

Scallop SAFE and Specifications

Scallop Plan Team, Mar. 5, 2024

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SAFE Updates

- Major update to SAFE format from 2022. Reads more like crab and groundfish documents
- It's shorter
- More information on biology, management history, available data types
- Less detail on survey – better documented in ADF&G reports
- Less summary of fishery data not informing the assessment
 - Crab bycatch
 - Scallop size composition

Major changes to assessment methods

- None

New data

- 2023/24 observer data
- 2023 survey

Stock Status

- No stock-wide biomass estimate or biomass target
- Stock status – “Unknown”
- **2023/24 OFL – 1.284 mil lb, ABC – 1.156 mil lb**

Season	Combined GHL	Retained Catch (lb)	Total Catch (lb)	OFL (mil lb)	ABC (mil lb)
2019/20	267,500	229,945	246,900	1.284	1.156
2020/21	277,500	222,560	234,662	1.284	1.156
2021/22	345,500	298,770	311,978	1.284	1.156
2022/23	375,500	329,095	345,689	1.284	1.156
2023/24	374,700	318,647	328,112	1.284	1.156

Season	Combined GHL	Retained Catch (t)	Total Catch (t)	OFL (t)	ABC (t)
2019/20	121	104	112	582	524
2020/21	126	101	106	582	524
2021/22	157	136	142	582	524
2022/23	170	149	157	582	524
2023/24	170	145	149	582	524

OFL for 2024/25 & 2025/26

- FMP is very prescriptive, changing specifications would require an amendment
- Basis for Overfishing limit (OFL):
 - OFL = Optimum Yield (OY) = Maximum Sustainable Yield (MSY) ~ proxy
 - Originally set at 1.1 mil lb in 1996
 - **Amendment 1 (1996) – increased to 1.8 mil lb** (max retained catch)
 - **Amendment 6 (1999) – decreased to 1.24 mil lb** (avg retained catch from 1990 – 1997, excluding 1995)
 - **Amendment 13 (2011) – increased to 1.284 mil lb** (added ~44,000 lb of bycatch mortality from fisheries, bycatch fisheries and surveys; Balsiger et al. 2011)

Continue with OFL = 1.284 mil lb

ABC for 2024/25 & 2025/26

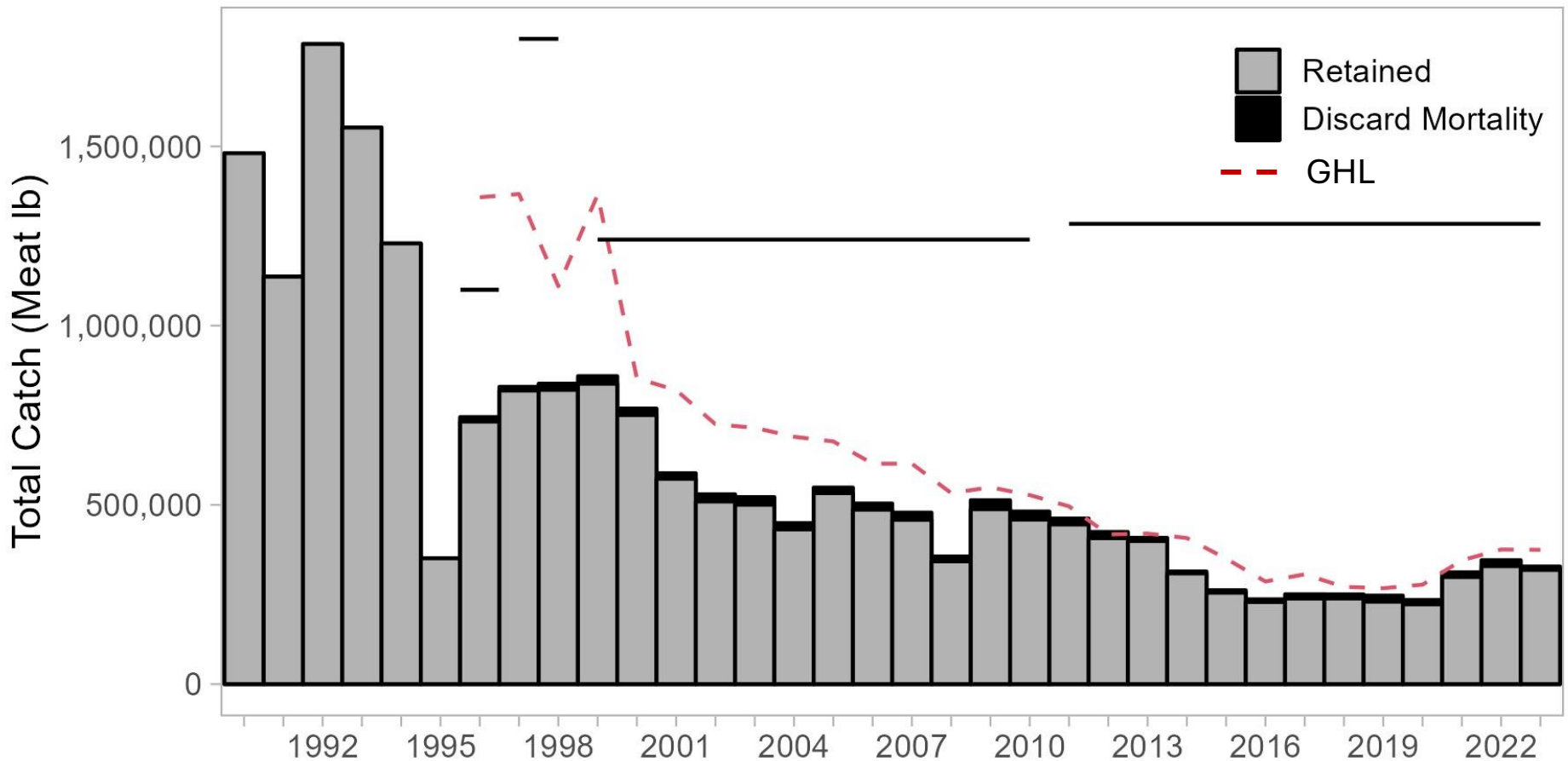
- Acceptable Biological Catch (ABC) is set using ABC control rule:

Maximum ABC = 90% of OFL

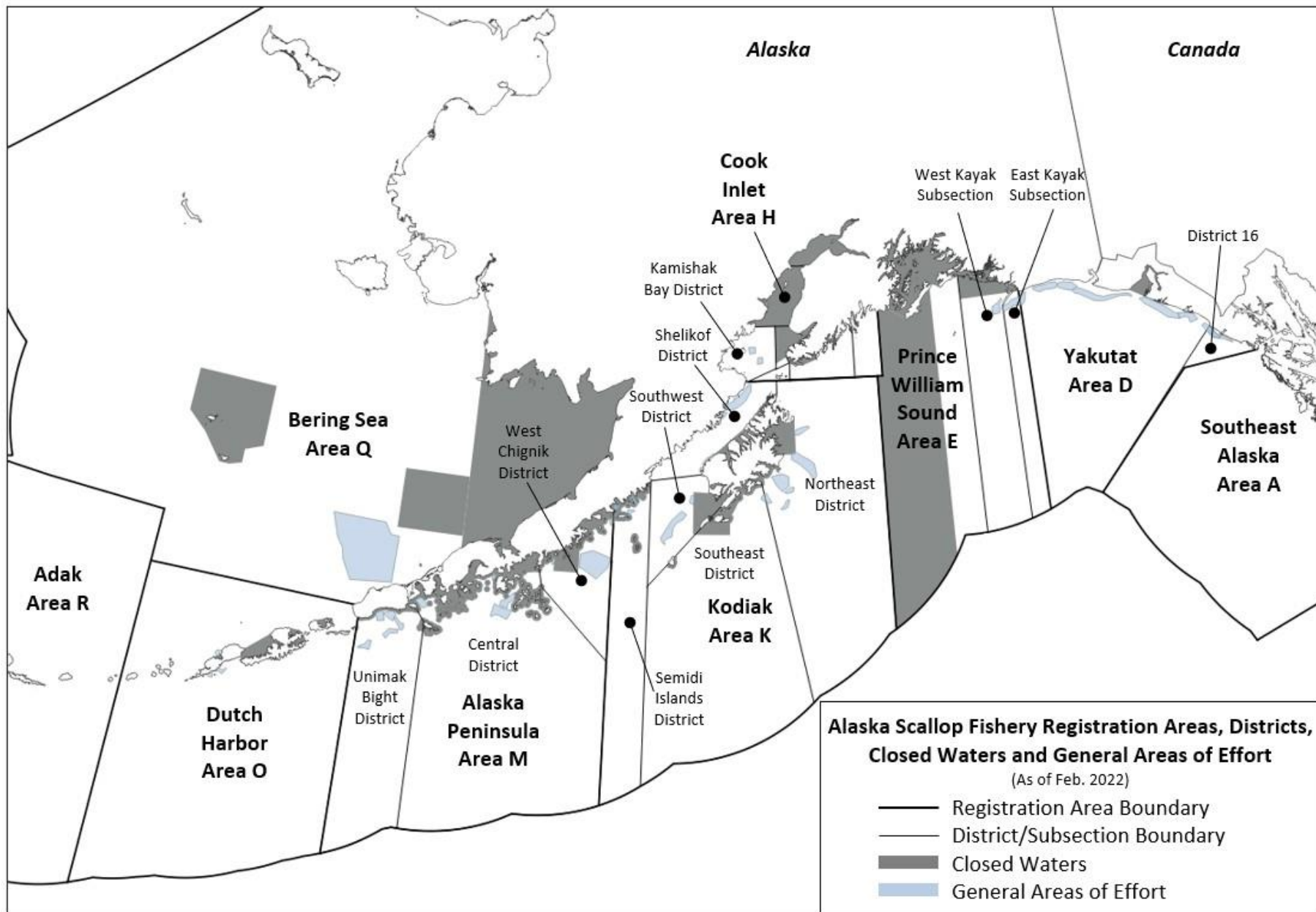
SPT has never used larger than a 10% buffer *to my knowledge*

Continue with ABC = 1.156 mil lb

SSC 2022: *“The SSC recommends that the SPT consider whether the OFL levels are appropriately set using the current reference period from 1990-1997, given the more recent CPUE trends and biological information (e.g., average weight) available.”*

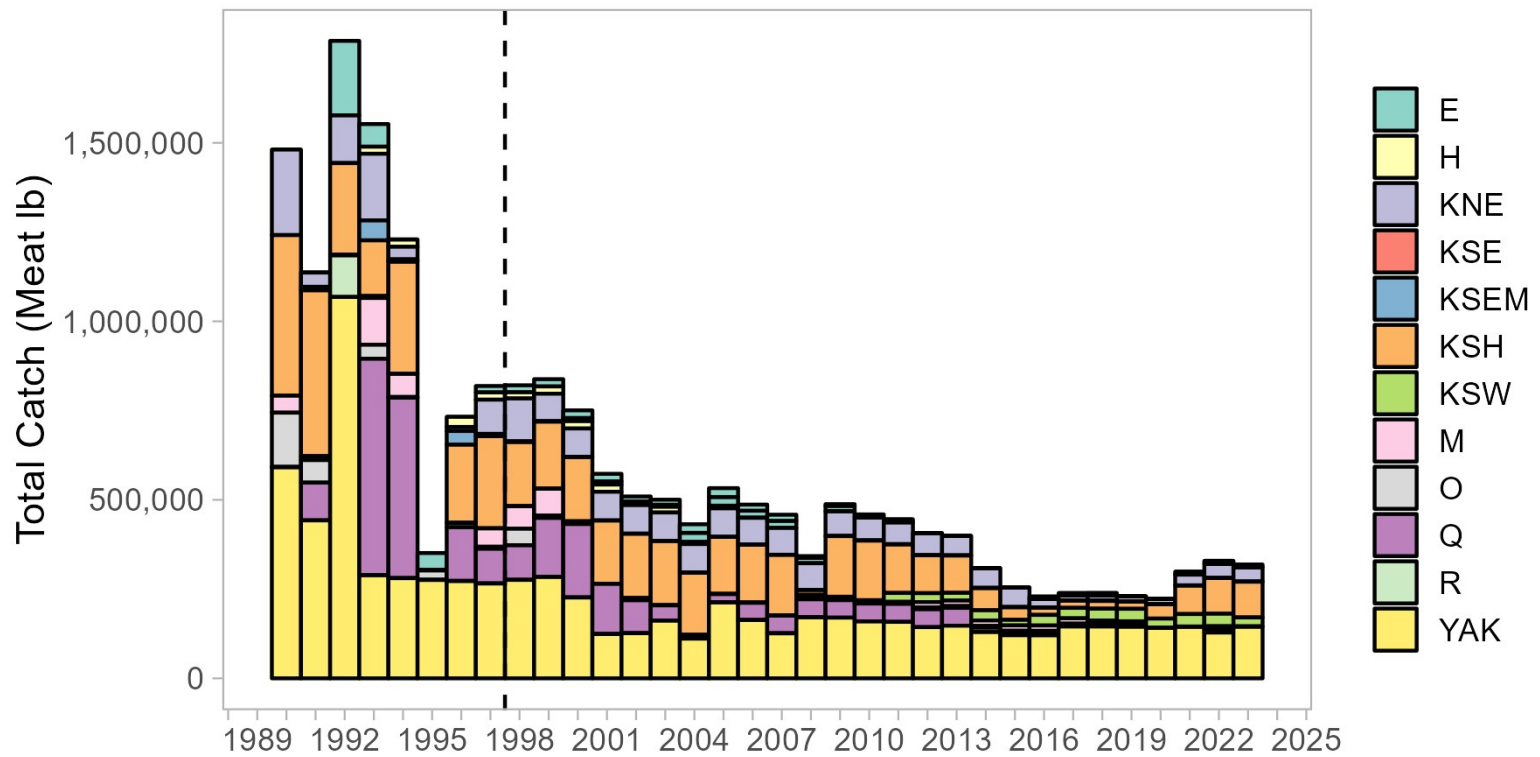


- Fishery expanded in area and number of participants from 1990 – 1993, explored unfished beds (west of Kodiak)
- Historic highs were not sustained – ADF&G develops FMP over conservation concern (1994)
- Fishery closed for most of 1995; Federal FMP published in 1996, fishery re-opened



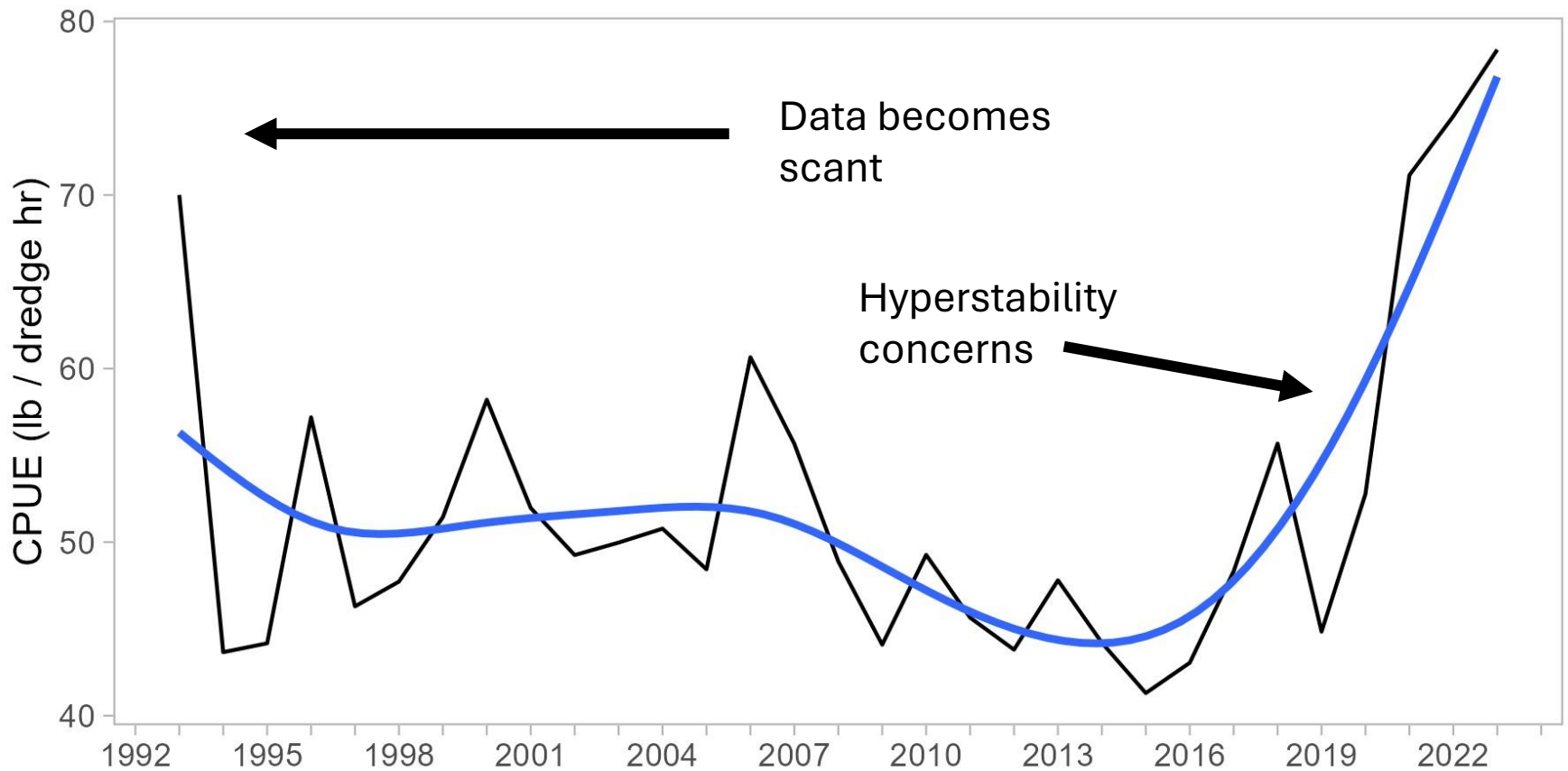
Logic from Amendments 6 and 13

- Fishery after 1993 was limited by management, no steady state to base MSY on catch
- Reference period from 1990 – 92 would exclude high productivity in Bering Sea, but Bering sea catches in 1993-94 were “*probably not sustainable*” (fishing-up)
- 1996-97 were constrained by crab bycatch
- 1990-1997 offsets not including Bering Sea in early years and low catches due to bycatch with fishing-up process.



District	Avg Retained Catch (lb) '90 –'97	Percent Total (%)
E	41,415	3.3
H	12,730	1.0
KNE	106,092	8.5
KSEM	16,543	1.3
KSH	302,601	24.2
KSW	780	0.1
M	45,580	3.6
O	37,751	3.0
Q	209,433	16.8
R	16,620	1.3
YAK	458,575	36.7

~20% of reference catch is from non-core areas



- Difficult to base much off CPUE trends, data becomes scant the older it gets. **This figure does not include all districts in many years before 2009.**
- CPUE is pulling out of a low period (aligns with catches / management actions), but hyperstability is a growing concern

Conclusions

- 1990-1997 likely does not represent the prevailing conditions and stock productivity in 2024
- Catches in early part of reference period warranted conservation concern – odd choice for MSY proxy?
- A better reference time series would likely start sometime the last peak in catch ~ 1999-2000
 - Less input from non-core fishery
 - Allows room for non-core to grow/rebound
 - Includes targeted biomass in KSW
- Ending year is unclear
 - Fishery currently in rebound from mid-2010s slump in Area K
 - Environment rapidly changing

Author Recommendation

- Stick to status-quo reference time series for now
- Rely on state management to be more conservative than federal harvest specifications
- Focus on developing biomass estimate and biomass target based reference points