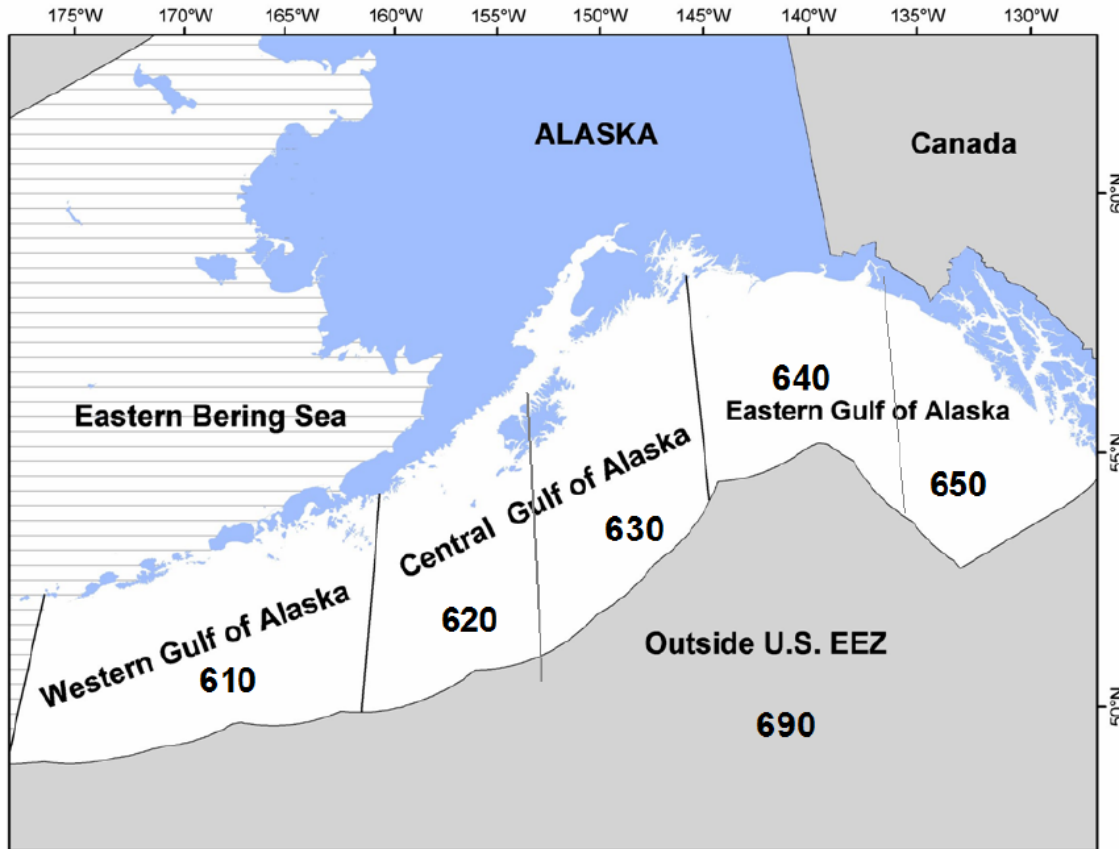# SSC Draft Report February 2018

SSC nominations and chair

- The SSC appointed Anne Hollowed (Alaska Fisheries Science Center) (AFSC) and Gordon Kruse (University Alaska Fairbanks) as co-chairs.

- Sherri Dressel (Alaska Department of Fish and Game) was reappointed as vice chair.

B-2 Gulf of Alaska Climate Regional Action Plan

- Recommend a quantitative assessment of the productivity of these programs including an assessment of how these programs have contributed to our understanding of climate impacts on the population dynamics of managed species and how this knowledge is used to inform decisions regarding biological reference points, TACs or other management actions."

- Expanded focus on key prey including macro-zooplankton and forage fish

- Consideration of sub-regional assessment of ecosystem and communities to address heterogeneity

- The SSC discussed the need for periodic updates to this plan and suggested that this could be a section of the Ecosystem Considerations report.

B-2 Age Determination Pollock

- Fourier transform near-infrared spectrometry (FT-NIRS) was used to age walleye pollock. This well-established analytical tool for material composition testing bombards a sample with electromagnetic radiation and quantifies the reflected light spectrum.

- **The SSC strongly supports the continued development of this ageing method for pollock and other species. In addition to further and ongoing calibration and validation testing of specific research questions (differences between males and females, storage duration for historical collections, etc.), the**

- **SSC recommends investigating a "hybrid approach" to production ageing that involves a systematic subsampling of otoliths for traditional aging each year (e.g., 20% of those collected), combined with FT-NIRS analysis of all available otoliths.**

- **the SSC recommends a modeling exercise to determine the effects of switching ageing methods, which should increase sample sizes available for stock assessment**

B-7 Protected Species Report

- The SSC greatly appreciated the presentations and updates on protected marine mammal species research and trends from the AFSC.

- Presentations on status and trends of key species by: John Bengston (NMFS-AFSC-MML); the Alaska Ecosystem Program (Tom Gelatt); the Polar Ecosystems Program (Peter Boveng); and the Cetacean Assessment & Ecology Program (Phil Clapham).

- The SSC felt the abundance and trend data presented were very informative.

- New technologies and data-sources being used to improve understanding of populations

- **The SSC felt the information was useful and requests annual updates during the February meeting.**

B-2 Alaska Fishery Science Center Report

- Doug DeMaster (Science and Research Director, Alaska Region, AFSC) gave a presentation on AFSC budget challenges, status and impacts.

- The SSC appreciates receiving this report on the AFSC budget situation, as well as AFSC's efforts to maintain delivery of top priority services to the Council under current strained federal budgets.

C-1 BSAI Crab (NSRKC)

- This year's assessment was updated to include new data sets (catch, catch length composition, discard length composition data). Five alternative models were presented in this year's assessment

- The SSC supports the Plan Team's recommendation to adopt Model 0.

- The SSC also continues to support Tier-4 management of this stock.
  - Given that the estimate of mature male biomass is less than the $B_{MSYproxy}$, the stock falls under Tier 4b.

- The calculation using F_{OFL} = M = 0.18 results in an OFL of 0.20 thousand t (0.43 million lb).

- The SSC concurs with the CPT choice of a 20% buffer, yielding a 2018 ABC of 0.16 thousand t (0.35 million lb).

- The SSC's adoption of the 20% buffer is based on concerns with model specification, lack of discard data, unresolved issues associated with the apparent high M for the largest size class, and considerations of other stocks with similar levels of uncertainty.

C-1 BSAI Crab NSRKC

- The SSC agrees with the Plan Team that Norton Sound red king crab appears to be a candidate for Tier 3 management. Tier 3 requires the estimation of proxies for F_{msy} and B_{msy}.

- Several comments for additional analysis including application of geospatial approach to standardization of ADF&G survey CPUE.

C-1 BSAI Crab Other

- The SSC feels that it is important to report a quantitative baseline of annual community engagement and dependency on the Norton Sound red king crab fishery.

- Comments on several other modeling issues: Bi-modality in snow crab growth; Dynamic B0; chela height study for Tanner crab and others.