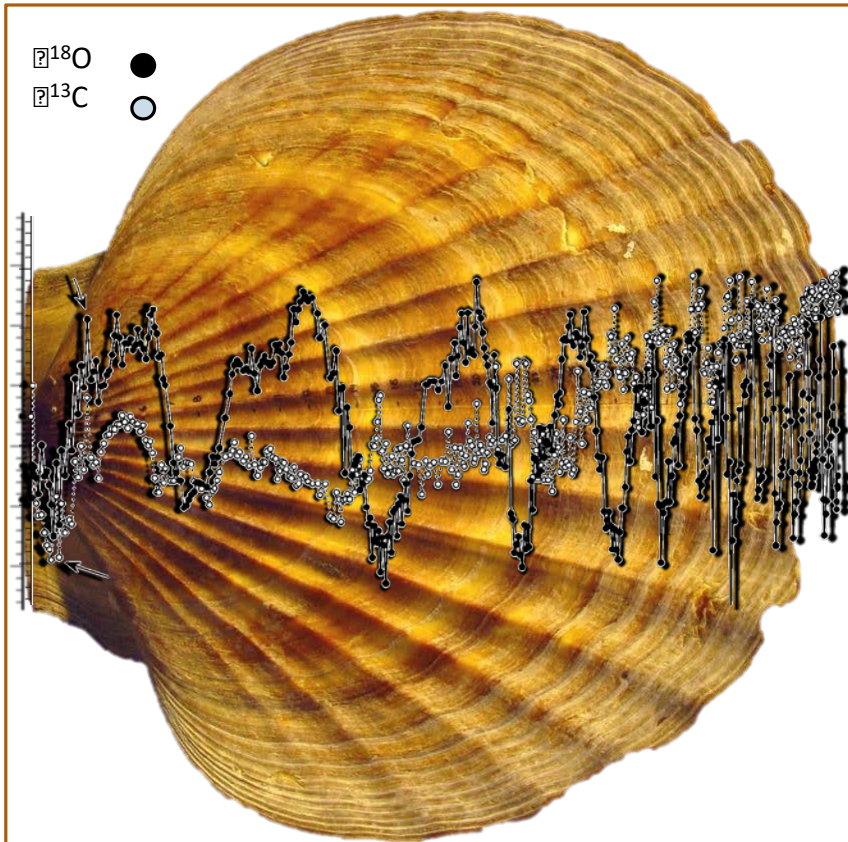
SAFE Table 5-1

Year	Vessels	Catch (lb shucked meats) <sup>a</sup>	Nominal Average Price / lb	Inflation Factor <sup>b</sup>	Real Average Price/lb	Real Wholesale Value
2005/06	5	525,357	\$7.58	1.39	\$10.52	\$5,525,127
2006/07	4	487,473	\$7.86	1.28	\$10.09	\$4,916,922
2007/08	4	458,313	\$5.94	1.29	\$7.64	\$3,499,537
2008/09	4	342,434	\$6.34	1.39	\$8.79	\$3,009,430
2009/10	3	488,059	\$6.48	1.2	\$7.80	\$3,807,175
2010/11	3	459,759	\$8.35	1.09	\$9.11	\$4,269,364
2011/12	4	456,058	\$10.39	1.2	\$12.47	\$5,678,577
2012/13	4	417,551	\$10.63	1.01	\$10.72	\$4,488,507
2013/14	4	399,134	\$12.25	1.02	\$12.50	\$4,988,904
2014/15	4	308,888	\$12.39	1.06	\$13.11	\$1,050,401
2015/16	3	264,316	\$12.22	0.98	\$11.92	\$3,152,920
2016/17	2	233,003	\$12.53	1.03	\$12.95	\$3,017,693
2017/18	2	238,710	\$11.54	1.00	\$11.54	\$2,755,060
2018/19 <sup>c</sup>	2	238,808	\$11.60	1.00	\$11.60	\$2,770,173
10-Year Average	<b>3</b>	<b>351,366</b>	<b>\$10.84</b>		<b>\$11.37</b>	<b>\$3,897,877</b>

# Program Updates

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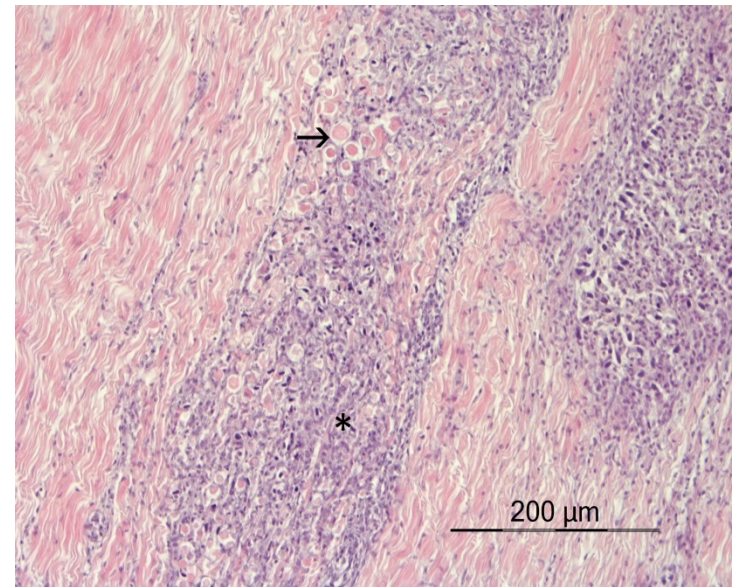
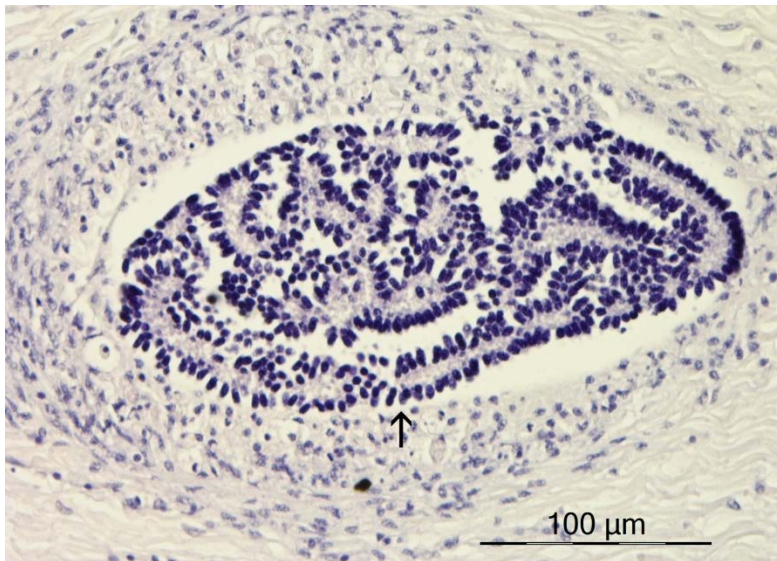
# Shell Aging Update



- Validating seasonal banding interpretation
  - $\delta^{18}\text{O}$  &  $\delta^{13}\text{C}$  stable isotope analysis
  - Laboratory growth and calcium binding dye studies
- Develop area specific growth models to improve quality control procedures

# Parasite Update

- Observer Coordinator continuing to collaborate with Atlantic researchers
  - *Buccinum* newly discovered vector
- Observer program and ADFG Pathology lab planning on expanded collections during 2019/20 season to build on pilot study conducted in 2015



# Thank You

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