C-3 Crab Plan Team report and final Norton Sound red king crab assessment
CRAB PLAN TEAM REPORT

- NSRKC assessment: OFL and ABC
- BBRKC model recommendations
- Snow crab model recommendations
- Ecosystem report card
- Snow crab bycatch feedback
- SAFE guidelines
NORTON SOUND RED KING CRAB
FISHERY DISTRICT
CHARACTERISTICS OF NORTON SOUND RED KING CRAB

- Northernmost red king crab population that can support commercial fishery
- Live entire life-history in < 40m depth
- Many of life-history / stock separation unknown
- Commercial fishery started in 1977
NORTON SOUND FISHERIES

- Fisheries Periods:
  - Summer: July-August
  - Winter: December-April

- Summer Fisheries (majority of catch):
  - Commercial, CDQ, Subsistence
  - Small boat pots fishery

- Winter Fisheries:
  - Commercial, Subsistence
  - Pots through Ice

- Majority of harvest occurs in Summer Commercial Fisheries
MAJOR CHANGES IN ASSESSMENT MODEL

Alternative Models Considered

1. Jan. 2015 crab assessment model with updated data
2. Estimate M multiplier (ms) for > 123mm
3. Estimate M equal for all length classes
4. Estimate M for ≤ 123 mm and ms for > 123mm
5. Expand length classes 64 – 134 mm (from 6 to 8 classes)
6. Reduce length class interval from 10 to 5 mm
7. All combinations above = 15 alternative models
RETROSPECTIVE ANALYSES

Mohn rho 0.115

year

MMB

OFL & ABC

- $B_{MSY\ Proxy}$
  - Average MMB from 1980-2016 = 4.53 million lb

- MMB
  - MMB (2016) = 5.87 million lb

- MMB $>$ $B_{MSY\ Proxy}$ : Tier 4a

- OFL 0.710 million lb
- ABC = 0.8OFL (20% buffer) = 0.568 million lb = 0.26 Metric ton
ADDITIONAL CPT ISSUES

- Snow crab
- Bristol Bay red king crab (BSFRF data)
- SAFE guidelines
- Ecosystem report card
- Crab modeling workshop – Gmacs progress