

C3 SCALLOP SAFE

SSC REVIEW

APRIL 2022

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SCALLOP PLAN TEAM

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Special thanks to ...

Sarah Rheinsmith	(Council Staff, Coordinator)
Sara Cleaver	(Council Staff)
Kendall Henry	(ADF&G Juneau)
Alyssa Hopkins	(ADF&G Kodiak)



TOPICS



- 2022 stock status
- 2021 dredge survey
 - Shell height conversion
- Fishery update
 - Total removals '20/21
 - Retained catch '21/22
- Stock Synthesis model development
- Elements of full SAFE
- Socioeconomics



STOCK STATUS

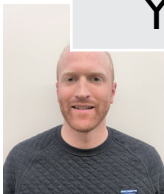
- Stock status is “**unknown**”
- As per FMP:
 - OFL = **1.284 million lb meats**
 - ABC = **1.156 million lb meats** (ABC control rule)
- Total removals suggest **overfishing did not occur** in 2020/21 or 2021/22*
 - 2020/21 total removals = 238,551 lb meats
 - 2021/22 retained catch = 298,755 lb meats



2021 ADF&G DREDGE SURVEY

- Prince William Sound and Yakutat registration Areas

Bed	Last Survey	Abundance $\geq 100\text{mm}$	Abundance $< 100\text{ mm}$	MW Biomass	MW:SH	MW:RW
WKI	2019	↑	↑	↑	↓	↓
EKI (EKI)	2018	↑	↑	↑	↓	↓
EKI (YAK)	2019	↑	↑	↓		
YAK1	2018	↑	↓	↑		
YAK2	2018	↓	↓	↓		
YAK3	2019	↓	↓	↓	↓	↓
YAK4	2019	↓	↓	↓		
YAK5	2019	↓	↓	↓		



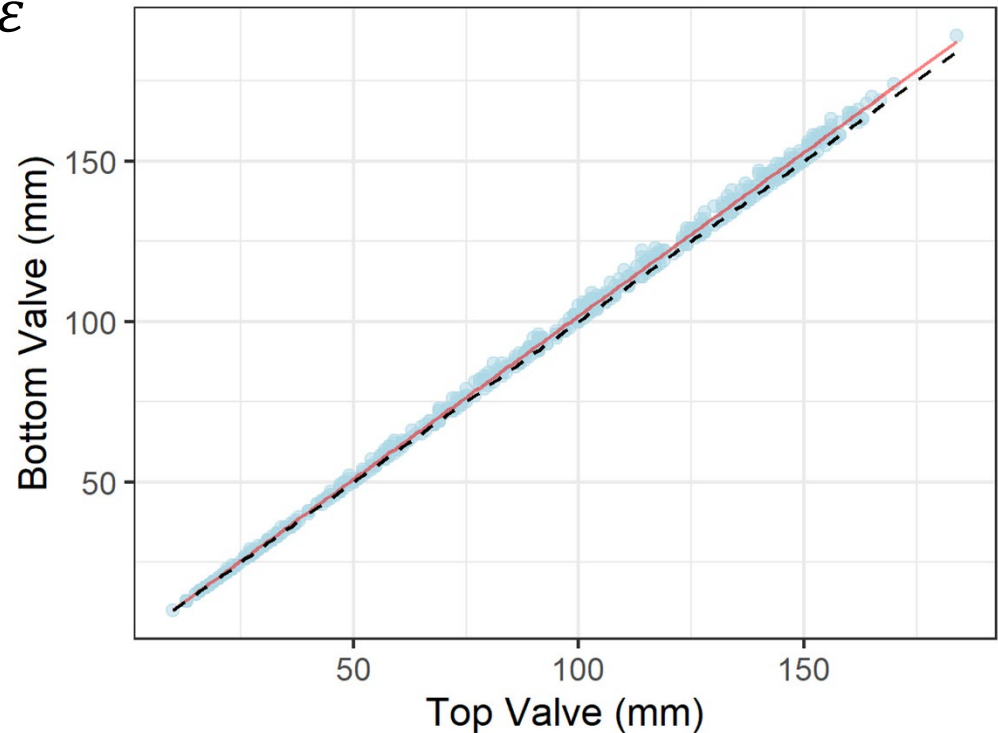
SHELL HEIGHT CONVERSION

$$L_{bottom} = \beta_0 + \beta_1 L_{top} + \varepsilon$$

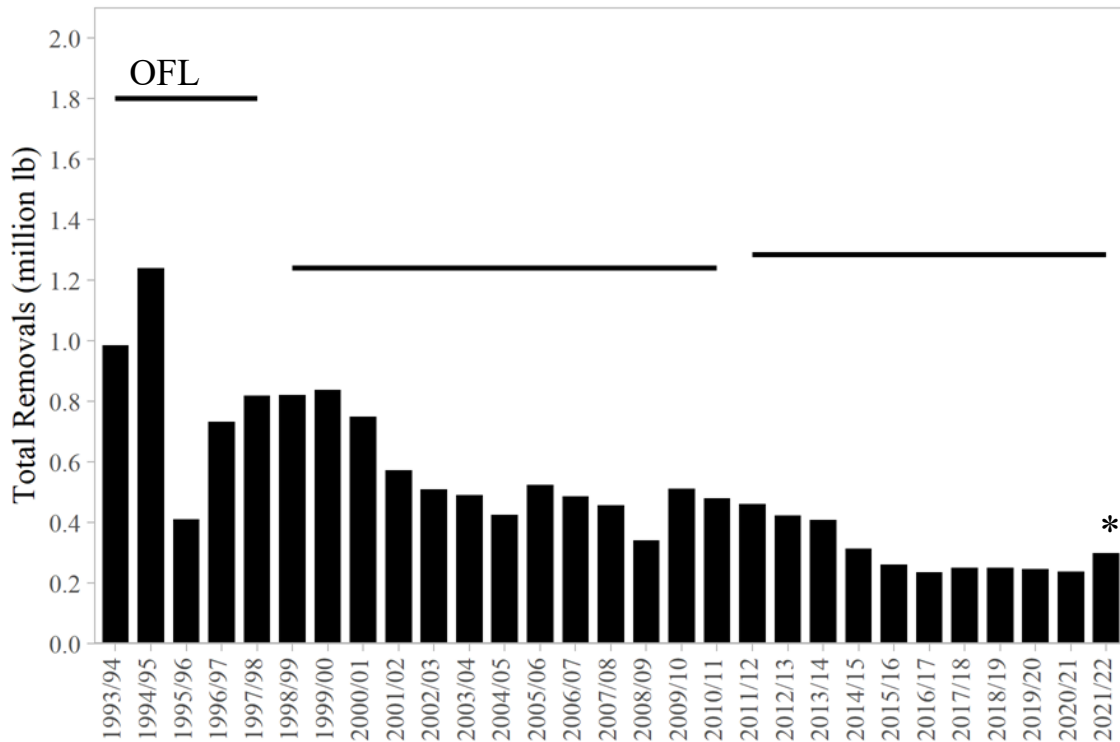
$$\beta_1 = 1.02$$

$$\beta_2 \neq 0$$

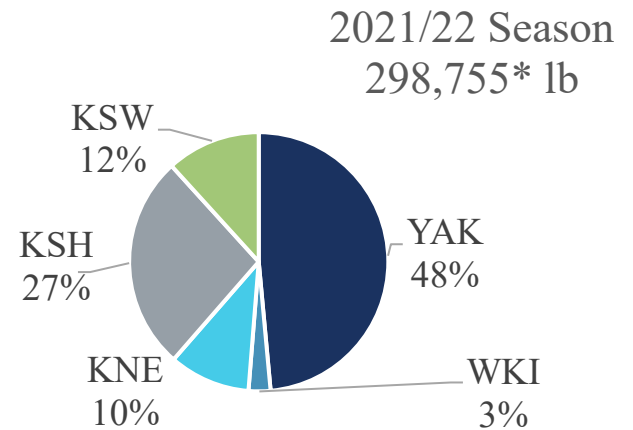
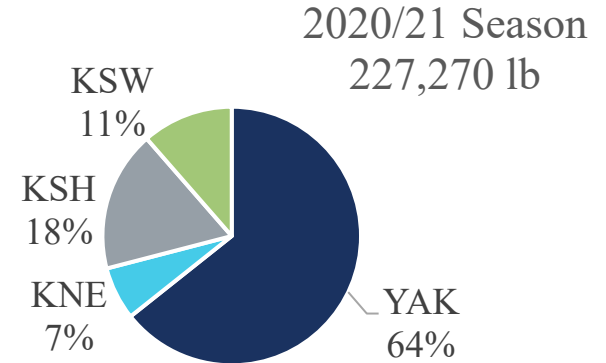
- Unknown which measurements require conversion since method was not consistent throughout timeseries

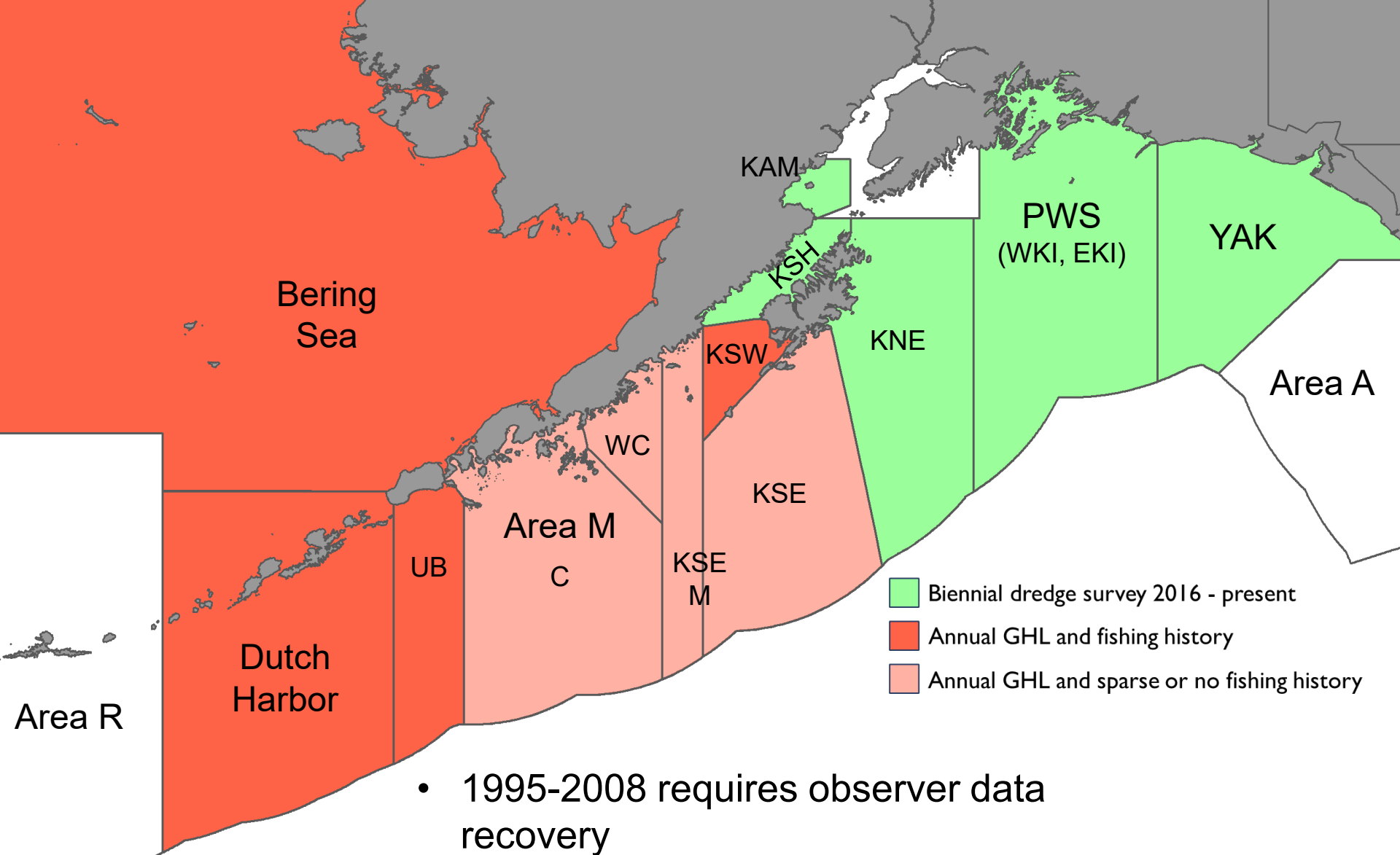


FISHERY MANAGEMENT UPDATE



* Discards not yet available



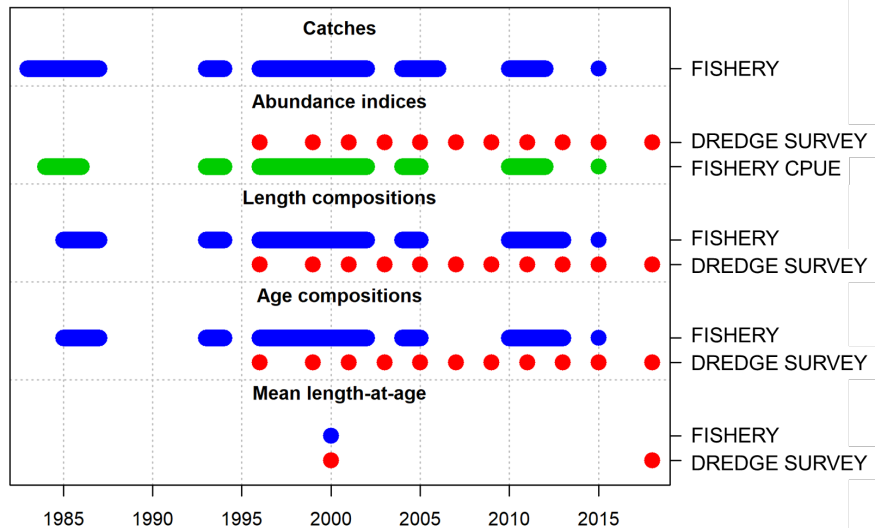


- 1995-2008 requires observer data recovery
- Little knowledge of connectivity
- Biology differs throughout “stock” range

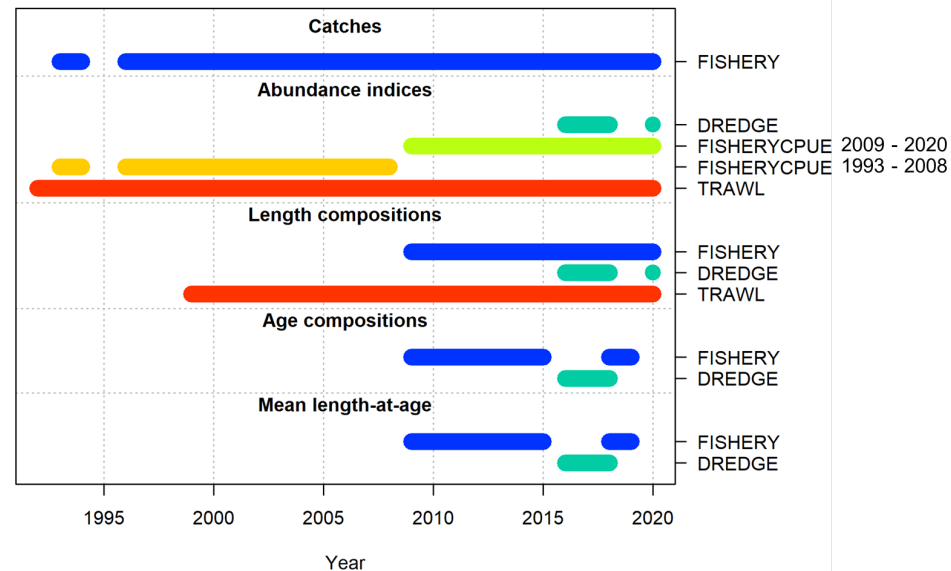


STOCK SYNTHESIS TRIAL MODELS (SAFE A3)

Kamishak District



Kodiak Shelikof District



- Model scenarios: **See SAFE section A3.4**
 - $M = 0.14 - 0.24$
 - Early fishery CPUE timeseries (KSH)
 - Trawl Survey CPUE (KSH)



STOCK SYNTHESIS TRIAL MODELS (SAFE A3)

- Stock Synthesis appears to be a viable tool for AK scallop assessment, but needs refinement
 - Strong retrospective pattern in both KAM and KSH models
 - Likely some mis-specification
- M has big impact on scaling SSB and model fit.
 - Larger M ~ increased SSB and better fit
- SPT did not see including trawl data as a high priority since it is not available for most of the stock
- SPT supported exploring less data intensive assessments



FULL SAFE REDUCTIONS

- Next full SAFE will be in 2024
- Current version is very long, contains some redundant reporting
 - Survey history and methodology – ADF&G Operational Plans (Burt et al. 2021; Knutson and Spalinger 2021; *previous versions*)
 - Finer details of area specific fishery performance – do not directly inform stock status
- Reductions would ease preparation and likely review



SOCIOECONOMIC CONSIDERATIONS : REVISIONS TO THE APPENDIX

- Merged the history appendix to eliminate duplication
- Retained and updated the breakeven analysis originally from Amendment 4 (LLP formation)
- Added additional community and crew discussions and port landings for the past three seasons, documents and database development project ADF&G Kodiak has initiated to link past fish ticket data to port of landing
- Expanded discussions of fleet consolidation under LLP management since inception in 2000
- Updated all tables and figures
- Provided responses to past SSC comments in the comment response section of the SAFE.



LLP OWNERSHIP INFORMATION: INDEPENDENT OF THE COOPERATIVE

- LLP (004) was transferred from Scott Hulse to Ty W. Babb, of Maine, in 2022; no know vessel associated
- Two LLPs are owned by east coast entities, Atlantic Capes (LLP 003) and EWT LLC (LLP 006, no vessel associated)
- The vessel Kilkenny (homeported in Kodiak), is owned by Atlantic Capes (LLP 003), according to CFEC records; historically Kilkenny has delivered fresh scallop meats for marketing in Kodiak and Homer.
- No State of Alaska waters registrants have fished since the management plan was adopted.



LLP OWNERSHIP INFORMATION: COOPERATIVE AFFILIATED

- No known change in cooperative membership or cooperative affiliated LLP ownership shares
- Cooperative members collectively own three vessels qualified to fish their LLPs; the Polar Sea (LLP 005), the Provider (LLP 008), and the Ocean Hunter (LLP 009).
- Provider is exclusively used to fish scallops, Polar Sea and Ocean Hunter may also participate in the Crab Rationalization Program fisheries
- Cooperative members freeze product at sea and deliver to cold storage or freezer containers for barging



LANDED VALUE UPDATE

- Landings increased from 227,270 lb to 298,755 lb
- Assumed 6 percent price increase in 2021 (preliminarily \$11.06/lb. up from \$10.43)
- Value increased from \$2.4 million to \$3.3 million
- Two cooperative vessels fished in 2021-22
- Potential crew share (assumes 24 total positions, and 42% of total revenue) increased from \$41,482 to \$57,824
- Breakeven analysis indicates participation is near breakeven levels; however, efficiencies gained via effort consolidation likely mean participants are performing above breakeven levels



PORT LANDINGS 2019-2022

Port	Season		
	2019/20	2020/21	2021/22
Dutch Harbor	1		
Homer	1		
Kodiak	5	5	8
Yakutat	3	2	2
Seattle		1	
Total	10	8	10

Source: ADF&G Kodiak Scallop Program Office, 2022



US ATLANTIC SEA SCALLOP LANDING AND VALUE, AND IMPORTS AND VALUE

- 49 million lbs. in 2020, projected 40 million lbs. landed in 2021
- \$486.2 million in 2020, \$421.4 projected in 2021
- \$9.94 per lb. in 2020, assumed \$11.06 per lb. in 2021 (six percent increase)
- Imports increased from 36.5 million lbs. to 55.4 million lbs.
- Average import price, all product forms combined, increased from \$5.35 to \$5.86



Questions?

