


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver   
Executive Director

DATE: December 1, 2009

SUBJECT: Management Issues

ESTIMATED TIME 8 HOURS All D-1 Items
--

**ACTION REQUIRED**

Review Progress on ACL Requirements

**BACKGROUND**

In June 2009 the Council tasked staff to begin analyses necessary to bring the Bering Sea/Aleutian Islands and Gulf of Alaska groundfish FMPs into compliance with new annual catch limit (ACL) and accountability measure (AM) requirements for ending overfishing of federal fisheries under the revised guidelines for National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Council's interim action plan for the ACL amendments was adopted in June (Item D-1(a)(1)), pending scientific recommendations on which groundfish species may be candidates for a new, voluntary FMP category for ecosystem components. The main action proposed under the FMP amendment is to define which species: 1) are "in the fishery," 2) may be included in this new "EC" category (e.g., forage fish), and/or 3) may be removed from the FMP (e.g., non-specified species). The SSC and Plan Teams have recommended that the Council could consider placing squid and octopus under the EC category (Item D-1(a)(2)), based on an AFSC analysis (Item D-1(a)(3)).

The Council is scheduled to revise the draft action plan at this meeting to finalize alternatives for the EA. The Council tasked the Non-Target Species Committee with recommending revisions to the alternatives to begin the analysis. The committee convened on September 15, 2009, but a lack of clarity in NMFS guidelines for complying with ACLS did not allow the committee to provide recommendations at this time. Staff provided the requested clarifications and the Council approved a second meeting of the committee, which is scheduled for December 6. A report of the September 2009 committee meeting is provided under Item D-1(a)(4). A report of this week's committee meeting will be provided.

The timeline for Council action is short and the Council is encouraged to streamline the alternatives to address only those FMP amendments that are required to meet the revised guidelines. Final action should be scheduled no later than June 2010 for implementation to occur by the statutory deadline of January 1, 2011. A trailing ACL analysis is already planned to address management of grenadiers and other issues, and additional management actions could be included in that analysis.

**DRAFT ACTION PLAN FOR ANNUAL CATCH LIMIT AMENDMENTS TO THE GROUND FISH FMPs  
OF THE BERING SEA/ALEUTIAN ISLANDS AND GULF OF ALASKA  
June 17, 2009**

AGENDA D-1(a)(1)  
DECEMBER 2009

**PROPOSED ACTION** Amend the Groundfish FMPs of Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) to comply with the Magnuson-Stevens Reauthorization Act (MSRA).

**PROBLEM STATEMENT/OBJECTIVE** On January 16, 2009, NMFS issued final guidelines for National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). They provide guidance on how to comply with new annual catch limit (ACL) and accountability measure (AM) requirements for ending overfishing of fisheries managed by federal fishery management plans (FMPs). Annual catch limits are amounts of fish allowed to be caught in a year. A legal review of the groundfish FMPs found there were inadequacies in the FMP texts that need to be addressed. Several work groups (e.g., ABC/ACT Control Rules, Vulnerability Evaluations) have been created to produce reports on how to carry out the more technical components of the guidelines. Statutory deadlines require compliance with the MSA by the start of the 2011 fisheries although these reports have not been finalized.

This action is necessary to facilitate compliance with requirements of the MSA to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield.

**ANALYSIS** An EA for one amendment to the BSAI and GOA Groundfish FMPs is required; categorical exclusions are planned for six housekeeping amendments.<sup>1</sup>

**RANGE OF ALTERNATIVES<sup>2</sup>**

Alternative 1: Status Quo. The Groundfish FMPs remain unchanged.

Alternative 2: Action Alternative. Revise the BSAI and GOA Groundfish FMPs to meet the National Standard 1 guideline requirements for annual catch limits.

**Action 1: Identify Stocks in the Fishery**

Option 1: Status quo. Target species, other species, prohibited species, forage fish, and nonspecified species are in the fishery. [*Annual catch limits required for all stocks*].

Option 2: Target species and other species are in the fishery; forage fish and prohibited species are under an Ecosystem Component category; nonspecified species are removed from the FMPs. [*Annual catch limits and accountability measures required for target and other species. Other management measures apply to target, forage fish, and prohibited species. No management of nonspecified species.*]

*Rejected options:*

Option 3: Target species and other species are in the fishery. [*Forage fish, prohibited species, and nonspecified species would be removed from the FMPs. Annual catch limits and accountability measures required for target and other species.*]

Option 4: Target species and other species are in the fishery; forage fish, prohibited species, and nonspecified species are under an Ecosystem Component category. [*Annual catch limits and accountability measures required for target and other species. Other management measures apply to target, forage fish, and prohibited species and may apply to nonspecified species.*]

---

<sup>1</sup> Federal regulations are not required to be revised therefore an RIR/IRFA is not required.

<sup>2</sup> The Council may revise these alternatives during its review of the draft analysis.

Action 2: Housekeeping: Amend the FMP text to explain current practices.

These include adding text to the FMPs to describe:

- Specification of Minimum Stock Size Thresholds (MSSTS). This description is currently incorporated into the annual Stock Assessment and Fishery Evaluation (SAFE) reports.
- Measures that are taken if and when a stock drops below MSST. This is an ongoing evaluation and a management response will occur when needed.
- Accountability measures that are triggered if an ACL (ABC) is exceeded; reference the current in-season management system which has a more timely response than what would occur in the following year.
- Ecological factors that are considered by the Council in reducing Optimum Yield from Maximum Sustainable Yield.
- How the tier levels for Acceptable Biological Catch and Overfishing Level (OFL) are based on the scientific knowledge about the stock/complex and the scientific uncertainty in the estimate of OFL and any other scientific uncertainty.
- How the stock assessments account for all catch

#### **APPLICABLE LAWS NEPA, MSA**

#### **STAFF RESOURCES**

NPFMC Jane DiCosimo  
NOAA AKR Sue Salveson, Melanie Brown  
NOAA AFSC Dr. Grant Thompson, Dr. Anne Hollowed, Dr. Paul Spencer, Dr. Olav Ormseth  
NOAA Habitat No habitat implications  
NOAA PR Kaja Brix  
NOAA GCAK Clayton Jernigan  
HQ Galen Tromble, Rick Methot, Mark Milliken, Mark Nelson

#### **MAJOR ISSUES**

- The Council and NMFS have placed this amendment (along with Crab FMP amendment) among its highest priorities for action. Statutory deadline of January 1, 2011 for implementation of ACL/AM requirements for groundfish requires final action no later than April 2010.
- NMFS identified that no changes to federal regulations will result from the proposed action, therefore, a Regulatory Impact Review (RIR) and Regulatory Flexibility Analyses (IRFA/FRFA) is not required
- Improvements to uncertainty calculations and management of vulnerable species beyond meeting legal requirements (i.e., non-specified species) will require separate trailing plan amendments.
- The Council (Non-Target Species Committee) will reevaluate its previous tasking priorities for revising management of (1) BSAI skates (scheduled for October 2009 final action), (2) BSAI/GOA squids (scheduled for December 2009 final action), (3) BSAI/GOA sharks and sculpins (scheduled for February 2010 final action), (4) BSAI/GOA octopods (not scheduled), and (5) BSAI/GOA grenadiers (not scheduled). The committee will meet on September 15, 2009.
- The Groundfish Plan Teams will review/comment on technical analyses and proposed actions at their 2009 meetings.

### TIMELINE TO IMPLEMENTATION<sup>3</sup>

January 2009	NMFS HQ issues final guidelines for National Standard 1.
April 2009	NMFS HQ issues draft working group reports (e.g., ABC/ACT Control Rules, Vulnerability Evaluations) on how to carry out the technical components of the guidelines.
April/May May 2009	Interagency staffs meet numerous times to coordinate NPFMC response. Annual Catch Limit Work Shop at AFSC coordinates SSC and Groundfish Plan Teams response(s).
June 2009	Council approves draft action and tasks staff with preparation of analysis
August 2009	AFSC releases technical analyses on 1) incorporating uncertainty into stock assessments and 2) groundfish vulnerable to overfishing
September 2009	Groundfish Plan Teams reviews draft alternatives and technical analyses on uncertainty and vulnerability
October 2009	AFSC staff presents progress report on technical analyses to SSC
November 2009	Release of initial review draft of EA
November 2009	Groundfish Plan Team review of EA
February 2010	Council conducts final action and selects a preferred alternative; staff submits final EA for NMFS review
March 2010	NMFS publishes 2010/2011 harvest specifications
April 2010	Council staff submits EA to NMFS for Secretarial review; NMFS publishes NOA (and proposed rule if necessary) to implement ACL amendments
September 2010	PTs recommends proposed 2011 and 2012 harvest specifications based on new ACL amendments; SOC approves ACL amendments (any regulations to follow)
October 2010	Council recommends proposed 2011 and 2012 harvest specifications based on new ACL amendments; NMFS publishes final rule implementing ACL amendments, if necessary
November 2010	PTs recommends final 2011 and 2012 harvest specifications
December 2010	Council recommends final 2011 and 2012 harvest specifications
Late 2010	NMFS publishes inseason adjustment to correct mis-specified 2011 harvest specifications that were published March 2010, if needed
January 1, 2011	Revised harvest specifications are in effect

---

<sup>3</sup> Timelines for action in 2009 could be delayed by one or more meetings if AFSC vulnerability analysis is not completed by August 1, 2009.

September 2009 Groundfish Plan Team excerpt:

**Vulnerability Analysis** Olav Ormseth presented the results of a vulnerability analysis applied to non-target and selected target species in the GOA and BSAI. Vulnerability is defined as the likelihood of overfishing in the absence of conservation measures. The vulnerability analysis measured the vulnerability as a function of stock productivity and susceptibility to the fishery. The vulnerability analysis provides information pertinent to classifying stocks in the new annual catch limit (ACL) categories of "fishery" stocks or the optional "ecosystem component" stocks. *The Joint Plan Teams recommended that the Council's ACL analysis consider listing all target stocks, sharks, skates, squids, sculpins, octopods, and giant grenadier be considered for inclusion "in the fishery" and be subject to ACLs and status determination criteria. An alternative should be included of whether to list squid and octopus complexes as candidates for the Council analysis to evaluate whether they could be included in a new ecosystem component (EC) category. Some members favored managing octopus in the fishery.* The analysis would include consideration of moving forage fish and prohibited species into the EC category only.

October 2009 SSC excerpt:

The SSC supports the groundfish plan teams' recommendation that the Council's ACL analysis consider:

- 1) listing all present target stocks, as well as sharks, skates, squids, sculpins, and octopods as "in the fishery", so as to be subject to ACL and status determination criteria; alternatively, consider listing those same stocks as in the fishery, with the exception that squid and octopods be placed in the ecosystem component category;
- 2) placing all prohibited species and forage fish in the ecosystem component category.

The SSC also supports delaying consideration of grenadier species, because a follow-on FMP amendment is already scheduled and will require a more complicated consideration of management measures in the analysis than would be practical to include in the current amendment.

The SSC suggests that the analysis for the immediate groundfish FMP amendment package for ACLs:

1. Include an analysis of potential impacts on stocks moved to the EC category, and provide clarification on the conservation measures (i.e., catch controls) that would be in place for EC stocks.
2. Include consideration of management measures, such as "allowable incidental catch" thresholds, for EC stocks.
3. Consider adding a 3<sup>rd</sup> axis to the vulnerability analysis to incorporate a ranking of ecosystem importance. For example, stocks might be ranked on the basis of whether they play a keystone role, form habitat (e.g., corals and sponges), or are an essential component in the trophic structure. The SSC noted that mean trophic level was a factor under "productivity attributes." Potentially, trophic level could be moved to the list of attributes that might form the 3<sup>rd</sup> axis.

Alaska groundfish vulnerability analysis

September 3, 2009

Olav A. Ormseth, NOAA/NMFS/AFSC

- 1) Overview of need and methodology
- 2) Results and discussion of the vulnerability analysis
- 3) Implications for stock classification and non-target stocks

**Overview**

The implementation of new National Standard guidelines published by NOAA Fisheries in 2009 requires the classification of fish stocks in a fishery management plan (FMP). Target stocks, as well as non-target stocks that are caught incidentally in large numbers, are considered to be "in the fishery". Annual catch limits (ACLs) are required for these stocks. Fishery management councils have the option of designating a second category of less-impacted stocks, "Ecosystem Components" (EC), for which ACLs are not required. However, these stocks are monitored and councils may adopt management measures designed to limit incidental catches of EC stocks.

To aid in the classification of stocks, as well as to provide advice on the formation of stock complexes and other management actions, NOAA Fisheries convened a Vulnerability Evaluation Working Group (VEWG) in 2008. This group was tasked with developing an analytical tool for assessing the vulnerability of stocks in an FMP (the word "vulnerability" appears frequently in the National Standard guidelines). The work of the VEWG is complete and will be published soon as a NOAA Technical Memorandum and in a peer-reviewed journal. A preliminary report and other supporting materials that explain the group's work in detail can be found at [www.nmfs.noaa.gov/msa2007/vulnerability.htm](http://www.nmfs.noaa.gov/msa2007/vulnerability.htm). Here, a brief review of the analysis is provided to aid interpretation of the results for Alaska groundfish.

The analysis developed by the VEWG is based on previous work in Australia and elsewhere. It compares two main features of a fish stock that together influence its vulnerability to fishing: productivity, which determines a population's natural capacity for growth and its resilience to fishery impacts; and susceptibility, which indicates how severe those fishery impacts are likely to be for the population. Productivity and susceptibility are evaluated by scoring a number of related attributes. For productivity, these are mainly life-history traits such as natural mortality rate and age at maturity; susceptibility attributes include spatial overlap between the stock and the fishery, stock status, etc. The table below lists all attributes evaluated in the productivity-susceptibility analysis (PSA):

**productivity attributes**

$r$   
maximum age  
maximum size  
growth rate ( $k$ )  
natural mortality  
measured fecundity  
breeding strategy  
recruitment pattern  
age at maturity  
mean trophic level

**susceptibility attributes**

management strategy  
areal overlap  
geographic concentration  
vertical overlap  
fishing rate relative to  $M$   
biomass of spawners (SSB) or other proxies  
seasonal migrations  
schooling/aggregation and other behaviors  
gear selectivity  
survival after capture and release  
desirability/value of the fishery  
fishery impact to habitat

Each attribute is scored with a 1, 2, or 3, indicating low, medium, and high values, respectively. Each attribute score is then weighted according to the analyst's interpretation of the relevance of each attribute. In the Alaska groundfish PSA, all attributes were weighted equally with the exception of recruitment pattern, which was deemed to have an inconsistent relationship to productivity and received a weight half that of the other attributes. The weighted attribute scores are used to calculate mean scores for productivity and susceptibility that are used in two separate ways:

- 1) The scores are depicted graphically in a scatter plot, with productivity on the x-axis and susceptibility on the y-axis. This provides a strong visual appreciation of differences among stocks. In addition, the x-axis is reversed (i.e. it starts at 3 and ends at 1), so that the area of the plot close to the origin (which is at 3,1) corresponds to high-productivity, low-susceptibility stocks. Such stocks are considered to have low vulnerability. The further a stock is from the origin, the more vulnerable to fishing it is likely to be.
- 2) Following on (1), the Euclidean, or straight-line, distance from the origin to the stock's datapoint is calculated and used as a measure of the stock's overall vulnerability. The distance is calculated as:

$$\sqrt{(P - 3)^2 + (S - 1)^2}$$

where P = productivity and S = susceptibility.

Each attribute score is also evaluated for the quality of the data used to determine the score. Data quality scores range from 1 to 5 as follows:

- 1: (Best data) Information is based on established and substantial data
- 2: (Adequate Data) Information with limited coverage and corroboration
- 3: (Limited Data) Limited confidence; may be based on similar taxa
- 4: (Very Limited Data) Expert opinion or based on general literature review
- 5: (No Data) No information to base score on

The data quality scores are reported in tables and the average data quality scores are depicted graphically (green = data quality <2; yellow = data quality >2 but <3; red = data quality >3).

A separate PSA was conducted for each region, Gulf of Alaska (GOA) and Bering Sea/Aleutian Islands (BSAI). Stock assessment authors were asked to provide attribute scores for the stocks they are responsible for, and the analyst (Ormseth) used those scores to produce the PSA. One of the difficulties of producing a PSA is that the susceptibility of a stock depends on the gear type under consideration (e.g. a skate is more susceptible to a bottom trawl than a midwater trawl). In this analysis, the attributes were scored according to the fishery and gear type that would have the most impact on the stock- e.g. squids were evaluated relative to midwater trawl gear, where most of the incidental catch occurs.

## Results and Discussion

The results of the GOA analysis are presented in Table 1 and Figure 1; the results of the BSAI analysis are presented in Table 2 and Figure 2. The results indicate the following:

- 1) Productivity varies widely among stocks in both regions, but susceptibility is constrained to moderate values. This is especially true for the BSAI. This is probably due in large part to the fact that all stocks evaluated in each PSA are included in that region's FMP (with the exception of giant grenadier; see below). Thus, a common level of susceptibility among the stocks makes sense.
- 2) The main target stocks (e.g. pollock and Pacific cod) in each region have the highest susceptibility scores.

- 3) Data quality is highest for target stocks and lowest for non-target stocks. There is no relationship between data quality and vulnerability.
- 4) Vulnerability does not appear to depend on whether a stock is targeted or not. In Tables 1 & 2, stocks are listed in order of increasing vulnerability. The target stocks are distributed among the intermediate vulnerability scores in each region, with non-target stocks displaying the lowest and highest scores. This is likely because, although target stocks tend to have higher susceptibility they also have higher productivity.
- 5) There are no clear divisions among stocks in the PSA, i.e. there appears to be a continuum of vulnerability rather than distinct levels of vulnerability.
- 6) High vulnerability scores can be a result of low productivity, high susceptibility, or both. For example, in the GOA, pollock and Dover sole have similar vulnerability scores (1.44 and 1.34, respectively) despite the lower productivity of Dover sole.

### **Implications for stock classification and nontarget management**

#### *Ecosystem components*

There are no clear divisions among the stocks in their vulnerability scores, and the working group that developed the methodology did not provide any guidance regarding how the vulnerability score of a stock corresponds to the appropriate management measures for that stock (this was done on purpose due to the difficulty of making divisions that would be broadly applicable in different regions). However, considering the vulnerability scores relative to each other and particularly to the scores of target stocks provides some insight into how stocks should be classified.

In the **BSAI** (Figure 2), squid have the lowest vulnerability (0.84) and they have the most distinct vulnerability score. In addition, vulnerability scores for target stocks begin at 1.39 (yellowfin sole). The analyses conducted by the VEWG also suggested that target stocks and nontarget stocks commonly believed to be conservation concerns (e.g. BSAI skates) tended to have vulnerability scores greater than 1. Thus, the PSA for this region suggests that squid may be a candidate for EC classification.

This conclusion is supported by the results for the **GOA**, where squid, capelin, and eulachon form a somewhat distinct, high-productivity group. Eulachon have the highest susceptibility score of this group, as they are the only member of the forage fish category that is regularly caught in the groundfish fisheries. The PSA results suggest that the current management measures used for capelin and eulachon as part of the forage fish classification (i.e. no ACLs) may also be appropriate for squid. Octopus have a vulnerability score almost equivalent to eulachon and so may be considered for EC classification. However, their lower productivity separates them from the squid/forage fish group. This separation is even more pronounced in the BSAI.

In summary, the PSA results demonstrate that squid and forage fishes have relatively low vulnerability to commercial fishing and may be candidates for an EC classification. Octopus also have low vulnerability scores. While some sculpin species have relatively low scores (though still greater than 1), other members of that group have high scores. As a result, sculpins should remain "in the fishery". Skates and sharks have high vulnerability scores and require ACLs.

#### *Giant grenadier*

Grenadiers are not listed in the current FMPs but were included in the analysis due to potential conservation concerns. The PSA results suggest that grenadiers should be included as stocks "in the fishery" in the FMPs for both regions. In the GOA, the vulnerability score for giant grenadier is between Pacific cod and Pacific ocean perch (Table 1). In the BSAI, giant grenadier is between Pacific cod and pollock. Thus, management measures (ACLs) appropriate for these target species should also be applied to grenadiers.



#### *A suggestion for management of EC stocks*

The National Standard guidelines do not specify what management measures should be applied to EC stocks. While protections are not mandated for EC stocks, neither are they prohibited. In addition, councils are encouraged to apply measures that are consistent with National Standard 9, which deals with the reduction of bycatch. Thus the NPFMC has wide latitude to apply conservation measures to EC stocks that it feels are appropriate, and I suggest the following measures for consideration for EC stocks:

- 1) Similar to the current practice for forage fishes, directed fishing would be prohibited.
- 2) Maximum retention allowances (MRAs) would be applied to all EC stocks, but the MRA level could vary among individual stocks.
- 3) Because they have no ACLs, the potential exists for incidental catches of EC stocks to become excessively high, even if current conditions indicate low vulnerability. For example, catches of squid might increase if the pollock population grows and pollock harvests increase. To prevent this from happening, the council could implement a strict catch monitoring system with consequences if catches exceed a threshold. This threshold (the "allowable incidental catch", AIC) would be based on current methods used to determine overfishing level (OFL) for either Tier 5 or Tier 6 species- i.e. it would be based on either survey biomass or historical catch. If the AIC for a stock were to be exceeded more than once every three years there would be a mandatory review of the stock's status by the Plan Teams and SSC, with the possibility of reclassification of that stock as "in the fishery" if warranted. This approach would ensure that the EC classification does not result in uncontrolled incidental catches of EC stocks.

#### *Implications for stock complexes*

While it is not the focus of this report, the PSAs presented here are also useful for considering how and whether stocks are formed into stock complexes. The National Standard guidelines suggest, among other requirements, that stocks in a complex should have similar vulnerability scores. The results for Alaska groundfish demonstrate that the Other Species complex is an inappropriate grouping (members of the complex are on opposite ends of the vulnerability spectrum) and support the NPFMC's move towards breaking the Other Species complex into individual species groups. In addition, there is considerable variability in vulnerability among the sculpins. The NPFMC might consider breaking sculpins into two groups or basing the management of sculpins on the most vulnerable species.

Table 1. Results of the productivity/ susceptibility analysis for the Gulf of Alaska region. Fish stocks are organized in order of increasing vulnerability score. Bold italics indicate target species.

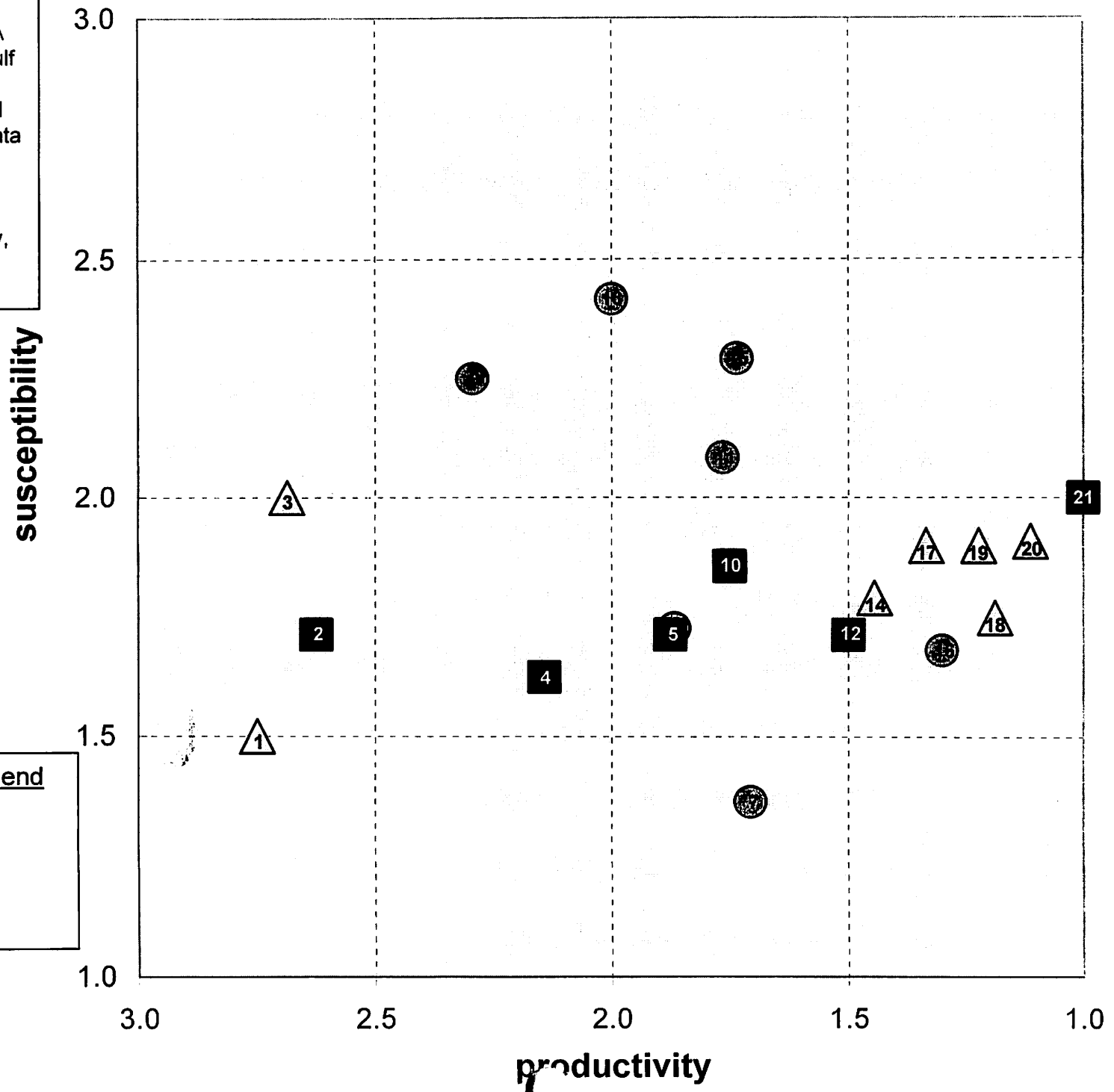
ID #	stock name	productivity	susceptibility	vulnerability	data quality		
					P	S	average
1	capelin	2.75	1.50	0.56	2.58	3.27	2.93
2	squid	2.63	1.71	0.81	2.79	3.55	3.17
3	eulachon	2.69	2.00	1.05	2.68	2.36	2.52
4	octopus	2.14	1.63	1.06	2.89	3.82	3.36
5	great sculpin	1.88	1.71	1.33	3.11	3.18	3.14
6	plain sculpin	1.88	1.71	1.33	3.11	3.18	3.14
7	<b><i>Dover sole</i></b>	<b><i>1.71</i></b>	<b><i>1.36</i></b>	<b><i>1.34</i></b>	<b><i>1.63</i></b>	<b><i>1.64</i></b>	<b><i>1.63</i></b>
8	<b><i>rex sole</i></b>	<b><i>1.87</i></b>	<b><i>1.73</i></b>	<b><i>1.35</i></b>	<b><i>1.32</i></b>	<b><i>1.64</i></b>	<b><i>1.48</i></b>
9	<b><i>pollock</i></b>	<b><i>2.29</i></b>	<b><i>2.25</i></b>	<b><i>1.44</i></b>	<b><i>1.63</i></b>	<b><i>2.36</i></b>	<b><i>2.00</i></b>
10	yellow Irish lord	1.75	1.86	1.52	3.11	3.18	3.14
11	<b><i>sablefish</i></b>	<b><i>1.76</i></b>	<b><i>2.08</i></b>	<b><i>1.64</i></b>	<b><i>1.11</i></b>	<b><i>1.27</i></b>	<b><i>1.19</i></b>
12	bigmouth sculpin	1.50	1.71	1.66	3.11	3.18	3.14
13	<b><i>Pacific cod</i></b>	<b><i>2.00</i></b>	<b><i>2.42</i></b>	<b><i>1.73</i></b>	<b><i>1.53</i></b>	<b><i>1.45</i></b>	<b><i>1.49</i></b>
14	giant grenadier	1.44	1.79	1.75	2.05	2.00	2.03
15	<b><i>Pacific ocean perch</i></b>	<b><i>1.74</i></b>	<b><i>2.29</i></b>	<b><i>1.81</i></b>	<b><i>1.47</i></b>	<b><i>1.41</i></b>	<b><i>1.44</i></b>
16	<b><i>roughey rockfish</i></b>	<b><i>1.30</i></b>	<b><i>1.68</i></b>	<b><i>1.83</i></b>	<b><i>1.95</i></b>	<b><i>1.68</i></b>	<b><i>1.81</i></b>
17	big skate	1.33	1.90	1.89	1.63	3.00	2.32
18	salmon shark	1.19	1.75	1.96	1.95	3.73	2.84
19	longnose skate	1.22	1.90	1.99	1.53	3.27	2.40
20	spiny dogfish	1.11	1.91	2.10	1.84	3.00	2.42
21	sleeper shark	1.00	2.00	2.24	3.63	3.73	3.68

Table 2. Results of the productivity/ susceptibility analysis for the Bering Sea and Aleutian Islands region. Fish stocks are organized in order of increasing vulnerability score. Bold italics indicate target species.

ID #	stock name	productivity	susceptibility	vulnerability	data quality		
					prod	susc	average
1	squid	2.63	1.75	0.84	2.37	3.55	2.96
2	octopus	2.14	1.63	1.06	2.89	3.82	3.36
3	red Irish lord	2.13	1.71	1.13	2.47	2.91	2.69
4	Alaska plaice	2.12	1.73	1.14	1.74	1.73	1.73
5	threaded sculpin	2.14	1.83	1.20	2.37	3.36	2.87
7	longfin Irish lord	2.00	1.83	1.30	2.37	3.55	2.96
8	great sculpin	1.88	1.71	1.33	1.95	2.91	2.43
9	plain sculpin	1.88	1.71	1.33	1.95	2.91	2.43
10	great sculpin	1.88	1.71	1.33	1.95	2.91	2.43
11	warty sculpin	1.88	1.71	1.33	2.26	2.82	2.54
<b>12</b>	<b>yellowfin sole</b>	<b>1.88</b>	<b>1.82</b>	<b>1.39</b>	<b>1.74</b>	<b>1.73</b>	<b>1.73</b>
13	spinyhead sculpin	1.86	1.83	1.41	2.79	3.55	3.17
14	thorny sculpin	1.86	1.83	1.41	3.00	3.55	3.27
15	northern rock sole	1.88	1.91	1.44	1.74	1.73	1.73
16	arrowtooth flounder	1.73	1.73	1.46	2.05	1.73	1.89
17	yellow Irish lord	1.75	1.86	1.52	1.63	2.82	2.22
18	armorhead sculpin	1.71	1.83	1.53	2.68	3.55	3.11
<b>19</b>	<b>greenland turbot</b>	<b>1.65</b>	<b>1.75</b>	<b>1.55</b>	<b>2.42</b>	<b>2.55</b>	<b>2.48</b>
<b>20</b>	<b>Atka mackerel</b>	<b>2.12</b>	<b>2.33</b>	<b>1.60</b>	<b>1.95</b>	<b>2.00</b>	<b>1.97</b>
<b>21</b>	<b>sablefish</b>	<b>1.76</b>	<b>2.08</b>	<b>1.64</b>	<b>1.63</b>	<b>1.27</b>	<b>1.45</b>
22	bigmouth sculpin	1.50	1.71	1.66	1.95	2.91	2.43
<b>23</b>	<b>pollock (EBS)</b>	<b>2.00</b>	<b>2.33</b>	<b>1.67</b>	<b>1.53</b>	<b>1.27</b>	<b>1.40</b>
24	giant grenadier	1.47	1.79	1.72	2.00	2.00	2.00
<b>6</b>	<b>Pacific cod</b>	<b>2.00</b>	<b>2.42</b>	<b>1.73</b>	<b>1.53</b>	<b>1.45</b>	<b>1.49</b>
25	whitebrow skate	1.39	1.78	1.79	2.89	3.36	3.13
26	butterfly skate	1.39	1.78	1.79	2.89	3.64	3.27
27	roughshoulder skate	1.39	1.88	1.83	3.00	3.64	3.32
28	rougtail skate	1.39	1.89	1.84	2.68	3.36	3.02
29	whiteblotched skate	1.39	1.89	1.84	2.79	3.36	3.08
30	mud skate	1.39	1.89	1.84	2.79	3.36	3.08
31	commander skate	1.39	1.89	1.84	2.89	3.36	3.13
32	Bering skate	1.44	2.00	1.85	1.63	3.00	2.32
33	Alaska skate	1.42	2.00	1.87	1.26	2.18	1.72
34	big skate	1.33	1.89	1.89	1.63	3.55	2.59
35	deepsea skate	1.33	1.89	1.89	2.89	3.55	3.22
36	Aleutian skate	1.33	1.90	1.89	1.53	3.09	2.31
37	salmon shark	1.19	1.75	1.96	3.21	3.73	3.47
38	longnose skate	1.22	1.88	1.98	1.53	3.82	2.67
39	spiny dogfish	1.11	1.91	2.10	1.84	3.00	2.42
<b>40</b>	<b>rougheye rockfish (AI)</b>	<b>1.20</b>	<b>2.21</b>	<b>2.17</b>	<b>2.68</b>	<b>2.09</b>	<b>2.39</b>
41	sleeper shark	1.00	2.00	2.24	3.63	3.73	3.68

**Figure 1**  
 Results of the PSA  
 analysis for the Gulf  
 of Alaska region.  
 Colors and symbol  
 shapes indicate data  
 quality scores.  
 Numbers indicate  
 stocks listed in  
 Table 1. For clarity,  
 not all stocks are  
 labeled.

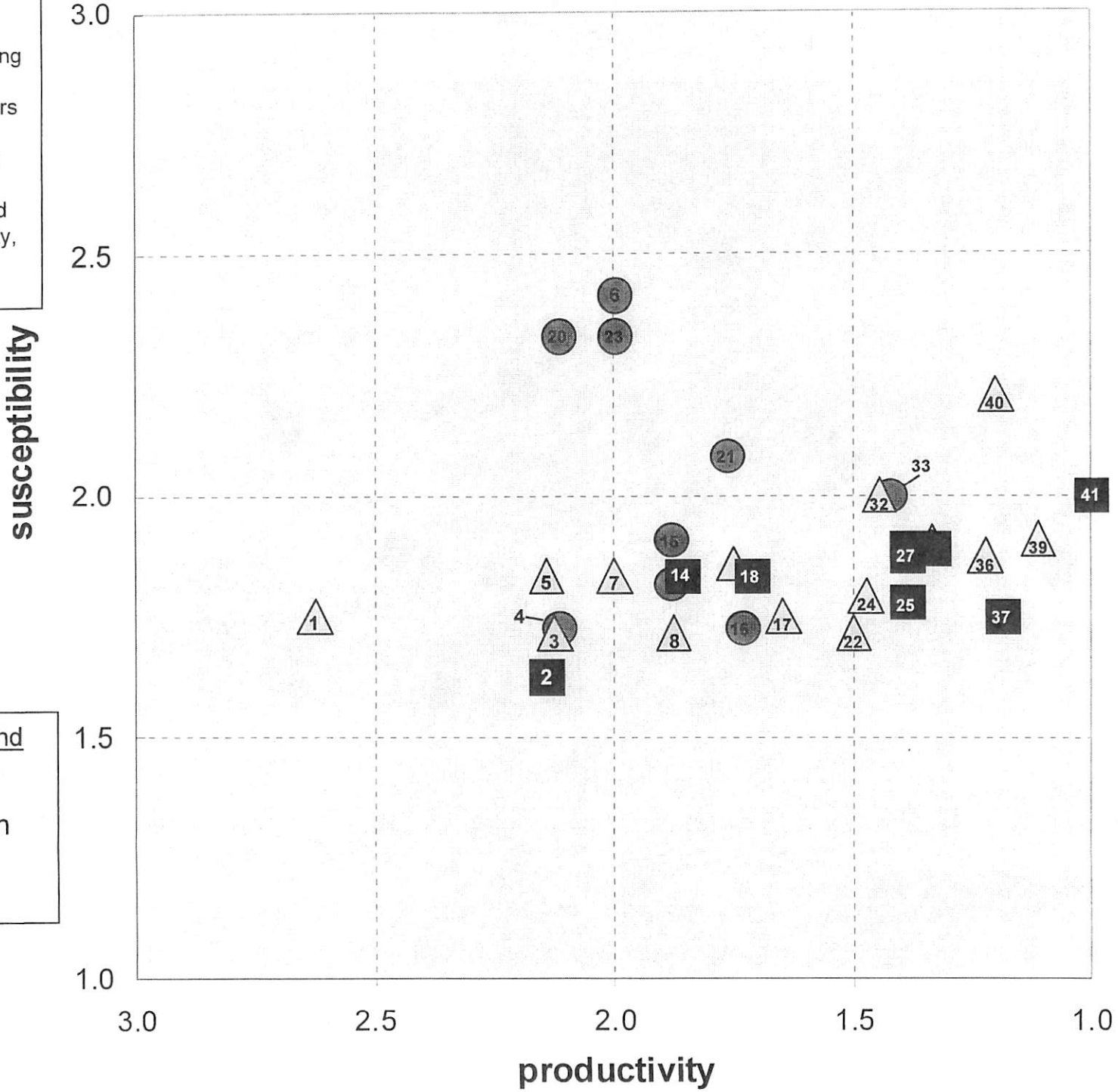
**data quality legend**  
 ● high  
 △ medium  
 ■ low



**Figure 2**  
 Results of the PSA analysis for the Bering Sea and Aleutian Islands region. Colors and symbol shapes indicate data quality scores. Numbers indicate stocks listed in Table 1. For clarity, not all stocks are labeled.

data quality legend

- high
- △ medium
- low



DRAFT

Non-Target Species Committee

September 15, 2009

Members in attendance: Dave Benson, Dr Paul Spencer, John Gauvin, Julie Bonney, Janet Smoker, Lori Swanson, Karl Haflinger

Members by phone: Ken Goldman, Jon Warrenchuk

Members absent: Michelle Ridgway, Simon Kineen

Committee staff: Jane DiCosimo, Dr Olav Ormseth.

Scientific and Statistics Committee: Anne Hollowed

Plan Team: Dr Loh-lee Low, Dr Grant Thompson, Dr Jon Heifetz, Cleo Brylinsky, Mary Furuness, Tom Pearson

Agency staff: Sue Salvesson, Melanie Brown, John Olson, Liz Conners, Phil Rigby, Chris Lunsford, Cindy Tribuzio, Cara Rodgveller, Dave Clausen, Jennifer Mondragon, Craig Faunce, Clayton Jernigan

Public: Ed Richardson.

**Agenda** The Non-Target Species Committee convened at 8:30 am (PST) on September 15, 2009. The committee adopted the draft agenda, which included reviewing 1) two AFSC reports on managements issues related to conforming to new annual catch limit (ACLs) requirements, 2) BSAI Skate ACL analysis, and 3) Council actions plans for BSAI and GOA Groundfish FMP amendments to a) set ACLs to conform to revised National Standard 1 guidelines and b) set ACLs for i) squid, ii) octopus, iii) sharks, iv) sculpins, and v) grenadier.

**Review ACL action plan.** This agenda item was scheduled so that the committee could revise the draft ACL action plan, which broadly defined the alternatives for analysis as of June 2009, based on new information provided in the "vulnerability analysis." At the request of the committee, Jane DiCosimo reviewed the status of the draft ACL action plan that was redrafted based on direction by the Council in June 2009. The June 2009 action plan proposed that the Council would consider identifying which groundfish stocks 1) are "in the fishery" (e.g., some or all of the groups now listed under "other species") 2) could be moved into the ecosystem component (EC) category (e.g., forage fish category and prohibited species category), and/or 3) should be moved outside of the FMPs (e.g., non-specified species category). The proposed approach would eliminate the "other species" complex from the FMPs and set separate ACLs for those stocks "in the fishery." Such an approach would mitigate the need for separate FMP amendments to set separate ACLs for squid, octopus, sharks, and sculpins.

The current action plan does not address grenadiers in order to streamline the proposed action. A separate FMP amendment to move grenadiers from the non-specified category into the fishery or into the ecosystem component category likely would require a complementary regulatory impact review/initial regulatory flexibility analysis to implement management measures (e.g., maximum retainable allowances) for grenadiers would still be scheduled for final action; the Council could prioritize the grenadier action to follow the ACL action. The AFSC prepared a report to advise the Council on which non-target stocks could be considered for management under the EC category, which is the subject of a later agenda item (vulnerability analysis).

Julie Bonney asked a number of questions about the process for amending the groundfish FMPs to conform to revised NS1 guidelines and why it is necessary to move away from the currently approved approach of moving one group (e.g., octopus) at a time from the other species complex. Jane responded that the Congressional deadline required action for defining which stocks are "in the fishery" and setting appropriate ACLs for them by January 1, 2011; this timeline necessitates the Council to streamline the analysis so that the Council takes final action no later than April 2010 so that NMFS can approve and implement the amendment by the deadline. Additional discussion on timing and content of the proposed groundfish ACL amendments is also addressed under committee discussion of the vulnerability analysis.

**Uncertainty in groundfish stock assessments.** This agenda item was information purposes only; no action was required. The purpose of AFSC report was to determine whether the groundfish SAFE Reports adequately incorporate uncertainty to meet new ACL requirements. The FMPs require a “housekeeping” amendment to revise the FMP texts to document the current buffers between OFL and ABC in the Tier system. Incorporation of uncertainty was investigated for Tier 1 and Tier 3 for groundfish target stocks because the buffer is proscribed as 25 percent under Tier 5 and Tier 6 (most non-target stocks)<sup>1</sup>; therefore there are no impacts on non-target species. The paper was presented to the committee under the context of reviewing potential ACL amendments. Dr Grant Thompson summarized the uncertainty paper for groundfish and responded to questions. Pending concurrence from the Groundfish Plan Teams and SSC, the paper suggests that the current ACL process adequately incorporates uncertainty. Methods are proposed to enhance incorporation of uncertainty. The committee accepted this as an informational report and had no recommendations.

**Groundfish vulnerability analysis** The AFSC initiated an analysis of productivity/susceptibility (PSA) of component species in the “other species” complex and selected example target stocks to assist in the identification of alternatives for moving species and/or species groups into the EC category. Dr Olav Ormseth summarized the results of the PSA. John Gauvin asked about the methodology used to estimate susceptibility. Olav confirmed that the PSA used the fishery and gear type that would have the most impact on the stock to determine a conservative susceptibility ranking. He reported that a separate PSA could be estimated for each fishery and gear type and be weighted appropriately. The PSA suggests that capelin, squid, eulachon, and octopus in the GOA and squid and octopus in the BSAI have low susceptibility and high productivity and could be considered for management under the EC category. The PSA included grenadiers because a June 2008 Council action identified grenadiers as a candidate to be moved under ACL management, after action on the other species groups was final. The PSA suggested that grenadiers should be managed “in the fishery” using ACLs, but the Council may consider additional information for its decision.

Olav stressed that the PSA should not be the only measure for moving stocks into the EC category. In addition to vulnerability rankings, the committee noted that four criteria also must be met to move stocks into the EC category. To be considered for possible EC classification, species should, among other considerations conform to the following criteria; these criteria, otherwise could eliminate some groups from further consideration as EC stocks.

- Be a non-target species or non-target stock;
- Not be determined to be subject to overfishing, approaching overfished, or overfished;
- Not be likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and
- Not generally be retained for sale or personal use.

John Warrenchuk commented that some species, particularly prey species, may be susceptible to surpassing a management threshold of concern that occurs well before a stock exceeds its overfishing level. He suggested that the committee could recommend an additional vulnerability analysis that ranks the susceptibility of non-target species to management thresholds other than overfishing. One example is prey requirements for endangered species. In this way, a new analysis would rank the susceptibility of species whose removals beyond a certain threshold could cause cross wise issues of marine mammal prey requirements.

*The committee recommended that future revisions to the PSA include the following: 1) include separate selectivities for each fishery and gear group; 2) expand the analysis to include all target stocks; 3) graph all stocks; and 4) label the graphs appropriately.*

The PSA also included suggestions for management options that are outside of the Council’s current suite of alternative for analysis. Staffs from the Council, NOAA, and NMFS noted that NS1 guidance appears unclear on whether 1) prohibited species could be managed under the EC category and 2) the other species complex (in its entirety) could be managed “in the fishery” under a single ACL. Jane suggested

---

<sup>1</sup> There are no Tier 2 or Tier 4 groundfish stocks.  
Draft Non-Target Species Committee Minutes

that the other species complex did not conform to the definition of a stock complex in the guidelines (“sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery”). Breaking the other species complex into its component groups was identified as an interim approach in 2008, while the Council awaited publication of the NS1 guidelines. She interpreted the term “other species” in the ACL action plan to include the component other species groups until the PSA would provide a scientific basis for the Council to decide whether to manage the squid, octopus, sharks, and sculpins in the fishery or under the EC category. Some committee members interpreted the action plan to fix the analysis at the other species complex level. Jane reiterated that setting one ACL for the other species complex is the status quo and would not conform to the definition of a management stock in the revised guidelines.

Karl Haflinger expressed concern in accepting the susceptibility scores as presented. He supported the Council’s current approach for separating each group sequentially from the other species assemblage. Julie Bonney also spoke in favor of that approach.

Jane DiCosimo described that the Council’s intent to streamline the analysis implied proceeding with an FMP amendment (EA only) and to not proceed with an analysis of potential complementary management measures that may be needed for EC species in the same amendment package because of the need to meet the timeline, unless otherwise directed by the Council. She proposed that the Council could initiate a complementary regulatory amendment, if needed, as a separate analysis, which would follow immediately in 2010, so that the FMP amendment and complementary regulatory measures could be implemented at the same time in 2011. She suggested that it may be possible to manage the groups under a collective MRA, as under the status quo.

Committee members expressed concern with proceeding with analyses for the FMP amendments and complementary regulatory amendments on separate timelines. Some members preferred to consider the potential regulatory impacts of the proposed FMP amendments in a joint analysis. Jane suggested the default regulatory regime for separate group ACLs could be continued under the other species complex MRA (status quo). The need for NMFS and NOAA GC to clarify interpretations of the guidance for managing prohibited species and the other species complex resulted in the committee recommendation for another meeting before revising the suite of alternatives for analysis.

**BSAI Skates analysis** Jane reviewed the status of the ACL action plan for the BSAI skate analysis; it is scheduled for final action in October 2009, with implementation scheduled for the 2011 fishing year. Julie Bonney commented that the proposed MRA for BSAI skates in the arrowtooth target fishery is 0 percent. *The committee recommended that Council set the MRA for BSAI skates at 20 percent in the arrowtooth target category.* Jane noted that such a recommendation was consistent with the range of alternatives included in the analysis, but that other changes to MRAs for the arrowtooth flounder target fishery was outside the bounds of this analysis.

**Other Species Group action plans** The committee in effect tabled the action plans for squid, octopus, shark, sculpin, and grenadier groups to devote its remaining time to consideration of the draft ACL action plan.

**Next meeting** *The committee recommended that the Council allow the committee to convene again to revise the alternatives for analysis once several management issues are clarified by staff.* A possible committee meeting date in conjunction with the Groundfish Plan Team meeting November 16-19, 2009 was discussed, but the chair did not select a meeting date until the November Plan Team agenda is released.

The committee identified the following issues that required clarification:

- 1) guidance on whether the “other species” complex could continue to be managed as a complex “in the fishery” under one ACL or must be replaced with separate ACLs for squid, octopus, sharks, and sculpins to conform with NS1 guidelines for the definition of a stock complex.
- 2) if group ACLs are listed “in the fishery”, can skates, squid, octopus, sharks, and sculpins continue to be managed under a collective “other species” maximum retainable allowance (MRA) in the regulations; is a regulatory amendment required to do so?



- 3) if some groups are listed "in the fishery" with ACLs and other groups are managed under the EC category, can they continue to be managed under a collective "other species" MRA in the regulations; is a regulatory amendment required to do so?
- 4) may prohibited species be managed under the EC category (assumed in the draft action plan)?
- 5) are status determination criteria required for stocks listed under the EC category?
- 6) if the "other species" category is broken into their respective complexes, might other management measures besides MRAs be considered or required? For example, can squid be processed into something beside fish meal if they are placed into the EC category? If poor quality data (e.g., sharks or octopus) result in a low ACL that might close directed fisheries, could this or other groups be managed under a discard mortality similar to management for halibut?
- 7) which prohibited species catch (PSC) species must be placed within the FMP as an ACL or EC managed species, and which are exempt from management under the FMPs? Are status determination criteria required for stocks listed under the EC category?
- 8) how are ACL requirements addressed for prohibited species (e.g., herring) that are managed by the State of Alaska?
- 9) what is the standard (i.e., good enough) to meet the MSA requirements for setting ACLs in terms of stock complexes? Even if some groups (e.g., sculpins and octopus) are managed at the group level, would they meet the standard for managing at appropriate stock complexes, given the wide mix of species that would be managed under a sculpin assemblage or octopus assemblage, for examples?
- 10) should grenadiers be included in the ACL FMP amendments or scheduled for a trailing FMP amendment to streamline the analysis to meet the statutory ACL requirements?
- 11) if option(s) to consider setting ACLs for grenadiers or managing them under the EC category are added to the ACL analysis, is a complementary regulatory amendment required to include them in the "other species" MRA or to set separate MRAs for them?

**Adjourn** The committee adjourned at 12:15 pm.

**APPENDIX TO SEPTEMBER 15, 2009 NON-TARGET SPECIES COMMITTEE MINUTES  
RESPONSE TO 11 COMMITTEE QUESTIONS**

- 1) **guidance on whether the “other species” complex could continue to be managed as a complex “in the fishery” under one ACL or must be replaced with separate ACLs for squid, octopus, sharks, and sculpins to conform with NS1 guidelines for the definition of a stock complex.**

NS1 Guidelines state that a “stock complex” means a group of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar. At the time a stock complex is established, the FMP should provide a full and explicit description of the proportional composition of each stock in the stock complex, to the extent possible. Stocks may be grouped into complexes for various reasons, including where stocks in a multispecies fishery cannot be targeted independent of one another and MSY can not be defined on a stock-by-stock basis; where there is insufficient data to measure their status relative to SDC; or when it is not feasible for fishermen to distinguish individual stocks among their catch. The vulnerability of stocks to the fishery should be evaluated when determining if a particular stock complex should be established or reorganized, or if a particular stock should be included in a complex. Stock complexes may be comprised of: one or more indicator stocks, each of which has SDC and ACLs, and several other stocks; several stocks without an indicator stock, with SDC and an ACL for the complex as a whole; or one of more indicator stocks, each of which has SDC and management objectives, with an ACL for the complex as a whole (this situation might be applicable to some salmon species).

Because the “other species” complex does not conform to the NS1 definition of a stock complex, Staff recommends that the Council consider eliminating the “other species” complex AND move sharks, sculpins, octopus, and GOA squids either a) in the fishery or b) under the EC category in the ACL amendments. GOA skates and BSAI squids are managed under separate ACLs; setting separate ACLs for BSAI skates is scheduled for final action in October 2009 and implementation in 2011.

- 2) **if group ACLs are listed “in the fishery”, can skates, squid, octopus, sharks, and sculpins continue to be managed under a collective “other species” maximum retainable allowance (MRA) in the regulations; is a regulatory amendment required to do so?**

NS1 Guidelines are silent on this issue. As long as the management approach conforms to the statutory requirement to develop ACLs and accountability measures that prevent overfishing, it is a policy decision for the Council.

Staff responds affirmatively, that the harvests of squid, skates, octopus, sharks, and sculpins may be managed under a collective “other species” maximum retainable allowance (MRA) in the regulations if those groups are listed in the fishery. In general, a collective MRA would not require a regulatory amendment since a collective other species MRA is the status quo; however GOA skates has its own MRA category and a regulatory amendment would be required to revise their management to return them under the collective MRA. The Council’s preliminary preferred alternative for BSAI skates includes no action for setting a unique MRA category for BSAI skates under BSAI Amendment 95.

Staff recommends that the Council consider the status quo approach for managing MRAs. If these species are in the fishery, they need ACLs and annual management measures (AMs), which will prevent overfishing. The ACL analysis can address whether a collective MRA is sufficient to ensure that none of the species complexes (i.e., sharks) will be subject to overfishing. That is, would a collective MRA prevent a complex from being overfished if it comprised, for example, 80 percent of the collective MRA in a given year? If not, the Council would need to provide rationale for why the collective MRA will be effective at prospectively preventing overfishing from occurring.

- 3) if some groups are listed “in the fishery” with ACLs and other groups are managed under the EC category, can they continue to be managed under a collective “other species” MRA in the regulations; is a regulatory amendment required to do so?

NSI Guidelines are silent on this issue. As long as the management approach conforms to the statutory requirement to develop ACLs and accountability measures that prevent overfishing, it is a policy decision for the Council.

Staff responds affirmatively, that the harvest of squid, skates, octopus, sharks, and sculpins may be managed under a collective “other species” MRA in the regulations even if some groups are managed “in the fishery” under ACLs and other groups are listed under the EC category. In general, this would not require a regulatory amendment since setting a collective MRA is the status quo (except for GOA skates).

The staff response is the same as under #2 (above).

- 4) may prohibited species be managed under the EC category (assumed in the draft action plan)?

NSI Guidelines state that one criteria to be an EC species is it “not generally be retained for sale or personal use.” This requirement could be interpreted to mean that the EC species is not generally retained for sale or use under the particular FMP at issue. If Maximum Sustainable Yield (MSY) and Status Determination Criteria (SDC) (for overfishing) are required, they should be identified under its primary management plan, for example the crab FMP or the salmon FMP. For State/International managed stocks where there is not a federal FMP, MSY and SDC are not required because the stocks are in the groundfish FMP only for purposes of limiting their catch. It is appropriate to have a target stock in its primary FMP, and have it listed as an ecosystem component species in another FMP.

Staff recommends that the Council consider moving prohibited species under the EC category, with written justification. Prohibited species have no economic value for fishermen fishing under the groundfish FMPs due to strict restrictions on their sale and use

- 5) are status determination criteria required for stocks listed under the EC category?

NSI Guidelines requires SDC for all stocks “in the fishery.” Prohibited species are not in the groundfish FMPs for purposes of managing them per se; they are listed as prohibited species so as to limit the impact of the groundfish fishery on their biomass. For stocks that are managed by the State of Alaska and international treaty and for which there is not a federal FMP, federal MSY and SDC criteria are not applicable.

Staff recommends that the Council consider moving prohibited species under the EC category and provide a rationale for why those management actions that apply to stocks in the fishery may not be necessary or appropriate for prohibited species.

- 6) if the “other species” category is broken into their respective complexes, might other management measures besides MRAs be considered or required? For example, can squid be processed into something beside fish meal if they are placed into the EC category? If poor quality data (e.g., sharks or octopus) result in a low ACL that might close directed fisheries, could this or other groups be managed under a discard mortality similar to management for halibut?

Yes, other management measures besides MRAs could be considered and selected by the Council, however, the timeline for complying with ACL requirements may not allow for sufficient time to explore these alternative management approaches. Because of the statutory deadline, staff is recommending that the Council proceed with no changes to the other species (collective) MRA.

The Council would need to provide rationale for why the other species collective MRA would be effective at prospectively preventing overfishing from occurring, whether on a permanent or interim basis. A trailing amendment to consider other regulatory regimes may be appropriate, pending Council direction. The ACL analysis will explore this issue more completely than this brief response.

- 7) which prohibited species catch (PSC) species must be placed within the FMP as an ACL or EC managed species, and which are exempt from management under the FMPs? Are status determination criteria required for stocks listed under the EC category?

Staff preliminarily recommends that all prohibited species be listed under the EC category, *with no other changes to their management*. ACLs or status determination criteria are not required for stocks listed under the EC category. In effect, this action would reorganize the stocks and stock complexes in the FMP to explicitly separate ACL species from those not managed under ACLs. The Council would need to provide rationale for why these species would meet the criteria in NS1 guidelines for EC category species. These criteria and the specific species considered for the EC category will be further analyzed in the analysis for this action.

- 8) How are ACL requirements addressed for prohibited species (e.g., herring) that are managed by the State of Alaska?

The same answer to #2 applies to this specific query regarding herring. Principal management by the State of Alaska does not affect its status as a prohibited species. The Council would need to provide rationale for why prohibited species managed by the State meets the EC category criteria in the NS1 guidelines.

- 9) what is the standard (i.e., good enough) to meet the MSA requirements for setting ACLs in terms of stock complexes? Even if some groups (e.g., sculpins and octopus) are managed at the group level, would they meet the standard for managing at appropriate stock complexes, given the wide mix of species that would be managed under a sculpin assemblage or octopus assemblage, for examples?

There is no one standard for meeting MSA requirements for setting ACLs. The Councils have the authority to recommend management actions that comply with the MSA. The ACL environmental assessment would provide the Council's rationale for listing stock complexes "in the fishery," under the EC category, or outside the FMPs. The basis for listing stocks or stock complexes in particular categories will be based on the SAFE Reports, the AFSC vulnerability (PSA) analysis, and the NS1 guidelines.

- 10) should grenadiers be included in the ACL FMP amendments or scheduled for a trailing FMP amendment to streamline the analysis to meet the statutory ACL requirements?

NS1 Guidelines are silent on this issue, so it is a policy decision for the Council.

Staff recommends streamlining the ACL amendments to the minimum actions necessary to comply with the January 1, 2011 statutory deadline for revised NS1 guidelines. The proposed grenadier FMP amendment, which would move grenadiers either into the fishery as recommended by the Plan Teams or under the EC category would appear to require complementary management measures (e.g., they could be managed under the "other species" complex for the purposes of MRAs via a regulatory amendment). The Plan Teams placed a high priority on a grenadier FMP/regulatory amendment as soon as possible after the ACL FMP amendments.

- 11) if option(s) to consider setting ACLs for grenadiers or managing them under the EC category are added to the ACL analysis, is a complementary regulatory amendment required to include them in the "other species" MRA or to set separate MRAs for them?

NS1 Guidelines are silent on this issue, so it is a policy decision for the Council.

If the Council adopts a FMP amendment to move grenadiers into the fishery, they would be subject to ACLs so their overall harvest would need to be limited. If the Council moves them into the EC category, no limits on their harvest would necessarily be imposed, provided this is consistent with MSA conservation and management requirements (the same as under the status quo where they are not included in the FMP). Staff advises that a regulatory amendment would be required if the Council deems that additional management restrictions are needed to limit the harvest of grenadiers.

DRAFT  
Non-Target Species Committee  
Anchorage Hilton Hotel  
December 06, 2009

D1(a) Supplemental

*Chandort*

Members in attendance: Dave Benson, Julie Bonney, Lori Swanson

Members by phone: John Gauvin, Janet Smoker, Jon Warrenchuk, Karl Haflinger

Members absent: Dr Paul Spencer, Dr Ken Goldman, Michelle Ridgway, Simon Kineen

Committee staff: Jane DiCosimo, Dr Olav Ormseth (phone).

Agency staff: Sue Salveson, Melanie Brown, Mary Furuness, Tom Pearson, Clayton Jernigan (phone)

**Agenda** The Non-Target Species Committee convened at 2 pm on Sunday, December 6, 2009. The main agenda topic was to adopt alternatives for the analysis to amend the groundfish FMPs to conform to annual catch limit (ACLs) requirements under the Magnuson-Stevens Act.

**Review status of proposed ACL action.** Jane DiCosimo briefly reviewed the proposed timeline for action. Final action is needed by April 2010 so that implementation can occur by the statutory deadline of January 2011; this timeline requires initial review of the environmental assessment in February 2010. Jane distributed a schematic of the action(s) that *must be* taken by the Council in 2010 and additional action(s) that *can be* scheduled for a trailing plan/regulatory amendment. Her handout noted the likely need for a technical amendment to the regulations to remove references to the "other species" category for the purposes of setting specifications; however, the "other species" assemblage would be retained for the purposes of setting maximum retainable amounts (MRAs) and prohibited species catch (PSC) limits.

Jon Warrenchuk inquired how species would be managed under the proposed ecosystem component (EC) category compared to being managed under ACLs "in the fishery." Melanie Brown responded that EFH descriptions are required for species managed under catch limits, but would not be required for species managed under the EC category. The Council could choose to include EFH or habitat text voluntarily in the FMP. Currently, other federal agencies whose activities affect EFH are required to consult with NMFS about the impacts of their activities on EFH before the action is regulated. Such consultation requirements would not be triggered for species in the EC category, even if EFH is identified for these species by the Council on a voluntary basis. Sue Salveson commented that it would be helpful for the Council to build its record on whether to retain the EFH descriptions for forage fish in the FMPs if the group is moved to the EC category. Jon voiced his concerns about removing species from EFH requirements. He asked if forage fish could be managed in the fishery but with sufficient flexibility so that it is not overly constraining to the industry. Olav responded that it would not be appropriate to move species into the fishery just for the purposes of establishing EFH. Clayton Jernigan stated that it was not anticipated under the Arctic FMP that EC species would not be under EFH requirements, so HQ staff is aware of this issue. EFH regulations state that FMPs can take measures to protect species not in an FMU, but the requirement for other federal agencies to consult with NMFS about impacts on EFH would be lost. Jon recommended that a list of effects of moving species in and out of the FMU be developed and Jane responded that it would be provided in the analysis.

Alternative 1 would be the no action alternative. Target species, BSAI squids, and GOA and BSAI skates currently are managed under catch limits (status quo). Julie Bonney identified the issues that are different from the status quo that are necessary to include under Alternative 2. The remaining elements of Alternative 2 are 1) managing GOA squids, GOA and BSAI sculpins, GOA and BSAI sharks, and GOA and BSAI octopuses under catch limits; 2) managing prohibited species and forage fishes (with no change to their regulations) under the EC category, and 3) moving non-specified species out of the FMP.

Dave Benson noted that the time constraint for meeting the statutory deadline is driving the range of alternatives for this (first) ACL analysis. A separate, trailing amendment would address management of grenadiers and other regulatory measures for those groups proposed to be separated from the "other species" assemblage, and any other management changes in response to ACLs and AMs. The schedule for action would be based on the Council's priorities.

Committee members discussed how best to manage non-specified species. Jane identified a that this category is named in the groundfish FMPs while it functionally is treated as being outside the FMP. Lori Swanson asked what having non-specified species under the EC category does to the Council's "report card" for overfishing and overfished stocks. Jane reviewed how it took years for Council and NMFS Regional Office staff to convince NMFS HQ staff to remove hundreds of non-specified species from the annual Report to Congress on the status of stocks (all of which would be listed as "unknown") because they were not managed by the Council. Julie spoke to her concerns about placing the non-specified category under the EC category and the resultant effect of having to account for poorly understood stocks. She identified that the committee could recommend that non-specified species *not* be moved into the EC category or in the fishery because of the previously described concerns and to expedite the analysis.

Lori asked how non-specified species would be managed with regard to groundfish retention standards (GRS) for Amendment 80 stocks. Sue Salvesson responded that the non-specified species and forage fish are not part of the GRS because they are not defined as groundfish. Movement of species into and out of "the fishery," including grenadiers, would need to be assessed with respect to impact on the GRS program and potential adjustments to the GRS standards in the trailing ACL analysis. Sue responded to a question that sculpins are accounted under GRS now because they are defined as groundfish.

Julie recommended the following for Council consideration for inclusion in the groundfish ACL analysis, which was adopted by the committee by consensus: *Eliminate the other species assemblage and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately, move prohibited species and forage fish into the EC category, and move non-specified species out of the FMPs. This recommendation is closest to Alternative 2 option 2 in the Council's June 2009 action plan. The other possible alternatives could be identified as other alternatives considered but not moved forward.*

In response to questions, staff clarified that current "other species" MRAs and PSC limits could be maintained for cumulative catches of sharks, skates, sculpins, squids, and octopuses (i.e., the other species assemblage would be retained for the purposes of MRAs and PSCs). Sue and Mary Furuness responded to committee questions that current approaches for fishery closures (both by species and spatially) would be maintained rather even if managed under an assemblage PSC or MRA.

The committee discussed issues that previously have been identified for the trailing ACL analysis. These included whether grenadiers, squids, and octopuses should be managed in the fishery or under the EC category. The EC criteria of "not generally" allowed for retention (at *de minimus* levels) will be the focus of additional committee attention. The committee briefly discussed enforcement of retention and disposition of forage fish catch. It did not address these issues in more detail, preferring to wait for to review the ACL analysis before developing analytical alternatives for the trailing ACL analysis.

**New Business** John Gauvin raised an issue previously addressed by the committee in September 2009 regarding modifying arrowtooth MRAs to allow industry to meet the GRS. Mary replied that her December 2009 NMFS agency report will respond to an October 2009 Council request for more information. John asked what the process would be to initiate Council action. Jane replied that after the agency report was received, the Council could request a discussion paper or identify the problem in the fishery and initiate a regulatory amendment under the staff tasking agenda item. Dave stated that Council action could be recommended just for BSAI skates or for all groundfish species against arrowtooth flounder target. John recommended that the committee reiterate its September 2009 recommendations to recommend that the Council initiate action in December 2009 to modify all arrowtooth MRAs to allow industry to meet the GRS. Lori noted that the committee's previous recommendation was limited to BSAI skates because the issue was raised in the context of the BSAI skate FMP amendment but that the committee's current recommendation was to address all arrowtooth MRAs. The committee agreed.

**Next meeting** The committee requested that Council task development of the second ACL analysis to occur after initial review of the first ACL analysis that is scheduled for February 2010 (perhaps April 2010), in the interest of expediting action to meet the timeline and acknowledging that additional action will follow in the near term. The committee noted that it did not need to meet to review the initial review draft of the February 2010 ACL analysis.

**Adjourn** The committee adjourned at 4 pm.

## REVISE GROUND FISH FMPS FOR ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES ENVIRONMENTAL ASSESSMENT

### STEP 1. MUST DO NOW ACTIONS TO MEET STATUTORY DEADLINE FOR ACL COMPLIANCE

ACTION 1

ALTERNATIVE 1. No action (out of compliance with MSRA)

ALTERNATIVE 2. Comply with National Standard Guidelines to comply with annual catch limit and accountability measures.

<b>in “the Fishery”</b>	<b>Ecosystem Component<sup>1</sup></b>	<b>Remove from FMP</b>
Target Stocks	Prohibited Species	Non-specified Species
Squids	Forage Fish	
Skates		
Sculpins		
Sharks		
Octopuses		

ALTERNATIVE 3. Comply with National Standard Guidelines to comply with annual catch limit and accountability measures.

<b>in “the Fishery”</b>	<b>Ecosystem Component</b>	<b>Remove from FMP</b>
Target Stocks	Prohibited Species	Non-specified Species
Squids	Forage Fish	
Skates		
Sculpins		
Sharks		
Octopuses		
Forage Fish		

ACTION 2. Housekeeping FMP text changes (listed in draft action plan)

OTHER ACTION: NMFS will prepare regulatory amendment(s) separately to remove the “other species” category from regulations for the purposes of specifying OFL, ABCs, and TACs, but will be retained for the purposes of setting PSCs and MRAs

<sup>1</sup>Ecosystem Component species should:

- Be a non-target species or non-target stock;
- Not be determined to be subject to overfishing, approaching overfished, or overfished;
- Not be likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and
- Not *generally* be retained for sale or personal use.

Standard

**STEP 2. ANALYZE LATER ACTIONS**  
**FMP/Regulatory Amendment (EA/RIR/IRFA)**

*No alternatives identified yet; Non-Target Species Committee requests that the Council task it to meet in April 2010 to develop analytical alternatives for trailing amendments to address additional management measures to manage non-target species.*

**in “the Fishery”**

Target Species  
Non-target Species  
Grenadiers

**Ecosystem Component**

Squids?  
Octopuses?  
Grenadiers?  
Non-specified Species?

**Remove from FMP**

Other: Action(s)

Any and all regulatory amendments (i.e., management measures) to manage non-target species (both in the fishery and under EC category)



*Handout*

**REVISIONS PROPOSED BY STAFF BASED ON COMMITTEE, AP AND  
INTERAGENCY STAFF RECOMMENDATIONS  
ACTION PLAN FOR ANNUAL CATCH LIMIT AMENDMENTS TO THE GROUND FISH FMPs  
OF THE BERING SEA/ALEUTIAN ISLANDS AND GULF OF ALASKA  
December 13, 2009**

**PROPOSED ACTION** Amend the Groundfish FMPs of Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) to comply with the Magnuson-Stevens Reauthorization Act (MSRA).

**PURPOSE AND NEED** This action is necessary to facilitate compliance with requirements of the MSA to end and prevent overfishing, rebuild overfished stocks, and achieve optimum yield, and to comply with statutory requirements for annual catch limits (ACLs) and accountability measures (AMs). Species and species groups must be identified in the fishery for which ACLs and AMs would be required. An ecosystem component may also be included in the FMPs for species and species groups that are not targeted for harvest, or likely to become overfished or subject to overfishing, and are not generally retained for sale or personal use. The groundfish FMPs also have inadequacies in the FMP texts for documenting compliance with ACL and AM requirements through the harvest specification process.

**ANALYSIS** An EA for amendments to the BSAI and GOA Groundfish FMPs is required; categorical exclusions are planned for six housekeeping amendments.<sup>1</sup>

**RANGE OF ALTERNATIVES<sup>2</sup>**

**ACTION 1. IDENTIFY STOCKS IN THE FISHERY**

Alternative 1. No action

Alternative 2. *Non-Target Species Committee recommendation*

- Eliminate the other species category and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately in the target species category.
- Target Species are in "the fishery."
- Prohibited species and forage fish are in the ecosystem component category.
- Non-specified species are removed from the FMPs.

Alternative 3. *(Modified Action 1 Option 2 from June 2009 draft action plan)*

- Eliminate the other species category and manage (GOA) squids, (BSAI and GOA) sculpins, (BSAI and GOA) sharks, and (BSAI and GOA) octopus separately in the target species category.
- Target Species and forage fish are in "the fishery."
- Prohibited species are in the ecosystem component category.
- Non-specified species are removed from the FMPs.

***Alternatives Considered and Not Moved Forward<sup>3</sup>***

Alternative 4. - Target species, other species, prohibited species, forage fish, and non-specified species are in the fishery.

Alternative 5. - List the current target species and "other species" "in the fishery."  
- List prohibited species, forage fish, and non-specified species under an EC category.

<sup>1</sup> A regulatory amendment will be prepared separately to remove the "other species" category from regulations for the purposes of specifying OFL, ABCs, and TACs, but will be retained for the purposes of setting PSCs and MRAs.

<sup>2</sup> The Council may revise these alternatives during its initial review of the draft analysis.

<sup>3</sup> Alternatives do not comply with NSI Guidelines and/or MSRA or will be considered in future action(s)

- Alternative 6. - List current target species and “other species” “in the fishery.”
  - Remove prohibited species, forage fish, and non-specified species from the FMPs.
- Alternative 7. - List the current target species, skates, sculpins, sharks, squid, and octopus “in the fishery.”
  - List prohibited species catch, forage fish, and non-specified species under an EC category.
- Alternative 8. - List the current target species<sup>4</sup>, sculpins, and sharks “in the fishery.”
  - List prohibited species catch, forage fish, squid, and/or octopus under an EC category.
  - Remove the non-specified category from the FMPs.
- Alternative 9. - List the current target species, sculpins, and sharks “in the fishery.”
  - List prohibited species catch, forage fish, non-specified species, squid, and/or octopus under an EC category.

**ACTION 2: HOUSEKEEPING:** Amend FMP Texts to Document Practices in the Specification Process that Comply with ACL and AM Requirements.

Alternative 1. No action

Alternative 2. Add text to the FMPs to describe:

- Specification of Minimum Stock Size Thresholds (MSSTS). This description is currently incorporated into the annual Stock Assessment and Fishery Evaluation (SAFE) reports.
- Measures that are taken if and when a stock drops below MSST. This is an ongoing evaluation and a management response will occur when needed.
- Accountability measures that are triggered if an ACL (ABC) is exceeded; reference the current in-season management system which has a more timely response than what would occur in the following year.
- Ecological factors that are considered by the Council in reducing Optimum Yield from Maximum Sustainable Yield.
- How the tier levels for Acceptable Biological Catch and Overfishing Level (OFL) are based on the scientific knowledge about the stock/complex and the scientific uncertainty in the estimate of OFL and any other scientific uncertainty.
- How the stock assessments account for all catch

**APPLICABLE LAWS NEPA, MSA**

**STAFF RESOURCES**

NPFMC Jane DiCosimo  
 NOAA AKR Sue Salvesson, Melanie Brown  
 NOAA AFSC Dr. Grant Thompson, Dr. Anne Hollowed, Dr. Paul Spencer, Dr. Olav Ormseth  
 NOAA Habitat No habitat implications  
 NOAA PR Kaja Brix  
 NOAA GCAK Clayton Jernigan  
 HQ Galen Tromble, Rick Methot, Mark Milliken, Mark Nelson

**MAJOR ISSUES**

- The Council and NMFS have placed this amendment (along with Crab FMP amendment) among its highest priorities for action. Statutory deadline of January 1, 2011 for implementation of ACL/AM requirements for groundfish requires final action no later than April 2010.

---

<sup>4</sup> In the GOA, skates are managed as a target species category, but squid are managed in the other species category. In the BSAI, squid are managed as a target species category; FMP Amendment 95 to manage skates separately is under NMFS review

- NMFS identified that only technical changes to federal regulations will result from the proposed action, therefore, a Regulatory Impact Review (RIR) and Regulatory Flexibility Analyses (IRFA/FRFA) will be prepared separately by NMFS
- Improvements to uncertainty calculations and management of vulnerable species beyond meeting legal requirements (i.e., non-specified species) would require separate trailing plan amendment(s).
- The Council (Non-Target Species Committee) will reevaluate its previous tasking priorities for revising management of (1) BSAI skates (scheduled for October 2009 final action), (2) BSAI/GOA squids (scheduled for December 2009 final action), (3) BSAI/GOA sharks and sculpins (scheduled for February 2010 final action), (4) BSAI/GOA octopods (not scheduled), and (5) BSAI/GOA grenadiers (not scheduled). The committee will meet on September 15, 2009.
- The Groundfish Plan Teams will review/comment on technical analyses and proposed actions at their 2009 meetings.

#### **TIMELINE TO IMPLEMENTATION**

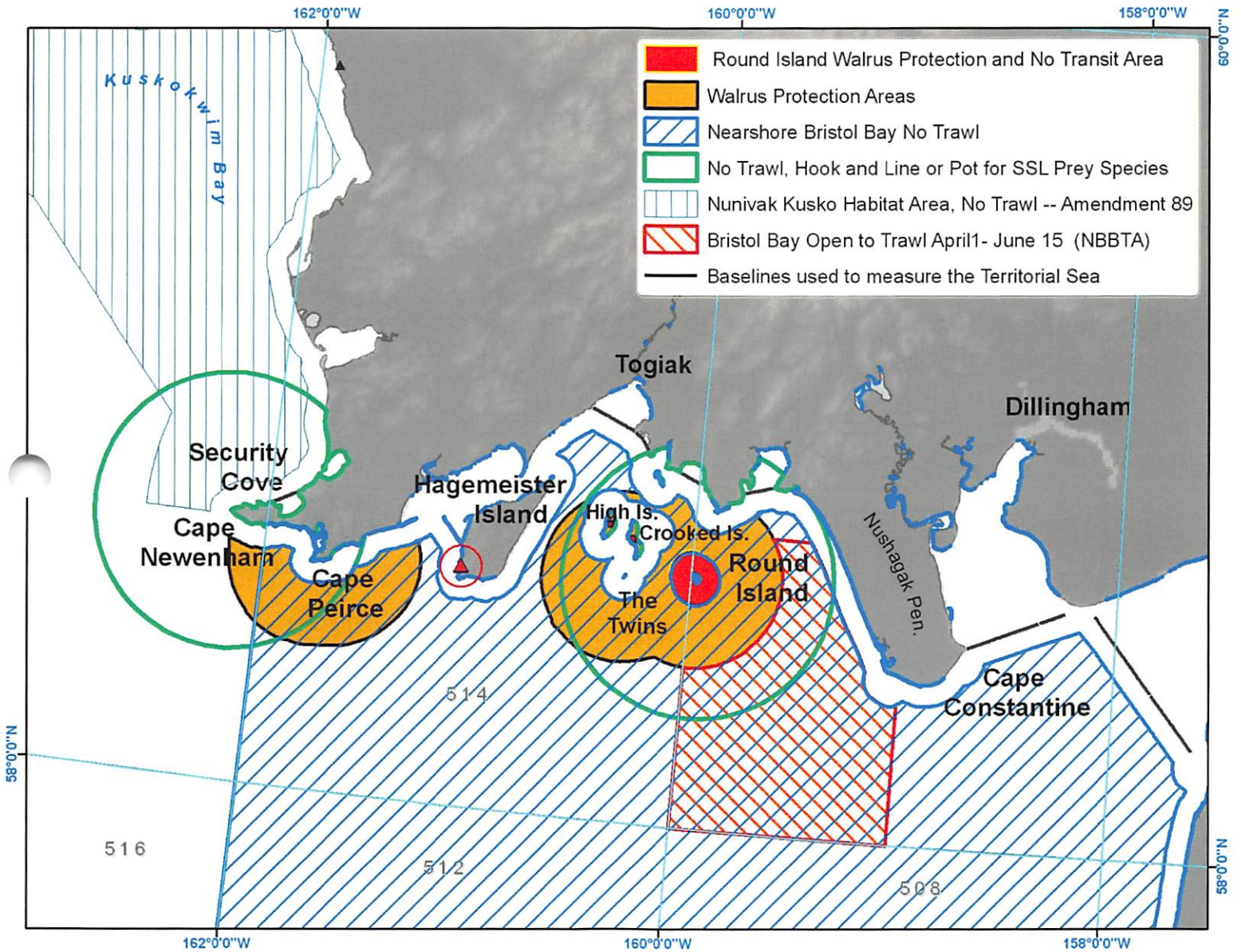
January 2009	NMFS HQ issues final guidelines for National Standard 1.
April 2009	NMFS HQ issues draft working group reports (e.g., ABC/ACT Control Rules, Vulnerability Evaluations) on how to carry out the technical components of the guidelines.
April/May	Interagency staffs meet numerous times to coordinate NPFMC response.
May 2009	Annual Catch Limit Work Shop at AFSC coordinates SSC and Groundfish Plan Team (GPT) response(s).
June 2009	Council approves draft action and tasks staff with preparation of analysis
August 2009	AFSC releases technical analyses on 1) incorporating uncertainty into stock assessments and 2) groundfish vulnerable to overfishing
September 2009	Groundfish Plan Teams reviews draft alternatives and technical analyses on uncertainty and vulnerability
October 2009	Non-Target Species Committee convenes to refine alternatives AFSC staff presents vulnerability analysis to SSC AP refines alternatives Council tasks committee with continuing its efforts to refine alternatives
December 2009	<b>Committee and AP refines alternatives; Council adopts final set of alternatives for analysis; Council tasks committee with developing alternatives for trailing ACL amendments</b>
January 2010	Release of initial review draft of EA
February 2010	AP, SSC, and Council review initial review draft of EA; release for public review
April 2010	Council conducts final action and selects a preferred alternative; Council staff submits final EA for Secretarial review; Committee meets to develop alternatives for second ACL analysis; Council reviews committee recommendations and sets timeline for action on ACL II FMP/regulatory amendments
Spring 2010	NMFS prepares and finalizes RIR/IRFA for complementary regulatory amendments; NMFS publishes NOA to implement ACL FMP amendments
September 2010	GPTs recommends proposed 2011 and 2012 harvest specifications based on ACL amendments; SOC approves ACL amendments
October 2010	Council recommends proposed 2011 and 2012 harvest specifications based on ACL FMP amendments
November 2010	GPTs recommend final 2011 and 2012 harvest specifications
December 2010	AP, SSC, and Council recommend final 2011 and 2012 harvest specifications
January 2011	ACL FMP amendments in effect
February 2011	Revised Final 2011/2012 specifications in effect

# PUBLIC TESTIMONY SIGN-UP SHEET

Agenda Item: D-1 (a) Groundfish ACL Requirements

NAME (PLEASE PRINT)		TESTIFYING ON BEHALF OF:
1	Jon Warrenduk	Oceanq
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.



Helen M. Chythlook

BBNA

Bx 310, Dillingham, AK 99576

Member, Preferred Hotels Worldwide

Direct Ph: (907) - 842-6240



9 December 2009

Eric Olson, Chairman  
North Pacific Fisheries Management Council

Hi Eric:

I Am going to have the BBNA GIS map document employee work on an amended map & call it Figure 10: Map showing a Hermitian walrus protection area as suggested by the Qayassiq Walrus Commission and Pen Pak it, hopefully by this Friday Dec. 11, 2009 or Monday. The amended map with explanation could be included in the NPFMC's Hagemistr Island Walrus Protection Zone Discussion Paper.

Helen M. Chythlook

939 West 5th Avenue • Anchorage, Alaska 99501 • (907) 276-6000

PS: Enclosed copies of TASSC resolutions + BBNA Walrus Island map