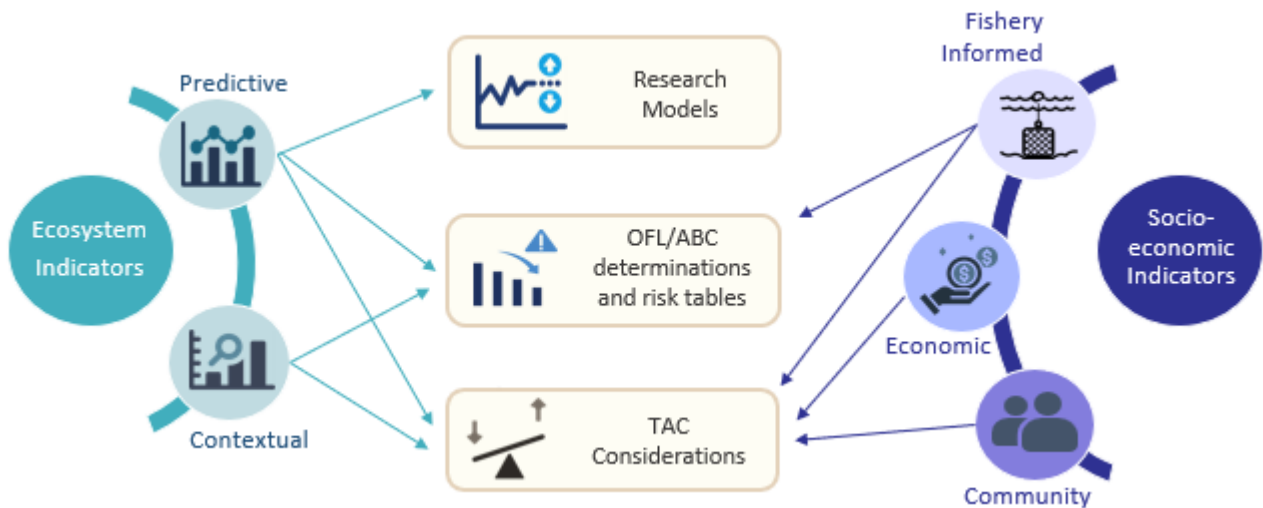




Eastern Bering Sea Snow Crab

2025 Ecosystem and Socioeconomic Profile (ESP) Report Card



Ecosystem Considerations



Predictive

- There were no ecosystem indicators that quantitatively predicted snow crab recruitment.



Contextual

- Despite warm conditions and reduced sea ice extent in 2025, juvenile snow crab occupied temperatures $< 1^{\circ}\text{C}$ indicate that **thermal thresholds were not likely exceeded** and cold-water habitat was available.
- Bitter crab disease, Pacific cod consumption and juvenile snow crab energetic condition indicators have not reached concerning levels in recent years, suggesting **suitable conditions for high survival and rebuilding**.
- **Range contraction and a southward shift** in the mature male snow crab center of abundance has coincided with a decline in the size of the cold pool since 2022.
- Notable trends in growth and maturity include a **directional downward shift in male size at terminal molt** for the past three decades, and a substantial **increase in female size at maturity** from 2024 to 2025.
- The operational sex ratio was strongly female-skewed in 2025, although $< 1\%$ of mature females with empty clutches suggests **high reproductive potential** despite depressed abundances of large male snow crab.

Socioeconomic Considerations



Fishery Informed

- Fishery-informed indicators generally support **improved stock condition** relative to the most recent (2021/22) fishery, and crab vessel captain observations are consistent with **high fishery CPUE**.
- Despite a continued **extreme northerly shift** in the center of distribution of fishing activity and a reported fishing practice change in **setting pots at greater depths** to avoid undesirable crab during the 2024/25 fishery, no considerations suggest greater than normal risk.



Snow Crab ESP Report Card

Ecosystem Indicators



Contextual

Indicator	Status	Trend
Juvenile Snow Crab Temperature of Occupancy	Near long-term mean 	
Winter/Spring Sea Ice Extent	Near long-term mean 	
Juvenile Snow Crab Disease Prevalence	Near long-term mean 	
Juvenile Snow Crab Energetic Condition	Near long-term mean 	
Pacific Cod Consumption	Near long-term mean 	


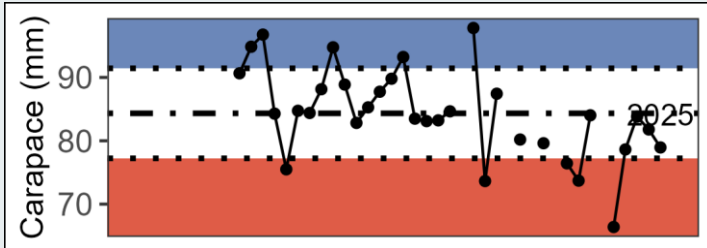

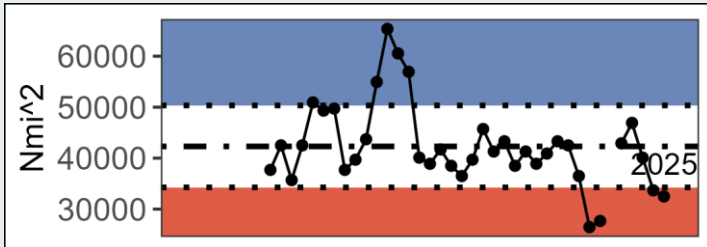

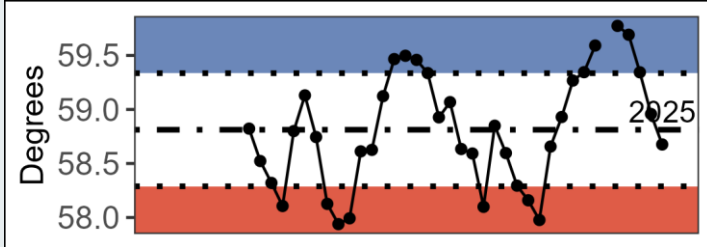

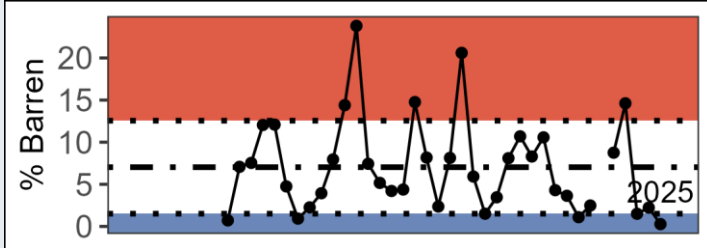

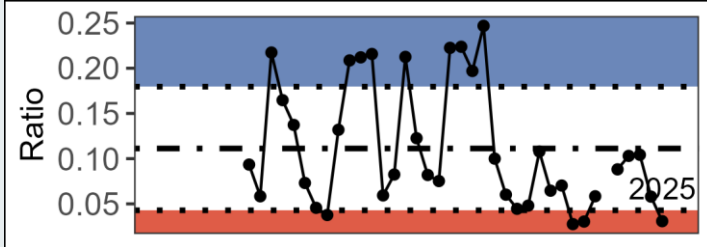
Most recent year indicator status indicates *good conditions*, *average conditions*, or *poor conditions* for the stock



Snow Crab ESP Report Card



Ecosystem Indicators

Indicator	Status	Trend
Male Snow Crab Size at Maturity	Near long-term mean 	
Male Snow Crab Area Occupied	Below long-term mean 	
Male Snow Crab Center of Abundance	Near long-term mean 	
Female Snow Crab Reproductive Failure	Below long-term mean 	
Snow Crab Operational Sex Ratio	Below long-term mean 	

Most recent year indicator status indicates *good conditions*, *average conditions*, or *poor conditions* for the stock



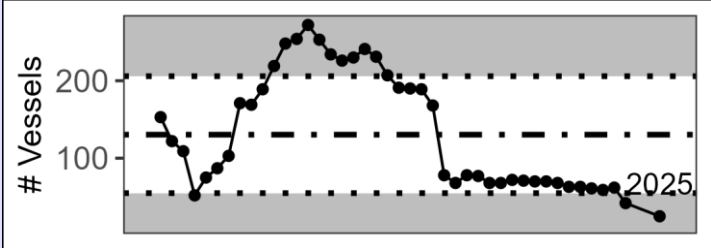

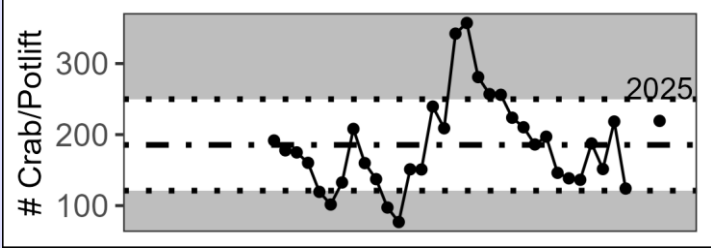

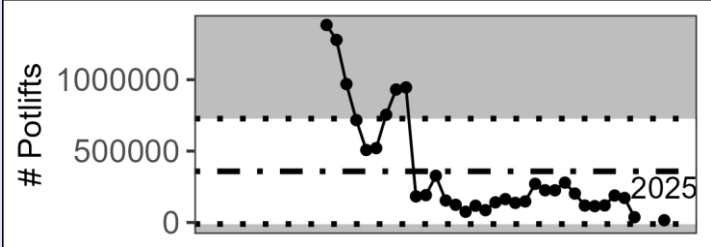

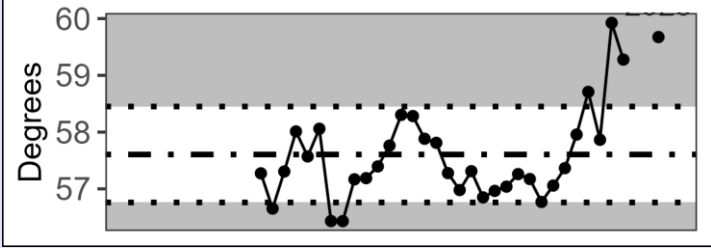

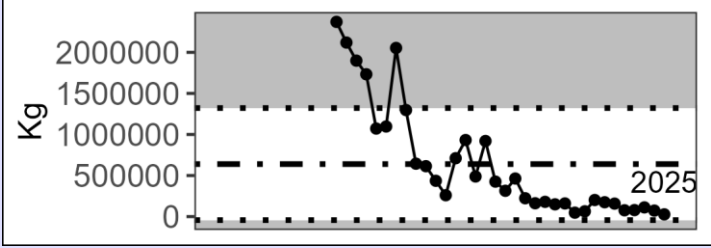


Contextual



Snow Crab ESP Report Card


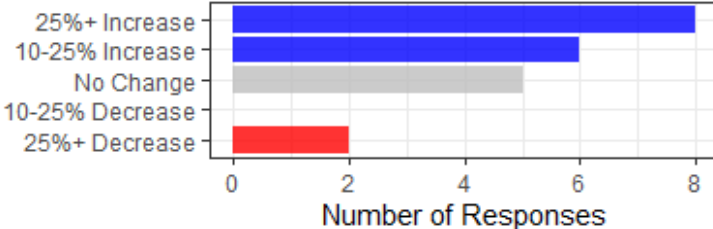

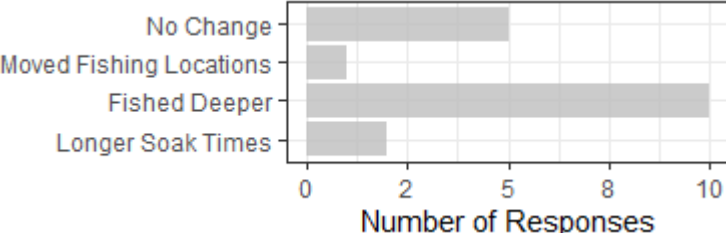

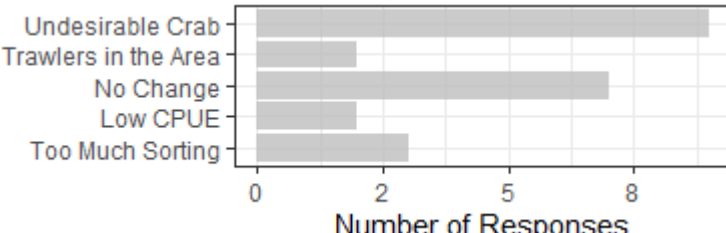
Socioeconomic Indicators

Indicator	2025 Status	Trend
<div> Fishery Informed</div> <div>Number of Active Vessels</div>	<div>Below long-term average</div> <div></div>	
Fishery CPUE	<div>Near long-term average</div> <div></div>	
Fishery Total Potlifts	<div>Near long-term average</div> <div></div>	
Centroid of Fishery	<div>Above long-term average</div> <div></div>	
Annual Incidental Catch	<div>Near long-term average</div> <div></div>	



Snow Crab ESP Report Card

Socioeconomic Indicators

Indicator	Status	Trend												
Skipper Survey: Perceived Abundance of Industry Preferred Males	Increase in perceived abundance 	 <table><tr><th>Trend</th><th>Number of Responses</th></tr><tr><td>25%+ Increase</td><td>8</td></tr><tr><td>10-25% Increase</td><td>6</td></tr><tr><td>No Change</td><td>5</td></tr><tr><td>10-25% Decrease</td><td>0</td></tr><tr><td>25%+ Decrease</td><td>2</td></tr></table>	Trend	Number of Responses	25%+ Increase	8	10-25% Increase	6	No Change	5	10-25% Decrease	0	25%+ Decrease	2
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Skipper Survey: Changes in Fishing Behavior	Change in behavior 	 <table><tr><th>Trend</th><th>Number of Responses</th></tr><tr><td>No Change</td><td>5</td></tr><tr><td>Moved Fishing Locations</td><td>1</td></tr><tr><td>Fished Deeper</td><td>10</td></tr><tr><td>Longer Soak Times</td><td>2</td></tr></table>	Trend	Number of Responses	No Change	5	Moved Fishing Locations	1	Fished Deeper	10	Longer Soak Times	2		
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Skipper Survey: Motivation for Changes in Fishing Behavior	Change in behavior 	 <table><tr><th>Trend</th><th>Number of Responses</th></tr><tr><td>Undesirable Crab</td><td>10</td></tr><tr><td>Trawlers in the Area</td><td>1.5</td></tr><tr><td>No Change</td><td>8</td></tr><tr><td>Low CPUE</td><td>1.5</td></tr><tr><td>Too Much Sorting</td><td>2.5</td></tr></table>	Trend	Number of Responses	Undesirable Crab	10	Trawlers in the Area	1.5	No Change	8	Low CPUE	1.5	Too Much Sorting	2.5
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