August 2010 Draft Biological Opinion

Effects of the Groundfish Fisheries off Alaska on ESA Listed Species Including the Western DPS of Steller Sea Lions
Status Quo Trawl Atka mackerel
Status of western DPS of SSL

Steller Sea Lion Pup Counts in Alaska
Difference between 2009-10 and 2001-02

2009 SSL Aerial Survey
- Rookery
- Haul out
- NP Survey Area

Western Stock
- W Aleu
- CAleu
- E Aleu
- W Gulf
- CGulf
- E Gulf
- SE AK

Eastern Stock

Status of western DPS of SSL

Western Stock
- 178°W

144°W

- Gulf of Alaska
- Pacific Ocean

Waleu
- Steller Sea Lion Pup Counts
- Difference between 2009-10 and 2001-02

- Status of western DPS of SSL

- Map of Alaska with survey data

- Map of Alaska with western and eastern stock data
Criteria and Standards Used to Establish and Evaluate RPAs

• Promote recovery of SSL numbers in sub-regions where numbers likely to drop below 50% of baseline
• Promote recovery of SSL numbers in sub-regions where two juxtaposed areas are in decline
• Promote overall increase in numbers in wSSL DPS
• More severe conservation measures implemented where declines are most severe
• Establish opportunity for adaptive management approach
• From a regulatory perspective, feasible implementation of RPA by 1 January 2011
Primer on “bull’s eye” plots ---

Management Region A

- Closed to fishing 0-10
- Open from 10-20 nm

Management Region B

- Closed to fishing 0-20

3 nm
10 nm
20 nm
## Summary 1: Status Quo

<table>
<thead>
<tr>
<th>Western AI</th>
<th>Central AI</th>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>543</strong></td>
<td><strong>542</strong></td>
</tr>
<tr>
<td></td>
<td>West of 178W</td>
</tr>
</tbody>
</table>

### Atka mackerel
- Rookeries
- Haulouts

### P. Cod
- Fixed Gear:
  - During AM HLA
  - After AM HLA
- Trawl Gear:
  - During AM HLA
  - After AM HLA

### Critical Habitat
- Outside Critical Habitat
- 10 - 20 nm Critical Habitat
- 3 - 10 nm Critical Habitat
- 0 - 3 nm Critical Habitat

**Exceptions:** Buldir Rookery closed to Atka mackerel trawling 0-15 nm and to P. cod fixed gear 0-10 nm; Agigadak I. closed to P. cod trawl 0-20 nm.
## Summary 2: RPA in draft Biop

<table>
<thead>
<tr>
<th>Western Al</th>
<th>Central Al</th>
<th>Central Al</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Atka mackerel</strong>&lt;br&gt;543</td>
<td><strong>Limit TAC ≤ 47% ABC, Modify Seasons</strong>&lt;br&gt;542</td>
<td><strong>Modify Seasons</strong>&lt;br&gt;541</td>
</tr>
<tr>
<td><strong>P. Cod</strong></td>
<td><strong>Fixed Gear</strong>&lt;br&gt;Fixed Gear</td>
<td><strong>Trawl</strong>&lt;br&gt;Trawl</td>
</tr>
<tr>
<td><strong>Status Quo</strong>&lt;br&gt;543</td>
<td><strong>All Gear: P. Cod closure Nov. 1 – Dec. 31</strong>&lt;br&gt;542</td>
<td><strong>All Gear: P. Cod closure Nov. 1 – Dec. 31</strong>&lt;br&gt;541</td>
</tr>
<tr>
<td><strong>Status Quo; Add Kanaga/Ship Rock Rookery Groundfish Fishing Closure</strong></td>
<td><strong>Jun 10 – Oct</strong></td>
<td><strong>Status Quo</strong></td>
</tr>
</tbody>
</table>

- **Np trend= -7%/yr**
- **NP trend= -0.9%/yr**
- **NP trend= 1.5%/yr**
# Summary 3: Council Motion

<table>
<thead>
<tr>
<th>Western AI</th>
<th>Central AI</th>
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</thead>
<tbody>
<tr>
<td>543</td>
<td>542</td>
<td>541</td>
<td></td>
</tr>
<tr>
<td>Limit TAC ≤ 65% ABC, Modify Seasons</td>
<td>Limit TAC ≤ 65% ABC, Catch in CH ≤ 50% TAC, Modify Seasons</td>
<td>Modify Seasons</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Atka mackerel</th>
<th></th>
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<tbody>
<tr>
<td>West of 174.50° E</td>
<td>East of 174.50° E</td>
<td>177° E - 178° E</td>
<td>178° W - 177° W</td>
</tr>
<tr>
<td></td>
<td></td>
<td>178° E - 180°</td>
<td>180° - 178° W</td>
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<tr>
<td></td>
<td></td>
<td>Rookeries</td>
<td>Rookeries</td>
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<tr>
<td></td>
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<td>Haulouts</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>P. Cod</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>East of 174.50° E</td>
<td>Vessels &lt; 60°</td>
<td>Vessels &lt; 60°</td>
<td>177° E - 178° W</td>
</tr>
<tr>
<td>Western of 174.50° E</td>
<td>Vessels &gt; 60°</td>
<td>Vessels &gt; 60°</td>
<td>178° W - 177° W</td>
</tr>
<tr>
<td>Feb 15 - Mar 15</td>
<td>Jan - Feb Mar - Dec</td>
<td>CH open 4 - 20 nm, June 10 to Nov 1 Only</td>
<td>Jan 20 to June 10 Only</td>
</tr>
<tr>
<td>Harvest Limit ≤ 2.5% BSAI ABC</td>
<td>Status Quo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Single Species Biomass Projections: Fished and unfished scenarios

- BSAI Atka mackerel
- BSAI arrowtooth fl
- EBS pollock
- BSAI Pacific cod
- GOA arrowtooth fl
- GOA pollock
- GOA Pacific cod

Female spawning biomass (thousands of t)

Year

Without fishing
With fishing
Impacts of modifying Catch levels in subregions 543 and 542

Data are from Ianelli et al. (August 2010)
Proposed Revisions to Draft RPA

- Permit non-trawl vessels < 60' length to fish for P. cod from 6-10 nm in critical habitat year-round in Area 542.

- Permit non-trawl vessels ≥ 60' length to fish for P. cod from 6-10 nm in critical habitat in the B season in Area 542.

- Permit trawl vessels to fish for P. cod from 10-20 nm of critical habitat from 178° W to 177° W in the A season.

- Permit trawl vessels participating in a harvest cooperative or fishing CDQ to fish for Atka mackerel from 10-20 nm of critical habitat from 179° W to 178° W year-round. Limit the amount of Atka mackerel harvest inside critical habitat to 10% of the entity’s annual allocation. Divide the annual harvest inside critical habitat evenly between the A and B seasons.
## Summary 4: draft revised RPA

<table>
<thead>
<tr>
<th></th>
<th>543</th>
<th>542</th>
<th>541</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>change B season to Jun. 10-Nov. 1.</td>
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</tr>
<tr>
<td>Atka mackerel</td>
<td><img src="image.png" alt="Diagram" /> 177°E - 179°W</td>
<td><img src="image.png" alt="Diagram" /> 179°W - 178°W Harvest Co-op. &amp; CDQ Open Access</td>
<td><img src="image.png" alt="Diagram" /> 178°W - 177°W</td>
</tr>
<tr>
<td></td>
<td>CH harvest limited to 10% of Co-op or CDQ allocation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P. Cod</td>
<td><img src="image.png" alt="Diagram" /> Non-trawl Vessels &lt; 60'</td>
<td><img src="image.png" alt="Diagram" /> Trawl 177°E - 178°W</td>
<td><img src="image.png" alt="Diagram" /> Trawl 178°W - 177°W</td>
</tr>
<tr>
<td></td>
<td>Close hook and line fishing in critical habitat Jan. 1 through Aug. 15 for vessels ≥ 60 ft. Reinitiate consultation if two year rolling average of annual nontrawl harvest exceeds 2,735 mt.</td>
<td>Reinitiate consultation if two year rolling average of annual trawl harvest exceeds 3,081 mt.</td>
<td>All Gear: P. Cod closure Nov. 1 – Dec. 31</td>
</tr>
<tr>
<td>Other</td>
<td>Status Quo Close groundfish fishing from 0-3 nm around Kanaga/Ship Rock Rookery</td>
<td>Status Quo</td>
<td>Status Quo</td>
</tr>
</tbody>
</table>
Draft Revised RPA

- SSL CH Closed to Atka Mackerel and P.ccod Trawl Year-Round
- Atka Mackerel Open in SSL CH: 10-20nm Year-Round. P.ccod Trawl Closed
- P.ccod Trawl Open in SSL CH: 10-20nm - Jan-20 to June-10. Atka Mackerel Close
- P.ccod Trawl Open in SSL CH: 10-20nm - Jan 20 to June 10

▲ Ports & Towns
★ SSL Rookeries
▲ SSL Haulouts

Atka Mackerel and Pacific Cod Trawl
Public Comment on Draft Biop

• NMFS received ~ 10,600 public comments on Aug. 2\textsuperscript{nd} draft Biop
• > 10,000 were form letters in support of the RPA in the draft Biop
• NMFS received numerous, substantive comments on scientific, legal, and policy issues pertaining to the draft Biop and EA/RIR
  • Comments varied as to the science and the stringency of measures required to remove the likelihood of JAM
• NMFS received 8 alternate RPA suggestions in addition to the Council’s August 2010 Motion
NMFS’ Response To Comments

• NMFS equally considered all comments in evaluating proposed adjustments to RPA in the draft Biop.
• A summary of comments and responses is expected with completion of final Biop.
Conclusions

- It is not possible to reasonably exclude the likelihood that commercial fisheries in management regions 543 and 542 cause JAM.
- Where SSL declines are steepest, mitigation needs to be more precautionary.
- The prey field in 543 is expected to improve by approximately 50% under draft revised RPA; in 542 an 8% improvement is expected.
- Council’s motion led to 3% improvement in prey field in both areas.
• Questions???
  – 1. Status of Biop – to be finalized in next 4-6 weeks, along with EA.
  – 2. Status of RPA – to be finalized in next 4-6 weeks.
  – 3. Council Motion regarding RPA – NMFS has determined that the CM would not eliminate JAM
  – 4. In the revised draft RPA, no changes from August version of the Biop expected in management regions 543 and 541.