

C2 BSAI CRAB STOCKS

KATIE PALOF – CPT CHAIR

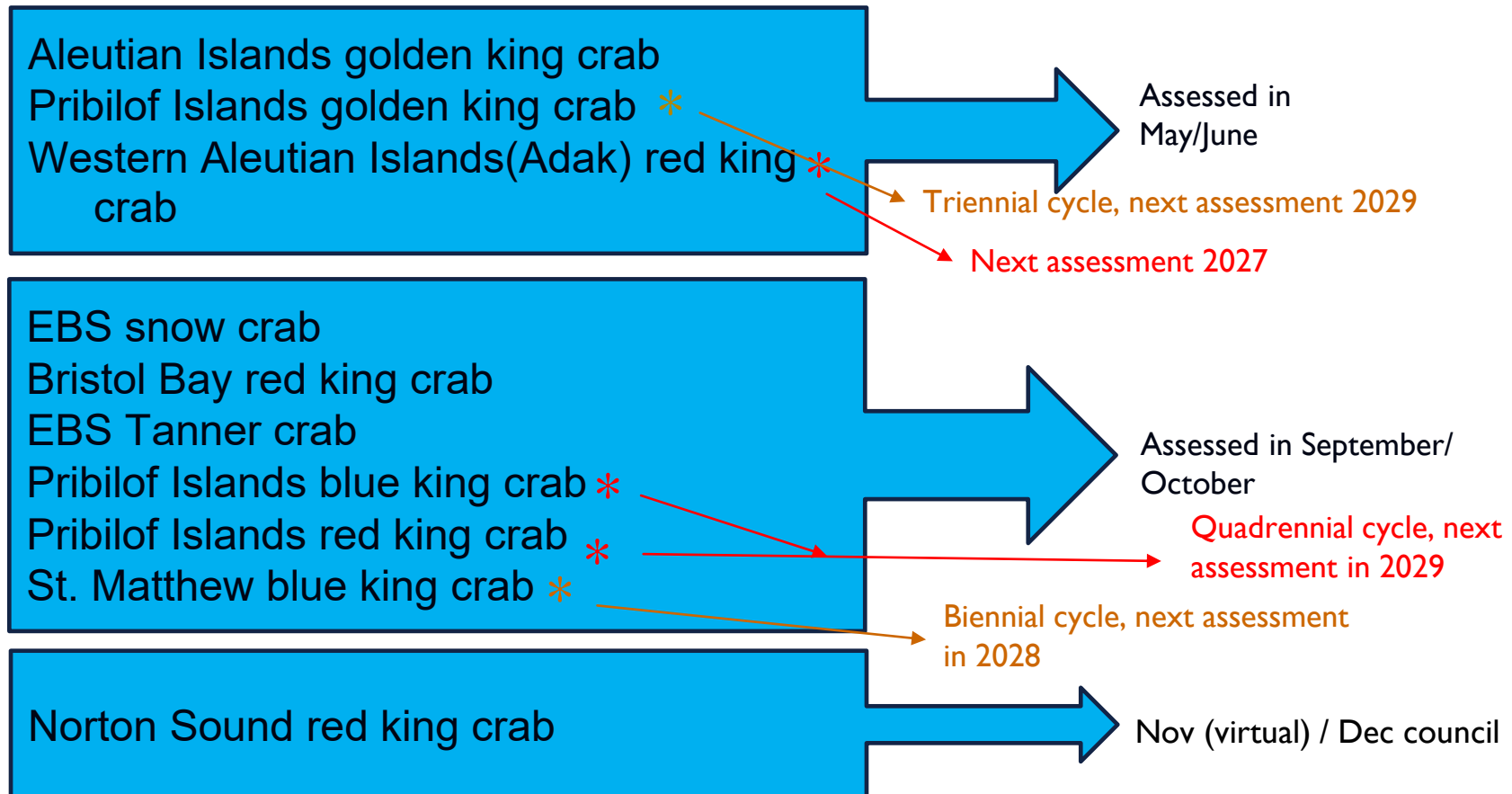
OCTOBER 2026 NPFMC MEETING (Anchorage, AK)

CPT MEETING MINUTES – SEPT 14TH – 17TH (Seattle, WA)



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BSAI Crab Stocks Management Timing



September 2026 Agenda

- ✓ Summer trawl survey results
- ✓ 2025/26 fishery season summary (taken up under each stock)
- ✓ **Snow crab final assessment, OFL and ABC**, and ESP report card
- ✓ **Tanner crab final assessment, OFL and ABC**
- ✓ **BBRKC final assessment, OFL and ABC**, and ESP report card
- ✓ **SMBKC final assessment, OFL and ABC**
- ✓ **WAIRKC specification rollover**
- ✓ Overfishing updates on non-assessed stocks
- ✓ Ecosystem status report – Bering Sea
- ✓ St. Paul hatchery review (request from ADF&G)
- ✓ SAFE guidelines draft
- ✓ BSFRF research updates
- ✓ New business



CPT updates

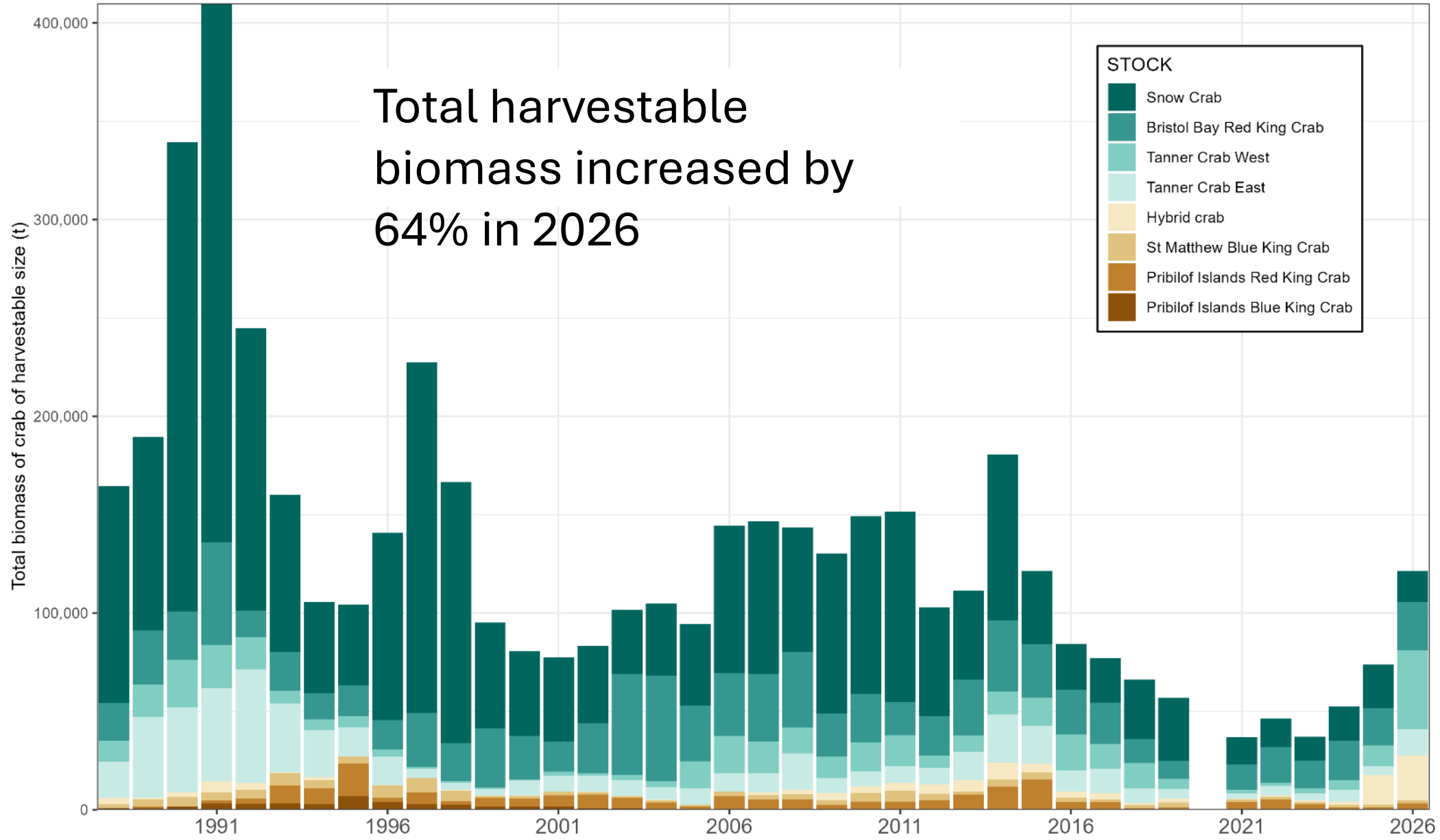
- Plan team vacancies –
 - Vacant co-chair position
 - ADF&G management vacancy (CPT would like to thank Ethan Nichols for his contributions to plan team)
 - General quantitative vacancy
- Merging of CPT and SPT – approved, new proposed name “Crab and Scallop plan team”



2026 Survey Results



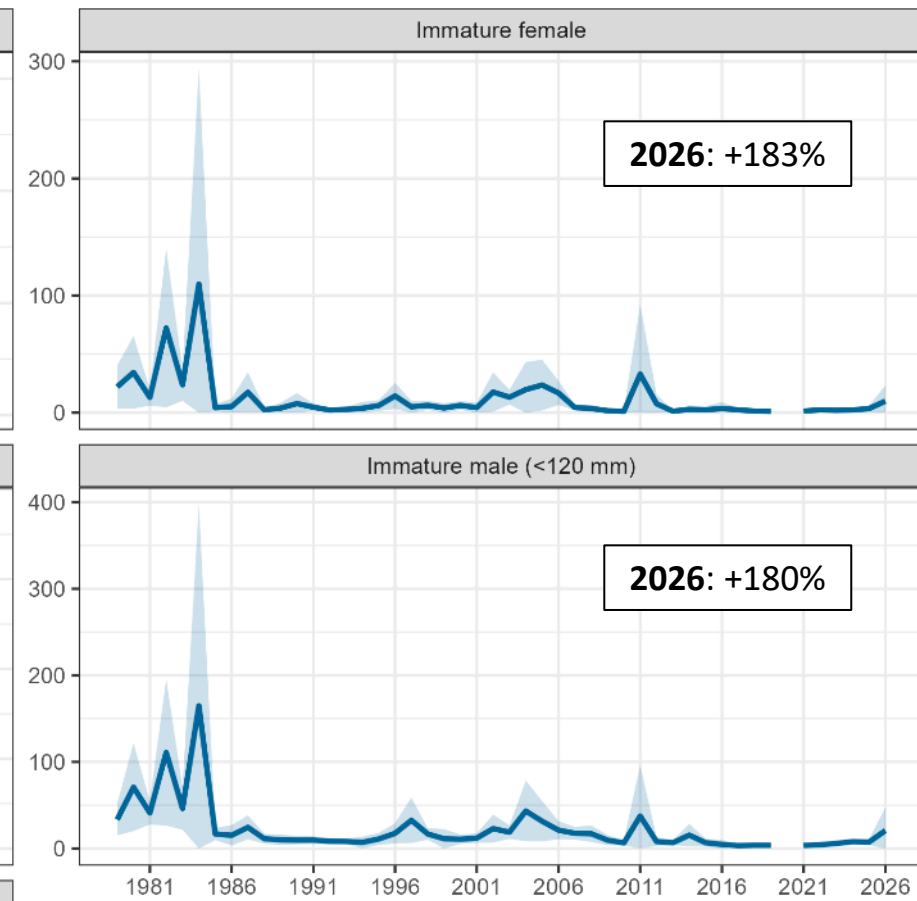
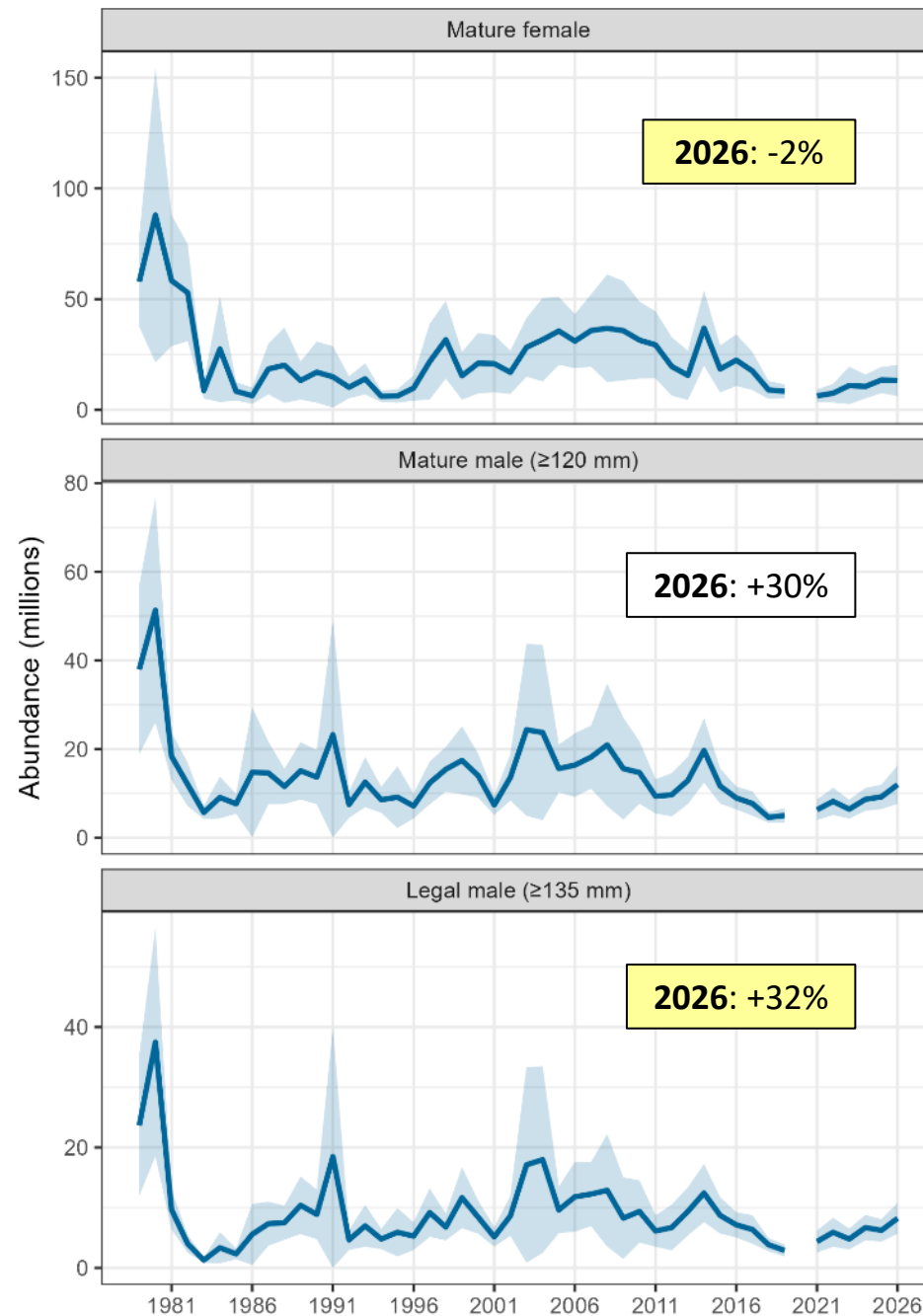
- 349 stations in eastern Bering Sea, June 2-August 4
- Total harvestable biomass gradually recovering from 2021 low
- Bristol Bay red king crab, Tanner crab, and hybrids make up majority of harvestable biomass in 2026



*legal size for king crabs, industry-preferred size for snow, Tanner, and hybrid snow-Tanner crab

Bristol Bay red king crab

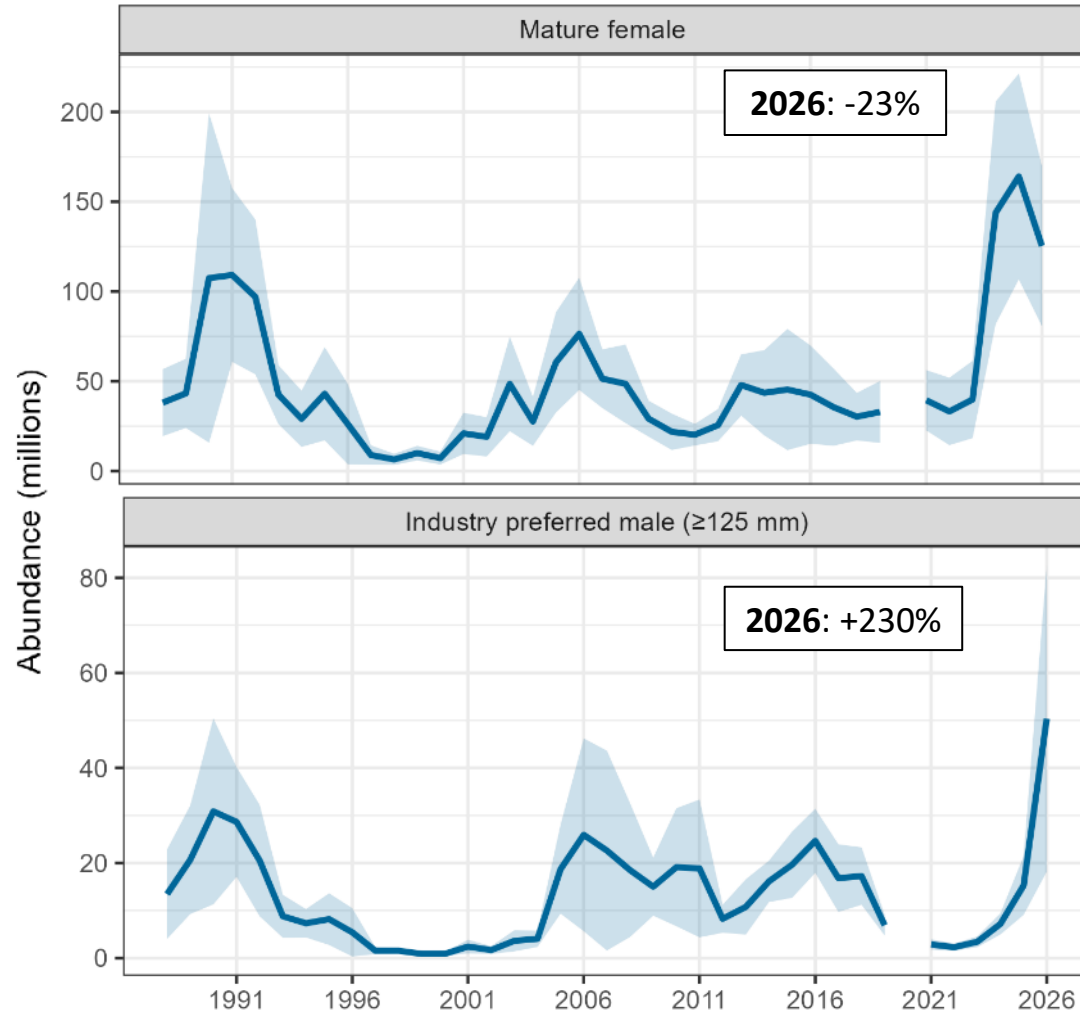
- Increasing trends across most size-sex categories
- Large increases in immature categories, but this was largely caused by one high catch station (65-68% of immature catch)



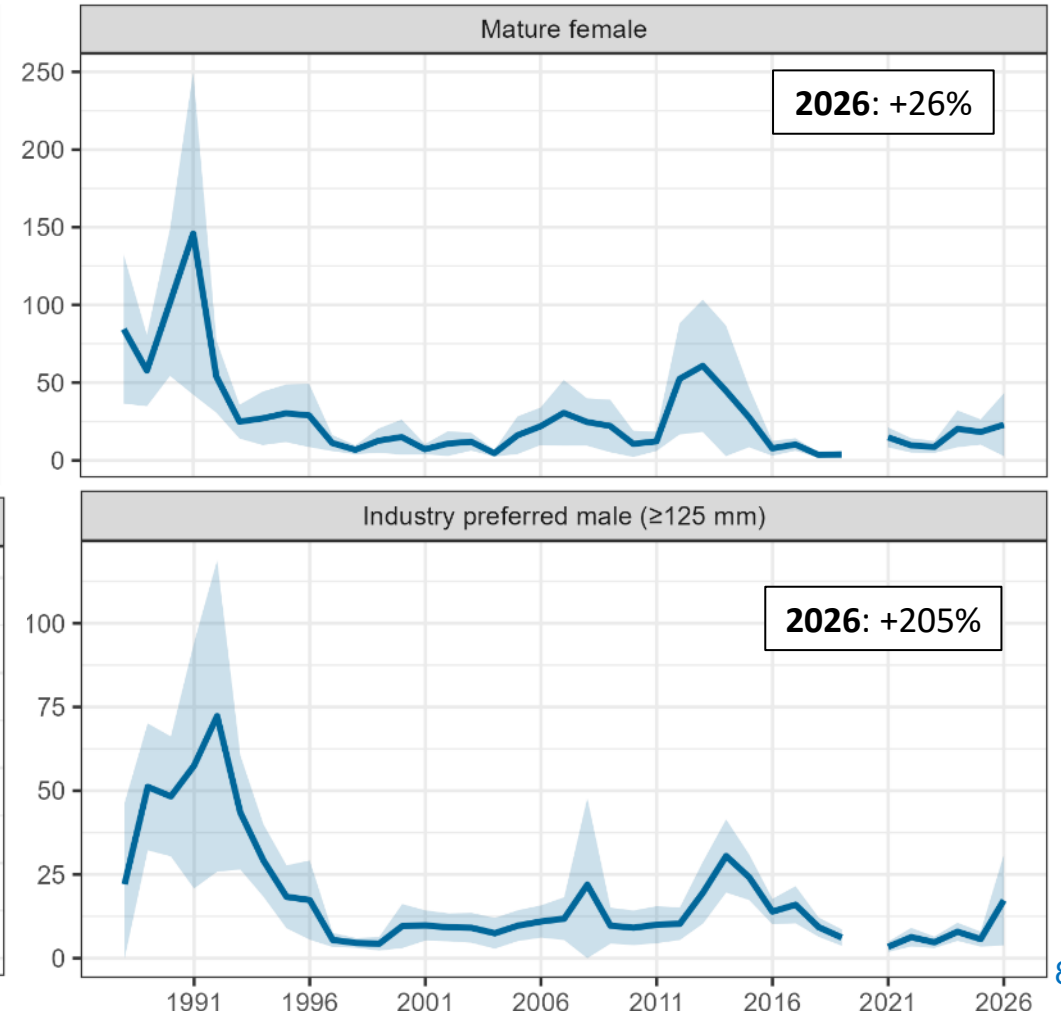
Tanner crab mature/preferred-sized crab

- West of 166°W: Record number of industry-preferred males and sustained high abundance of mature females
- East of 166°W: Increases in both industry-preferred males and mature females

Tanner west of 166°W



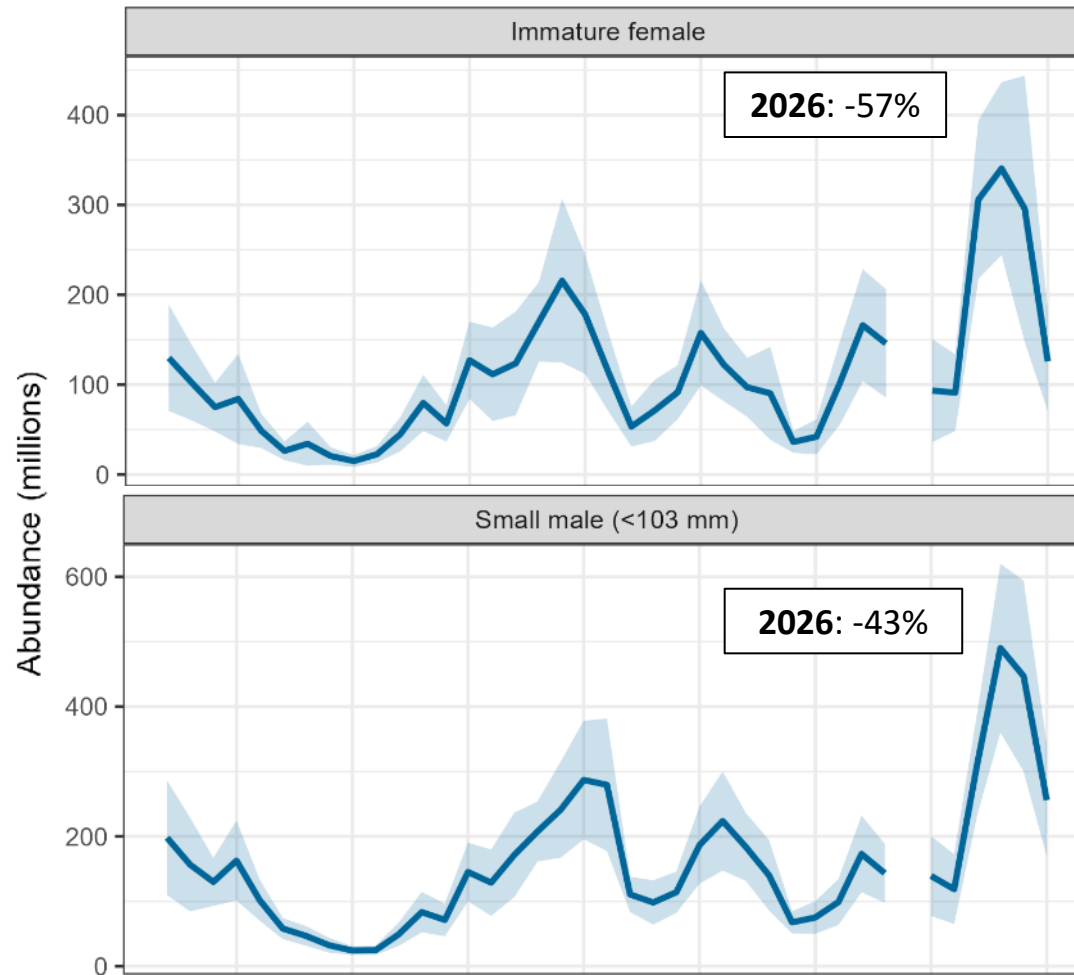
Tanner east of 166°W



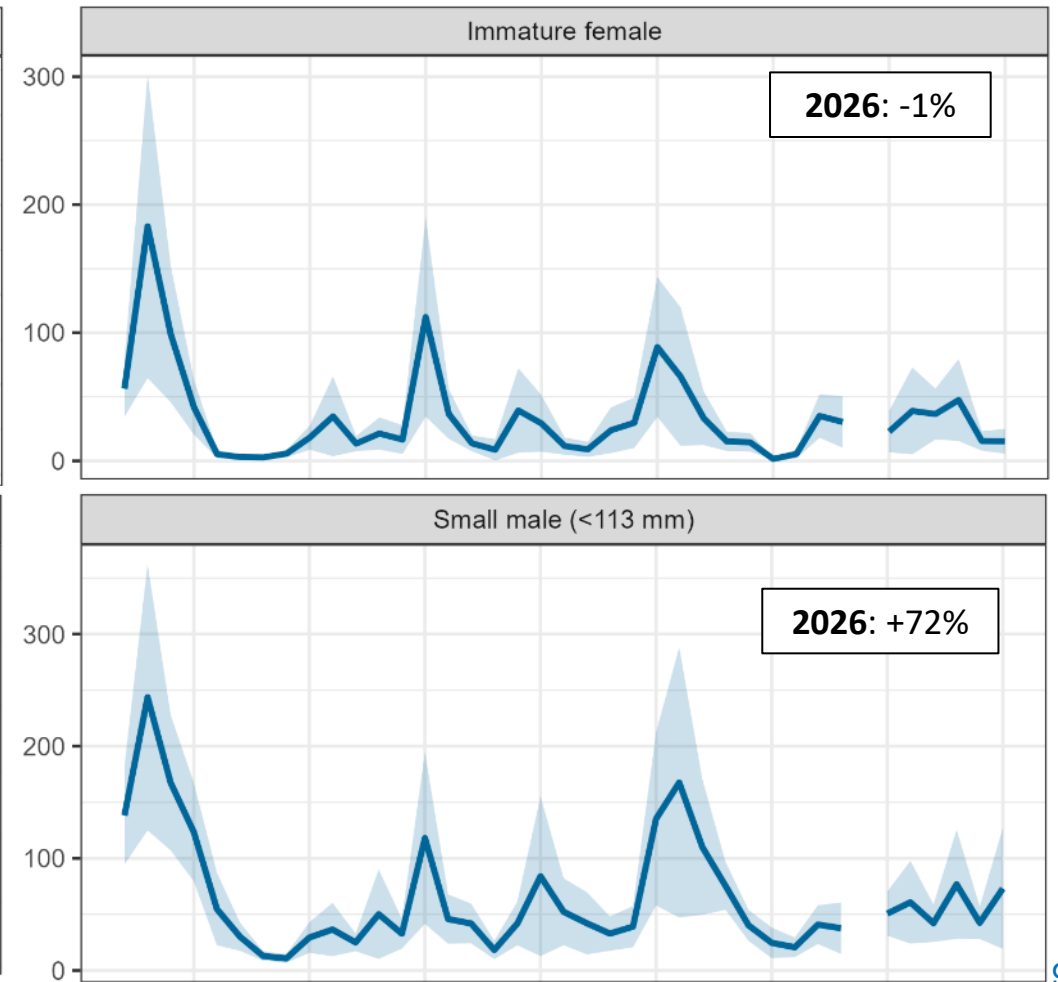
Tanner crab immature/small crab

- West of 166°W: Large declines in juveniles after record highs
- East of 166°W: Juvenile abundances remain low

Tanner west of 166°W

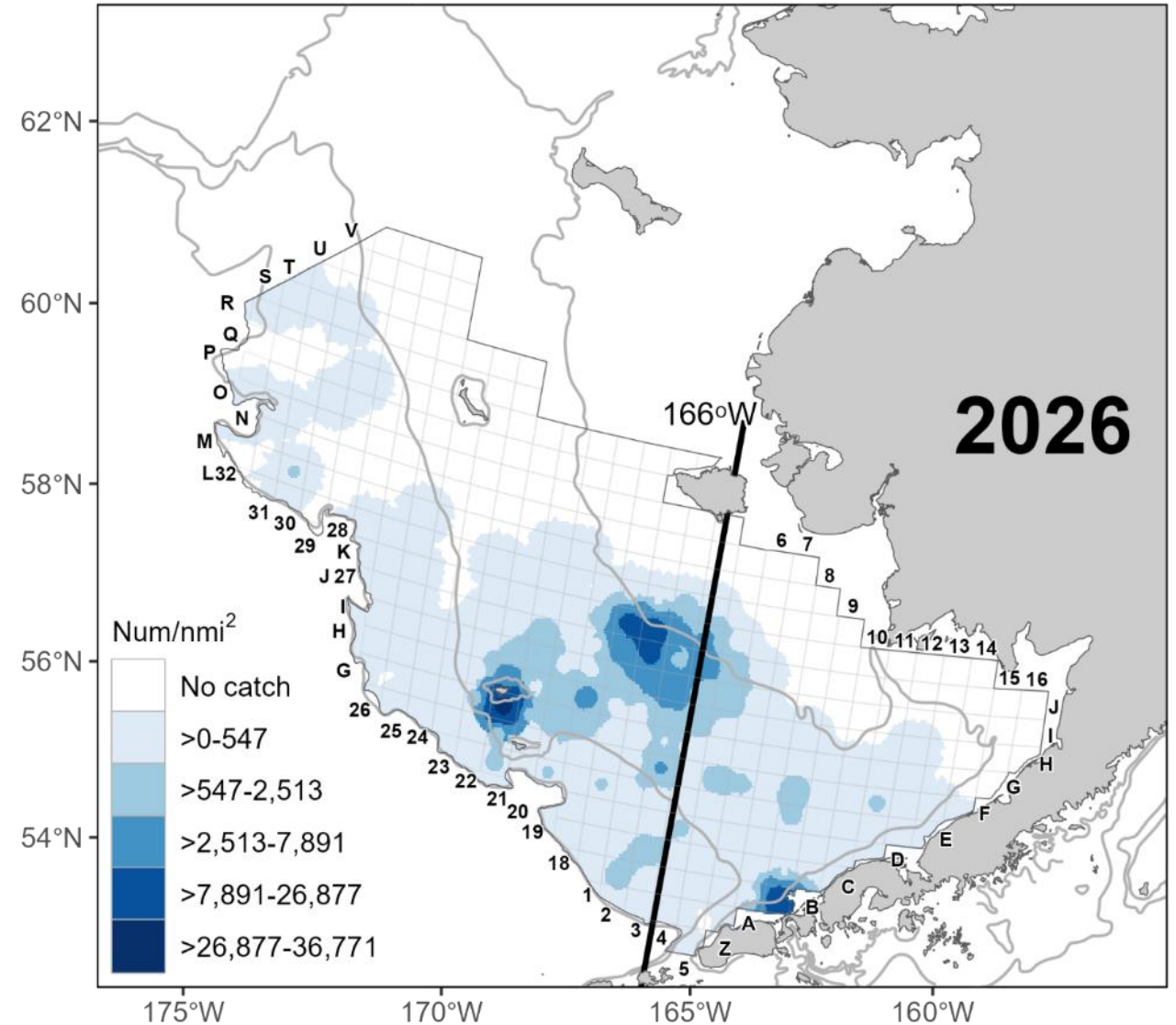
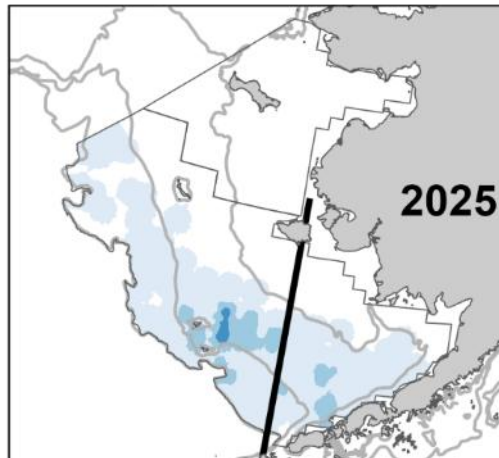
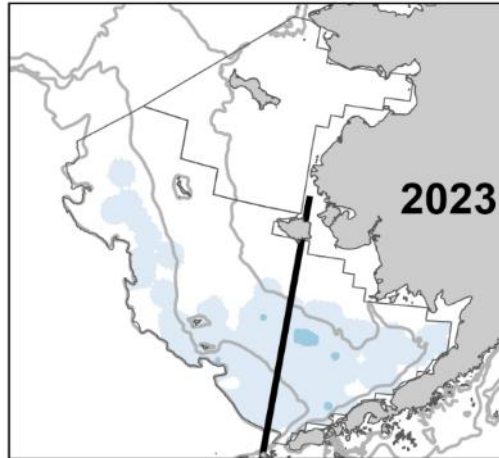


Tanner east of 166°W



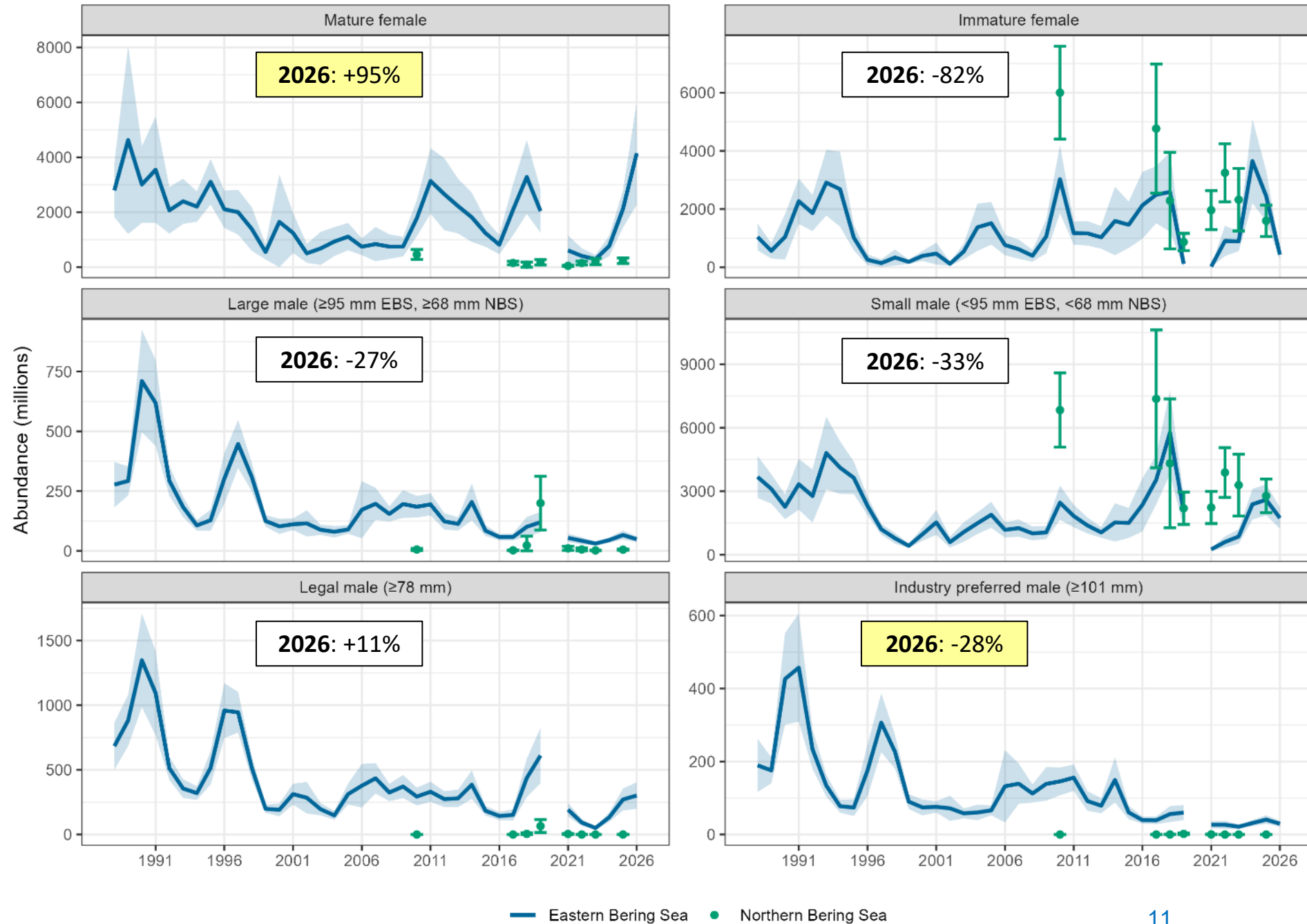
Tanner crab industry preferred males

- Strengthening distribution around and to the northeast of the Pribilof Islands
- Developing hotspot northeast of Unimak



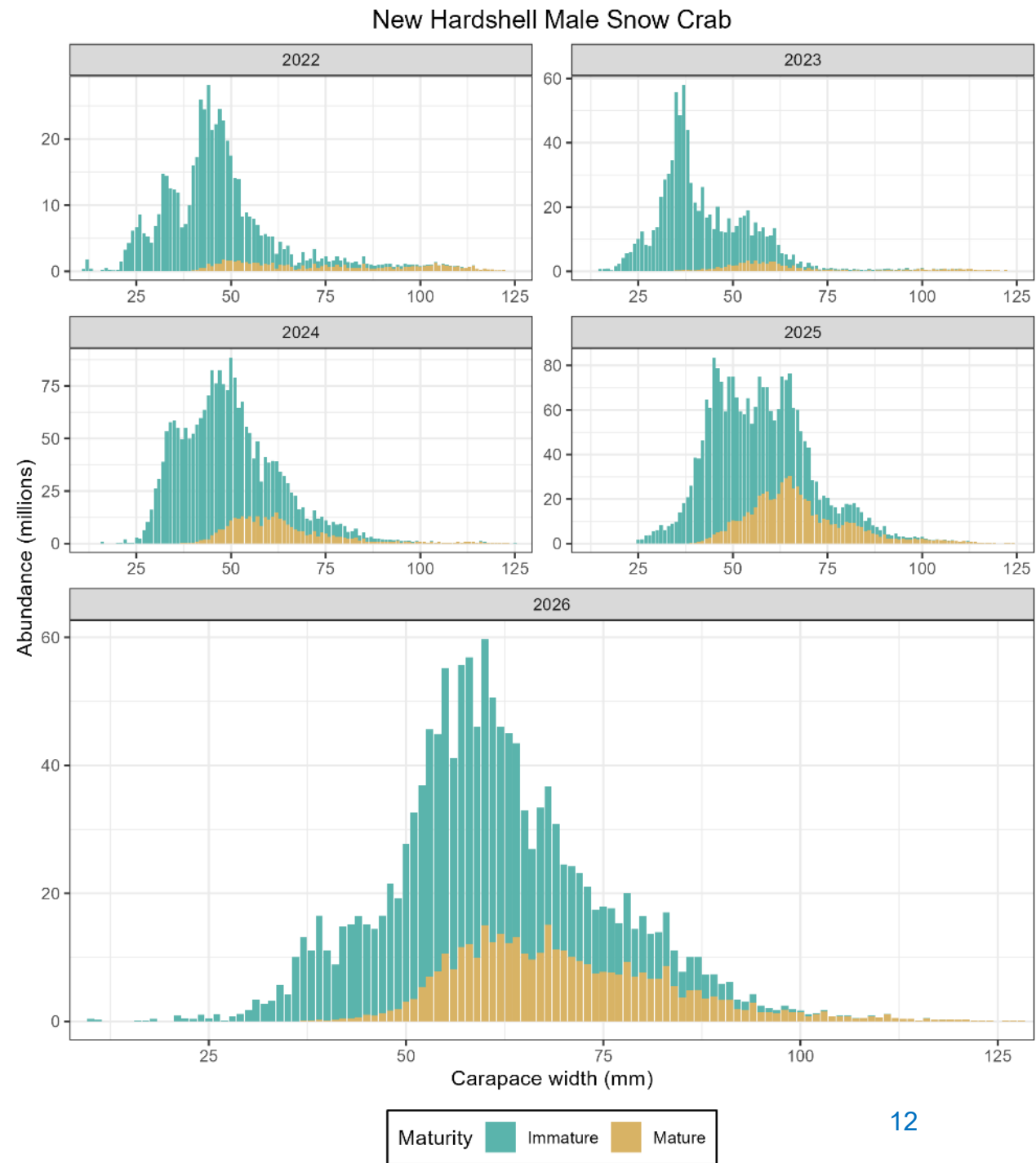
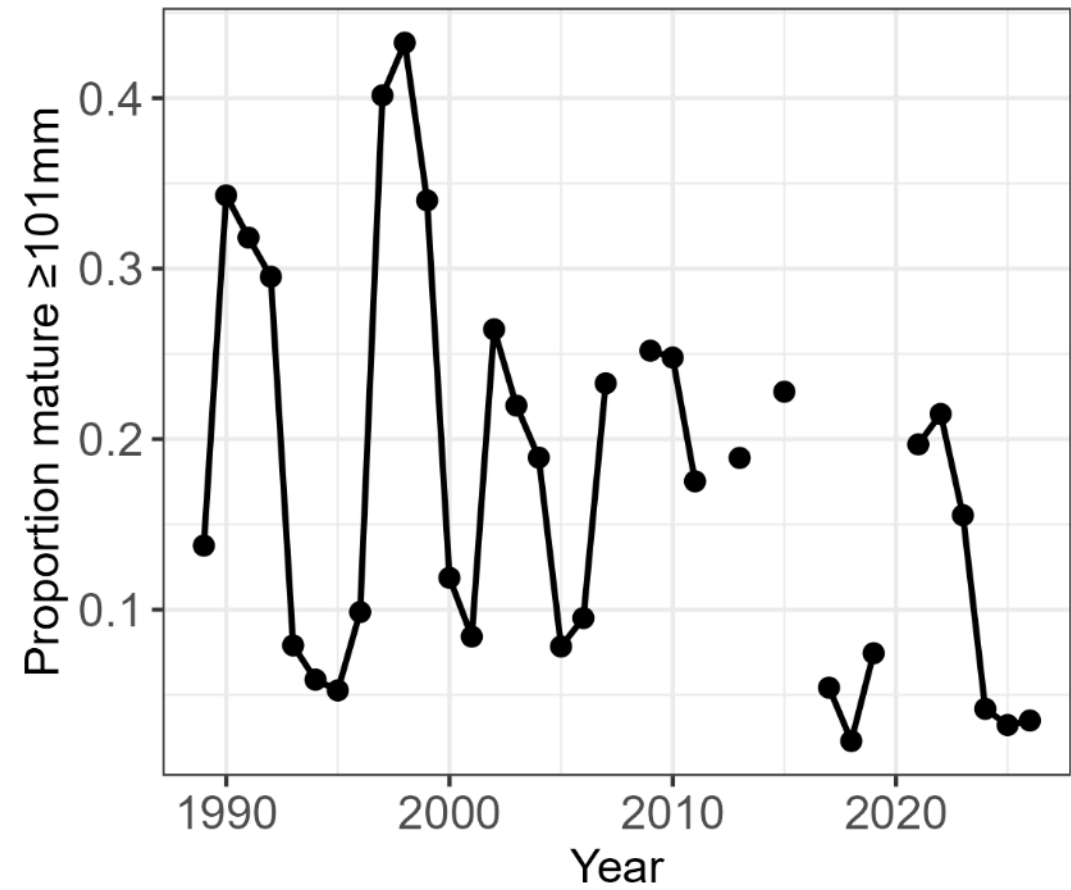
Snow crab

- Mature females at highest abundance since 1989
- Large decline in immature females
- Industry preferred abundance still near time series low



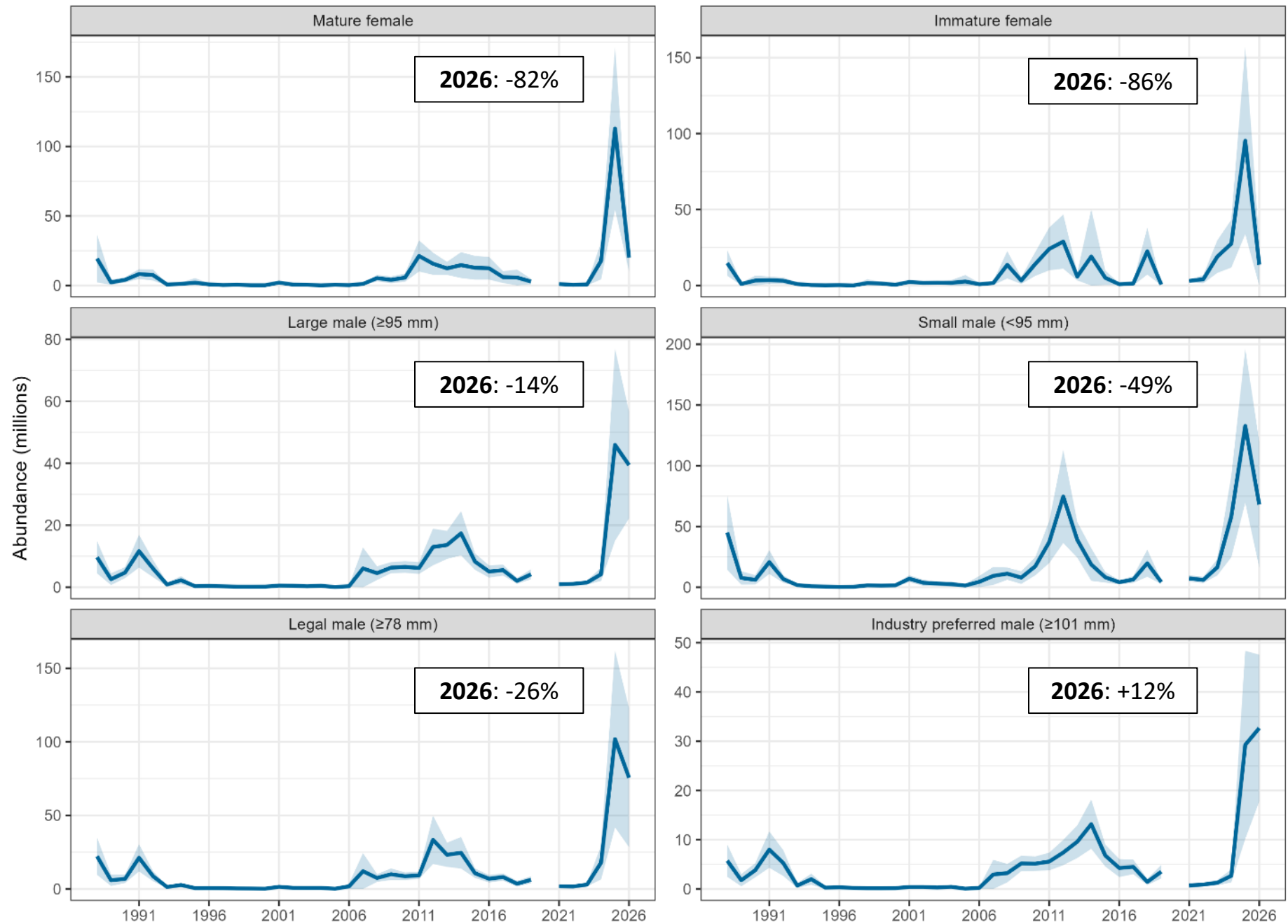
Snow crab males

- In 2026, 96.5% of males that matured were smaller than industry preferred size

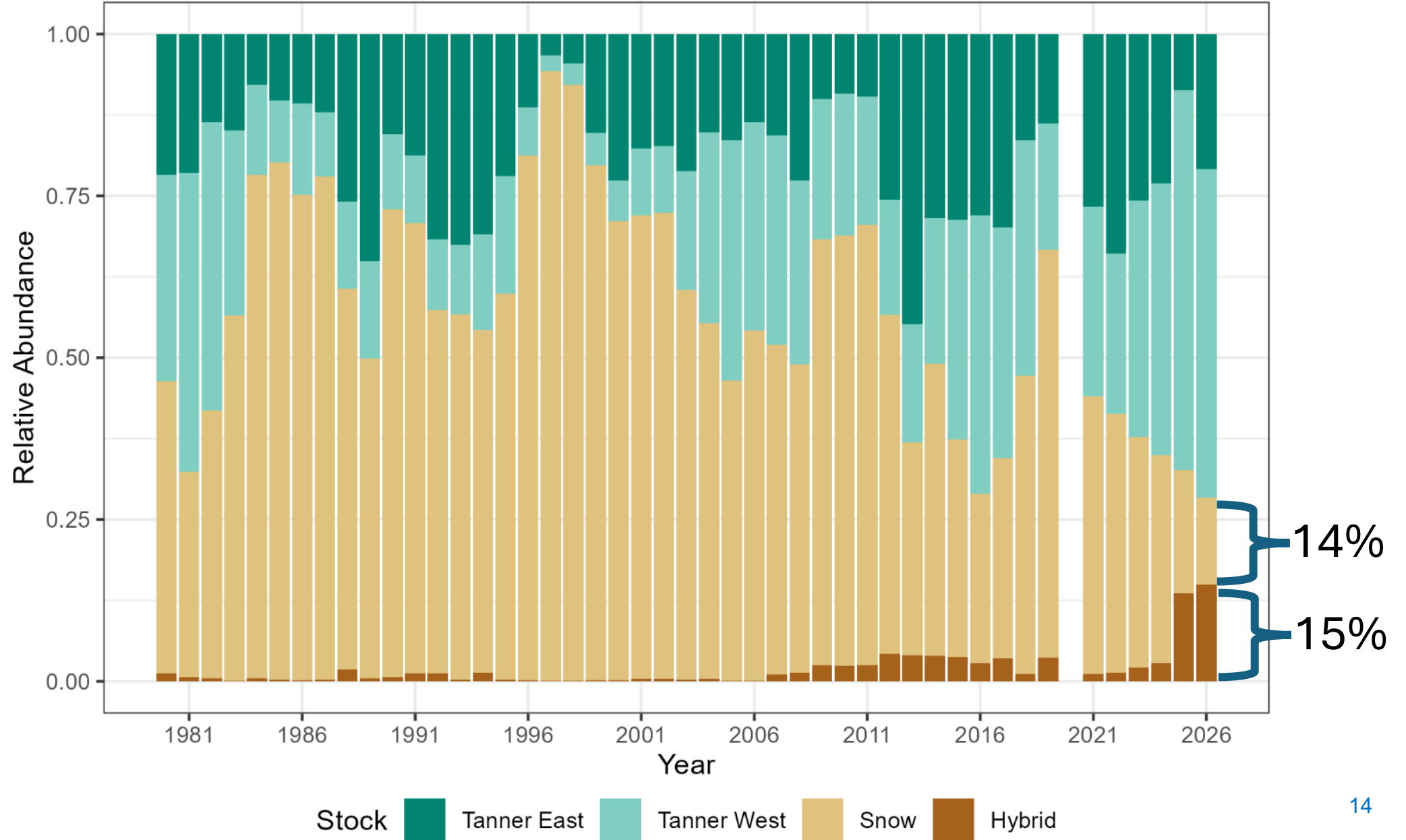


Hybrid crab

- Declines across all categories except industry preferred males
- Large males still at time series highs



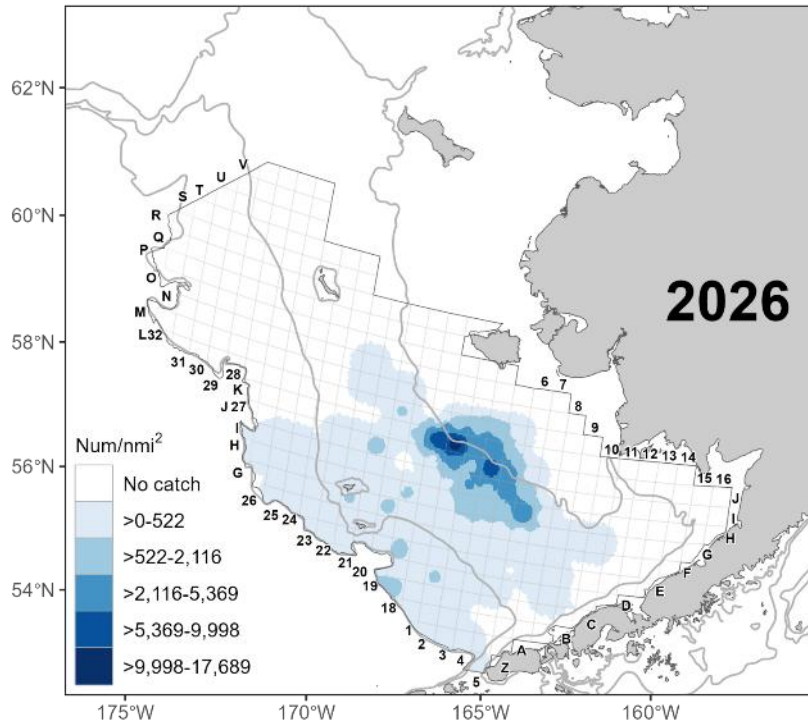
Tanner, snow, and hybrid males ≥ 101 mm



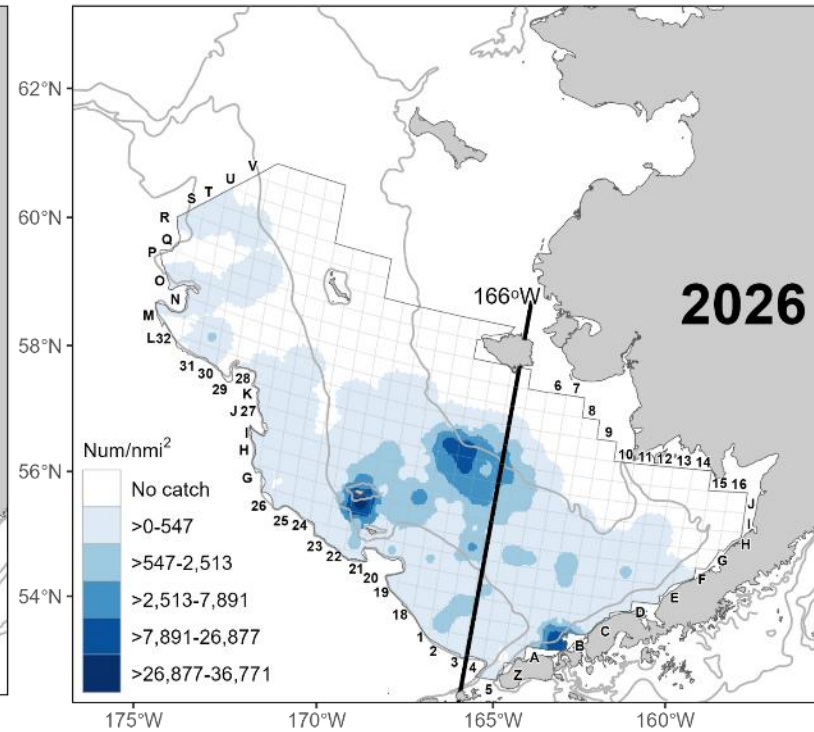
Hybrid crab

Industry-preferred sizes: strongest overlap with Tanner

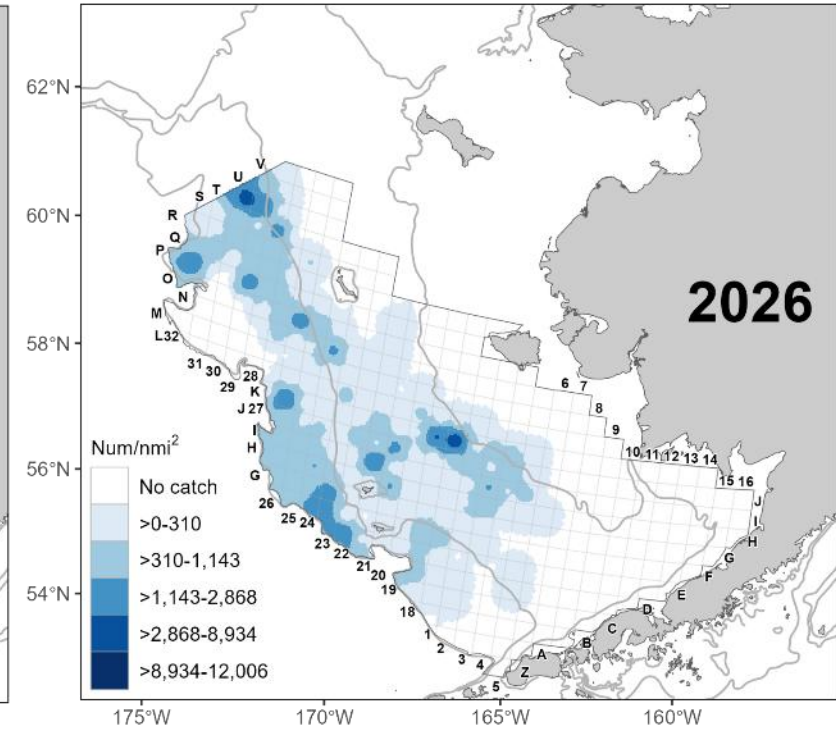
4" male hybrid



5" male Tanner



4" male snow



CPT Survey recommendations/ comments

■ Hybrids

- Primarily discussed in snow crab conversations
- CPT encouraged, if possible, chela data collection on male hybrids during the survey
- May 2026: *"The CPT recommended that hybrids from survey or total catch data streams should not be included in either the snow or Tanner crab assessment models at this time. Instead, the CPT recommends continued tracking of hybrid abundance via the annual NOAA survey tech memo, which is released in the Fall immediately before the September CPT meeting."*
- Sept 2026: (in snow crab section) *"Research on hybrids, addressing topics including life history, distribution, movement, and genetics, remains a very high priority for the CPT. The CPT noted that, in addition to recommended research avenues, it would be useful to have more information about Federal policy and regulatory pathways to allow for future harvest and management of Chionoecetes hybrids."*



BRISTOL BAY RED KING CRAB (BBRKC)

FINAL ASSESSMENT 2026



Bristol Bay ESP Overview

Ecosystem Considerations

- Bristol Bay average bottom temperature in summer 2026 was the 4th coldest in the 47-year survey time series, resulting in 56% of mature females that had not yet completed the molt-mate cycle by June. Of the females that had successfully molted and mated at the time of survey sampling, **<1% had empty clutches**.
- **Area occupied** by mature males and females in Bristol Bay was **above average** in summer 2026. Contextual indicators that highlight potential spatial distribution shifts across management boundaries and closure areas remain near-average, suggesting that **the population continues to occupy core habitats in Bristol Bay** despite below average summer bottom temperatures that have historically aggregated crab closer to the Alaska Peninsula.
- Spring bottom water **pH increased** from 2025 to 2026 to a near-average value. However, this indicator has been declining for the past three decades and continued declines to pH levels of 7.8 could negatively affect Bristol Bay red king crab survival.

Socioeconomic Considerations

- **Total effort** (# of vessels and total pot lifts) in the 2025/26 BBRKC fishery increased relative to the past season but remains **below the post-rationalization average**.
- **Fishery CPUE declined slightly** this season but remains above the 30-year average of legal crab per pot lift.
- Results from the ABSC Skipper Survey are consistent with **high fishery CPUE**, an **increase in perceived abundance**, and **no notable changes in fleet behavior**. 81% of captains reported a >10% increase in perceived abundance of legal males relative to the previous season.



Contextual



Fishery
Informed

BBRKC overview

- **Tier 3 annual stock assessment, GMACS assessment** framework since 2018
- Directed fishery was open in 2025/26, CPUE (crab/pot) was similar to the previous season (~29 crab/pot)
- Estimated mature female biomass is higher than recent years but still lower than it's been since the mid-90s. Mature females meet State of Alaska thresholds harvest strategy thresholds (8.4 million).
- Potential recruitment event? "hot spot" tow, look for confirmation in future years
- Low recruitment in recent years (last 8-12 years), projected decline in biomass without a large recruitment event

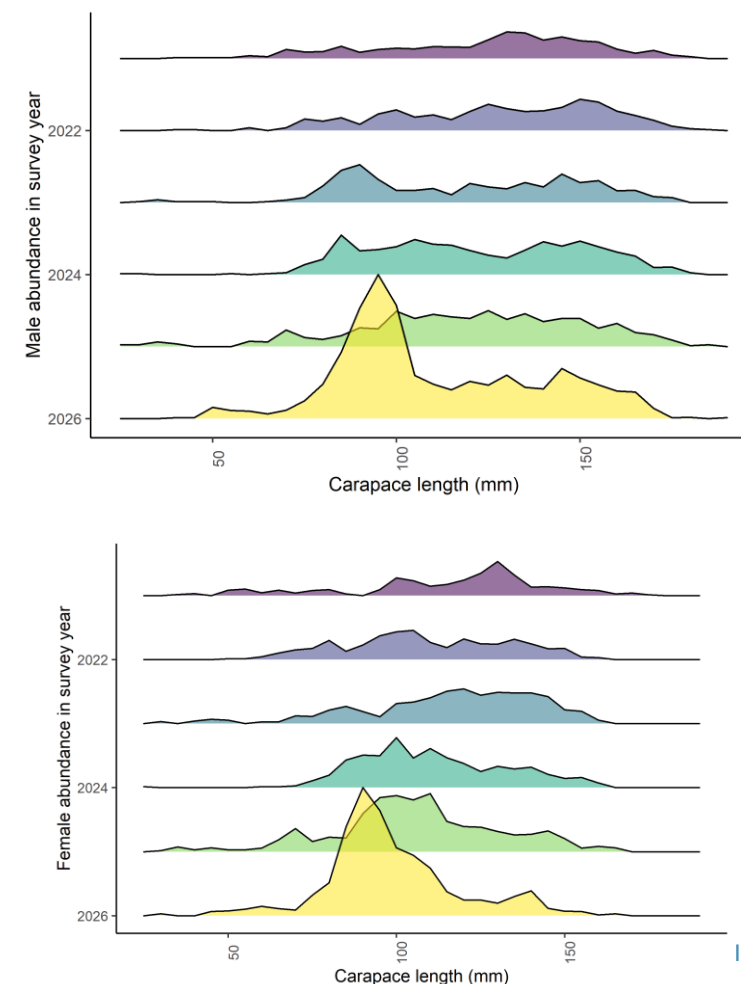
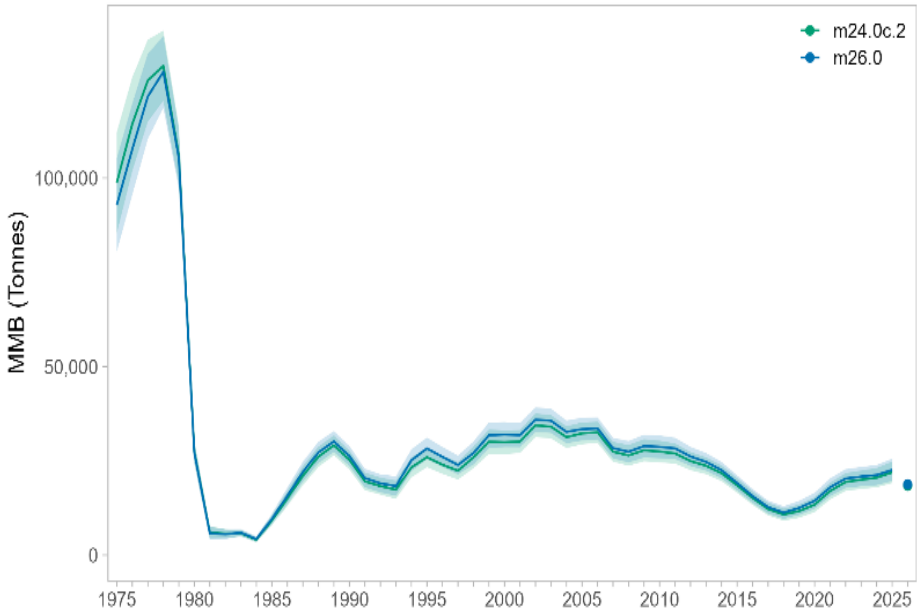


Table 1: Status and catch specifications (1000 t) for the CPT recommended model (26.0).

Year	MSST	Biomass (MMB_{mating})	TAC	Retained Catch	Total Catch	OFL	ABC
2022/23	9.68	18.34	0	0.02	0.11	3.04	2.43
2023/24	9.35	18.65	0.975	0.96	1.34	4.42	3.54
2024/25	9.26	19.74	1.05	1.05	1.20	5.02	4.02
2025/26	9.61	22.6	1.22	1.22	1.48	5.85	4.68
2026/27		18.77				7.13	5.7



SSC endorsed /CPT recommendation: Model 26.0, ABC buffer 20%
Author recommended 26.0

Total catch mortality (directed + bycatch) < OFL therefore overfishing did not occur in 2025/26

Buffer considerations:

- Recommend staying with 20% (no large changes or improvements in uncertainty)
- Ecosystem considerations from ESP – wind stress and corrosive bottom water
- Non-stationarity in productivity expectations (not incorporated in the model since model expects recruitment events using 1984 to 2024)

Retrospective pattern in MMB



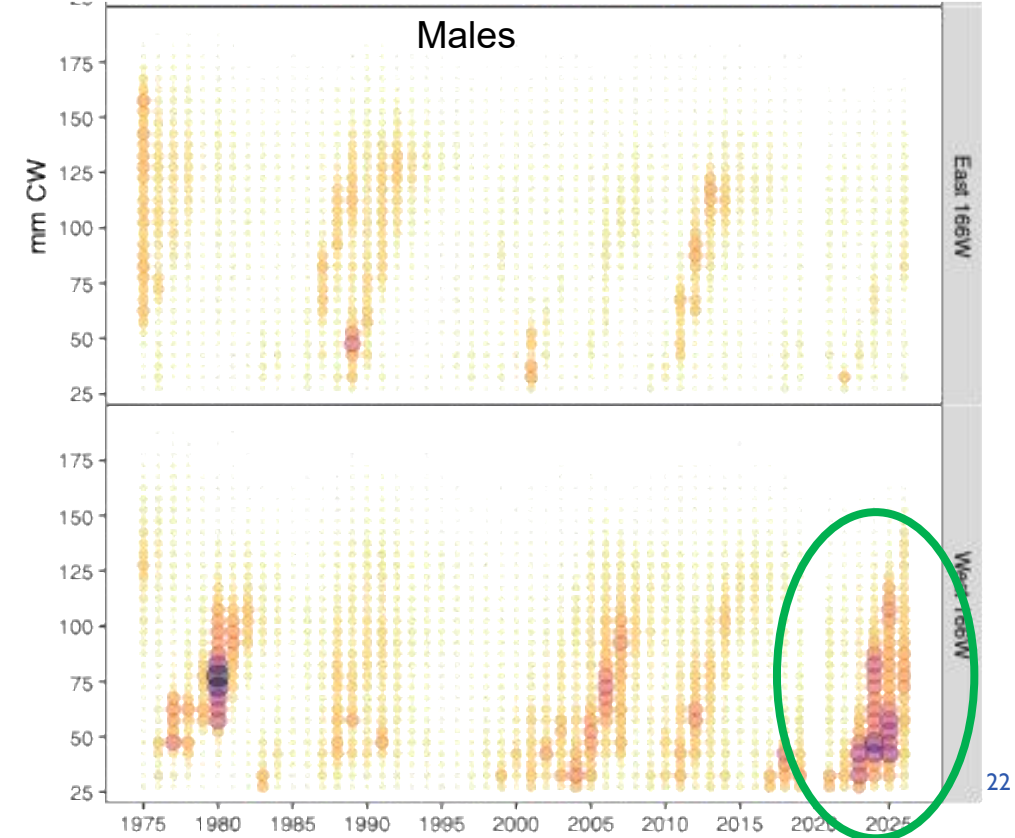
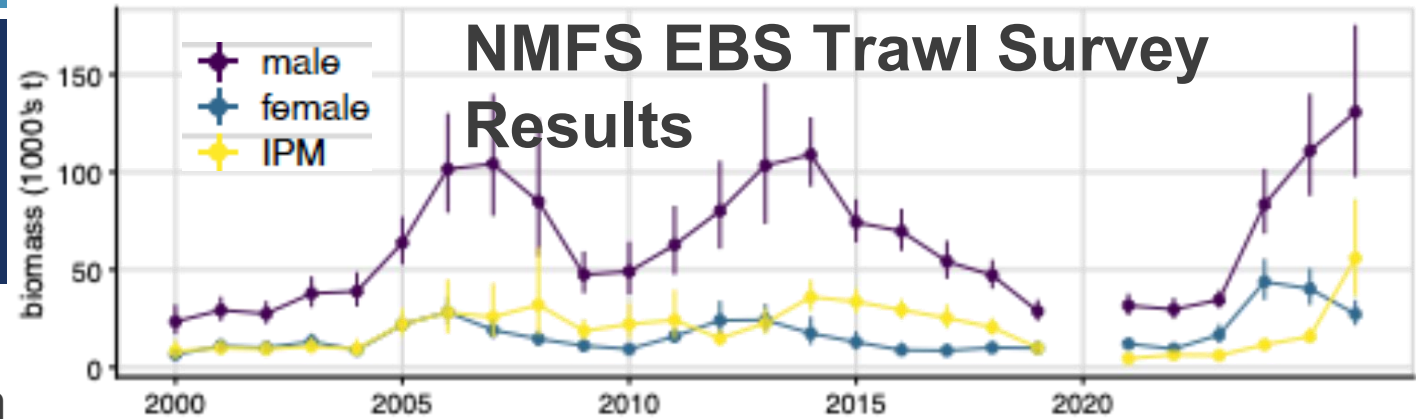
TANNER CRAB

FINAL ASSESSMENT 2026



Tanner crab 2026 overview

- CIE review in June 2026
- ADF&G manages fishery in two area
 - East 166W: TAC 513t, Catch 510t
 - West 166W: TAC 4,590t, Catch 4,591 t
- Total fishing mortality less than the OFL, overfishing did not occur
- MMB 129,040 > MSST (23,780t), stock is not overfished
- Tier 3 assessment
 - TCSAM02 – same model as 2025
 - New GMACS models
- Continued cohort progression, large increase in male biomass in 2026



Tanner crab

Year	MSST	Biomass (MMB)	TAC	Retained Catch	Total Catch	OFL	ABC	model
2021/22	17.37	62.05	0.50	0.49	0.78	27.17	21.74	NA
2022/23	18.19	74.17	0.91	0.91	1.19	32.81	26.25	NA
2023/24	20.00	88.21	0.94	0.94	1.09	36.20	27.15	NA
2024/25	21.61	99.53	2.84	2.85	3.09	41.29	33.03	NA
2025/26	23.78	129.04	5.10	5.11	5.70	51.02	40.81	'22.03d5 (GMACS)'
2026/27	NA	108.19	NA	NA	NA	72.10	57.68	'22.03d5 (GMACS)'
2025/26	24.90	127.49	5.10	5.11	5.70	51.02	40.81	'26.02 (GMACS)'
2026/27	NA	111.30	NA	NA	NA	53.73	42.98	'26.02 (GMACS)'
2025/26	21.33	116.89	5.10	5.11	5.70	51.02	40.81	'22.03d5 (2026)'
2026/27	NA	97.85	NA	NA	NA	67.39	53.91	'22.03d5 (2026)'

In 1,000's metric tons

SSC endorsed / CPT recommendation: Model 22.03d5, ABC buffer 20%

Author recommended 22.03d5

Total catch mortality (directed + bycatch) < OFL therefore overfishing did not occur in 2025/26

Buffer considerations:

- Continuing concern over model performance (abundance of large crab still overestimated but less so)
- Continuing concern over MMB as index of reproductive potential
- Continuing concern over F35%, B35% as metrics for sustainable fishery
- Positive: movement of recruits into larger sizes classes



SNOW CRAB

FINAL ASSESSMENT 2026



Snow Crab ESP Overview

Ecosystem Considerations



Predictive

- Juvenile snow crab **energetic condition** remains **elevated** in 2026, suggesting high survival due to elevated energetic stores.
- Juvenile snow crab **occupied temperatures** were $< 0^{\circ}\text{C}$ in 2026 and the **spatial extent of bottom waters $\leq 0^{\circ}\text{C}$** was **near average**, indicating conditions suitable for high survival, recruitment and stock recovery.
- Spring **sea ice extent increased substantially** in 2026 and is above the time series mean. High sea ice coverage promotes greater flux of primary production to the benthos and supports elevated energetic condition in juvenile snow crab.



Contextual

- Record-high mature female abundance in 2026 resulted in a **strongly female-skewed operational sex ratio** (85 mature females for every one $>95\text{mm}$ large male), although only $\sim 3\%$ of mature females with empty clutches suggests **high reproductive potential**
- Bitter crab **disease** and **Pacific cod predation have** remained **below average** in recent years
- Mature male snow crab **center of abundance and area occupied** remain **near average** in 2026 despite relatively cold summer temperatures
- The **male size at 50% maturity** remains **near average** in 2026, although this indicator has been trending down for the past three decades.

Snow Crab ESP Overview

Socioeconomic Considerations



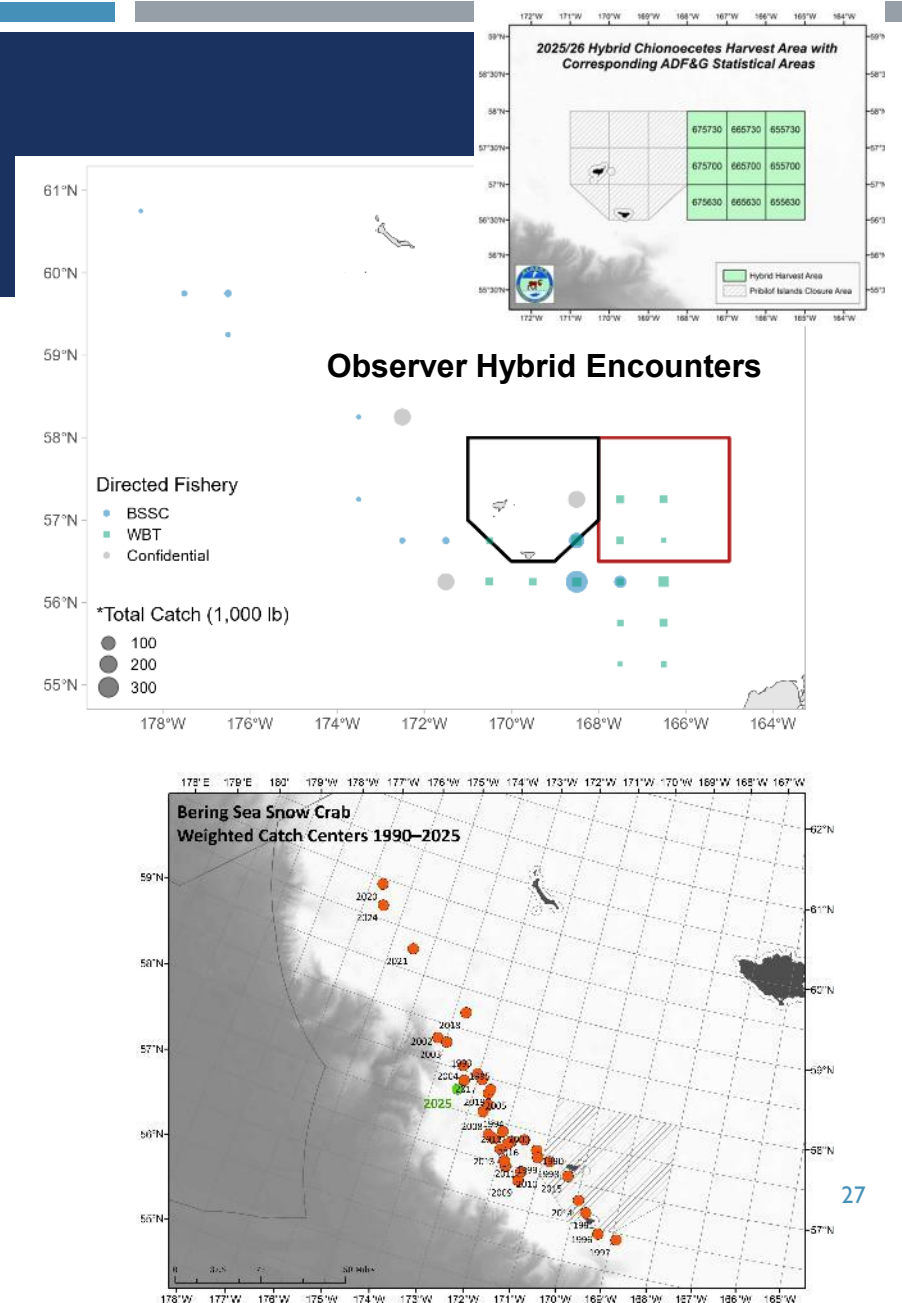
Fishery
Informed

- Fishery **CPUE** and **total effort** in the fishery remain **below average**.
- Fishing during the 2025/26 season **shifted substantially to the southeast**, which is consistent with ~60% of skippers reporting that weather/sea ice, high sorting and fuel costs motivated this change in behavior.
- ~50% of skippers reported a **>10% increase in perceived abundance** of industry-preferred males relative to the previous open season, and 47% of skippers noted **slightly more to a lot more hybrid crab** than the previous season.



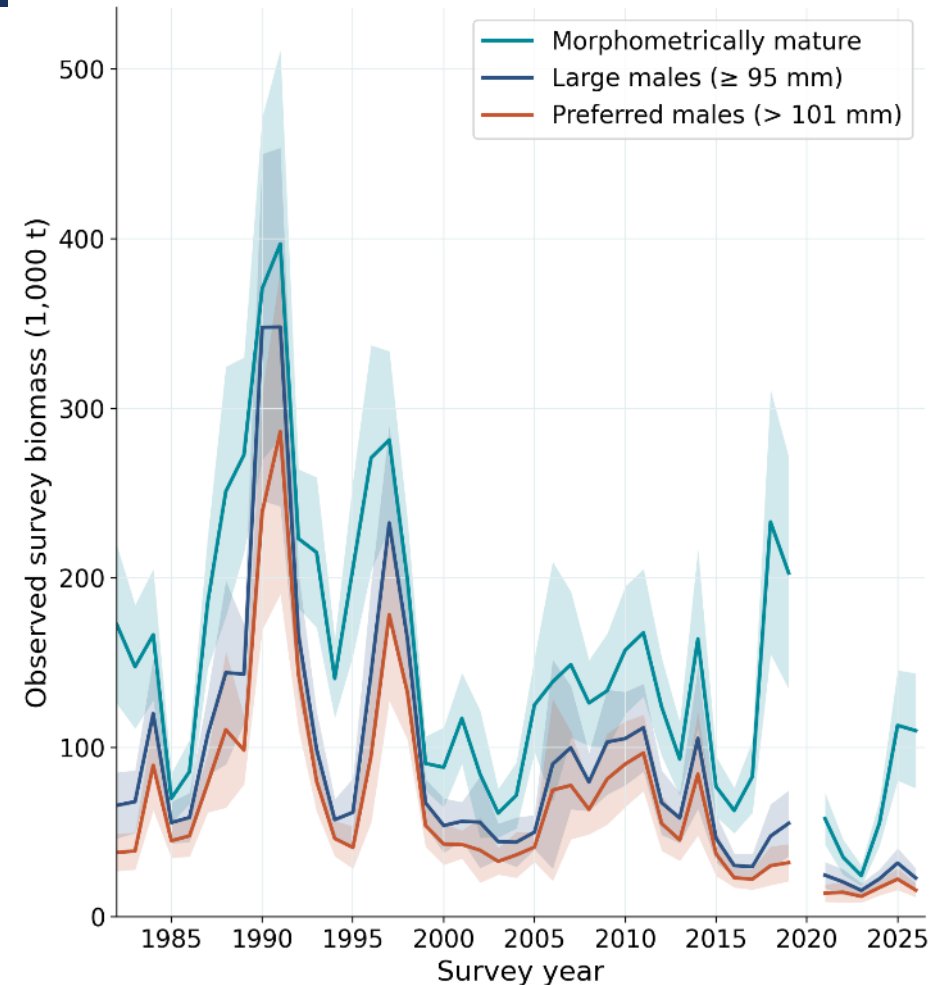
Snow crab fishery (hybrid considerations)

- TAC = 9.3 mil lbs (8.3 mil lbs snow crab + 1 mil lb “hybrid” component)
- CPUE down from last season
- Fishery occurred in typical fishing grounds
- ADF&G provided “hybrid opportunity” = 1 mil lbs added to snow crab TAC, encouraged targeting in area of high hybrid abundance (right figure)
- Estimated hybrid catch higher than previous season ~0.678 mil lbs, and most did not come from the “box”



Snow crab 2026 overview

- Model: Fallback random-effects (REMA) model fit to morphometrically mature male biomass using Tier 4 harvest control rules
 - Rebuilding plan (Amendment 53) in place. Not overfished, no overfishing, not rebuilt;
 - 2025/26 Status (0.747)
 - OFL = 21.22 kt, ABC = 12.73 kt (40% buffer SSC adj)
- Notes
 - Preferred males (>101 mm) 4th lowest in 44-year series.



Snow crab CPT recommendations

- Buffer recommendation:
 - 2025/26 “fallback” buffer was 40% - which was an average of the last 5 years
 - CPT recommended 50% (SSC decision was 40%)
 - only 3.5% of terminally molting males molted into the industry-preferred size range in 2026
 - recruitment appears to be very low
 - the sex ratio is highly skewed, with approximately 85 mature female crab for every 1 mature male crab
 - morphometrically mature male biomass is used to calculate the OFL rather than biomass of males ≥ 95 mm in carapace width
 - the ‘fallback’ FOFL * B method for calculating OFL produces a biased result.
- CPT still has concerns over over-harvesting of large males in this stock
 - Majority of crab terminal molt to maturity below harvestable size
- Hybrid considerations are complicated by current status of the snow crab stock, especially large males



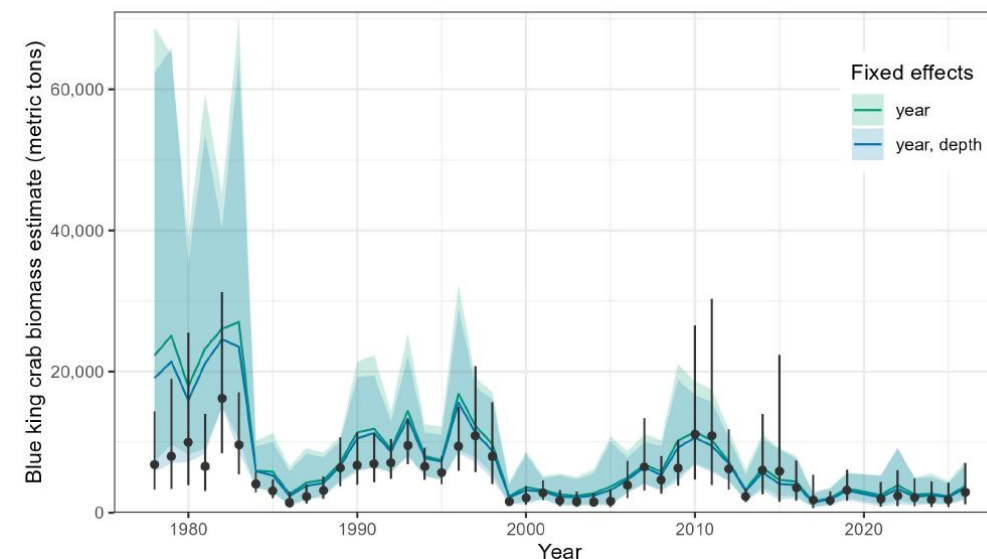
St. Matthew Blue King Crab

FINAL ASSESSMENT 2026



SMBKC Overview

- Tier 4 stock; Biannual assessment; currently in a rebuilding plan since June 2020
- Directed fishery has been closed since 2016/2017
- Data updates:
 - May 2026 – 2024/25 fishery data, 2025 EBS survey, 2025 ADF&G survey
 - Sept 2026 – 2025/26 fishery data, 2026 EBS survey
- Model exploration includes:
 - Base model, accepted in 2024
 - GMACS version bridging
 - Model-based index to account for loss of corner stations in NMFS EBS survey



Year	MSST	Biomass (MMB_{maturing})	TAC	Retained catch	Total male catch	OFL	ABC	Model
2021/22	1.63	1.18	0.00	0.00	0.0003	0.05	0.04	
2022/23	1.50	1.31	0.00	0.00	0.0021	0.066	0.05	
2023/24	1.48	1.41	0.00	0.00	0.0004	0.066	0.05	
2024/25		1.53	0.00	0.00	0.0007	0.129	0.097	24.1
2025/26	1.44	1.67	0.00	0.00	0.0019	0.129	0.097	26.1b
2025/26	2.25	2.33	0.00	0.00	0.0019	0.129	0.097	26.2
2026/27		1.53				0.151	0.113	26.1b
2026/27		2.12				0.182	0.136	26.2

Units 1,000 t

SSC endorsed / CPT recommendation: Model 26.2, ABC buffer 25%
Author recommended 26.2
CPT recommends the OFL and ABC for both the 2026/27 and 2027/28 crab years
Total catch mortality (directed + bycatch) < OFL therefore overfishing did not occur in 2025/26; Status for 2025/26 is 0.52 (stock is not overfished)

Buffer considerations:

- Stock is currently in a rebuilding plan
- Low stock size overall
- Ecosystem concerns (warmer temperatures)





BALANCE OF CPT REPORT

Overfishing status updates (2025/26 total catch)

■ WAIRKC

- Roll over specs for 2026/27 season: OFL = 56 t, ABC = 14 t (Tier 5, Full SAFE 2027)
- 2025/26 total catch mortality 0, no bycatch mortality and directed fishery closed, overfishing did not occur

■ PIBKC – directed fishery closed, bycatch mortality 0.029 t

- $0.029 \text{ t} < \text{OFL } 1.16 \text{ t}$
- Overfishing did NOT occur

■ PIRKC – directed fishery closed, bycatch mortality 0.27 t

- $0.27 \text{ t} < \text{OFL } 490 \text{ t}$
- Overfishing did NOT occur

■ PIGKC – directed fishery was open (2 vessels so confidential), TAC was set below ABC

- Total catch mortality $< \text{OFL } (114\text{t})$ therefore overfishing did NOT occur

■ AIGKC

- Total catch mortality $2.04 \text{ kt} < \text{OFL}$ therefore overfishing did NOT occur



QUESTIONS?

- Thanks to all CPT members and crab assessment authors.

