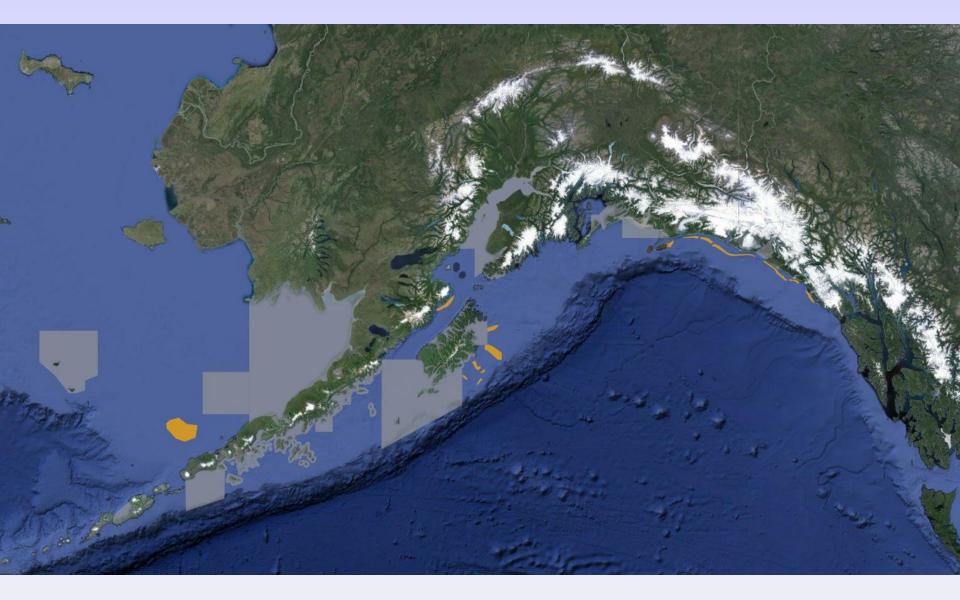
#### STOCK ASSESSMENT AND FISHERY EVALUATION REPORT FOR THE WEATHERVANE SCALLOP FISHERY OFF ALASKA

Compiled by the Scallop Plan Team, March 2018



• Fishery Overview

• Management Overview

• 2017 Assessment Results

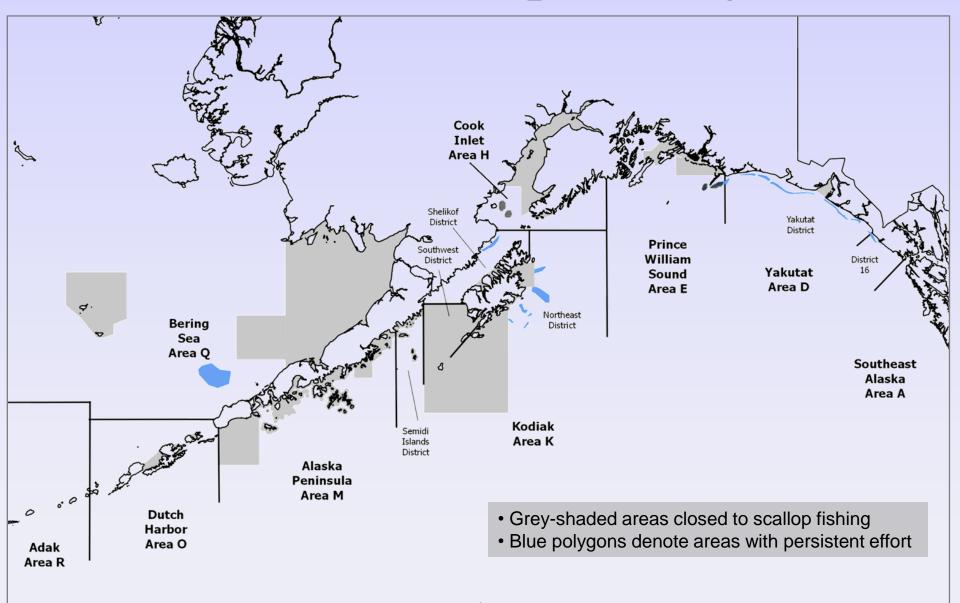
• Recent Fishery Performance

• Program Updates

# Fishery Overview



## Weathervane Scallop Fishing Areas



# Weathervane Scallop Fishery Overview

#### Federal Waters

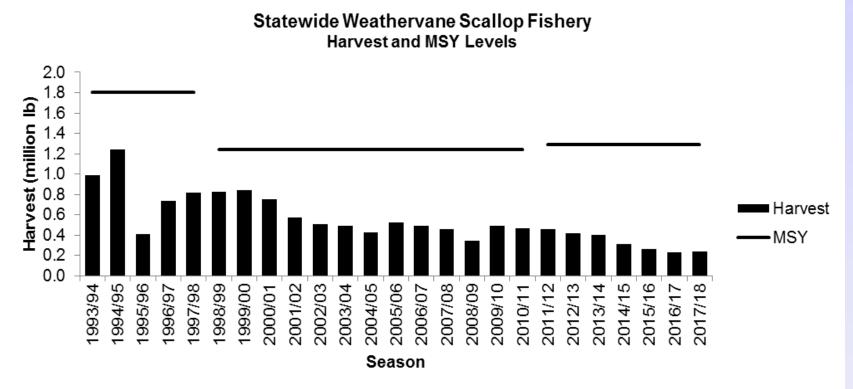
- 9 Federal LLPs
  - 7 LLPs permitted to deploy two 15 ft dredges
  - 2 vessels permitted to deploy two 10 ft dredges
  - Cook Inlet: single 6 ft dredge



#### 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



- 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 default OFL is the MSY of 1.29 million lb of shucked meats
- maxABC = 90% of OFL
- SPT recommendation for ABC = 1.161 mil lb (90% of OFL) for 2016/17

# Management Overview



### Stock Assessment

- 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 (61% of 10 mean year harvest)

# **Observer Program**

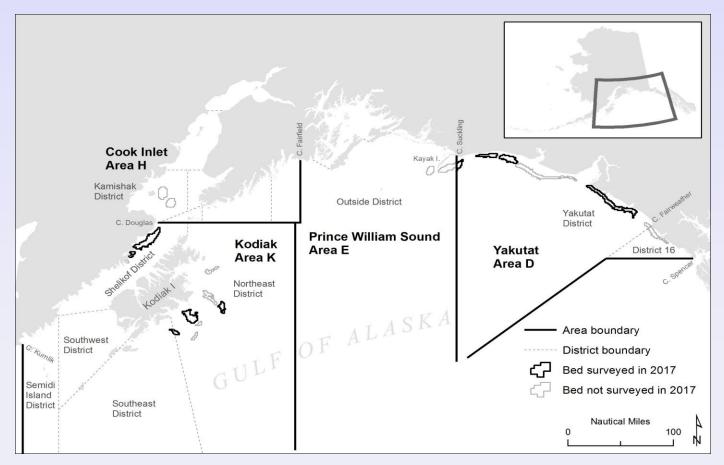
- 100% mandatory observer coverage (except in Cook Inlet)
  - CPUE
  - Shell height
  - Age
  - Discard rates & condition
  - Catch composition
  - Harvest location
  - Harvest depth
  - Bycatch



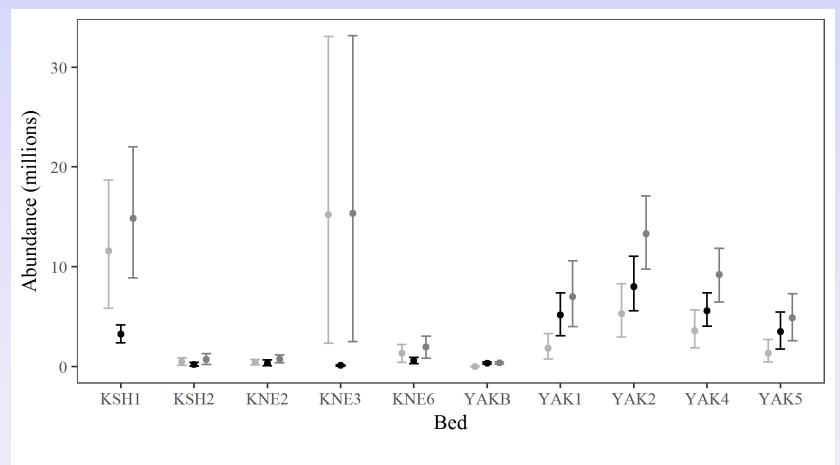


### 2017 Assessment Results (see SAFE Chapter 2)

• Surveyed Yakutat, Shelikof, and Kodiak Northeast Districts

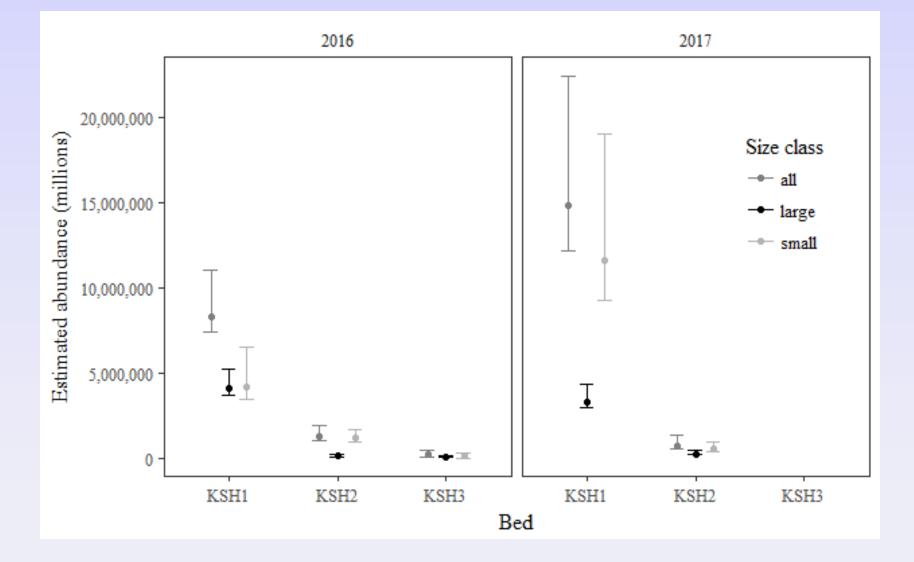


### Abundance Estimate



Size class --- small --- large --- all

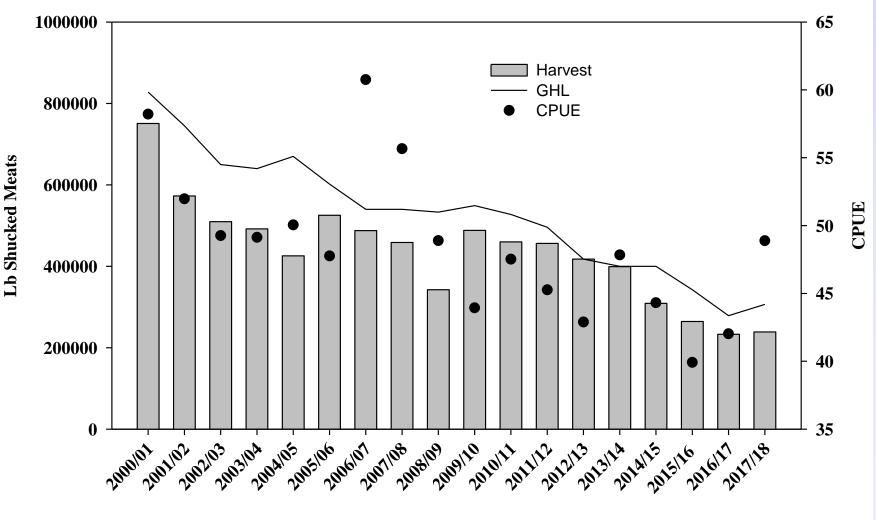
### Abundance Comparison



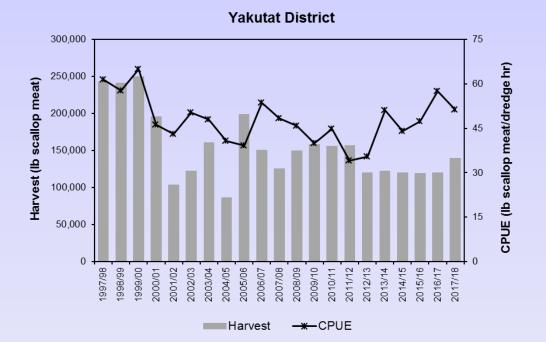
### **Recent Fishery Performance**

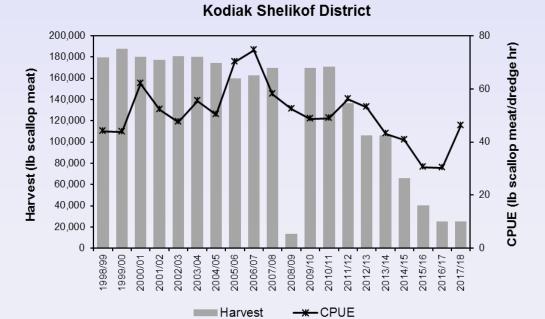


### Statewide Harvest



Season





#### 2016/17 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	933	NA	11
Yakutat District 16	NE	0	NA	0
Prince William Sound	1,561	180	11.5	1
Cook Inlet	3,933	306	7.8	51
Kodiak Northeast District	20,816	9,063	43.5	2,400
Kodiak Shelikof District	43,477	3,322	7.6	1,674
Kodiak Southwest District	12,000	7,868	56.6	2,597
Alaska Peninsula Unimak Bight District	12,000	3,266	27.2	549
Dutch Harbor	10,000	363	3.6	56
Bering Sea C. bairdi	260,000	11,862	4.6	9,015
Bering Sea C. opilio and hybrids	300,000	17,026	5.7	10,600
Statewide total	663,787	54,407	8.2	27,029

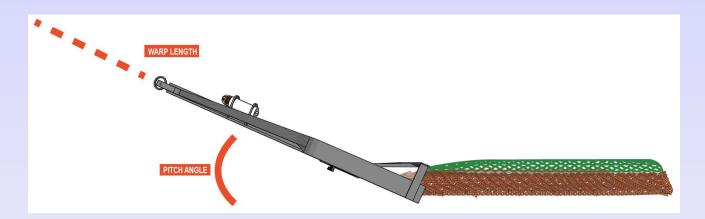
#### **Commercial Weathervane Scallop Real Wholesale Value**

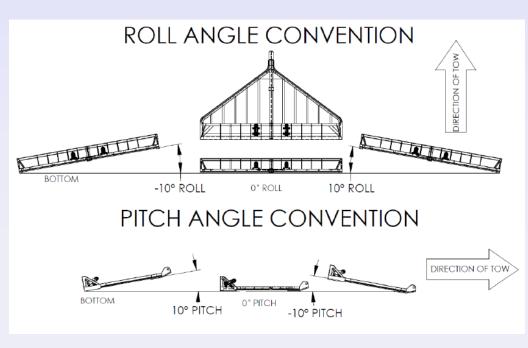
SAFE Table 5-1 Nominal Catch (lb **Real Average Real Wholesale** Inflation Vessels Year shucked **Average Price Price/lb** Value **Factor**<sup>b</sup> meats)<sup>a</sup> / **lb** 2004/05 5 425,477 \$5.50 1.10 \$6.05 \$2,574,136 2005/06 5 525,357 \$7.58 1.34 \$10.16 \$5,336,156 2006/07 4 487.473 \$7.86 1.24 \$9.75 \$4,751,107 \$7.37 2007/084 458.313 \$5.94 1.24 \$3.375.750 4 \$6.34 1.33 \$8.43 2008/09 342.434 \$2,887,472 2009/103 \$6.48 1.16 \$7.52 488,059 \$3,668,642 3 2010/11 459,759 \$8.35 1.05 \$8.77 \$4,030,937 2011/12 4 \$10.39 1.16 \$12.05 456.058 \$5,496,593 2012/134 417.551 \$10.63 0.97 \$10.31 \$4,305,410 2013/144 399,134 \$12.25 0.98 \$12.01 \$4,791,604 2014/15 4 308.888 \$12.39 1.02 \$12.64 \$3,903,665 2015/16 3 264,316 \$12.22 0.94 \$11.49 \$3,036,145 2016/17 2 233.003 \$12.53 1.00 \$12.53 \$2,919,528 2017/18<sup>c</sup> 2 238,710 \$11.54 1.00 \$11.54 \$2,754,713 10-Year 3 \$10.31 360,791 \$10.73 \$3,779,471 Average

# Program Updates

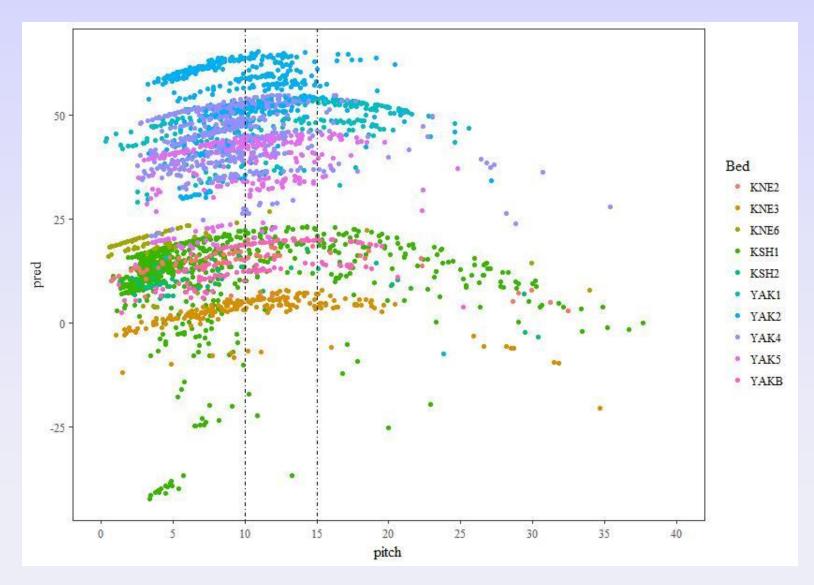


### Survey Dredge Angle Standardization



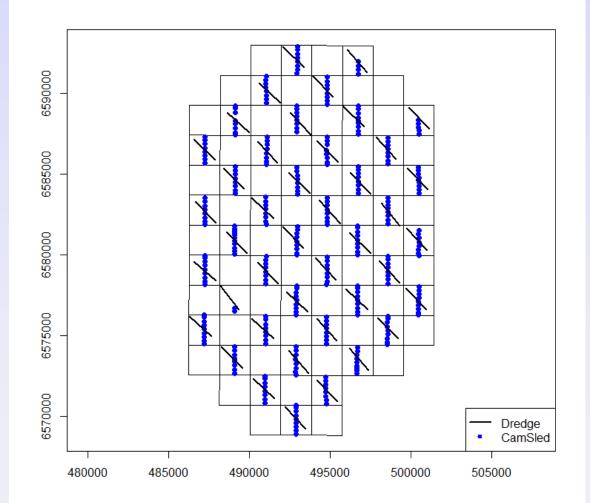


### Survey Dredge Angle Standardization

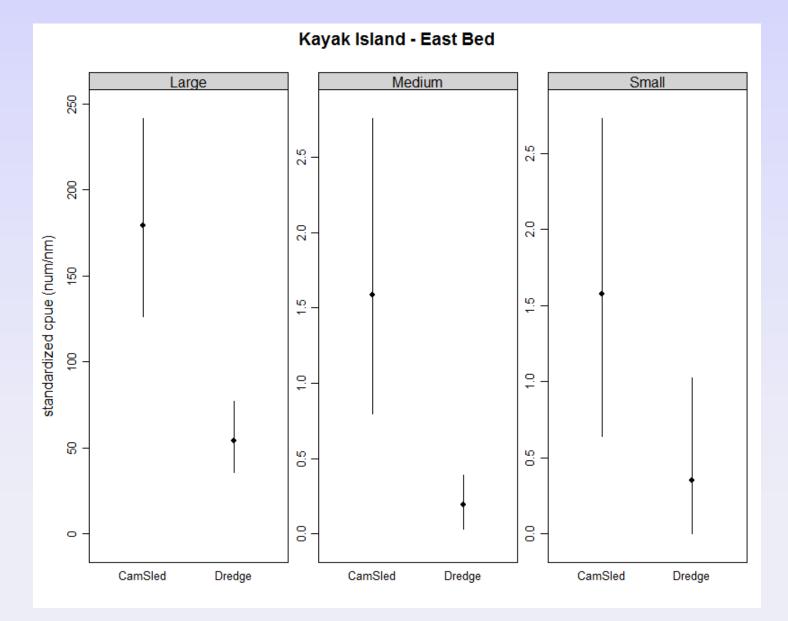


## Dredge Efficiency Estimation

(Kamshak Bay 2007 and Kayak Island 2008)



## Dredge Efficiency Estimation



## Dredge Efficiency Estimation

Scallop	Dredge % of Camseld		CV Dredge		CV Camsled	
Size	Kamishak	Kayak	Kamishak	Kayak	Kamishak	Kayak
Small	5%	*	>50%	*	>50%	*
Medium	77%	*	27%	*	17%	*
Large	73-76%	30-36%	13%	16%	13%	20%

## Thank You



# Additional Harvest Limitation Mechanisms

#### • Minimum performance standards

Area	Minimum Performance	Basis Year
Yakutat Area	Standard (CPUE)	
lakulal Area		
Yakutat	34	2011/12
Kodiak Area		
Northeast District		
Statistical Area 525630	45	2005/06
Statistical Area 525702	52	2002/03
Remainder of NE District	43	2005/06
Shelikof District		
Combined North/South Bed	47	2003/04
<b>Bristol Bay-Bering Sea</b>	43	2004/05 - 2009/10 <sup>a</sup>

<sup>a</sup> Based on average CPUE during the 2004/05 to 2009/10 seasons

### **Scallop Fishery Crab Bycatch Limits**

SAFE Table 3-2

Area/District	Red King Crab	C. bairdi	C. opilio
Yakutat District 16	NE <sup>a</sup>	NE	NA <sup>b</sup>
Yakutat District	NE	NE	NA
Prince William Sound	NE	0.5%	NA
Cook Inlet Kamishak District	30 crab	0.5%	NA
Kodiak Northeast District	0.5% or 1.0%	0.5% or 1.0%	NA
Kodiak Shelikof District	0.5% or 1.0%	0.5% or 1.0%	NA
Kodiak Southwest District	50 <sup>°</sup>	12,000 <sup>c</sup>	NA
Kodiak Semidi Islands District	NE	NE	NA
Alaska Peninsula	0.5% or 1.0%	0.5% or 1.0%	NA
Alaska Peninsula Unimak Bight District	50 <sup>c</sup>	12,000 <sup>c</sup>	NA
Bering Sea	500 crab <sup>c</sup>	3 tier approach	3 tier approach
Dutch Harbor	0.5% or 1.0%	0.5% or 1.0%	NA
Adak <sup>d</sup>	50	10,000 crab	NA

#### 2001–2010 Trawl Survey Catch of Weathervane Scallops

