

C-3 CRAB PLAN TEAM REPORT
AND FINAL NORTON SOUND RED
KING CRAB ASSESSMENT



CRAB PLAN TEAM REPORT

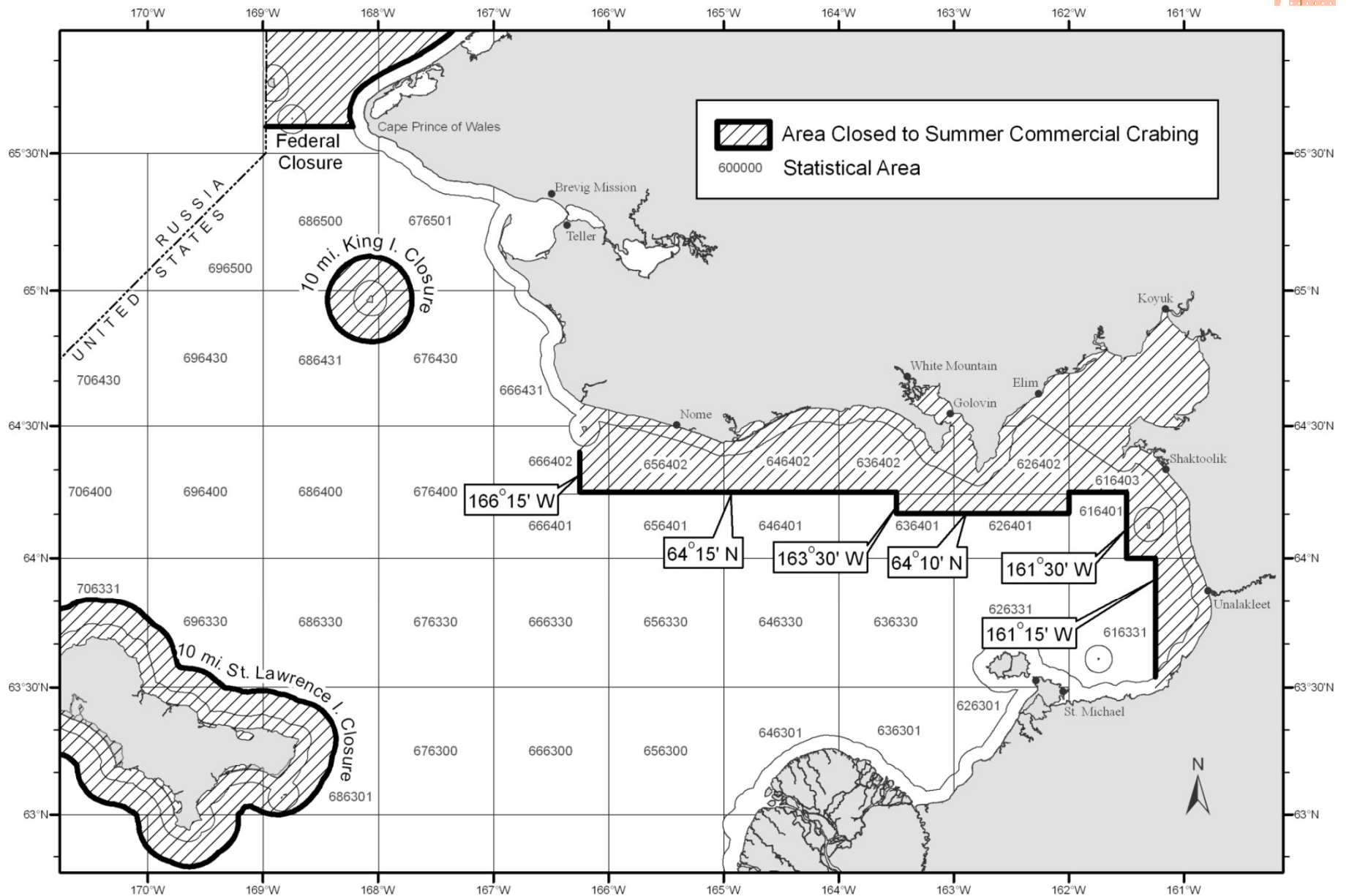
- NSRKC assessment: OFL and ABC
- BBRKC model recommendations
- Snow crab model recommendations
- Ecosystem report card
- Snow crab bycatch feedback
- SAFE guidelines



The left side of the page features several vertical decorative elements: a thin dotted orange line, a wider band with a fine grid pattern, a solid orange vertical bar, and another thin dotted orange line. To the right of these bars are five orange circles of varying sizes, arranged in a cluster that partially overlaps the text.

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

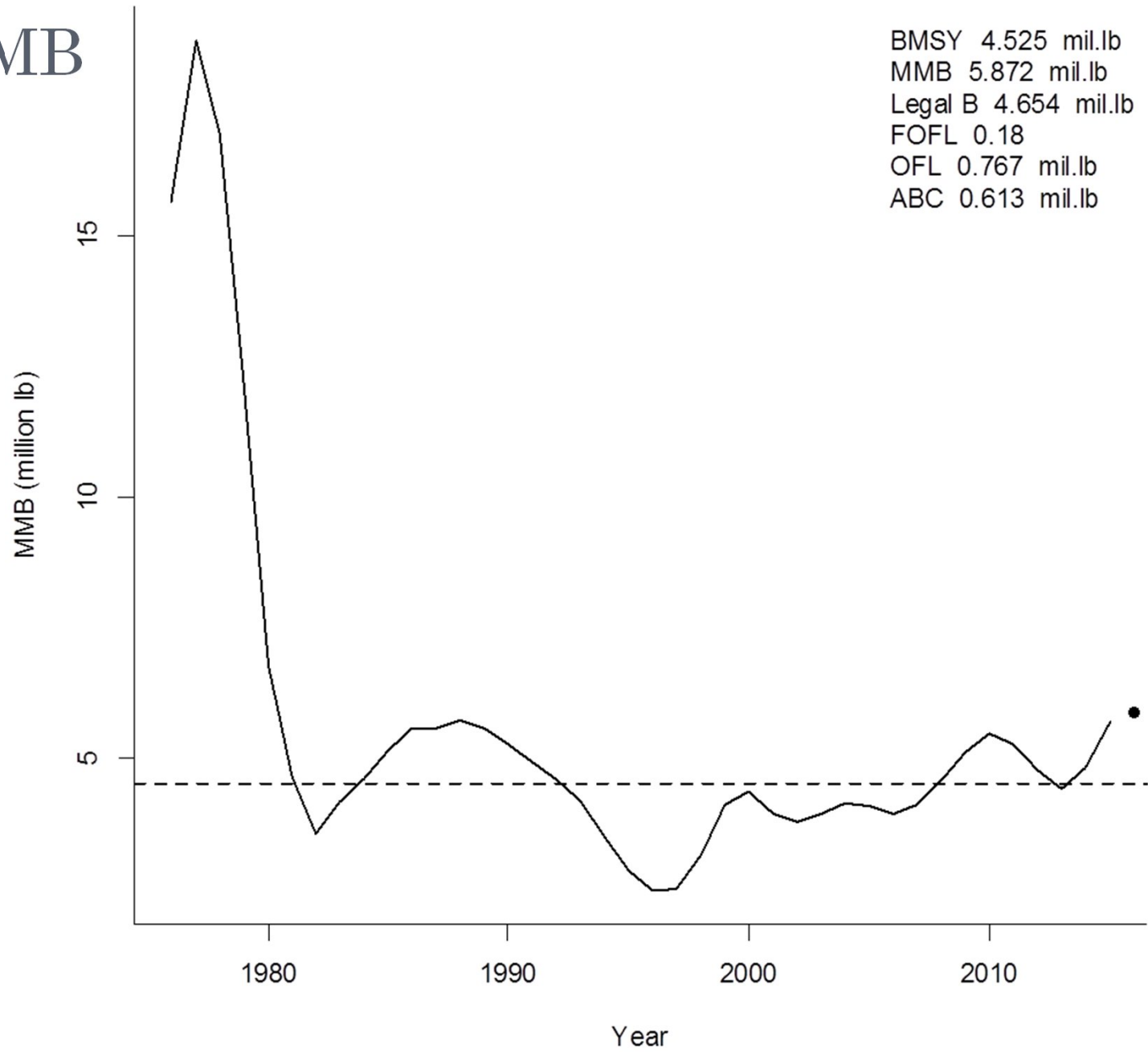
○ Alternative Models Considered

1. Jan. 2015 crab assessment model with updated data
2. Estimate M multiplier (ms) for $> 123\text{mm}$
3. Estimate M equal for all length classes
4. Estimate M for $\leq 123\text{ mm}$ and ms for $> 123\text{mm}$
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

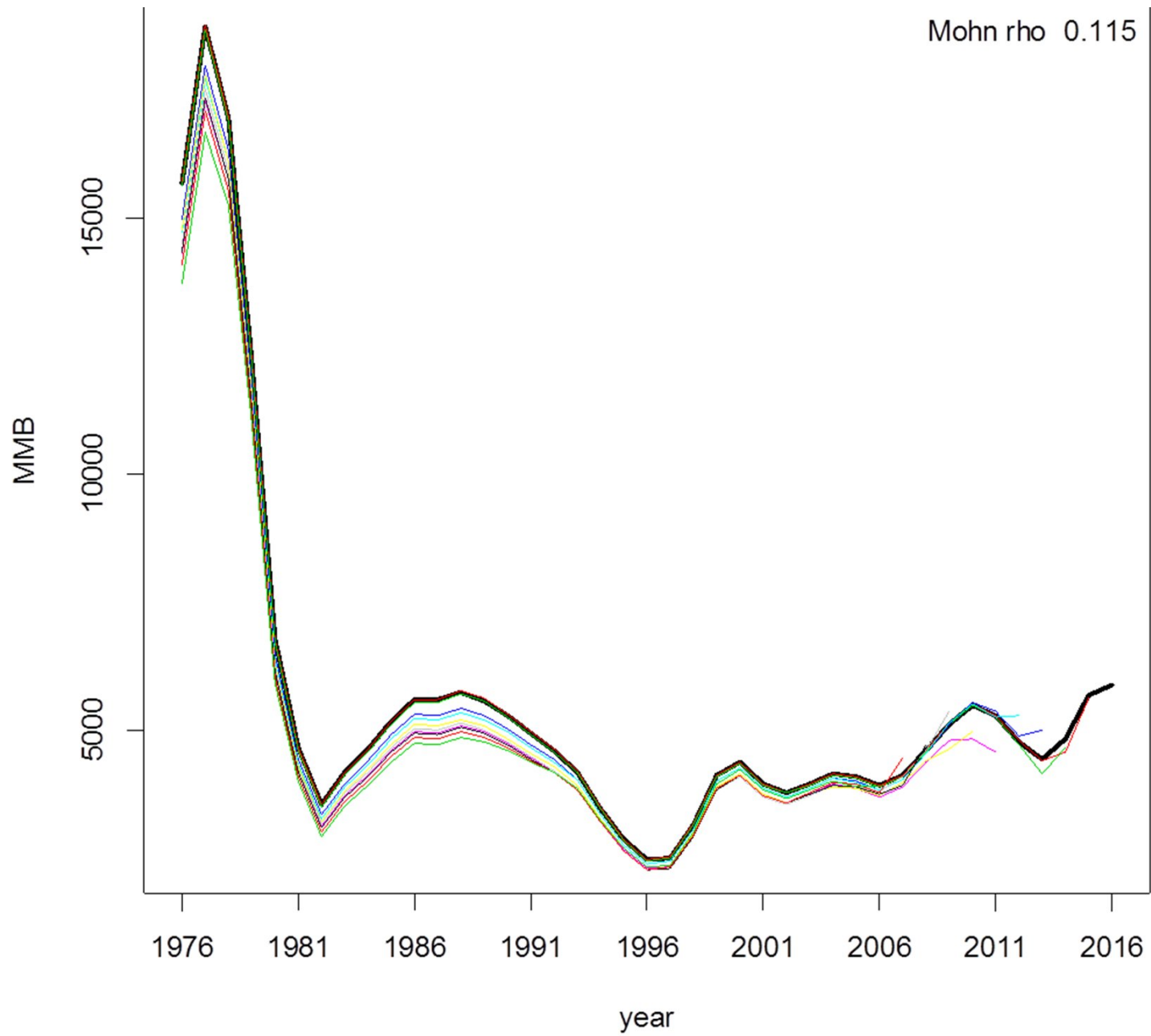


MMB Feb 01

MMB

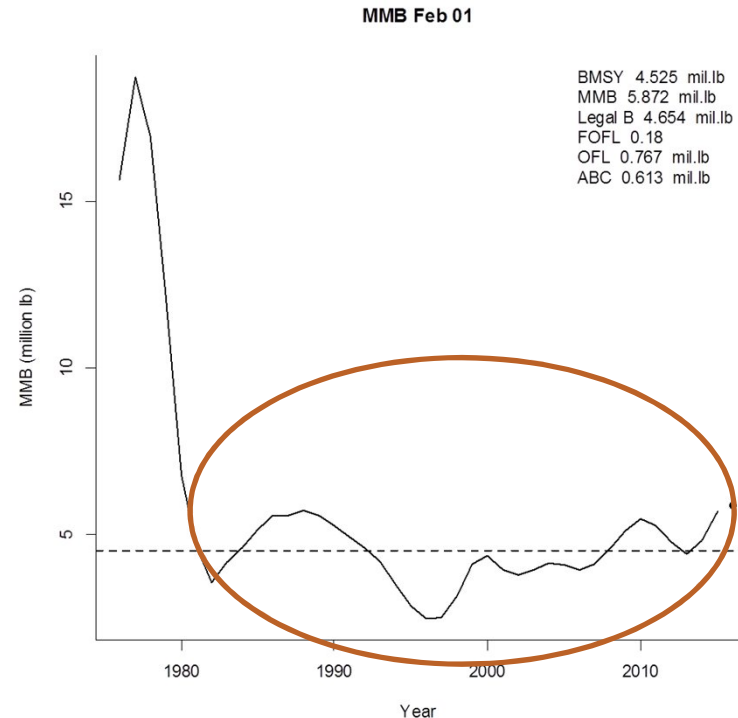


RETROSPECTIVE ANALYSES



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

