Adaptive Management Program Proposal

presented by

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This presentation is derived from a joint work with Levis Kochin\textsuperscript{1}. The proposal originated from Daniel Holland\textsuperscript{2}.

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The Adaptive Management Program (AMP)

- Objectives:
  1) Community stability
  2) Processor stability
  3) Conservation
  4) Unintended/unforeseen consequences of ITQ management
  5) Facilitating new entrants
One of the unintended consequences of the ITQ program is stranded fish, which translates into revenue losses for the whole industry.

AMP pounds could be used as a means to decrease strandings and thus increase revenue and financial stability as specified in AMP objectives.
Table 1. Species shown in red are valuable groundfish species for which attainment was lower in the U.S. than BC in 2012. *Sources:* Sean E. Matson, 2013. Department of Fisheries and Oceans Canada, 2012-2013.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Arrowtooth flounder</td>
<td>26.12%</td>
<td>39.24%</td>
<td>$2,656,219</td>
<td>$1,334,224</td>
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<tr>
<td>Canary rockfish</td>
<td>27.60%</td>
<td>74.54%</td>
<td>$16,718</td>
<td>$28,434</td>
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<tr>
<td>Dover sole</td>
<td>32.74%</td>
<td>61.46%</td>
<td>$15,450,151</td>
<td>$13,550,837</td>
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<tr>
<td>English sole</td>
<td>1.54%</td>
<td>50.41%</td>
<td>$276,675</td>
<td>$8,794,429</td>
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<tr>
<td>Lingcod</td>
<td>21.02%</td>
<td>22.73%</td>
<td>$1,037,928</td>
<td>$84,350</td>
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<tr>
<td>Longspine thornyheads</td>
<td>47.71%</td>
<td>18.96%</td>
<td>$2,681,830</td>
<td>-$1,615,976</td>
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<tr>
<td>Pacific cod</td>
<td>34.92%</td>
<td>43.42%</td>
<td>$1,009,443</td>
<td>$245,866</td>
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<td>Pacific ocean perch</td>
<td>44.85%</td>
<td>70.66%</td>
<td>$120,552</td>
<td>$69,394</td>
</tr>
<tr>
<td>Petrale sole</td>
<td>100.28%</td>
<td>98.72%</td>
<td>$4,749,129</td>
<td>-$73,695</td>
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<tr>
<td>Sablefish</td>
<td>82.32%</td>
<td>76.15%</td>
<td>$15,915,622</td>
<td>-$1,192,301</td>
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<tr>
<td>Shortspine thornyheads</td>
<td>48.61%</td>
<td>73.38%</td>
<td>$1,970,653</td>
<td>$1,003,973</td>
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<tr>
<td>Widow rockfish</td>
<td>45.04%</td>
<td>67.30%</td>
<td>$337,529</td>
<td>$166,782</td>
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<td>Yelloweye rockfish</td>
<td>5.74%</td>
<td>91.14%</td>
<td>$80</td>
<td>$1,185</td>
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<tr>
<td>Yellowtail rockfish</td>
<td>32.03%</td>
<td>93.76%</td>
<td>$2,362,998</td>
<td>$4,554,219</td>
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<tr>
<td>Total</td>
<td>30.84%</td>
<td>53.61%</td>
<td>$48,585,527</td>
<td>$26,951,721</td>
</tr>
</tbody>
</table>
Dover sole and shortspine thornyheads

**Dover sole:**
- Landings
- Ex-vessel price
- Ex-vessel revenue

**Shortspine thornyheads:**
- Landings
- Ex-vessel price
- Ex-vessel revenue
Fig. 1. Dover sole landings and ex-vessel prices in CA, OR and WA during 2008-2012.

Fig. 2. Shortspine thornyheads landings and ex-vessel prices in CA, OR and WA during 2008-2012.

“Deemed value” proposal to mitigate strandings problem

- Use AMP quota pounds to create a “deemed value” system.
- A fisherman would be charged a fee (deemed value) for landing fish for which he does not have sufficient quota pounds.
- A fisherman could get a refund of the deemed value if he later acquires quota pounds in order to balance the catch on which he previously paid deemed value.
- Deemed value rates can be set higher for some species and lower for others.
- The event of ACLs being exceeded is unlikely since landings that can be covered by deemed value would be limited to the AMP QS pool.
Benefits of a deemed value system

For the individual fisherman:
- Allows him to keep fishing
- Reduces his transaction costs of covering bycatch events
- Reduces uncertainty and fear of a “lightning” tow
- Provides some certainty over out-of-pocket costs

For the quota market:
- More flexibility for fishermen to balance incidental catch (efficiency)
- The system would facilitate better reallocation of quota among the participants
- More fishing opportunities for new entrants until they obtain quota pounds via market transactions
In summary: Use AMP for Deemed value

- The strandings problem stems from relative catch rates, especially for jointly caught species (e.g. DTS complex, canary and yelloweye rockfish).
- Strandings are exacerbated by a thin quota market, addressed by the deemed value proposal.
- AMP objectives will more likely be met by having a more efficient quota market, making quota prices less volatile and quota pounds more liquid.
- Deemed value is effective when applied to species with low attainment rates.
- In combination with other changes (gear regulation and RCA modifications), deemed value should increase attainment rates and make the fishery more profitable.
References

- Grafton RQ, Nelson HW, Turris B. How to resolve the class II common property problem? The case of British Columbia’s multispecies groundfish trawl fishery. 2004.
- Department of Fisheries and Oceans Canada, 2012-2013 Groundfish Trawl Summary of Catch vs. Available Weight.
Correspondence

For any further questions or concerns, please contact:

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