C1 BSAI CRAB STOCKS

KATIE PALOF & MIKE LITZOW (CPT CO-CHAIRS)

FEB 2024 NPFMC MEETING

CPT MEETING MINUTES – JAN 10TH – 12TH ANCHORAGE,AK

BSAI CRAB STOCKS MANAGEMENT TIMING

Aleutian Islands golden king crab
Pribilof Islands golden king crab *
Western Aleutian Islands(Adak) red king crab *

→ Assessed in May/June

→ Triennial cycle, next assessment in 2026

EBS snow crab
Bristol Bay red king crab
EBS Tanner crab
Pribilof Islands blue king crab *
Pribilof Islands red king crab *
St. Matthew blue king crab *

→ Biennial cycle, next assessment in 2025

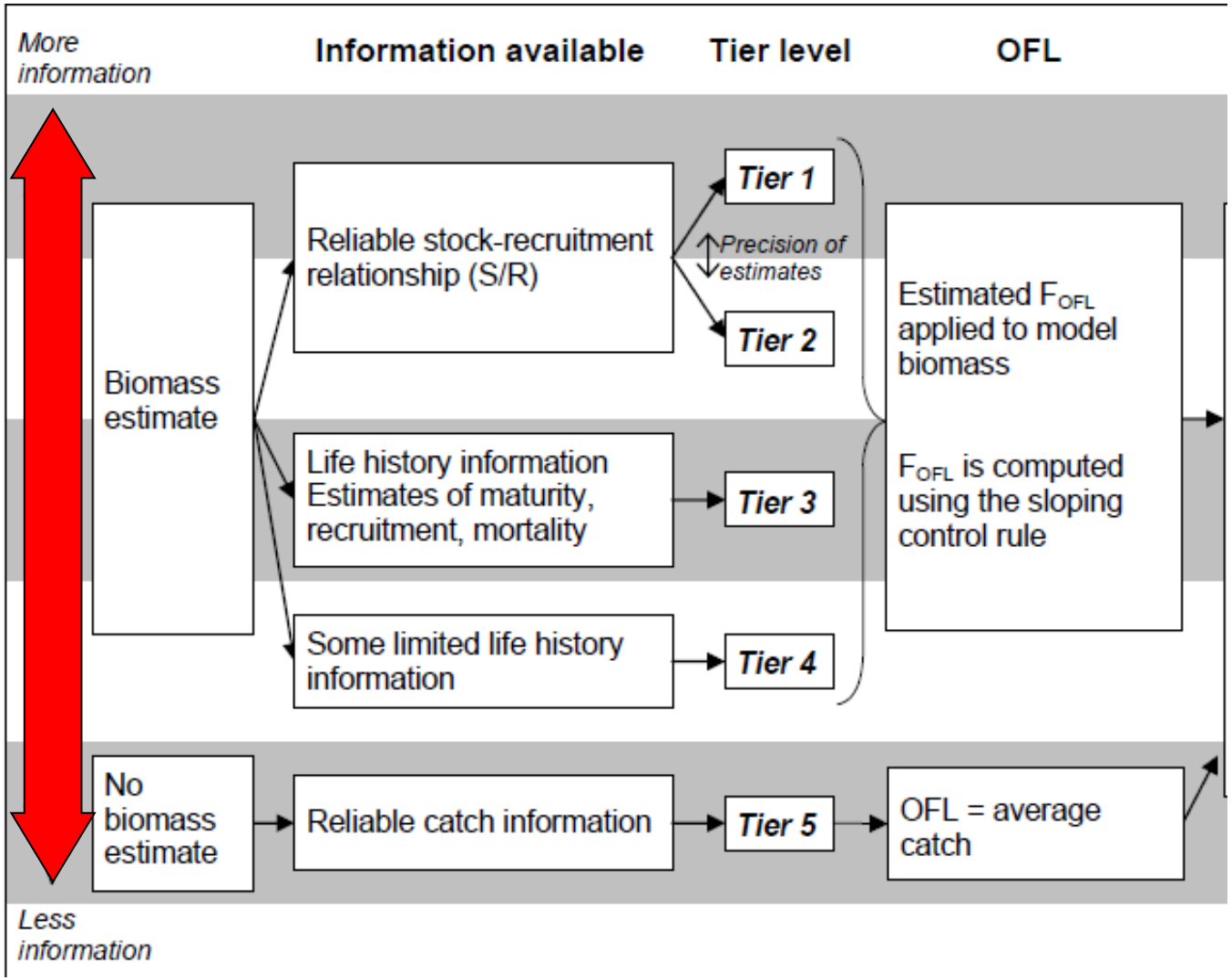
→ Assessed in September/ October

→ Triennial cycle, next assessment in 2025

→ Biennial cycle, next assessment in 2024

Norton Sound red king crab

→ Assessed in January/ February



ABC buffer

10-20%

10-25%

25-40%

JANUARY 2024 AGENDA

- ✓ **NSRKC final assessment, OFL and ABC**
- ✓ Proposed model runs: AIGKC
- ✓ Stock prioritization and council timing pertaining to crab assessment timing
- ✓ SSC general comments for crab stocks
- ✓ Research priorities (presented separately)
- ✓ UFMWG – presented in June
- ✓ Econ SAFE
- ✓ BSFRF update
- ✓ Currency of management discussion to guide May models
- ✓ Research updates (4 of them)
- ✓ ESP updates and planning / BBRKC skipper survey prelim results
- ✓ Modeling workshop (GMACS and follow up from spring 23 simpler modeling group)

NORTON SOUND RED KING CRAB (NSRKC)

FINAL ASSESSMENT 2024

NSRKC MODEL APPROACH

- Tier 4 stock (4a)
- Male-only assessment
- Seven size bins
- Fit to NMFS bottom trawl survey and ADF&G trawl survey in Norton Sound
- Separate fits to old-shell and new-shell crab
- Fishery harvests occur instantaneously:
  - Winter fishery: Feb 01: Nov – May
  - Summer fishery: July 01: Jun – Sept
- Progress is occurring on GMACS version – modeling workshop progress

FISHERY & SURVEY DATA

Winter fishery 2023

- Commercial: 10,013 lbs
- Subsistence: 1,604 lbs

Summer commercial fishery 2023

- Retained catch 413,327 lbs
- Discard mortality: 18,866 lbs (model estimate)
- Negligible bycatch in other fisheries

Total harvest: 0.444 million lbs < ABC (0.450 million lbs)

- No overfishing occurred in 2023

All data FINALIZED

ADF&G 2023 Summer trawl survey abundance

- 3.44 million (CV = 0.325)

NOAA 2023 NBS trawl survey abundance

- 1.74 million (CV = 0.379)

NSRKC MODEL OPTIONS AND RECOMMENDATIONS

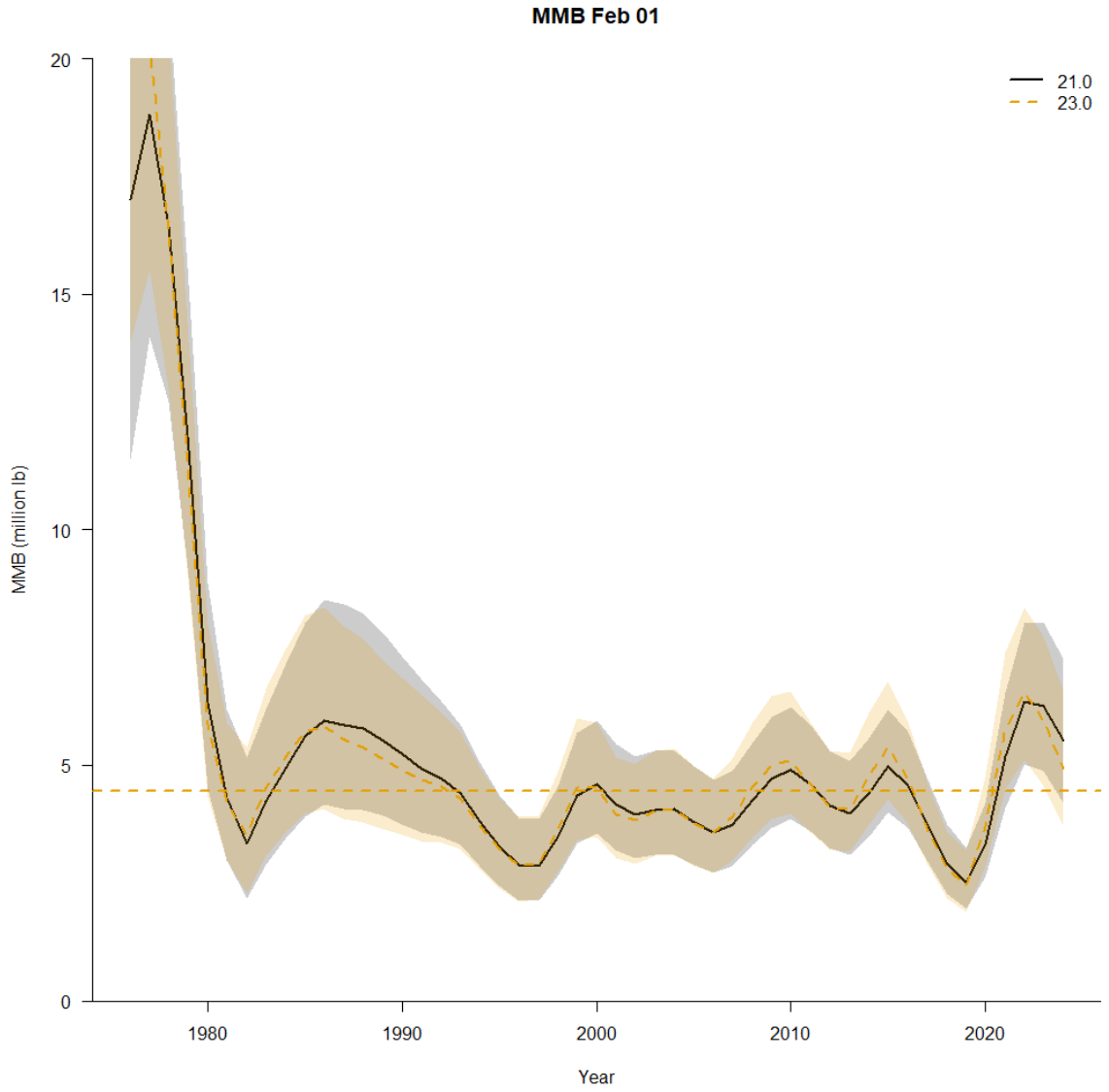
Models considered:

- 21.0 -- Accepted model from 2021, fit to 2023 data
  - Assumed *M* = 0.18 for size class 1-6,
  - Estimated *M* (0.61) for carapace length > 123mm
- 23.0 -- Single value of *M* (0.41) estimated for all size classes

CPT recommendations:

- **21.0** fits data slightly better than 23.0
- 23.0 produces biologically unrealistic value of *M* across all size classes
- **Retain 21.0** -- maintain consistency, no perceived benefit to a change
- Considerations affecting uncertainty largely unchanged from 2023 - maintain **30% buffer** for ABC

MMB: SIMILAR BETWEEN 21.0 AND 23.0



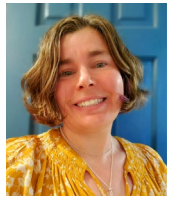
NSRKC FINAL OFL/ABC

Recommended OFL = 332 t, ABC = 233 t

Status and catch specifications (1000 t)

Year	MSST	Biomass (MMB)	GHL	Retained Catch Mortality[1]	Total Catch Mortality[2]	OFL[3]	ABC[3]
2019	1.03	1.41	0.07	0.04	0.04	0.11	0.09
2020	1.04	1.66	0.08	Conf.	Conf.	0.13	0.09
2021	1.03	2.27	0.14	0.003	0.003	0.29	0.16
2022	0.95	2.42	0.15	0.15	0.16	0.30	0.18
2023	1.20	2.40	0.18	0.19	0.20	0.310	0.220
2024	1.00	2.50				0.332	0.233

Notes:
[1]2019:2020: Refers to commercial fisheries only; 2021-2023: refers to all (commercial + subsistence) retained catch
[2]2019:2020: Do not include discard mortality (total retained catch only); 2021-2023 include estimated discard mortality
[3]OFL/ABC are total catch values in 2021-2024



AIGKC PROPOSED MODEL EXPLORATIONS

- Author transition – first model explorations with new authorship (Tyler Jackson)
- Data streamlining and recreating historic data from database (model 23.0)
  - Groundfish bycatch changes due to raw vs. expanded valuing being used
- CPUE standardization updates
- Size composition truncation (model 23.1), effective sample size for size comps (model 23.1a), and two selectivity periods for pre-rationalized directed fishery (model 23.1b)
- Industry survey (23.2 just for EAG)
- CPT recommends models 23.0, 23.1, 23.1b, 23.2 for May 2024

BALANCE OF CPT REPORT

STOCK PRIORITIZATION AND COUNCIL TIMING

Aleutian Islands golden king crab
Pribilof Islands golden king crab *
Western Aleutian Islands(Adak) red king crab *

Assessed in May/June

Triennial cycle, next assessment in 2026

Every 4 years – for OFL/ABC after 2025. Rebuilding update still every 2 years, model run NOT needed.

EBS snow crab
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Pribilof Islands blue king crab *
Pribilof Islands red king crab *
St. Matthew blue king crab *

Biennial cycle, next assessment in 2024

Assessed in September/ October

Triennial cycle, next assessment in

Final assessment Nov (virtual CPT)/ December Council

Norton Sound red king crab

February

QUESTIONS?

- Welcome Ethan Nichols (ADF&G Dutch Harbor) as a new CPT member
- Thanks to all CPT members and crab assessment authors.