ESTIMATED TIME

8 HOURS (for all D-1 items)

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver

Executive Director

DATE: September 25, 2002

SUBJECT: Groundfish management

ACTION REQUIRED

(c) Review "other species" management

(d) Recommend proposed and interim specifications for BSAI groundfish

(e) Recommend proposed and interim specifications for GOA groundfish

(f) Set VIP rates for first half of 2003

BACKGROUND

(c) "Other species" management

The State of Alaska requested that the Council prohibit directed fishing on sharks and skates in the Bering Sea/Aleutian Islands and Gulf of Alaska in 1998. The Council initiated BSAI/GOA Plan Amendment 63/63 in response to the State request. During initial review of the analysis in 1999, the SSC identified that it had similar concerns regarding the remaining groups within the complex (squid, octopus, sculpins) and requested that the groundfish Plan Teams also consider related conservative management measures for them. In response, the GOA and BSAI Plan Teams jointly recommended separating the groups from the "other species" complex for the GOA and BSAI groundfish FMPs and setting specifications at the group level in 2000. The teams repeated this recommendation in 2001. The SSC and Plan Teams have not concurred in their respective management recommendations for BSAI and GOA "other species." The SSC recommended a longer-term, more comprehensive approach to revise their management. A summary of these discussions is in Item D-1(c)(1).

On the recommendation of the SSC, an ad hoc group of members of the Scientific and Statistical Committee, groundfish plan teams, and Alaska Fisheries Science Center met in August 2002 to discuss management of "other species" and BSAI other red rockfish and other rockfish. The group recommended that criteria for separating species from aggregate complexes for all groundfish species and assemblages be developed, rather than the current ad hoc approach. The objective is to protect species that need it, and not to lump and split species aggregates just for the purpose of standardizing procedures. The recommendations of the group are summarized in Item D-1(c)(2).

In September 2002, Council staff presented a proposal, which built on the recommendations of the ad hoc group, to the Groundfish Plan Teams ($\underline{\text{Item D-1(c)(3)}}$). The teams recommended that the Council analyze a

management approach that would develop criteria to determine: 1) single species or assemblage management for all target fishery categories and 2) when sufficient data is available to move species from a new non-target category to the target category. The new analysis would address possible management strategies for management of species and complexes in the non-target category. It will also directly list species in the BSAI and GOA groundfish fishery management plans to improve reporting of the overfishing status of North Pacific groundfish¹. This proposal will affect management of CDQ and non-CDQ fisheries, and may streamline the proposed elements and options to rationalize the GOA groundfish fisheries.

Staff will consult with the SSC on the draft criteria as described above in December 2002. Initial review could be scheduled for April 2003 and final action in June 2003, with an implementation target of January 2004.

(d) Proposed and Interim Specifications for BSAI Groundfish

The Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) Groundfish Plan Teams streamlined their preliminary (September) and final (November) meeting schedules in 1998. Overfishing levels (OFL) and allowable biological catch (ABC) levels are not routinely recommended at the September meeting. That meeting is now devoted to reviewing new techniques for stock assessment models and other management issues. Accordingly, two proposed models for BSAI arrowtooth flounder and Atka mackerel, results of the eastern Bering Sea Bogoslof and shelf surveys, the draft Ecosystem Considerations chapter, and the draft Economic SAFE Report were mailed to you earlier.

Under the streamlined meeting schedule, the stock assessment chapters and author(s)' recommendations for OFLs and ABCs are presented at the November Plan Team meeting. Since 1998, the Council has "rolled over" the final specifications for the current fishing year as the proposed and interim specifications for the next fishing year. Final specifications are based on Plan Team recommendations in November each year and supercede the proposed and interim specifications sometime in February of the new fishing year.

The analysis for Plan Amendments 48/48 to revise the TAC-setting process includes an alternative to eliminate proposed and interim specifications. The "roll overs" for proposed and interim specifications may be viewed as interim actions until the preferred alternative (scheduled for final action under Agenda D-1(b)) could be implemented. NOAA General Counsel has recommended revising the current TAC-setting process partly due to public notice requirements of the Administrative Procedures Act (APA). Staff recommended that the Plan Teams consider replacing the "roll overs" with the November 2001 SAFE Report model projections of 2003 ABCs for groundfish stocks managed at tiers 1-3 to be used as 2003 proposed and interim specifications. These projections were identified as better approximations of 2003 final specifications, thereby enhancing compliance with APA public notice requirements.

The Teams reviewed their procedure for not recommending proposed specifications in September in response to the above staff recommendation. During their joint session, the Teams agreed to use the November 2001 SAFE Report model projections for 2003 OFLs and ABCs as an interim measure until the FMPS were revised to change the specification process. Later in separate team sessions, the Teams adopted an industry suggestion to adopt the 2001 SAFE projections except that instead of assuming 2002 catch is equal to the ABC value, it is now set equal to an estimate of the 2002 catch (which was unknown in November 2001). This procedure results in recommendations for 2003 proposed and interim specifications that better inform the Council and public of forthcoming recommendations for final specifications, which will be based on the stock assessments in the November 2002 SAFE Reports. Using the author-recommended 2002 OFLs and

¹The Joint Groundfish Plan Teams recommended that the Council send a letter to Dr. Hogarth recommending that the Leadership Council review definitions of "overfishing" and "overfished" at its December 2002 meeting.

ABCs as a proxy for 2002 catches result in artificially lowering the projected 2003 OFLs and ABCs, since catches are lower than the ABC in most target fisheries. The Teams recommended rolling over the 2002 OFLs and ABCs for groundfish stocks in tiers 4 - 6. The Plan Team recommendations for proposed 2003 specifications for BSAI groundfish fisheries are attached under Item D-1(d)(1). BSAI Plan Team minutes and Joint team minutes are attached under Item D-1(d)(2) and (3).

Rockfish

In December 2001, the Plan Team recommended 2002 OFLs and ABCs for northern, rougheye, and shortraker rockfishes. The SSC, AP, and Council recommended separating shortraker and rougheye rockfish species and setting BSAI area-wide ABCs and TACs. NMFS was unable to implement those recommendations because of the difficulty in identifying shortraker and rougheye rockfishes to species. NMFS placed sharpchin rockfish in the "other rockfish" category as recommended by the Council, but established separate BS and AI TACs for northern rockfishes and separate BS and AI TACs for the combined shortraker/rougheye rockfishes category.

In September, the BSAI Plan Team concurred with its past recommendations to specify the above rockfish by species area-wide (BSAI combined). Staff with the NMFS Regional Office and Observer Program met in August to discuss data issues related to managing these groundfish at the species and area levels. The team concurred with NMFS staff recommendations to:

- 1. retain a single TAC for shortraker/rougheye for 2003;
- 2. implement changes in observer sampling procedures to improve species composition data on the proportion of shortraker and rougheye rockfish in longline sets;
- 3. monitor whether the changes in procedures result in significant improvements in the available data;
- 4. assess the feasibility of a system to utilize species composition data from observers to estimate the composition of the commercial catch.

Prohibited species catch limits for 2002 BSAI fisheries are listed under Item D-1(d)(4).

(e) Preliminary Specifications for GOA

The preliminary 2003 GOA specifications, as recommended by the GOA Plan Team, are attached as <u>Item D-1(e)(1)</u>. The specifications were projected using the procedure described above. The GOA Plan Team Minutes are attached as <u>Item D-1(e)(2)</u>.

TAC Considerations for State Pacific Cod Fishery

Since 1997, the Council has reduced the GOA Pacific cod TAC to account for removals of not more than 25% of the Federal Pacific cod TAC from the state parallel fisheries. Preliminary information indicates that neither Chignik nor Cook Inlet achieved its GHL, and therefore would remain at its current allocation. Using the area apportionments of the 2003 Pacific cod ABC recommended by the Plan Team, the federal TAC for Pacific cod would be adjusted as listed in the adjacent table.

Proposed 2003 Gulf Pacific cod ABCs, TACs, and State guideline harvest levels (mt).							
Specifications		Central		Total			
ABC	22,465	31,680	3,455	57,600			
BOF GHL	5.615	6.890	865	13.540			

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ABC	22,465	31,680	3,455	57,600
BOF GHL	5,615	6,890	865	13,540
(%)	25	21.75	25	23.5
TAC	16,850	24,790	2,590	44,060

Prohibited Species Catch Limits

The following 2002 halibut PSC apportionments were instituted for the Gulf of Alaska groundfish fisheries;

	2002 Trawl		2002 Hoo	k and Line	
1st quarter	Jan 20 - Apr 1	550 mt (28%)	1st trimester	Jan 1 - May 17 20	5 mt (70%)
2nd quarter	Apr 1 - Jul 1	450 mt (22%)	2nd trimester	May 17 - Aug 31	any rollover
3rd quarter	Jul 1 - Oct 1	700 mt (35%)	3rd trimester	Aug 31 - Dec 31	85 mt (30%)
4th quarter	Oct 1 - Dec 31	300 mt (15%)	DSR	Jan 1- Dec 31	10 mt
TOTAL		2,000 mt			300 mt

	2002 Trawl fishe	ery categor	ies
Season	Shallow Water	Deep Wat	er Total
Jan 20- Aprl	450 mt	100 mt	550 mt
Apr 1- Jul 1	150 mt	300 mt	450 mt
Jul 1 - Oct1	100 mt	any rollove	er 700 mt
Oct 1-Dec 31	no apportion	ment	300 mt
TOTAL			2,000 mt

(f) Vessel Incentive Program

The Vessel Incentive Program (VIP) to reduce Pacific halibut and crab bycatch rates in the BSAI and GOA trawl fisheries requires that bycatch rate standards be specified for purposes of vessel accountability under the VIP. The bycatch rates for the first half of 2003 must be specified by NMFS prior to the start of the 2003 trawl fisheries. These rates have remained unchanged since 1995. A summary table of 1998 - 2002 observer data on fishery bycatch rates and the bycatch rate standards is attached as Item D-1(f).

NMFS intends to publish bycatch rate standards for the first half of 2003 that are unchanged from 2002, since the Council recommended that bycatch rate standards remain unchanged while it considers alternative incentive programs for bycatch reduction.

North Pacific Fishery Management Council

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AGENDA D-1(c)(1) OCTOBER 2002

MEMORANDUM

TO:

SSC/Groundfish Plan Team working group

DATE:

July 18, 2002

FROM:

Jane DiCosimo

Senior Plan Coordinator

RE:

meeting materials

The meeting to discuss management of GOA and BSAI groundfish will convene at 1:00 pm, Monday, August 5, at the Seattle NOAA Sandpoint Complex, Building 4, Room 2143 and adjourning Tuesday, August 6, 4:30 pm or sooner. We will video conference between the AFSC and the NMFS Regional Office in Juneau on Monday and Tuesday afternoons. The AFSC video facilities are booked for Tuesday morning. The Juneau meeting location is Room 445. I have scheduled the following discussions with conferencing in mind:

Monday afternoonGOA and BSAI sharks and skates/GOA other speciesvideoTuesday morningBSAI other red rockfishphoneTuesday afternoonBSAI other speciesvideo

Objective: Discuss short-term solutions for managing non-target species and practical options for long-term restructuring the North Pacific groundfish management regime to address conservation, legal, policy, and management concerns.

Goal: The short-term goal is to resolve management issues related to management of GOA and BSAI sharks and skates, GOA and BSAI other species, and BSAI other red rockfish for 2003 specifications and Amendments 63/63 according to the following schedule for Council action:

GOA and BSAI sharks and skates GOA and BSAI other species

final action for FMP amendments 63/63 in December 2002 new GOA FMP amendment in 2003(?) and December 2002 BSAI

specification process

BSAI other red rockfish

December 2002 BSAI specification process

Future Work: The long-term goal is to identify reasonable alternatives for managing non-target groundfish species at the species, complex, and group levels for analysis by the Council. Defer defining management levels for target and non-target groundfish in trailing FMP amendments until 2004:

- 1. Complex: other species TAC, includes all species of sharks, skates, sculpins, octopi (and squid in GOA)
- 2. Species Group: separate TACs for all sharks, all skates, all sculpins, all octopi, all squid, all rockfish
- 3. Complex within species group: e.g., other red rockfish, demersal shelf rockfish
- 4. Species: pollock, cod, arrowtooth flounder, POP, sleeper shark, etc.

Discussion: The State of Alaska requested that the Council prohibit directed fishing on sharks and skates in the Bering Sea/Aleutian Islands and Gulf of Alaska. The Council initiated BSAI/GOA Plan Amendment

63 in 1998 in response to the State request. During initial review of the analysis in 1999, the SSC identified that it had similar concerns regarding the remaining groups within the complex (squid, octopus, sculpins) and requested that the groundfish Plan Teams also consider related conservative management measures for them. In response, the GOA and BSAI Plan Teams jointly recommended separating the groups from the "other species" complex for the GOA and BSAI groundfish FMPs and setting specifications at the group level in 2000 and repeated this recommendation in 2001.

The SSC and Plan Teams have not concurred in their respective management recommendations for BSAI and GOA other species. In summary, the Plan Team has recommended an interim step that would offer additional protection in the short-term, while the SSC is taking a longer-term, more comprehensive approach to revise groundfish management. The Plan Teams recommendations are contained in the October 2001 staff discussion paper. The SSC recommendations are captured from its minutes.

Since 1998, the SSC has recommended a higher ABC for BSAI other species than that recommended by the BSAI Plan Team. The SSC noted that M=0.20 has been accepted as a reasonable estimate of natural mortality for the other species category. Given an estimate of M, "other species" falls into Tier 5, which sets FABC to be up to 75% of M. The SSC recommended a 10-year phase-in to 96,500 mt, rather than move immediately to the higher ABC from the 1998 ABC of 25,800 mt. It has continued to annually increase the BSAI "other species" by 10%. This approach is opposite that of the BSAI Plan Team, which has been attempting to decrease the risk of overfishing to individual species. Note that the Council set the TAC equal to the lower Plan Team ABC recommendations in 1999, but has set TAC equal to the SSC ABC recommendations in 2000 and 2001. Catch of other species has been consistently well below TAC.

In 2000, the SSC supported the GOA Plan Team's procedure for determining ABC based on Tier 5 procedures and apportionment by proportionate share of ABC. The SSC encouraged the development of a formal FMP amendment that would allow development of standard ABCs for the species in this group. The Council initiated the analysis in December 2000, but action has not been taken due to concerns expressed by the SSC (below) in October 2001.

In September 2001, the Joint Plan Teams discussed, in a separate but related initiative, which species should be listed as managed under each of the two groundfish FMPs since there is no "official" list. The Annual Report to Congress on the status of overfished stocks is based on the NMFS observer and survey database, which, for example, may include one sighting of a species outside its normal distribution. The Teams also reviewed the staff discussion paper on "other species" management that was prepared for SSC review. This paper identified that sufficient information was currently available to set specifications at the species levels for some sharks and identified various methodologies for determining ABC at the group/species level for other species, requested advice on the appropriate methodology for determining abundance, and identified alternative management strategies (e.g., closed areas for some high bycatch species) for consideration. The Teams recommended: 1) proceeding with the Council alternatives for analysis and 2) initiating separate plan amendments to develop a policy for identification of individual species/genera for annual specifications. An industry representative suggested the following possible fishery modifications that could reduce harvests of non-target species: 1) gear modifications for sharks and large skates developed by Craig Rose (AFSC); 2) tuning mid-water nets to reduce salmon bycatch; and 3) using SeaState to identify hot spots for bycatch avoidance.

In its review of the October 2001 other species discussion paper, the SSC opined that management based on gross taxonomic groupings will lead to a weakest link problem where management will be expected to demonstrate "no harm" to species present in low and declining numbers. It also commented that the development of ABCs and TAC for gross taxonomic groupings has the problem that species are grouped together that are neither ecologically connected nor similar in their rates of productivity. For many of the other species, biological and catch information is of questionable quality due to limited sampling, imprecise species identification and other factors. Significant improvement in our knowledge is not expected in the

immediate future. Rather than using typical quota setting measures for conservation of other species, the SSC suggested that other devices, such as restricted area management (i.e., closed areas), should be explored. Survey and observer catch data should be examined to determine if such an approach has promise. This is a NMFS-wide problem that may need to be approached at a national level. The SSC recommended continuation of the status quo while an alternative method is developed. Staff expressed concern that the status quo offered less precautionary management than the staff and Plan Team approach, which offered an interim protective measure to manage at the group level rather than at a combined complex level. The SSC recommended that the Council form a committee to develop more appropriate exploitation and management strategies for non-target species and that the two issues (listing FMP species and managing target and non-target species) be incorporated into one analysis.

In December 2001, the SSC identified that the BSAI Plan Team's calculation procedure for BSAI squid and other species group specifications is problematic. The data for many of the species in the other species group allows only a tier 5 or 6 algorithm for estimating ABC. The tier 5 procedure requires an estimate of stock biomass and natural mortality. Biomass estimates are predominately available at the species level for many species, but catch information is available only for groups of species rather than individual species (e.g., sculpins, sharks and skates). Moreover, individual species are differentially vulnerable to the survey gear affecting the accuracy of their abundance estimates. The tier 6 ABC algorithm relies on landings data and sets maximum ABC at 75% of the mean annual catch. This process has little biological basis, especially for species that are both incidentally caught and not normally vulnerable to trawl or other fishing gear (e.g., squid). In such cases, landings above the prescribed ABC level would not necessarily indicate a stock problem. Conversely, landings below the long term average do not guarantee protection of the stocks.

Aggregating other species both within a group (e.g., sharks), and among species groups (sharks, skates, sculpins and octopus) is likely to obscure problems affecting weaker stocks within the aggregate. The SSC views its procedure for calculating an ABC for the other species group as an interim procedure that will provide protection to the stocks in the short term "while not unnecessarily constraining directed fisheries." Toward that end, it recommended that the proposed committee evaluate the likelihood of improving abundance estimates that would be used in tier 5 ABC calculations, and the cost of doing so; as well as, exploring alternative management processes for dealing with these species (e.g., removing species from the FMP, or development of different management standards).

The SSC disagreed with the Team proposal to split the other species into individual group ABCs. Instead, the SSC continued its procedure to incrementally step up to the maximum allowable ABC for the aggregate other species complex by 10% each year. The Plan Team had previously expressed concern that the SSC procedure did not offer an appropriate level of protection for those species, and that management at the group level, while an interim step to protection at the species level, offered greater protection than lumping unlike species and managing each species under the aggregate ABC.

Discussion points:

- How do we resolve SSC and PT/author recommendations for managing sharks and skates in the context
 of the original ADFG proposal (prohibit directed fishing now scheduled for final action in December
 2002).
- 2. How do we resolve that the SSC recommends the use of tier 5 to determine an aggregate complex level ABC but rejects the author and Plan Team recommendations based on tier 5 when separating the species group from the complex? How does the SSC step-up procedure provide protection to any stock within the other species complex in the short term? If the primary management goal for the other species complex is to set ABCs that will never constrain fisheries, then this should be a Council policy call and not a biological issue to be addressed by the Plan Teams or SSC. If there are conservation goals for other species, then we need to face the fact that there may be a time when an other species TAC constrains a target fishery, because that is how our management system is designed.

- 3. Should the groundfish species managed under the BSAI and GOA groundfish FMPs be specifically listed in the plans? *Pro*: 1) Federal managers would not be held accountable for managing species that do not generally occur in North Pacific waters; 2) forces Federal managers to *correctly* identify management criteria for each species under its jurisdiction (i.e., major/minor stock). *Con*: An FMP amendment (EA/RIR/IRFA) would be required for each future addition or subtraction to the list.
- 4. Can we develop a consistent rationale for separation or grouping to list BSAI and GOA groundfish species/groups/complexes? For example, why do we aggregate rockfish and flatfish into complexes? Is it because they are rarely caught, we can't tell them apart, we don't know enough about them as individual species, or if we split them out the TACs would be too small and they would constrain target fisheries? Or are they ecologically similar and caught together so that it makes sense to manage as a complex? Note that rockfish complexes can be arbitrary (e.g., BSAI other red rockfish) or habitat specific (e.g., GOA demersal shelf rockfish)

We seem to have a conflict between defining complexes that are based purely on management needs (i.e., contain all species caught as bycatch but might target later (e.g., other flats, other rockfish, other species) versus ecologically sensible associations (e.g., GOA demersal shelf rockfish, or other species assemblages likely to be observed in nature). If we define our management goals and prioritize them, the appropriate complex level should be obvious. For example, we may decide that it is more important to gather data for individual species management for long lived target species such as rockfish than for short lived nontarget species such as cephalopods, so we plan to work towards splitting rockfish out while leaving all squid species aggregated. Further, if we choose to rationalize lumping to avoid small TACs, but have a rationale to ensure that individual species within the complex are at least monitored post-season (possibly via observer data for flatfish and rockfish complexes, and at the group level for other species) then we could have some adjustments at least annually to fix potential problems. Congress, federal managers, industry, environmentalists, and the public are sensitive to overfishing species managed within a complex.

5. How do the issues of listing FMP species (Points 1) and managing at the species/group/complex (Points 2-3) interact with the very-related TAC-specification plan amendments?

Attached documents:

- 1. Joint Plan Team minutes excerpt, September 2001
- 2. Discussion paper for groundfish plan amendments 63/63 to revise management of "other species" category by Sarah Gaichas and Jane DiCosimo, October 2001
- 3. SSC minutes excerpt, October 2001
- 4. BSAI SAFE Chapter 11, Other red rockfish by Paul Spencer and Rebecca Reuter, November 2001
- 5. BSAI SAFE Chapter 14, Other species by Sarah Gaichas, November 2001
- 6. memos from Dave Witherell to Groundfish Plan Teams, September 2001 and November 2001
- 7. Joint Plan Team minutes excerpt, November 2001
- SSC minutes excerpt, December 2001
- 9. Alternatives to address catch accounting issues in the Western Alaska Community Development Quota Fisheries for 2002 (excerpt) by Sally Bibb, October 2001
- Supplemental information regarding CDQ rockfish and "other species" catch accounting by Obren Davis, December 2001
- 11. memo from Dave Witherell to Chris Oliver, undated
- 12. SSC minutes excerpt, February 2002
- 13. Summary of NMFS/Council meeting to discuss management of target/non-target groundfish, January 16, 2001

Committee members:

Dan Kimura, SSC Steve Berkeley, SSC Sue Hills, SSC Low-lee Loh, BSAI Team Grant Thompson, BSAI Team Ivan Vining, BSAI Team Andy Smoker, BSAI Team Farron Wallace, BSAI & GOA Team Sandra Lowe, GOA Team Jim Ianelli, GOA Team Jane DiCosimo, BSAI & GOA Team Invited participants: Anne Hollowed, AFSC Sarah Gaichas, AFSC Paul Spencer, AFSC Rebecca Reuter, AFSC Dean Courteney, AFSC Sally Bibb, AKRO-SF

REPORT AD HOC WORKING GROUP ON GROUNDFISH MANAGEMENT AUGUST 5-6, 2002

The Scientific and Statistical Committee/Plan Team/Alaska Fisheries Science Center working group (Dan Kimura, Steve Berkeley, Sue Hills, Sandra Lowe, Jim Ianelli, Grant Thompson, Sarah Gaichas, Andy Smoker, Tom Pearson, Paul Spencer, Ivan Vining, Jane DiCosimo) met on August 5-6, 2002 to discuss management of BSAI and GOA other species and BSAI other red rockfish and other rockfish. Additional NMFS Regional Office staff attended the meeting. The group discussed the need to develop criteria for separating species from aggregate complexes for all groundfish species and assemblages, rather than the current ad hoc approach. The objective is to protect species that need protection and not to lump and split species aggregates just for the purpose of standardizing procedures. The group made the following recommendations.

Criteria for splitting/lumping species for all groundfish

After considerable discussion, the group developed a decision matrix (below) of when to split or lump species out of or into assemblages. One participant questioned the notion that all species or assemblages must be maintained above B_{MSY} as the Magnuson-Stevens Act defines overfishing at the unit of "fisheries," not individual species. Others stated concern over overfishing individual species even if the MSA did not require preventive measures. The risk of overfishing/extinction was identified as unknown, along with risk of unknown ecosystem effects (at both the fishery and species levels). The group identified its preference for proactive and precautionary fisheries management. The case for lumping species into assemblages occurs with poor data and low vulnerability. The case for splitting assemblages into species occurs with good data and high vulnerability. Lumping can occur with good data and low vulnerability, if convenient for management. The group also discussed which species could be lumped into an assemblage, regardless of the data quality/vulnerability issue. Considerations should include if they are caught together, have the same possible or recommended exploitation rate, similar life history, etc. (Dissimilar life histories, rather than insufficient data, would lead to a recommendation to not lump sharks and skates).

Data and vulnerability are defined below. The source and age of data should be considered in determining placement in the overfishing tier categories.

Data quality defined by: 1) the appropriateness of the survey coverage in space (relative to the species range and to its habitat), time (of year), gear; and 2) the precision of the survey estimate

(i.e., the CV).

Vulnerability defined by life history, habitat, economic value, co-occurrence with target fishery, easily

misidentified, risk of disproportionate harvest to biomass, current management measures,

exploitation rate, biomass

	Vulnerability					
Data Quality (tier-specific)	high	low				
good survey coverage	single species	complex if needed for management or single species				
poor survey coverage	single species	complex or single species				
;	start high quality data collection interim quality, precautionary	collect additional data if possible				
	no directed fishery					
	alternative management strategies					
	under alternative management schemes, low MRB, area/time closures, creative thinking.					

The group is developing a table of species managed at Tier 5 to identify current patterns of splitting and lumping, with the assistance of stock assessment authors. The table will compare MSA requirements and North Pacific fisheries management. It will be available for review prior to the Plan Team meeting.

Need for additional action

"Other species" are described in the BSAI groundfish FMP as, "species groups which currently are of slight economic value and not generally targeted upon. This category, however, contains species with economic potential or which are important ecosystem components, but sufficient data are lacking to manage each separately. Accordingly, a single TAC applies to this category as a whole. Catch of this category as a whole must be recorded and reported. The category includes sculpins, sharks, skates, and octopus (and squid in the GOA). Eulachon, smelts, capelin were removed from the other species category and placed in a newly created forage fish category beginning in 1998.

The FMPs describe forage fish species as "those species not included in the target species category and which are a critical food source for many marine mammal, seabird and fish species. The forage fish species category is established to allow for the management of these species in a manner that prevents the development of a commercial directed fishery for forage fish. The forage fish plan amendments: 1) prohibited directed fishing; 2) established a 2 % maximum retainable bycatch limit; and 3) limited their sale, barter, trade or processing above the MRB amount. AFSC assessments are poor due to lack of survey coverage, squid are important prey species, and it would be precautionary to foreclose development of a commercial fishery.

The forage fish species have been grouped together because they are considered to be primary food resources for other marine animals and they have the potential to be the targets of a commercial fishery. As described in the EA/RIR/IRFA for FMP Amendments 36/39 (Forage Fish), "Forage fish comprise an important part of the diet of commercial groundfish species, marine mammals and seabirds in the Gulf of Alaska (GOA) and the Bering Sea and Aleutian Islands management area (BSAI). Significant declines in marine mammals and seabirds in the GOA and the BSAI have raised concerns that changes in the forage fish biomass may contribute to the further decline of marine mammal, seabird and commercially important fish populations. Members of the fishing industry and public have expressed concern that the current FMP structure with respect to forage fish may allow unrestricted commercial harvest to occur on one or more of these species. One of the recommendations from the International Council for the Exploration at Sea (ICES, 1994) indicated that fishery managers should develop measures to avoid the commercial targeting of food resources that are key to marine mammals and seabirds. The Council's 1995 Stock Assessment and Fishery Evaluation Report states that if any significant directed fishing on any component of the "other species" category develops, particularly those that serve as prey for marine mammals and seabirds, then future assessments should reflect this change by separating these species out (SAFE, 1995)."

Capelin, eulachon, and other Osmeridae (other smelts) were within the "other species" category of the FMPs. Sand lance, Pacific sandfish, lanternfish and Bathylagidae were within the "nonspecified species" category of the FMPs. A TAC for the "nonspecified species" category is not specified or managed but is defined in the FMPs as the amount taken incidentally while fishing for other groundfish. No reporting is required and no ABC is estimated for this category.

The species in the "other species" category could be moved into the forage fish category if they can be identified as a critical food source for many marine mammal, seabird and fish species since that is how the FMPs define the category. Or they can be reclassified in a new non-target category. This new category could unclude grenadier and perhaps other species that would be identified in the analysis.

Recommendations

Other Species

For 2003, the committee recommends the following interim actions to address the 1998 State proposal. However, no conservation issues were identified for 2003 should the Council prefer to analyze the impacts of the proposed interim action before its implementation. The committee acknowledged that more, smaller quotas would be created with potential economic impacts on the non-CDQ fisheries and CDQ fisheries.

- Separate sharks and skates from the other species category in the GOA and BSAI groundfish FMPs; Provide OFL and ABC recommendations for sharks (the shark complex could be broken out to the individual species level) and skates;
 - -Recommend that the Plan Team and SSC consider whether to combine the two groups into a management assemblage or set separate specifications. For management convenience, the Council might choose to lump species, genera, or phyla, but only if the species contained therein did not fall into the poor data/high vulnerability category (described below).
 - -Recommend that TAC(s) be set at bycatch levels. (Conforms with State action, but not their stated preferred alternative)
- In the GOA, the remaining other species complex (squids, sculpins, and octopus) TAC would continue to be set equal to 5% of the cumulative GOA groundfish TACs until revised by FMP amendment. Note that the other species TAC (set equal to cumulative groundfish TACs) would be marginally higher for 2003 as a result of creating the additional sharks and skate TAC category(ies).
- In the BSAI, squid are already broken out. Recommend that the Plan Team and SSC consider whether to leave sculpins and octopus in the other species category or break them out. Separate ABCs are currently calculated and summed for the other species total.

For 2004:

- Revise Amendments 63/63 alternatives to:
 - revise management of sharks and skates:
 - 1. place sharks and skates on bycatch (unless already addressed under specifications)
 - 2. defer to State management
 - 3. remove sharks from the FMPs (State recommendation) (and skates?)
 - 4. move sharks and skates into the forage fish category
 - revise management of octopus:
 - 1. move octopus into the forage fish category
 - 2. remove octopus from the FMPs and defer management to the State (would the State want management of octopus?)
 - move squid into the forage fish species category
 - manage sculpins as a target category (tier 5)
 - add grenadier as a target category (tier 5)
 - add data collection requirements

ADDENDUM

To address the recommendations of the ad hoc committee, Council staff will submit a plan amendment proposal for Plan Team adoption that would develop criteria for splitting/lumping species and for identifying when sufficient data is available to allow a target fishery on the species or assemblage. The proposal takes the ad hoc committee one step further and suggests analyzing the creation of a new "non-target" category that would include "other species" and additional species that are not targets of directed fisheries now, but may be so in the future (e.g., grenadiers).

The analysis could explicitly include the State recommendations for action on sharks and skates, if the State still supports its stated preferred alternative of removing sharks (but not skates) from the groundfish FMPs and deferring to State management. Staff has initiated consultation with ADFG staff to determine the State's current position. This is Scenario 1.

Scenario 2 is the staff's recommended approach. It allows for the Council to take action that mirrors State action on sharks and skates either under the annual specifications process or through management of nontarget species while addressing the overall management issues that face the Council in management of all groundfish assemblages (i.e., flatfish, rockfish, other species). It also adds other species that have been identified for additional management consideration (e.g., grenadiers).

Scenario 3 combines the measures of scenarios 1 and 2 and allows the Council to consider all proposed options in revising groundfish management. Scenario 1 (and therefore Scenario 3) might be eliminated if the State identifies that its principal goal was to set sharks and skates as bycatch rather than assuming all management for sharks (and skates?).

Scenario 1

- Alternative 1: No action.
- Alternative 2: Separate sharks and/or skates from the "other species" category through the annual specifications process and enact federal regulations to prohibit directed fishing of those

species.

- Alternative 3: Amend the BSAI and GOA groundfish FMPs to separate sharks and/or skates from the "other groundfish" species category and defer management to the State of Alaska.
- Alternative 4: Amend the BSAI and GOA groundfish FMPs to delete sharks and/or skates from the BSAI and GOA groundfish FMPs.

Or the analysis could implicitly address management of sharks and skates within the newly defined "non-target species" category, under the following alternatives.

Scenario 2

- Alternative 1. No action.
- Alternative 2. Revise the BSAI and GOA groundfish FMPs:
 - Action 1. Identify the fishery management units in the groundfish FMPs to include only target, non-target and forage fish species categories (non-specified species allow for incidental catch measures and monitoring but are outside of the FMP).
 - Option. Move all non-target species into the forage fish category.
 - Action 2. List the species in the target, non-target, and forage fish species categories that are within the FMP management area.
 - Option. List non-target and forage fish species.
 - Action 3. Identify a *policy* based on scientific *criteria* to determine single species or assemblage management (split or lump);
 - Action 4. identify a *policy* based on scientific *criteria* to determine when sufficient data is available to move species from the non-target to target species categories.

Or the analysis could explicitly address both management of sharks and skates as interim measure and address management of "non-target species" under the following alternatives.

Scenario 3

- Alternative 1. No action.
- Alternative 2. Revise management of sharks and skates in the BSAI and GOA groundfish FMPs:
 - Action 1. Separate sharks and/or skates from the "other species" category through the annual specifications process and enact federal regulations to prohibit directed fishing of those species.
 - Action 2: Amend the BSAI and GOA groundfish FMPs to separate sharks and/or skates from the "other groundfish" species category and defer management to the State of Alaska.
 - Action 3: Amend the BSAI and GOA groundfish FMPs to delete sharks and/or skates from the BSAI and GOA groundfish FMPs.
- Alternative 3. Revise the BSAI and GOA groundfish FMPs:
 - Action 1. Identify the fishery management units in the groundfish FMPs to include only target and non-target species categories (non-specified species allow for incidental catch measures and monitoring but are outside of the FMP).
 - Option. Move all non-target species into the forage fish category.
 - Action 2. List the species in the target, non-target, and forage fish species categories that are within the FMP management area.
 - Option. List non-target and forage fish species.
 - Action 3. Identify a *policy* based on scientific *criteria* to determine single species or assemblage management (split or lump);
 - Action 4. identify a *policy* based on scientific *criteria* to determine when sufficient data is available to move species from the non-target to target species categories.

FISHERY MANAGEMENT PLAN AMENDMENT PROPOSAL North Pacific Fishery Management Council

Name of Proposer: Jane DiCosimo Date: August 20, 2002

Address: North Pacific Fishery Management Council

605 W. Fourth Avenue, Suite 306

Anchorage, Alaska 99501

Telephone: 907/271-2809

Fishery Management Plan: BSAI and GOA Groundfish

Please check applicable box(es):

IFQ Program
Bycatch Reduction
BSAI Groundfish FMP
GOA Groundfish FMP
BSAI Crab FMP
Scallop FMP

AGENDA D-1(c)(3) OCTOBER 2002

Brief Statement of Proposal: Revise the alternatives in Amendments 63/63 or initiate new plan amendments to:

- (1) identify the fishery management units in the groundfish FMPs to include only target and non-target species categories (non-specified species allow for incidental catch measures and monitoring but are outside of the FMP);
- (2) list the species in the target and non-target species categories that are within the FMP management area;
- (3) identify a policy based on scientific criteria to determine single species or assemblage management (split or lump);
- (4) identify a *policy* based on scientific *criteria* to determine when sufficient data is available to move species from the non-target to target species categories.

Objectives of Proposal: (What is the problem?)

- (1) not identifying the species in the fisheries management unit has led to an overly broad interpretation of the species under management in some cases;
- (2) NMFS currently reports every species (including anomalous catches, misidentified species, etc.) that appears in the observer and survey databases, and NMFS and the Council is ultimately graded on the status of overfishing for all of them:
- (3) the Council currently uses ad hoc approach recommended by Plan Teams and SSC for splitting lumping species;
- (4) the "other species" category includes species/groups for which directed fishing does not occur/is not desirable from an ecosystem perspective.

Need and Justification for Council Action: (Why can't the problem be resolved through other channels?)

Moving species to the forage fish category and revising the "other species" category to a non-target category require plan amendments. Some, but not all, of the proposed goals of the proposal can be met by separating species out of assemblages and setting TACs at bycatch levels in the annual specifications process. This is limited for the GOA groundfish FMP, where the FMP requires the other species TAC be set equal to 5 % of the cumulative TACs of all other groundfish. This proposal also would incorporate the proposal by the State of Alaska to manage sharks and skates as bycatch fisheries.

Foreseeable Impacts of Proposal: (Who wins, who loses?)

FMP amendments would be required to change species listed in the FMPS, should they require revision. Setting policies based on scientific criteria would result in unbiased determinations of when actions (categorizing species or assemblages (decision 1) into target, non-target, or forage fish categories (decision 2)) should occur. Species would be managed under a more precautionary approach, at the risk of closing commercial fisheries that land those species needing additional protection.

Are there Alternative Solutions? If so, what are they and why do you consider your proposal the best way of solving the problem?

The analysis could consider setting criteria in the FMPs, but allowing the Council to make decisions 1 or 2 (see above).

Supportive Data & Other Information: What data are available and where can they be found?

The groundfish Plan Teams and Scientific and Statistical Committee have recommended that a uniform approach to BSAI and GOA groundfish management be applied, rather than the current ad hoc approach. Setting a policy after analysis and debate should eliminate contradictory advice offered by the teams and SSC, as has occurred in the past.

Bering Sea and Aleutian Islands

2002 Specifications and Plan Team Recommendations for Preliminary 2003 Specifications (mt)

2002 Specifications		2002	2002	2002	2002	2002	2003	2003	based on
cies	Area	Biomass	OFL	ABC	TAC	Catch	OFL	ABC	
DIES	7.100	Diomass	<u> </u>		120	Outon		7,50	projections
Pollock	EBS	9,800,000	3,530,000	2,110,000	1,485,000	1,317,606	2,594,000	2,088,880	•
TONOOR	AI	106,000	31,700	23,800	1,000	934		23,800	
	Bogoslof	232,000	46,400	4,310	100	5	i i	4,310	
	Jugues.	202,000	10,100	.,,,,,		1		.,	
Pacific cod	BSAI	1,540,000	294,000	223,000	200,000	158,100	292,680	252,020	•
		.,,	,						
Yellowfin sole	BSAI	1,597,000	136,000	115,000	86,000	56,055	135,630	114,370	*
	1	i		l		i	1		
Greenland turbot	BSAI	208,000	36,500	8,100	8,000	2,515	33,370	27,590	*
	BS		1	67%	67%	2,148			
	Al		1	33%	33%	367			
Arrowtooth	BSAI	671,000	137,000	113,000	16,000	9,301	120,010	99,285	*
					I		l l		
Rock sole	BSAI	1,850,000	268,000	225,000	54,000	40,796	242,585	203,870	•
	1			Ì	j	i			
Flathead sole	BSAI	695,000	101,000	82,600	25,000	13,963	90,850	74,440	•
				i					
Alaska plaice	BSAI	1,110,000	172,000	143,000	12,000	10,657	170,915	142,070	•
			[
Other flatfish	BSAI	78,300	21,800	18,100	3,000	2,437		18,100	
	l i								
Sablefish	EBS	28,000	2,900	1,930	1,930	936	3,150		
	Al	39,000	3,850	2,550	2,550	1,019	4,190	2,770	•
							4-0	45.000	
Pacific Ocean Perch	BSAI	377,000	17,500	14,800	14,800	10,529	17,850		
<i>r</i> }	Bering Sea			2,620	2,620	564	į	2,666	
	Eastem			3,460	3,460	2,684		3,521	
	Central	1		3,060	3,060	2,763		3,114	
	Western			5,660	5,660	4,518		5,759	•
				2 722		2.742	5 500	4 700	١.
Northern rockfish	BSAI	150,000	9,020	6,760	6,760	2,718	5,580	4	6
Shortraker/rougheye	BSAI	48,000	1,369	1,028	1,028	570		1,028	
04h 14f - h			400	904	604	949			
Other rockfish	EBS	6,880	482	361	361	346		361	
(incl. sharpchin)	Al	12,900	901	676	676	474		676	ĺ
Atka maakasal	,,	490 700	82,300	49,000	49,000	34,206	100,115	59,600	
Atka mackerel	Al	439,700	82,300				100,118	6,690	
	Eastern			5,500	5,500	4,699		28,950	
	Central		1	23,800	23,800	16,583			
	Western]		19,700	19,700	12,924		23,960	
G	BCA:	_, i	0.000	4 070	4 070	400	ĺ	4 070	l
Squid	BSAI	n/a	2,620	1,970	1,970	433		1,970	1
Other Species	BOAL	667 000	79 000	20 100	20 205	20 820	1	39,100	
Other Species	BSAI	667,000	78,900	39,100	30,825	20,822] 39,100	
PC/ALTOTAL	-	40 655 700	4 074 040	2 104 005	2 000 000	1 694 400	2 940 005	2 176 100	
BS/AI TOTAL	J	19,655,780	4,974,242	3,184,085	2,000,000	1,684,422	3,810,925	3,176,100	1

EBS = eastern Bering Sea

BSAI = Bering Sea & Aleutians

OFL = overfishing level

BS = Bering Sea ABC = acceptable biological catch

Al = Aleutian Islands TAC = total allowable catch

*based on November 2001 SAFE Report model projections and 2002 catch projections

BSAI GROUNDFISH PLAN TEAM MEETING September 10, 2002 Draft Minutes

The BSAI Groundfish Plan Team convened on September 10 at approximately 1 pm. Members in attendance were: Mike Sigler (acting chairman), Jane DiCosimo, Grant Thompson, Brenda Norcross, Ivan Vining, Kristin Mabry, Andy Smoker, Bill Clark and Kathy Kuletz. Lowell Fritz attended the GOA Plan Team session and Loh-lee Loh and Farron Wallace were absent. Nine members of the public and additional NMFS-AFSC staff attended.

Arrowtooth flounder. The team concurred with the authors' use of AD Model Builder for the arrowtooth flounder stock assessment. The change from stock synthesis to AD Model Builder will allow the authors to better explore why more females than males are observed in data collections. Previously, the uneven sex ratio could only be explained by lower selectivity for older males in stock synthesis. An alternate explanation is higher natural mortality for males, which can be represented in AD Model Builder but not the stock synthesis model. Lower selectivity for older males, if in fact not occurring, would overestimate abundance.

Atka mackerel. The Team concurred with the authors' use of the "Stock Assessment Toolbox" in the Aleutian Island Atka mackerel stock assessment. The Toolbox is an user-friendly interface which facilitates construction of stock assessment models with the ADModel Builder software. Toolbox also readily calculates standard errors for model output, and frees the authors from the assumption of equivalent standard errors across the time series for catchability estimation. The change from stock synthesis to toolbox will give the authors more flexibility in their estimation of the survey catchability coefficient, selectivity and natural mortality. Previously, these confounded model parameters were difficult to explore in stock synthesis. Following past practice, the authors will present the toolbox run presented at this meeting, as a base run for review in November along with addition model runs.

Rockfish. The team concurred with its past recommendations to aggregate other red rockfish by species across areas. The team concurred with NMFS Regional Office staff recommendations to:

- 1. retain a single TAC for shortraker/rougheye for 2003;
- 2. implement changes in observer sampling procedures to improve species composition data on the proportion of shortraker and rougheye rockfish in longline sets;
- 3. monitor whether the changes in procedures result in significant improvements in the available data;
- 4. assess the feasibility of a system to utilize species composition data from observers to estimate the composition of the commercial catch.

Other species. The Team discussed the likelihood of it and the SSC continuing to provide different recommendations for "other species" specifications for 2003. Staff will distribute the background material prepared for the August 2002 SSC/AP working group meeting to the team for further discussion in November 2002.

Projections for 2003 OFLs and ABCs. The Team recommended using revised model projections for 2003 preliminary and interim specifications for OFLs and ABCs for groundfish stocks at tier 3 or above. The team recommended these projections based on the same inputs to the 2001 SAFE projections except that instead of assuming 2002 catch is equal to the ABC, AFSC staff incorporated the 2002 catch estimates. The change in the projection was at the industry's request, after the Team reviewed the straight projection of the projected 2003 pollock ABC. This procedure modified the recommendation adopted during the Joint Team meeting earlier in the day which would have used the November 2001 SAFE Report model projections. The team approved the procedure and agreed to review the revised projections after the meeting via email. The team recommended rolling over 2002 OFLs and ABCs for groundfish stocks at tier 4 or below.

Joint presentation of Pacific cod. The Team suggested that BSAI and GOA stock assessments for the same species be presented at the joint Team meeting each September to compare stock separation and ecosystem issues for the same species between the BSAI and GOA management areas,. The team recommended that the BSAI and GOA Pacific cod assessments be presented during the Joint Team meeting in September 2003.

Draft Minutes Joint Plan Team Committee Meeting September 9 - 10, 2002

The following Plan Team members attended the September 9-10, 20002 Joint Groundfish Plan Team meeting:. Sandra Lowe, Diana Stram, Andy Smoker, Tom Pearson, Brenda Norcross, Kathy Kuletz, Dave Jackson, Kristin Mabry, Bill Bechtol, Lew Haldorsen, Ivan Vining, Bill Clark, Grant Thompson, Jane DiCosimo, Tory O'Connell, Lowell Fritz, Beth Sinclair, Jon Heifetz, Mike Sigler, and Jeff Fujioka. Loh-lee Low and Farron Wallace were absent. Approximately 30 members of the public attended (including additional AFSC staff).

Ecosystems Considerations. Pat Livingston (AFSC) presented a summary of the draft 2002 Ecosystems Chapter and requested comments for the final draft in November. Bering Sea water temperature data and marine mammal sections will be updated. She reported on plans to include ecosystem concerns into the individual stock assessment chapters for this year. Stock assessment authors are being asked to include an "Ecosystem Effects on the Stock" section and a "Fishery Effects on the Ecosystem" section to each assessment chapter. These additional sections provide a structured way for stock assessment authors to consider adjustments to OFLs and ABCs recommended to the Plan Team and they could also be used by the Council to adjust the TACs. Next year there are plans to provide an ecosystem assessment chapter and a habitat assessment chapter. These chapters have the potential to allow us to make recommendations about changes in aggregate catch levels (OY cap), species mix of the catch, discard amounts, and systems of closed areas (as opposed to closed areas that are for a specific fish/fishery).

Shark/Skate/Other Species. ADFG plan team members reported that there was no immediate need to separate sharks and skates from the other species complex in the BSAI or GOA in 2003, as had been recommended by the SSC/PT ad hoc committee to respond to the State's original 1998 request. The Plan Teams concurred with the ADFG recommendation, if the Council schedules final action on the Plan Team proposal to revise the EA for Amendments 63/63 ASAP. The teams endorsed the proposal submitted by Jane DiCosimo to revise the alternatives. Staff identified that final action would need to occur in June 2002 for implementation for 2003. Jane DiCosimo and Sara Gaichas will present draft criteria to determine single species or assemblage management and on when sufficient data is available to move species from a new nontarget category to the target category to the SSC in December 2002 or February 2003. The analysis would address possible management strategies for management of species and complexes in the non-target category.

TAC-setting process and OFL/ABC projections for 2003. The Teams recommended using November 2001 SAFE Report model projections for 2003 preliminary and interim specifications for OFLs and ABCs for groundfish stocks at tier 3 or above. Subsequently, the individual teams modified this procedure that used the same inputs to the 2001 SAFE projections except that the projection uses an estimate of the 2002 catch instead of assuming 2002 catch is equal to the ABC value. This procedure better comports with the intention to recommend preliminary and interim specifications that most likely approximate the final specifications that will be recommended in November 2002.

National standards guidelines. The NMFS Leadership Council (Assistant Administrator for Fisheries, Regional Directors, and Center Directors) will meet in December and spend one day addressing the national standards guidelines. Jane DICosimo and Grant Thompson will draft language that reflects a Joint Team recommendation that the Council send a letter to Dr. Hogarth recommending that the Leadership Council review definitions of "overfishing" and "overfished" at its December 2002 meeting. The teams expressed concern regarding the 2002 interpretation that results in the overfishing status of many North Pacific groundfish as "undefined," rather than "not overfished" as occurred in past Reports to Congress on the status of stocks. The teams heard testimony from the industry that it could be effective in proposing revised OFL definitions in amendments to the MSA.

Harvest policy review report. The teams requested a briefing on the findings in the Council's harvest policy review report at the November 2002 joint team meeting.

2002 BSAI Trawl Fisheries PSC

Council Recommended Apportionments and Seasonal Allowances

Fishery Group		Halibut Mortality	Herring	Red King Crab (animals)	C. bairdi	C. bairdi	C. opilio
		Cap (mt)	(mt)	Zonel	Zone1	Zone2	COBLZ
Yellowfin sole		886	139	16,664	340,844	1,788,459	2,776,981
January 20 - March 31	262						
April 1 - May 20*	195						į
May 21 - July 3	49						
July 4 - Dec 31	380						
Rocksole/other flatfish		779	20	59,782	365,320	596,154	969,130
January 20 - March 31	448						
April 1 - July 3	164		i				
July 4 - Dec 31	167						
Sablefish/arrowtooth			9				40,238
Rockfish		69	7			10,988	40,237
Pacific cod		1,434	20	11,664	183,112	324,176	124,736
Pollock/mackerel/o.species		232	1,330	1,615	17,224	27,473	72,428
CDQ Fisheries		275		7,275	73,500	222,750	326,250
TOTAL		3,675	1,526	97,000	980,000	2,970,000	4,350,000

¹⁾ Unused PSC allowances may be rolled into the following seasonal apportionment.

2002 BSAI Non-Trawl Fisheries PSC Bycatch Allowances and fixed gear Pacific cod seasonal apportionements

Fishery Group	Halibut Mortality (mt)	
Pacific Cod	775	
Jan 1 - June 10		320
Aug 15 - Dec. 31		455
Other Non-Trawl*	58	
May 1 - December 31		58
CDQ Fisheries	67	
TOTAL	900 mt	

^{*} Includes hook & line fisheries for rockfish and Greenland turbot.

Sablefish hook & line fisheries will be exempted from the halibut mortality cap.

Jig and pot gear will also be exempted from the halibut mortality cap.

Unused PSC from the first season will be rolled over to the second season.

^{2) 35%} of the red king crab PSC for the rock sole fishery is apportioned to the 56 - 56010' RKCSA strip.

←Gulf of Alaska 002 Specifications and Plan Team Recommendations for Preliminary 2003 Specifications (mt)

		2002	2002	2002	2002	2002	2003	2003	based or
SPECIES	Area	Biomass	OFL	ABC	TAC	Catch	OFL	ABC	projection
Pollock ¹	W (61)			17,730	17,730	11,671		14,270	
	C (62)			23,045	23,045	14,935		18,550	
	C (63)			9,850	9,850	9,016		7,930	
	Shelikof								
	WYAK	726,600	75,480	1,165	1,165	1,815	61,070	940	
	EYAK/SEO	28,710	8,610	6,460	6,460	2	8,610	6,460	
	TOTAL	755,310	84,090	58,250	58,250	37,439	69,680	48,150	*(adj.)
Pacific Cod	w			22,465	16,849	12,714		23,750	
	С			31,680	24,790	22,607		22,730	
	E			3,455	2,591	101		4,040	
	TOTAL	428,000	77,100	57,600	44,230	35,422	67,820	50,520	•
Deep water flatfish ²	w			180	180	15		180	
beep water nation	ľc			2,220	2,220	516		2,220	
				•					
	WYAK			1,330	1,330	1		1,330	
	EYAK/SEO	00.000	0.400	1,150	1,150	3	0.400	1,150	
	TOTAL	68,263	6,430	4,880	4,880	535	6,430	4,880	
Rex sole	lw			1,280	1,280	351		1,280	
	lc			5,540	5,540	2,559		5,540	
	WYAK			1,600	1,600	0		1,600	
	EYAK/SEO			1,050	1,050	ŏ		1,050	
	TOTAL	71,326	12,320	9,470	9,470	2,910	12,320	9,470	
N. u				00 550				20 550	
hallow water flatfish ³	w			23,550	4,500	206		23,550	
	С			23,080	13,000	5,243		23,080	
	WYAK			1,180	1,180	2		1,180	
	EYAK/SEO			1,740	1,740	1		1,740	
	TOTAL	349,992	61,810	49,550	20,420	5,452	61,810	49,550	
Flathead sole	w			9,000	2,000	359		9,000	
	C			11,410	5,000	1,524		11,410	
	WYAK			1,590	1,590	0		1,590	
	EYAK/SEO			690	690	0		690	
	TOTAL	170,915	29,530	22,690	9,280	1,883	29,530	22,690	
Arrowtooth flounder	w			16,960	8,000	4,414		16,300	
Anomoodi nodilaci	c			106,580	25,000	13,448		102,390	
	WYAK			17,150	2,500	50		16,470	
	EYAK/SEO			5,570	2,500	73		5,250	
	TOTAL	1,760,000	171,060	146,260	38,000	17,985	164,360	140,410	•
0-11-6-6				0.040	0.040	4.550		2,430	
Sablefish	w			2,240	2,240	1,556			
	C			5,430	5,430	5,808		5,900	
	WYAK			1,940	1,940	1,393		2,110	
	SEO TOTAL	188,000	19,350	3,210 12,820	3,210 12,820	2,209 10,966	21,060	3,490 13,930	•
	İ	. = - , 3 = 4	,						
Other Slope rockfish	w c			90 550	90 550	220 395		90 550	
	WYAK			260	150	25		260	
								4,140	
	EYAK/SEO	407.000	6.040	4,140	200	24	6 640		
i	TOTAL	107,960	6,610	5,040	990	664	6,610	5,040	

			2002	2002	2002	2002	2003	2003	based on_
SPECIES			OFL	ABC	TAC	Catch	OFL	ABC	projection
Northern rockfish	w			810	810	335		760	
	С			4,170	4,170	2,996		3,940	
	E			0	0 4	_,,		0	,
	TOTAL	94,350	5,910	4,980	4,980	3,331	5,580	4,700	•
Pacific ocean perch	w		3,110	2,610	2,610	2,741	3,140	2,630	
	С		9,760	8,220	8,220	8,265	9,840	8,290	
	WYAK			780	780	744		780	
	SEO		2,800	1,580	1,580	0	2,820	1600	
	TOTAL	293,240	15,670	13,190	13,190	11,750	15,800	13,300	*
Shortraker/rougheye	w			220	220	265		220	
	C			840	840	629		840	
	E			560	560	366		560	
	TOTAL	70,890	2,340	1,620	1,620	1,260	2,340	1,620	
Pelagic shelf rockfish	w			510	510	177		510	
	C			3,480	3,480	2,670		3,480	
	WYAK			640	640	448		640	
	EYAK/SEO			860	860	4		860	
	TOTAL	62,489	8,220	5,490	5,490	3,299	8,220	5,490	
Demersal Shelf Rockfish	וי	15,615	480	350	350	160	480	350	
Atka Mackerel	gw	unknown	6,200	600	600	50	6,200	600	
Thornyhead rockfish	w			360	360	363		360	
	C			840	840	499		840	
	E			790	790	189		790	
	TOTAL	77,840	2,330	1,990	1,990	1,051	2,330	1,990	
Other Species	GW		NA	NA	11,330	3,111	NA		
GOA TOTAL		4,514,190	509,450	394,780	237,890	137,268	480,570	372,690	

^{*} based on November 2001 SAFE Report model projections and 2002 catch projections as of 8/31. For pollock see September 2002 Plan Team minutes

Alaska plaice, and sand sole.

NOTE

^{1/} The pollock ABC has been reduced by 1,700 mt to accommodate the expected Prince William Sound State harvest.

^{2/} Deep water flatfish includes dover sole, Greenland turbot and deepsea sole.

^{3/ &}quot;Shallow water flatfish" includes rock sole, yellowfin sole, butter sole, starry flounder, English sole,

^{4/} The EGOA ABC for northern rockfish has been included in the WYAK ABC for other slope rockfish.

W = Western Gulf C = Central Gulf E = Eastern Gulf WYAK = West Yakutat EYAK/SEO = East Yakutat/Southeast GW means Gulfwide.

GOA PLAN TEAM MEETING September 10, 2002 Minutes

The GOA Plan Team convened on September 10, 2002 at approximately 1:00 pm. Members in attendance were: Sandra Lowe (chairman), Diana Stram, Jeff Fujioka, Lew Haldorsen, Jon Heifetz, Jim Ianelli, Dave Jackson, Tom Pearson, Bill Bechtol and Beth Sinclair. Farron Wallace and Tory O'Connell were absent. Joint Plan Team members Bill Clark and Kathy Kuletz attended the Bering Sea Plan Team session. NMFS staff, stock assessment authors, and a dozen members of the public also attended.

Pollock Mike Guttormsen (AFSC) presented recent hydroacoustic survey results to the team. The 2002 hydroacoustic survey indicates the lowest adult biomass of pollock in Shelikof Strait since these surveys have been regularly conducted. Preliminary results of this survey indicate that this is the second consecutive year of low abundance of pre-spawning pollock in the Shelikof Strait. An additional survey was conducted on the shelf break near the entrance to Shelikof Strait after indications that the fishing fleet was concentrated in that area. This additional survey showed a high adult biomass concentration near the shelf break (approximately twice the adult biomass in Shelikof Strait). The pollock size composition in shelf break aggregation was similar to Shelikof Strait adults, but it was noted that the age composition data available for November Plan Team meeting would help to resolve whether these two aggregations represent a single stock. Pollock GSI (an index of spawning readiness) was unusually low in Shelikof Strait, suggesting changes in the timing of spawning.

Martin Dorn (AFSC) presented a ternary diagram to discuss the difficulties in apportioning between management areas 610, 620 and 630 for the four GOA pollock A, B, C, D seasons. The team discussed the particular difficulty in apportionment between the areas in the A and B seasons. It was discussed that the current management areas do not correspond well to the pollock biology: spawning grounds are bisected by management lines and summer distribution patterns by management area are highly variable and imprecisely estimated. Discussion focused on ideas for apportionment, specifically to use the ternary plot presented and assume a linear movement between summer and winter data points, and several suggestions were made by the team for further analysis and consideration at the November Plan Team meeting.

Martin Dorn then presented exploratory model results using the previous year's assessment model updated with data from the Shelikof survey. Data available for exploratory model runs consisted of 2001 fishery catch and age composition, and Shelikof Strait survey biomass and length composition. Additional data that will be available later this year for the full stock assessment modeling include age composition for the Shelikof Strait survey, 2001 bottom trawl age composition, and biomass estimates and length composition from the recently completed ADF&G crab/groundfish survey. Preliminary results indicated continuing decline of adult pollock, but also additional support for a strong 1999 year class. The model fit to the 2002 Shelikof Strait survey was poor, with the model unable to match the steep decline indicated by the survey results. The stock assessment author recommended a roll over of last year's 54,500 mt ABC for pollock. The stock assessment author considered this appropriate because it represented a reduction of 30% from the projected ABC from an assessment that already had several precautionary elements incorporated (i.e., the reduced harvest rate and the conservative estimate of the 1999 year class). It was noted that a 2003 ABC of 54,500 t would be about 12% higher than the ABC in the preliminary model runs with the low 2003 survey estimate. The stock assessment author recommended that the plan team not use the preliminary model runs to set the interim ABC, noting that basing management advice on incomplete data sets and preliminary model runs without a full stock assessment was not best scientific practice.

Shane Capron expressed concern that there was a 11% probability that spawning biomass could already be below B_{20} . The team discussed the probability of approaching B_{20} and the measures that are in place to close the fishery if this threshold is exceeded. Shane Capron mentioned that an option available to the team would be to set the ABC at 0 and then use emergency rules to change the ABC as necessary following new analyses. The team discussed the inherent problems involved in relying on emergency rules. Discussion concluded that emergency rules should not be used in this manner, and the focus instead should be upon what ABC value would be responsive to new evidence.

The team was asked to approve preliminary ABCs under the new system for the 2003 preliminary specifications (see Joint Plan Team Minutes, September, 2002). The team disagreed with the author's recommendation to roll over last year's 54,500 mt ABC for pollock. The team felt that using this roll over ABC would not be sufficiently responsive to preliminary indications of a decline in stock size. Additional options that were discussed included:

- 1) Setting the ABC at 0 given the lack of available information to set a viable ABC at this time.
- 2) Declining to set an ABC at all given the lack of available information to set a viable ABC at this time.
- 3) Setting an ABC of approximately 46,000 mt based on preliminary incomplete model results using only the single survey data.
- 4) Setting an ABC of 43,390 mt based upon the 2003 projected ABC (using the author's recommended harvest rate and an average 1999 year class = 75,995 mt) multiplied by the ratio of the 2002 Shelikof Strait observed biomass to the predicted 2002 Shelikof Strait biomass from last year's assessment model (not updated with new survey results) (observed (229,104)/predicted (401,145)= 0.571).

The team voted 4-3 to adopt an ABC of 43,390 mt based upon the projected 2003 ABC reduced by the calculated percent ratio described above.

Thornyhead rockfish The team chose to use the roll over ABC from 2002 as there is no projection from the model for 2003 for the Plan Team's ABC. (Last year the Plan Team recommended an ABC from an alternative model than that recommended by the author).

All other GOA species For all other species the team opted to follow the procedure outlined in the Joint Plan Team minutes (September 2002).

The meeting adjourned on Tuesday, September 10. The Team met jointly with the Bering Sea/Aleutian Islands Groundfish Plan Team on September 9 and 10.



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 21668 Juneau, Alaska 99802-1668

AGENDA D-1(f) OCTOBER 2002

September 16, 2002



Mr. David Benton
Chairman, North Pacific Fishery
Management Council
605 W. 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

Dear Mr. Benton:

Bycatch rate standards for trawl fisheries under the Pacific halibut and red king crab vessel incentive program (VIP) during the first half of 2003 are scheduled to be published in the Federal Register by January 1, 2003. A summary of 1998 - 2002 observer data on fishery bycatch rates is listed in Table 1 for review by the Council. The halibut bycatch rates for the first three quarters of 2002 have been updated. This information is based on weekly assignments of vessels to a VIP target fishery based on weekly catch and reporting area as determined in the NMFS Blend Database.

The bycatch rate standards have remained unchanged since 1995. In October 2001, the Council reviewed extensive analyses prepared by NMFS staff on industry bycatch rates to assess whether or not these standards should be adjusted. The Council recommended that the bycatch rate standards should remain unchanged while the Council considers alternative incentive programs for bycatch avoidance. Based on this input, we intend to establish bycatch rate standards for the first half of 2003 that are unchanged from 2002 (Table 1).

Sincerely

Vames W Balsiger

Administrator, Alaska Region

Attachment



7

Table 1 -- 1998 - 2002 (through August 31, 2002) observed bycatch rates, by quarter, of halibut and red king crab in the fishery categories included in the vessel incentive program. Also listed are the bycatch rate standards in effect since 1995.

Halib	out Bycatch (Kilograms Halibut/metric	ton Allocated	Groundfish (Catch	 	
Fishery and quarter	Bycatch Rate Standards	1998	<u>1999</u>	2000	<u>2001</u>	2002
BSAI Midwater Pollock						
QT 1	1	0.02	0.15	0.05	0.13	0.08
QT 2	1	0.00	•	0.15	0.15	0.05
QT 3	1	0.33	0.06	0.11	0.17	0.11
QT 4	1	0.25	0.04	0.13	0.22	
BSAI Bottom Pollock						
QT 1	7.5	9.09	1.29	0.16	0.82	0.68
QT 2	5	0.01	•	4.50	1.89	-
QT 3	5	6.70	3.87	0.68	3.17	1.10
QT 4	5	1.47	0.13	1.95	0.63	
BSAI Yellowfin sole						
QT 1	5	9.65	4.21	6.21	19.74	5.23
QT 2	5	6.48	7.30	3.96	18.54	13.48
QT 3	· 5	7.30	18.59	12.80	7.55	13.49
QT 4	. 5	13.71	24.26	11.41	13.38	
BSAI Other Trawl Fisheries						
QT 1	30	12.05	14.54	8.19	11.04	9.97
QT 2	30	13.98	24.83	21.08	23.79	26.35
QT 3	30	11.60	6.12	9.79	8.92	10.98
QT 4	30	11.54	8.71	4.57	5.70	
GOA Midwater Pollock						
QT 1	1	0.18	0.31	0.04	0.17	0.02
QT 2	1	0.14	0.23	0.04	•	-
QT 3	1	0.04	0.12	1.91	0.95	-
QT4	1	0.03	0.03	0.56	0.06	
GOA Other Trawl Fisheries						
QT 1	40	0.18	26.23	32.48	10.92	20.41
QT 2	40	62.4	58.88	58.87	56.84	60.77
QT 3	40	26.0	37.98	18.14	27.46	24.68
QT4	40	47.9	58.20	69.04	56.85	
Zone 1 Re	ed King Crab Bycatch Rates					
BSAI Yellowfin sole						
QT 1	2.5	0.1	0.01	0.09	0.57	0.47
QT 2	2.5	0.1	0.03	0.01	0.08	1.76
QT3	2.5	•	0.43	1.08	0.04	•
QT ³	2.5	•	0.15	0.25	1.12	
BSAI Other Trawl Fisheries						
QT 1	2.5	0.1	0.04	1.38	0.09	0.12
QT2	2.5	0.0	0.06	0.20	0.00	0.72
QT3	2.5	0.0	0.25	0.00	0.07	-
QT 4	25	0.0	0.23	0.00	0.00	

AGENDA D-1 OCTOBER 2002 Supplemental



175 South Franklin Street, Suite 418 Juneau, Alaska 99801 907-586-4050 www.oceana.org

TO: James W. Balsiger, Administrator, Alaska Region National Marine Fisheries Service P.O. Box 21668 Juncau, Alaska 99802-1668

CC: David Benton, Chairman
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, AK 99501-2252

September 24, 2002

RE: Aleutian Islands Pollock

Dear Dr. Balsiger:

This letter is to address NMFS responsibility to maintain existing closures for AI pollock fishing. Jim, it would be irresponsible to reopen these fisheries without a thorough analysis of the impact of such an action. We urge you to advise the Council on this matter and resolve to maintain the closures.

Occana is writing in response to the draft EA/RIR/IRFA on the Sea lion trailing amendments, released on May 8, 2002, for public review. Specifically, we wish to address the proposed Alternatives 1, 2, and 3 for the Aleutian Islands pollock fishery. The Council voted to close the Aleutian pollock fishery to directed fishing in 1998, citing declining stock trends, large uncertainties in the available information, and indications of serial stock depletion in the pattern of fishing from east to west during the 1990s. We urge you to support the continued closure of the Aleutian pollock fishery to directed fishing as proposed in Alternative 2, pending better scientific information, clear indications of pollock stock rebuilding, and resolution of issues related to the ESA-required mitigation measures for Steller sea lions in the Aleutian Islands.

No new survey information on Aleutian Islands pollock was available for the 2002 stock assessment because there was no new survey information in 2001. Uncertainties about the discreteness of the Aleutian Islands pollock stock and its relation to the other pollock stocks abound. The stock assessment advice acknowledges that the status and dynamics of this stock are not well understood, that catch-age data is limited, and that reliable estimates do not exist for the Aleutian portion of the pollock stock. We are very concerned about the arbitrary determination of F_{MSY} , B_{MSY} , $F_{40\%}$ or $B_{40\%}$ for Aleutian Island pollock stocks considering this high degree of uncertainty.

¹ Ianelli et al., 1999. BSAI SAFE Report for 2000, November 1999, pp. 115-116.

Jim Ayers, Oceana September 24, 2002

I think we agree that there is no significant information that reopening would improve the Steller sea lion situation. In fact, I have not seen any scientific basis for recommending that the re-opening of the fishery as proposed will avoid jeopardy or adverse modification of critical habitat.

Finally, the temporal and spatial concentration of the Aleutian pollock fishery in Steller sca lion critical habitat during the 1990s must be addressed. Although pollock may not be the top-ranked sea lion prey in the Aleutians, it is an important component of prey diversity and has been a known food source of Steller sea lions and large cetaceans in the past. The ongoing litigation over the efficacy and legality of the mitigation measures recommended by the Council-appointed Steller sca lion RPA Committee in 2001 (as adopted by NMFS in the 2001 RPA Biological Opinion) should be clearly resolved before a decision is made to re-open the fishery.

For these reasons, we urge you to take a strong position disallowing the opening of directed fishing for AI pollock until there is far more information and scientific research to support such an action.

Sincerely.

Jim Ayers, Director

Oceana, North Pacific Office

Powerpoint Display BSAI TAC SPECS Dorothy Childers Michelle Lidgway

Special Considerations for Rockfish Management in the Bering Sea and Aleutian Islands for 2003

Presented to the North Pacific Scheres Management Council by:
Alaska Marine Conservation Council



Species of Concern for Special Management Action in 2003 >Rougheye aleutianus Shortraker borealis Northern Sebastes polyspinis >Light Dusky Sebastes ciliatus Shortspine Thornyhead Sebastolobus alascanus

What's the problem?

- •Assemblage based management of vulnerable species
- "...when managed as a species complex, there is a risk that one stock would be fished disproportional to its abundance resulting in overfishing of that stock."

(Plan Team, BSAI SAFE 2000)

- •Exceeding ABCs and OFLs levels when examined by area
- Very high rates of discards in some fisheries

Rockfish Ecology

"The combination of long-lived species, multiple species within an assessment group, issues of stock and species identification, insufficient information on abundance and life history, localized fishing pressure, limited movement and migration of adults, unknown larval dispersal patterns, habitat-specific associations, prior history of overexploitation, and limited ability to rebuild creates fishery management difficulties unlike other species group." SSC Minutes, Oct 2002

Shortraker rockfish (S. borealis) in bolder-sand habitat interface. Photo taken from Delta Submersible near Adak Island Alaska, July 2002.

Historic SR/RE/Northern Rockfish Overages if Managed by BS and AI

Year	Area	Species	ABC	OFL
2001	Al	Rougheye	>165%	>99%
2000	Al	Rougheye	>7%	1
1999	AI	Northern	>24%	
1998	Al	Rougheye	>29%	
1997	AI	Rougheye	>118%	>63%
1996	Al	Northern	>14%	
1996	AI	Rougheye	>45%	
2001	EBS	Northern	>632%	
2000	EBS	Northern	>235%	>153%

(Based on: BSAI SAFE 2001, Page 11-13, 14, Tables 7 & 8)

Results of current management

National Marine Fisheries Service 2002 Preliminary Catch Report 9/21/02 % quota taken

Bering Sea

Other rockfish
Northern rockfish
Shortraker/Rougheye
Aleutian Islands
Other rockfish
Northern rockfish
53%

64%

Shortraker/Rougheye

Estimated Percent Discarded of Other Red Rockfish in BSAI

Area	Year	Species	% Discard
EBS	1997	ORR	75.2%
EBS	2001	SC/NO	89.4%
AI	2000	SC/NO	94.2%
AI	2001	SC/NO	97.1%
EBS	2001	RE/SR	40.7%

(BSAI SAFE 2001, Page 11-8, Table 2)

AFS Policy Statement #31d; Management of Pacific Rockfish

POLICY

The American Fisheries Society (AFS) recognizes the need for conservative and robust management of Sacific rockfishes because of naturally low population growth, the overfished state of many of the stocks, and complex nature of the mixed-stock fisheries. The AFS recommends that catch information be collected on a species-specific basis, and that management targets also be established on a species-specific basis including species taken as bycatch. Reduction in rockfish discards should be a management priority in all fisheries which capture significant numbers of rockfish. The AFS further recommends establishment of adequate fishery independent surveys to more accurately assess and monitor rockfish stocks.

Past Council Actions on Rockfish

- •Split up BSAI Red Rockfish complex (POP Group)
- Amendment 53 split TAC: trawl and LL
- Manage species by refined areas: split POP ABC by district in AI; split Thornyhead, DSR, and O-slope by district in GOA
- Split Northern and Sharpchin out of ORR assemblage in 2000 and ask NMFS to split SR/RE by species.
- Recommend split of ORR species into BS and AI in 2000

Refine spatial management

- Continue progress on more refined spatial management, based on biomass distribution as the SSC and Plan team have indicated is necessary.
- Split out rockfish species where possible.

Recommendation #1

Apply improved observer techniques in 2003 to identify rockfish species to improve data and accuracy of ABC/TACs in the future.

"... some rockfish fall within the highly vulnerable, low data scenario. ...intensive data collection and alternate management measures are needed."

SSC Minutes, October 2002

Recommendation #2

Consider the AFS rockfish policy guidelines while NPFMC Policy and Criteria are being developed for the other species category.

Recommendation #3

Ask stock assessment authors to use the best available data to split out rougheye, shortraker, northern, light dusky and thornyhead rockfish from their current assemblages by area and district for 2003.

Recommendation #4

ABC/TAC Area apportionments:

- Split ABC for SR/RE, NR, LD, and ST by BS, AL
- Set OFLs for each by BS, AI or BSAI
- TAC split: EBS, EAT, CAI, WAI

Recommendation #5

Consider new management measures for 2003

- -Area-specific triggers for district and area level closures
- -Logbooks for unobserved fisheries
- -In-season hotspot management program
- -Other industry solutions

Rougheye rockfish (Sebastes aleutianus) in shell hash habitat.

Photo taken from Delta Submersible near Adak Island Alaska, July 2002.



Alaska Marine Conservation Council

Box 101145, Anchorage Alaska 99510 (907) 277-5357 • (fax) 277-5975 amcc@akmarine.org • www.akmarine.org

October 1, 2002

David Benton, Chairman North Pacific Fishery Management Council 605 W. 4th Avenue Anchorage, AK 99501

Re: Policy for the management of the "other species" complex, Item D-1 (c)

Dear Chairman Benton,

We appreciate recent efforts of the ad hoc "other species" working group to clarify Council policy on managing species complexes in Alaskan waters. The continued refinement of fishery management through placing species in appropriate categories, complexes, and endeavoring to achieve the requirements of the Magnuson-Stevens Act to manage at the individual stock level are critical in our pursuit of sustaining fisheries.

At present, the "other species" complex is the focus of the working group and Plan Team's attention regarding "lumping and splitting" of species managed in multi-species complexes. We agree with direction recommended by the Plan Team to proceed with analysis for establishing a consistent method for determining assemblage and individual species management priorities.

We encourage the Council to accelerate the analysis of these policies, and proceed with splitting species out of assemblages and splitting ABCs spatially where prudent for conservation.

Meanwhile, we feel that action for conservation of rockfish in the Bering Sea/Aleutian Islands is needed prior to completion of this overall "other species" policy. As stated in our letter of August 1, 2002 (attached), we remain highly concerned about the status of red rockfish and other rockfish in the Bering Sea/Aleutian Islands, and offer our comments regarding a Council policy for rockfish management and some recommended actions for 2003.

For the past four years, AMCC has encouraged and supported stock assessment author advice, SSC recommendations, plan team recommendations, AP motions, and Council motions to take steps toward improving rockfish management in the Bering Sea/Aleutian Islands by establishing ABCs for each rockfish species by area. In order to accommodate special concerns of CDQ fisheries, we accepted interim exemptions to area-specific TACs for rockfish to allow industry time to adapt to changes in managing small rockfish quotas. The time has come for the Council and NMFS to make the necessary

changes to better manage rockfish in the Bering Sea/Aleutian Islands by splitting the rockfish assemblage into individual species and smaller management areas.

In order to conserve these rockfish species, management should better reflect the ecology of individual species, especially: population and stock structure; genetic drift potential; site fidelity; reproductive rates; and variations in reproduction in different areas. "Currently, management of rougheye and other rockfish species is based on regional aggregates that include implicit assumptions on population structure" (Gharrett, Heifetz and Gray, 1998). That is to say that we currently treat shortraker and rougheye as similar species of two populations as if they are distributed uniformly throughout the Bering Sea/Aleutian Islands. Recent data indicates, however, that there are likely distinct breeding populations and possibly even a new form or separate species of rougheye in the Bering Sea (Gharrett, A.J., pers. comm.).

Knowledge about rockfish life histories, new genetic discoveries, emerging information about discrete geographic distributions of breeding populations, and experience with the dramatic rockfish crises in the Pacific Region should compel the Council and NMFS to adopt a refined management strategy for these vulnerable species in a timely manner.

Recommendations:

- 1. Apply improved observer techniques in 2003 to identify rockfish species in the field to improve data and accuracy of ABC/TACs in the future.
- 2. Adopt an interim policy based on the American Fisheries Act policy to guide plan team authors, the Council and NMFS management in improving rockfish management for 2003.

American Fisheries Society Policy Statement #31: Management of Pacific Rockfish

"The American Fisheries Society (AFS) recognizes the need for conservative and robust management of Pacific rockfishes because of naturally low population growth, the overfished state of many of the stocks, and complex nature of the mixed-stock fisheries (60-plus species). The AFS recommends that catch information be collected on a species-specific basis, and that management targets also be established on a species-specific basis including species taken as bycatch. Such management will require accurate studies of discards at sea. Reduction in rockfish discards should be a management priority in all fisheries, which capture significant numbers of rockfish. The AFS further recommends establishment of adequate fishery independent surveys to more accurately assess and monitor rockfish stocks. The AFS supports the establishment of systems of Marine Protected Areas to protect the habitat of Pacific rockfish and to promote recovery of stocks. Such areas should be established along with traditional management

measures to control fishing mortality. Regardless of the management strategy used, substantial decreases in fishing mortality must be achieved soon to avoid stock collapses. The AFS encourages its members to become involved by providing technical information needed for protection of rockfish to international, federal, state, and provincial policy makers so decisions are made on a scientific, rather than emotional or political, basis."

3. Ask stock assessment authors to use the best available data to split out rougheye, shortraker, northern, light dusky and shortspine thornyhead rockfish from their current assemblages for 2003. A blend of species composition data extrapolated from observer basket sampling to the vessel catch and survey data from the same region should be considered to derive a species composition ratio for use in estimating individual species catch. Specifically, split out species where possible and calculate ABCs, which reflect abundance of each species by region (BS and AI) or by statistical area, where data allows.

The 2002 Bering Sea/Aleutians Islands SAFE indicates that northern, rougheye and shortraker rockfish stocks have exceeded overfishing levels in both the Bering Sea and Aleutian Islands numerous times in recent years. Until species-specific management is undertaken, we believe Bering Sea/Aleutians Islands rockfish will be overexploited possibly leading to serious ramifications both for health of these populations and future management.

Sincerely,

Dorothy Childers
Executive Director

Dorothy Childen



Alaska Marine Conservation Council

Box 101145, Anchorage Alaska 99510 (907) 277-5357 • (fax) 277-5975 amcc@akmarine.org • www.akmarine.org

August 2, 2002

David Benton, Chairman North Pacific Fishery Management Council 605 W. 4th Avenue Anchorage, AK 99501

Re: BSAI Red Rockfish

Dear David,

We are very concerned that the current management of shortraker, rougheye, and northern rockfish in the Bering Sea and Aleutian Islands has resulted in overfishing of stock components of these long-lived species. Although these fish have been managed as an assemblage for many years, data available on the harvest area scale has allowed for retrospective harvest analysis. The results clearly indicate that especially the Bering Sea distributions of these stocks may be at risk. We have testified for a few years running that these concerns should be addressed with more refined management tools. We appreciate steps the Council has taken so far but remain concerned that current management is still not addressing the issue adequately.

Information on the ecology and past fishing on rockfish stocks provides us with one clear message: rockfish are best managed as individual species or very small species groups, and management should reflect their habitat fidelity. For this reason we ask that the Council request the groundfish plan team and NMFS scientists to clarify their recommendations regarding the extent to which red rockfish should be managed by species, by area or subarea to best protect these species.

In addition, we hope that the Council and NMFS discussions will address effective tools for managing rockfish while maintaining harvest of other target species. These tools include:

- MRB adjustments
- Time-area closures
- Closure of subareas after TAC is reached
- Rockfish Refugia no fishing zones
- More conservative ABC and TAC for these species

We understand that NPFMC is taking a proactive approach to addressing this issue by holding discussions in Seattle next week. While the meeting was not noticed for

public participation, we would like to be apprised of the means through which NMFS and Council staff are considering improving management of red rockfish stocks in the BSAI. We hope minutes from the August 5-6 meeting will be available and we look forward to meeting with the appropriate Council staff to further discuss these issues.

Finally, we look forward to working with you, industry, CDQ entities and the broader Council family in an effort to create a rockfish management regime, which sustains these sensitive species.

Sincerely

Dorothy Childers

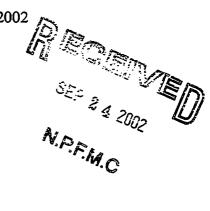
cc: Jane DiCosimo, Bering Sea coordinator

THE OCEAN CONSERVANCY OCEANA NATIONAL ENVIRONMENTAL TRUST

September 24, 2002

David Benton, Chairman North Pacific Fishery Management Council 605 W. 4th Ave. Anchorage, AK 99501

RE: Overfishing of BSAI Other Red Rockfish



Dear Chairman Benton:

Our organizations are greatly concerned with the overfishing of other red rockfish in the Eastern Bering Sea and Aleutian Islands. The 2002 Stock Assessment and Fishery Evaluation Report clearly indicates that several of the long-lived rockfish species managed in this assemblage are facing fishing rates that far exceed their ability to recover. Considering the situation facing the Pacific Fishery Management Council and new information about the recovery rate and habitat requirements of rockfish, we urge the North Pacific Fishery Management Council to take immediate action to provide refugia for these species.

Particularly troubling is the situation in the Eastern Bering Sea, where the estimated total catch of northern rockfish in 2001 exceeded the Acceptable Biological Catch by over 700%. In 2000, the Acceptable Biological Catch of northern rockfish in the Eastern Bering Sea was exceeded by greater than 300%. This situation is illustrated below.

Year	EBS Est. Catch	ABC/OFL
2001	140.96 t*	19 t/25 t
2000	114.37 t	34 t/45 t

*Total catch estimate as of October 13, 2001

Since the current biomass estimate of northern rockfish in the Eastern Bering Sea is only 425 t,³ continuing to allow excessive mortality may result in localized depletion, and ultimately extinction. Indeed, retrospective harvest analysis has indicated that the take of northern rockfish in the Eastern Bering Sea has hovered near this range for six years:

¹ Spencer, Paul D. and Rebecca F. Reuter, Stock Assessment and Fishery Evaluation Report, Other Red Rockfish, November 2001, pg. 11-13.

² Id.

Year	EBS Est. Catch
1999	144.48 t
1998	46.96 t
1997	117.51 t
1996	116.04 t
1995	286.48 t

These numbers indicate that northern rockfish in the Eastern Bering Sea are being fished at an unsustainable rate and that management measures are needed to immediately address this problem. Furthermore, since the "bulk of EBS northern rockfish harvest appears to occur in the southern Bering Sea area rather than the EBS slope," much of this overfishing is occurring near the Aleutians Islands management area.⁴

Since the 1999 and 2000 catch of northern rockfish was largely dominated by the Atka mackerel and pollock fisheries, measures aimed at restricting access to these areas will be key components in protecting northern rockfish stocks. Illustrative of the northern rockfish bycatch problem with these fisheries is the fact that the pollock pelagic trawl in area 517 in 2000 caught 32.90 t of northern rockfish.⁵ This alone nearly equaled the ABC for 2000. Similarly, in 1999, the Atka mackerel bottom trawl in Area 519 took 44.52 t of northern rockfish.

A similar problem is occurring in the Aleutian Islands with both northern and rougheye rockfish. The table below illustrates the years and degree to which these species have experienced overfishing⁶:

Year	Species	AI Est. Catch	ABC/OFL
2001	Rougheye	609.87 t*	230 t/306 t
2000	Rougheye	255.54 t	239 t/319 t
1999	Northern	5254.21 t	4230 t/5639 t
1998	Rougheye	523.90 t	405 t/540 t
1997	Rougheye	957.99 t	440 t/587 t
1996	Northern	6636.64 t	5810 t/NR
1996	Rougheye	850.27 t	587 t/NR

*Total catch estimate as of October 13, 2001

We note that the Magnuson-Stevens Act requires that NMFS and the Councils "prevent overfishing." 16 U.S.C. §§ 1851(a)(1), 1853(a)(1)(A). "Overfishing" is defined as "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis." 16 U.S.C. § 1802(29). As described above, there is little doubt that NMFS and the Council are currently in violation of this mandate with respect to several rockfish species. In addition, to the extent that this

⁴ Id., pg. 11-5.

⁵ Id., pg. 11-15.

⁶ Id., pg. 11-13 (Table 7).

overfishing is occurring as a result of bycatch in other fisheries, NMFS and the Council are also in violation of the MSA's requirement to minimize bycatch to the extent practicable. 16 U.S.C. §§ 1851(a)(9), 1853(a)(11).

We therefore urge the North Pacific Management Council to take immediate actions to protect these rockfish stocks and to prevent their overfishing. While time and area closures and more conservative TACs will provide some relief for these stocks, we believe that it is necessary to make up for past overfishing by sharply reducing the TAC for these species over the next few years, and therefore recommend an immediate 50% reduction in the current TAC for these stocks. We also urge the Council to implement rockfish refugia zones as the best long-term means to protect these long-lived species that exhibit habitat fidelity. Since both northern and rougheye rockfish are associated with coral and sponge habitat, our proposals to protect these habitats would have the added benefit of protecting these rockfish populations as well, which provides yet another reason for their adoption.

Sincerely,

Kris Balliet

Alaska Region Director The Ocean Conservancy

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Jim Ayers

Director, North Pacific Office

Oceana, Inc.

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Director, Marine Conservation Program

National Environmental Trust

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Cc: Jim Balsiger, Regional Administrator Jack Sterne, Trustees for Alaska

Janis Searles, Earthjustice Legal Defense Fund

⁷ See, e.g., "Marine Harvest Refugia for West Coast Rockfish: A Workshop", NOAA Technical Memorandum, August 1998 (cited as NOAA-TM-NMFS-SWFSC-255).



UNITED STATES DEPARTMENT OF COMMERNATIONAL Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 21668 Juneau. Alaska 99802-1668

D-K4)

October 3, 2002

Mr. David Benton Chairman, North Pacific Fishery Management Council 605 West 4th Street Anchorage, Alaska 99501-2252

Dear Mr. Benton:

You received a letter dated September 24, 2002, from The Ocean Conservancy and Oceana National Environmental Trust that expressed concerns about the management of other red rockfish in the Bering Sea and Aleutian Islands (BSAI). We would like to respond to several points.

Prior to 2000, the Council agreed with the recommendations of the BSAI Plan Team and the Scientific and Statistical Committee (SSC) that the other red rockfish complex be split into northern/sharpchin and shortraker/rougheye groups in the Aleutian Islands subarea (AI), and a combined other red rockfish group in the Bering Sea subarea (BS).

In 2000, when catch of the other red rockfish group exceeded the ABC late in the year, the Plan Team at its November meeting addressed the problem of disproportionate catch within that and other aggregated rockfish species groups in the BSAI. Team recommended and the SSC concurred that these rockfish species in the Bering Sea and Aleutian Islands subareas should be separated into individual species. They also agreed that, absent scientific evidence to the contrary, the stocks should be managed on a BSAI-wide basis, not on the basis of the constituent subareas. In response to concerns about the ability of observers and industry to indentify shortraker and rougheye reliably, NMFS maintained these species as a group, but established separate TACs for the AI and BS subareas to allow additional management measures to reduce catch. In 2002, in accordance with Plan Team and SSC recommendations, northern rockfish are managed as a single species and sharpchin rockfish are part of the 'other rockfish' group. The 2000, 2001, and 2002, ABCs, OFLs, TACs, and catches are provided in Table 1.



Table 1. "Other red rockfish" specifications and harvest, 2000-2002.*

Year	`Area	Species Group	OFL	ABC	TAC	Catch
2000	Bering Sea	other red rockfish	259	194	194	252
	Aleutian Islands	sharpchin/northern	6,870	5,150	5,150	5,083
		shortraker/rougheye	1,180	885	885	480
2001 Beri	Bering Sea	sharpchin/northern	9,020	6,674	na	
	Aleutian Islands	shortraker/rougheye	1,369	1,028	na	
	Bering Sea	sharpchin/northern			19	155
		shortraker/rougheye			116	43
	Aleutian Islands	sharpchin/northern			6,745	6,309
		shortraker/rougheye			912	722
2002	Bering Sea	northern	9,020	6,760	na	
	Aleutian Islands	shortraker/rougheye	1,369	1,028	na	
	Bering Sea	northern			19	106
		shortraker/rougheye			116	94
	Aleutian Islands	northern			6,741	3,578
		shortraker/rougheye			912	490

^{* 2002} catch is through September 21.

Management has responded with the regulatory tools available to minimize rockfish catch where the catch has exceeded the TAC. Directed fishing for rockfish (with the exception of Pacific ocean perch in the Aleutian Islands subarea) in the BSAI has consistently been prohibited from the beginning of the fishing year since 1997. If the TACs are caught, the species or species groups are prohibited to retention. If the ABCs are exceeded, NMFS has consistently restricted fisheries when necessary. Over the last several years, hook-and-line and trawl fisheries have been closed and groundfish catch forfeited to prevent overfishing of northern and shortraker/rougheye rockfish. We are continuing to develop protocols to allow the identification of shortraker and rougheye rockfish in the fishery as individual species.

Additional information regarding stock structure for rockfish in the BSAI will improve the decisions that management makes regarding how the ABCs and OFLs are assigned. The 2002 Bering Sea slope survey likely will add new information regarding population size to the 2002 SAFE reports. Additional management measures, including bycatch avoidance programs may make sense for the Council to consider.

Thus, while we agree that area specific TACs have been overharvested in spite of increasingly restrictive measures to limit catch, we disagree that OFLs have been exceeded. When ABCs have been exceeded we have exercised our regulatory authority to control incidental catch. We have applied the Council recommendations to improve the management structure for rockfish to the extent practicable and expect that more refined management will be pursued as our scientific information on these stocks is enhanced.

Sincerely,

James W Balsiger

Administrator, Alaska Region

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM D-1 (c-A) Groundfish Specs

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D-1 Ed Richardson

Richardson Testimony — D-1 Groundfish BSAI Proposed Specifications

October 8, 2002

Good Morning Mr. Chairman and Members of the Council,

My name is Ed Richardson and I'm here today to testify on behalf of the member companies of the Pollock Conservation Cooperative, an association of seafood companies that catch and process pollock in the Bering Sea and Aleutian Islands.

Mr. Chairman, I'm here to comment on the decision of NMFS Headquarters to declare the overfished status of Alaska groundfish as unknown, evidently because there is no formal expression of a minimum stock size threshold in the BSAI and GOA FMPs.

Mr. Chairman, what is going on here involves an honest difference of opinion among the Council SSC and the arbiters of consistency at NMFS Headquarters as regards the most appropriate methods to use to maintain fish stocks in a healthy state. So this recent decision by NMFS Headquarters must be viewed as nothing more than a bald attempt to extort a change in thinking and-or behavior on the part of SSC and the Council (and also the Alaska Region Office) with a club that is in effect a hoped for barrage of negative publicity about groundfish management in Alaska that would be based on misleading information.

Mr. Chairman, to quickly review the circumstances here. For those Alaska groundfish stocks where the age structure and biomass are known, the SSC has developed adjustments to the harvest control rules to reduce maximum-permitted harvests when the stock reproductive biomass drops below the target level. These adjustments are called the automatic rebuilding algorithm, and the SSC has put their views concerning their preference for retaining the simplicity of the automatic rebuilding algorithm on paper on several occasions. A copy of their October 1999 minutes on the topic is attached. Based in part on the SSC arguments, but also supported by analysis by Alaska Center stock assessment scientists, the Director of the NMFS Alaska Region Office has certified that the Amendments 56/56 control rules, which include the automatic rebuilding algorithm, satisfy the substance of the FMP National Standard Guideline requirements.

But there is more. Dr. Grant Thompson, who played a significant role in the development of the FMP National Standard Guidelines, has managed to get all of the Alaska Center stock assessment authors to include in their annual assessments quantitative tests as to whether the stock in question is overfished, or is approaching an overfished state. The tests involve the same minimum-stock-size-threshold benchmarks that are advanced in the FMP Guidelines.

In addition, the global control rule that the Council has adopted to safeguard the western stock of Steller sea lions has also brought with it the same minimum stock size threshold (MSST) benchmark that is identified in the National Standard Guidelines. To appreciate this, it is only necessary to remember that the Guideline default MSST for fast growing species like pollock, cod, and Atka mackerel is one-half of the MSY stock size (i.e., one-half the equilibrium biomass at which MSY is obtained). Now for stocks like cod and Atka mackerel, where the stock recruitment relationship is unknown, the harvest control rules specify a precautionary B40% spawning biomass target, and one-half of this stock size is the B20% level. The SSL global control rule defines the zerodirected-fishing threshold at this same level, so the SSL global control rule, which is in, or will be in the BSAI and GOA FMPs, also mimics the effects of the default MSST in the National Standard Guidelines. For EBS pollock, which is managed to BMSY as a Tier One stock, the B20% zero-directedfishing threshold in the global control rule cuts off directed fishing at a stock size that is likely slightly LARGER than one-half of the BMSY stock size.

So to sum up, Mr. Chairman, as the SSC well knows, the Council's precautionary harvest control rules and the Alaska Fishery Science Center's extensive, annual stock assessment process do not result in a situation where the stock status of the fished species is unknown. Further, the leading-edge, ecosystem-based harvest control rules developed by the Council, and the large and sustainable fish harvests that have resulted, serve to make the NMFS look good. Taken in this context, the NMFS Headquarters decision is outrageous: but we don't know whether to laugh or cry. We wonder who at the NMFS could have authorized this decision.

Mr. Chairman, we in industry stand ready to assist in any way that we can the Council, the SSC and the Plan Teams in obtaining a change in NMFS Headquarters thinking and behavior. In our opinion, this NMFS action gives new meaning to the old saw that "consistency is the hobgoblin of small minds."

Mr. Chairman, we thank the Council for providing an opportunity for us to present our views.

D. New ABC/OFL Plan Amendment

The SSC supports the Plan Teams' recommendation that a new plan amendment be developed that includes consideration of a minimum SST (MSST), as proposed by NMFS, AMCC, and CMC. Grant Thompson

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October 14, 1999-11:00am

presented the staff report and public testimony was provided by Joshua Sladek-Nowlis and Mariel Combs (CMC). The SSC notes (without specifically endorsing the recommendations contained therein) that the proposal by CMC was especially thoughtful and well-written.

History

The Council has continually evolved a TAC-setting process that has resulted in some of the most conservative ABC/OFL recommendations found in the world. The quantitative definition of OFL as a level that avoids jeopardizing the long-term sustainability of managed resources came into being in the early 1990s as a consequence of a NMFS (D.C.) initiative. Two subsequent revisions have been made to strengthen conservation recommendations and to respond to provisions of the Magnuson-Stevens Act. The policy most recently approved by the Council is a biomass-based policy wherein fishing mortality is reduced at low population levels below a specified target, separate definitions are given for target (ABC) and limit (OFL) catches, and tiers are set up to accommodate different levels of available information. In addition, the Council has always operated to always set TAC (the actual recommended catch) at or below the ABC level. The SSC noted last year that further consideration of improvements to ABC/OFL definitions would be desirable, including some that were first proposed during initial consideration of the Magnuson-Stevens changes.

Our current ABC/OFL definitions did not incorporate NMFS guidelines that called for a minimum stock size threshold (MSST) that would provide rebuilding within a fixed period of 10 years to an MSY biomass level using a maximum fishing mortality threshold (MFMT) that is contained within a harvest control rule. The SSC rationale was that the biomass-based policy for ABC and OFL contained sufficient conservation measures to achieve the same goal without the additional complexity and liabilities (see below). The Council concurred with the SSC recommendation and NMFS eventually approved the definitions. Nevertheless, NMFS is requiring the same scientists who so ably work within the Council arena on stock assessments to also perform the status determination evaluation (required by the Magnuson-Stevens Act) using NMFS guidelines. This is creating a confusing, if not untenable, situation for NMFS scientists.

A Possible Solution

The SSC suggests that a subcommittee of about 3 SSC members (Quinn, Kimura, Hare, and/or Criddle) and 3 groundfish Plan Team members be formed to construct alternatives to current ABC/OFL specifications. The full Teams and SSC could then review these alternatives in November and December. This would lead to an amendment package that could be considered by the Council family in April and June, 2000.

The alternatives should be developed after consideration of the following issues:

- A. What are the pros and cons of incorporating an MSST into the groundfish FMPs? Should the MSST follow NMFS guidelines or be altered? Should the MSST be a performance indicator (of how close biomass is to a reference point) or explicitly incorporated into the decision rule? [Currently, there is an MSST for most species calculated by NMFS scientists that follows NMFS guidelines. It will be reported in the November SAFEs.]
- B. Can more precaution be built into Tiers with less information? [See Thompson's earlier work on OFL and the CMC proposal.]
- C. Should the default F's be changed? (e.g., the CMC proposal contains F50% instead of the current F40%.)

D. Should the current OFLs be altered or dropped altogether? [The current OFLs are based on defining a "bad" fishing mortality to stay away from: the NMFS MFMT's are more like a target than an upper limit.] Is it necessary to define MFMT's as equivalent to OFLs or could maximum permissible ABC's or even TAC's be used instead?

Comments on the NMFS Guidelines

The NMFS Guidelines were set up to implement the stronger language in the Magnuson-Stevens Act regarding overfishing. The SSC has previously commented on the problems with these Guidelines and is discouraged that NMFS has not seen fit to revise these guidelines to cure the flaws previously identified and to allow consideration of alternative approaches that take advantage of modern science. Consequently, the SSC believes that strict adherence to the NMFS Guidelines is problematic for several reasons.

- A. Fish populations fluctuate widely due to a variety of reasons. One of the most important is recruitment fluctuations due to changes in the environment. Setting an MSST that balances conservation concerns with efficacious management is very difficult in these circumstances.
- B. Using BMSY/2 as the lower bound for the MSST is fairly arbitrary and is based on population dynamics concepts that are about 50 years old. The use of such a high value may be draconian in its effect and induce unnecessary management action in light of naturally fluctuating stocks.
- C. The use of a fixed 10 year period for evaluating rebuilding is also arbitrary. It also conveys the impression that we can predict where the population will be ten years hence and ignores where the population currently is in the definition of overfished.
- D. Uncertainty in stock projections is not explicitly considered and the notion of risk is ignored.
- E. The requirement to set an MSST that can "recover" to a target biomass while being fished at F_{OFL} is baffling. By definition, F_{OFL} is defined as a fishing rate which, if continued is likely to jeopardize a stock's long-term productivity. This is clearly inconsistent with the National Guidelines that seem to expect this same fishing rate to also promote stock recovery.
- F. There is strong potential for public confusion concerning the term "overfished". Stocks with wide natural swings in abundance will be classified as "overfished" with minor or no contribution from fishing. Under this definition, there are probably hundreds of species that were "overfished"; and these are species that went extinct long before humans walked the planet. No rebuilding plan, no matter how stringent, would have "rebuilt" these species. All of this is to say that the public's expectation of rebuilding must be tempered with an understanding of ecological possibilities. Since these are often largely unknown, the SSC feels it is appropriate for primary conservation emphasis to be on avoiding overfishing.

The SSC notes that the Council chairmen have raised similar concerns about rebuilding periods and overfishing definitions at their June meeting and in their testimony on MSFCMA reauthorization.



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AFS Policy Statement #31d: Management of Pacific Rockfish (Full Text)

By S. J. Parker, S. A. Berkeley, J. T. Golden, D. R. Gunderson, J. Heifetz, M. A. Hixon, R. Larson, B. M. Leaman, M. S. Love, J. A. Musick, V. M. O'Connell, S. Ralston, H. J. Weeks, and M. M. Yoklavich

POLICY

The American Fisheries Society (AFS) recognizes the need for conservative and robust management of Pacific rockfishes because of naturally low population growth, the overfished state of many of the stocks, and complex nature of the mixed-stock fisheries (60-plus species). The AFS recommends that catch information be collected on a speciesspecific basis, and that management targets also be established on a species-specific basis including species taken as bycatch. Such management will require accurate studies of discards at sea. Reduction in rockfish discards should be a management priority in all fisheries which capture significant numbers of rockfish. The AFS further recommends establishment of adequate fishery independent surveys to more accurately assess and monitor rockfish stocks. The AFS supports the establishment of systems of Marine Protected Areas to protect the habitat of Pacific rockfish and to promote recovery of stocks. Such areas should be established along with traditional management measures to control fishing mortality. Regardless of the management strategy used, substantial decreases in fishing mortality must be achieved soon to avoid stock collapses. The AFS encourages its members to become involved by providing technical information needed for protection of rockfish to international, federal, state, and provincial policy makers so decisions are made on a scientific, rather than emotional or political, basis.

A. Issue definition

The Pacific rockfishes (genus Sebastes) comprise the core of the U.S. Pacific Coast bottom fish fishery. The genus consists of more than 100 species worldwide, with more than 60 found off the California, Oregon, and Washington coasts, more than 30 found further north in Canada and Alaska, and 28 in the Northwest Pacific (Clay and Kenchington 1986; Kendall 1991; Lea et al. 1999). A closely related and commercially important genus, also commonly referred to as rockfish, is Sebastolobus, the thornyheads, containing three Pacific Coast species. The rockfish are an extremely successful group and are represented in every habitat from Mexico to the Aleutian Islands, and from intertidal waters to depths greater than 1,500 m. Despite this diversity, the attributes they share make them extremely vulnerable to fishing pressure. Using AFS productivity criteria, rockfishes are classified in the very low productivity category (Musick 1999a, 1999b). Species in this category cannot sustain high fishing mortality because their reproductive strategies limit them to relatively low intrinsic rates of increase (Adams 1980). As part of the Society's objective to promote the conservation, development, and wise use of fisheries, this paper describes the interaction between the life history patterns of rockfish and fishing mortality, and recommends management actions to ensure stable rockfish populations for the future.

B. Background

Life history. Pacific rockfish are some of the longest-lived fishes known, with maximum ages for many species spanning more than 50 years, and some approaching 150 years

(Archibald et al. 1981; Leaman and Beamish 1984; Love et al. 1990). The age of 50% maturity is variable among species but is typically 5–7 years, and may be as late as 20 years in some species (Wyllie Echeverria 1987; Barss 1989; Love et al. 1990; O'Connell and Fujioka 1991). Several studies have shown geographical variation in age-at-maturity depending on latitude and depth (Gunderson et al. 1980; Pearson and Hightower 1991; Eldridge and Jarvis 1994; Gunderson 1996). Many species have sex-specific growth rates, which can result in differential age at maturity and sex-specific natural mortality rates (Love et al. 1990; Lenarz and Wyllie Echeverria 1991). Typically, their growth pattern results in many species attaining marketable size at or prior to maturity, and some attaining lengths greater than 50 cm at the age of 50% maturity (Love et al. 1990; Haldorson and Love 1991; Beverton 1992; Gunderson 1997). Delayed maturity, a long reproductive life span, and reproducting multiple times are adaptive responses to a low probability of successful reproduction in any given year (Giesel 1976; Leaman and Beamish 1984). This reproductive strategy is the rule for rockfish.

Although rockfish are sometimes reported as being ovoviviparous (bearing live young without maternal nutrition), many studies have confirmed that they are a primitive viviparous group and supply nutrients to developing embryos (Boehlert and Yoklavich 1984; Boehlert et al. 1991; Wourms 1991; Hopkins et al. 1995; MacFarlane and Bowers 1995; Beckmann et al. 1998). The number of eggs produced at the 50% maturity age commonly range from 2,000 to 500,000 eggs per year, with maximum-length individuals of some species producing several million eggs (Gunderson et al. 1980; Love et al. 1990; Haldorson and Love 1991). Most species copulate in the fall, but sperm may be stored and fertilization may not take place until several weeks later (Wyllie Echeverria 1987; Love et al. 1990). An exception is in the Sebastolobus genus where buoyant, egg masses are released and fertilization is believed to be external (Pearcy 1962; Erickson and Pikitch 1993). Copulation has been observed in very few species of Sebastes, so little is known about courtship or mating behavior (Helvey 1982; Shinomiya and Ezaki 1991; Gingras et al. 1998). The female retains the embryos for 4-5 weeks until hatching (Boehlert and Yoklavich 1984), and parturition generally occurs in winter or spring for more southerly populations and spring or summer in northerly populations (O'Connell 1987; Yoklavich et al. 1996). In most species, reproduction occurs annually, but the production of multiple broods occurs in some species and may be related to environmental conditions (Wyllie Echeverria 1987; Love et al. 1990).

Generally, the larvae are found in the upper mixed zone of the ocean for a variable period of time, before metamorphosing into juveniles, which move closer to shore as they grow during the spring months (Larson et al. 1994). After several more months, juveniles of many species move to deeper adult habitats (Love et al. 1998a). Adults are typically associated with structure, though some species are found on flat muddy bottoms and others are semi-pelagic (Richards 1986; Matthews 1991; O'Connell and Carlile 1993; Krieger 1998). Some closely related species are segregated spatially at the scale of microhabitats (Larson 1980; Hallacher and Roberts 1985; Leaman 1991; Stein et al. 1992; Murie et al. 1993). As adults, rockfish are thought to be relatively sedentary, though some species may make considerable movements (Pearcy 1992; Lea et al. 1999). Tagging studies to observe movement patterns are confounded because rockfish possess well-developed swim bladders and are subject to embolism, so many do not survive being brought to the surface. However, some investigators have deflated rockfish swimbladders prior to tagging, or used in situ tagging, thus increasing survivorship. These studies demonstrated that some species show site fidelity and some ability to home after minor displacements, though some have shown substantial movements (Mathews and Barker 1983; O'Connell 1991; Pearcy 1992; Stanely et al. 1994; Carlson et al. 1995). Species-specific movements depend on latitude, and oceanographic conditions (Leaman 1991).

Relatively poor ocean conditions for the past two decades may have reduced recruitment success in some California-Oregon species (Ralston and Howard 1995). In contrast, in waters off Alaska and northern British Columbia above average recruitment has occurred in recent years for some rockfish species (e.g., Pacific ocean perch, *Sebastes alutus*) (Richards and Olsen 1996; Heifetz et al. 1999). A dominant feature of rockfish reproduction is a pattern of infrequent and irregular years with successful recruitment during periods with favorable environmental conditions, and many years with poor

9/29/02

recruitment (Leaman and Beamish 1984; Botsford et al. 1994; Ralston and Howard 1995). However, an entire year class may not experience favorable environmental conditions because of variation in the timing of larval release. Recent research by Berkeley and Markle (1999) has shown that older black rockfish (*S. melanops*) release larvae earlier in the season followed by progressively younger fish, and that successful recruitment may come from a relatively restricted time period within the spawning season. This pattern has also been observed in darkblotched rockfish (*S. crameri*) (Nichol and Pikitch 1994) and yellowtail rockfish (*S. flavidus*) (Eldridge et al. 1991). In another study, Larson et al. (1998) found that recruits of shortbelly rockfish (*S. jordani*) exhibited reduced genetic variability compared to the adult population, suggesting that surviving young of the year are the products of reproduction by only a small fraction of the adult population. Reproductive success appears then to be restricted to narrow spatial and temporal windows when conditions are favorable for larval survival.

Although many general life history traits are known for the *Sebastes* genus, few species have been studied in detail (Moser 1967; Leaman 1991, Love et al. 1998b). This is another common theme with rockfish: a lack of stock status and biological information, especially on commercially exploited species. Basic parameters such as maximum age, natural mortality rates, fecundity, and age at maturity have only been measured for a limited number of the exploited species, especially the diverse near-shore species (Love et al. 1990). Even for many commercially harvested species, much needed information concerning stock identification, genetic diversity, spawning behavior, bycatch levels, total removals, and migration patterns are not known or are based on limited data from small geographic areas.

Fishery history and status. Washington, Oregon, and California waters. Rockfish have been commercially harvested since the mid-1800s in California, but not until the 1940s along much of the northwest coast (Lenarz 1987). In the mid-1960s, foreign factory trawlers targeted Pacific ocean perch, with annual catches exceeding 20,000 metric tons (mt) until passage of the Magnuson-Stevens Fishery Conservation and Management Act in 1976 (Ianelli and Zimmerman 1998). Currently, rockfish are harvested mainly with bottom trawl gear (89%), with other gears used especially near shore and in high relief areas (hook and line (9%) and other gears (2%)) (PacFIN 1999a; PacFIN 1999b). Recreational catches have been decreasing steadily from 8,000 mt in the early 1980s, and have recently amounted to near 2,000 mt (PFMC) 1999). Much of the recreational harvest has been focused on nearshore species such as black rockfish, blue rockfish (S. mystinus), and copper rockfish (S. caurinus) (RecFIN database 2000, Pacific States Marine Fisheries Commission, Gladstone, OR). For these species and other nearshore species, recreational harvest is much greater than commercial harvest and has had dramatic impacts on population abundance and structure, especially in California (Love et al. 1998b; Mason 1998). Typically, the Pacific Fishery Management Council (PFMC) sets optimum yield recommendations for the Washington-Oregon-California region on an annual basis for individual species or species complexes, and regulates their harvest (including discard) through the use of quotas, trip limits, gear restrictions, and time/area closures, to ensure a year-round fishery (PFMC 1993; Raiston 1998). Total harvest of rockfish in the Washington-California management area ranged between 22,000-50,000 mt during the 1990s, and has been steadily decreasing throughout the decade (PFMC 1999). The catch has been worth more than \$30,000,000 annually (PFMC 1999).

Data on the harvest of individual species are limited because many species are categorized as "near-shore," "shelf," and "slope" complexes for management purposes (PFMC 1999). Estimates of species composition are dependent on sub-sampling of a variable number of trips among the ports (Sampson et al. 1997). In recent years, a rapidly growing live-fish fishery (fish marketed alive) has developed in California and Oregon, placing new commercial fishing pressure on near-shore rockfish species traditionally harvested in the recreational fishery, such as China rockfish (*S. nebulosus*) and grass rockfish (*S. rastrelliger*) (Love and Johnson 1998; Bloeser 1999; W. H. Barss, Oregon Department of Fish and Wildlife, Newport, pers. comm.).

Of the 54 species of rockfish that are commercially harvested and managed by PFMC, only 10 have had full stock assessments (Raiston 1998; NMFS 1999a, PFMC 1999). Only 1 of 12 near-shore rockfish species impacted by commercial live-fish and recreational http://www.fisheries.org/Public Affairs/Policy Statements/ps 31d.shtml

fisheries has been fully assessed. Of those that have full assessments, 5 of 10 are considered above or near target biomass, 1 is below the target, and 4 are overfished (less than 25% of original stock biomass). The implementation of the Sustainable Fisheries Act of 1996 now requires rebuilding plans for stocks identified as overfished and includes decreases in fishing mortality. In 1999, the PFMC instituted rebuilding plans for bocaccio (*S. paucispinis*), and Pacific ocean perch, which were at levels of 2%, and 13% of the estimated "virgin" biomass (PFMC 1999). It is expected that rebuilding plans for canary rockfish (*S. pinniger*) and cowcod (*S. levis*) will be instituted in 2000 (PFMC 1999). The standard management scheme for rockfish off the U.S. coast has been to manage for a fishing mortality of F40%, as a rate that will approach the maximum sustainable yield. This rate is defined as the fishing mortality that reduces the spawning potential per recruit to 40% of the unfished condition (Clark 1993). New evaluations of this fishing rate question this target based on the particular life-history constraints of each species (Ralston 1999).

Evidence has accumulated for substantial declines in the abundance of many species of rockfish from Washington to California (Gunderson 1996; Ralston 1998; Love et al. 1998a; Love et al. 1998b; PFMC 1999). These studies and fishery independent surveys have tracked juvenile abundance, recreational harvest, and commercial harvest over the past 15-20 years and show dramatic declining trends of abundance. The impacts of the developing live-fish fishery on near-shore rockfish species in addition to the normal recreational harvest are unknown because the status of most of these species has never been assessed (Love and Johnson 1998). Because the largest, oldest, most fecund individuals are selectively captured as fisheries intensify, age distributions have become truncated with the loss of significant spawning biomass and a distinct segment of the population that may determine recruitment success in some years (Berkeley and Markle 1999). For example, large decreases in the biomass of large, hence old, females and a corresponding decrease in mean age has been documented for black rockfish, canary rockfish, and Pacific ocean perch, among others (Gunderson 1977; Love et al. 1998b; Berkeley and Markle 1999). Given that rockfish are categorized as very low productivity species using AFS criteria, many of these species would now be listed as vulnerable and warrant further consideration for protection (Musick 1999a). Indeed, the brown rockfish (S. auriculatus), copper rockfish, and quillback rockfish (S. maliger) of Puget Sound are under status review for listing under the Endangered Species Act (NMFS 1999b), An additional 11 rockfish species from Puget Sound are not under review because of insufficient information on stock identification and species-specific trends in abundance.

One of the main obstacles in harvest management of rockfish has been the accurate assessment of bycatch. Even with conservative harvest limits, rockfish are captured at significant levels in many different fisheries. Discard levels for rockfish vary with a number of factors but are estimated at usually between 15% and 30% of the catch (PFMC 1997). Much of the discard is a result of the management approach (species-specific or assemblage groups with trip or period landing limits), other regulations (such as gear characteristics), and market conditions (Pikitch et al. 1988). Actual levels are not known because no observer program exists to document bycatch and discard. Some species are not marketed at all, and most are only marketable after exceeding 30 cm in length, resulting in undocumented discard for almost all species captured. Because most are dead or moribund at capture, mortality rates of discarded rockfish approach 100%. The mortality rate for those entrained in trawls but escaping because of their small size has not been estimated. With no accurate levels of bycatch available, there is little confidence in total harvest levels or in harvest composition for many rockfish fisheries.

Alaskan waters. Rockfish have been commercially harvested off of Alaska since the early 1900s, but in the early 1960s a massive Pacific ocean perch trawl fishery by the U.S.S.R. and Japan rapidly developed. Catches peaked in the mid 1960s, when a total of nearly 500,000 mt were caught off of Alaska (Heifetz et al. 1999; Ito et al. 1999). This apparent overfishing resulted in a precipitous decline in catches in the late 1960s, which continued through the 1970s. By the mid-1980s catches were less than 10,000 mt. A similar trend occurred off Canada, with peak catches of about 66,000 mt in 1966 followed by a steep decline thereafter (Westrheim 1987). Currently, the largest fisheries off the Pacific Coast occur in Alaska with a total catch of rockfish of about 42,200 mt in 1999 (NPFMC 1999). Historically, bottom trawls have accounted for most of the

commercial harvest of rockfish, though a sizeable portion is also captured by longline. Recently, pelagic trawls have been used for Pacific ocean perch, and black rockfish have been taken mostly by jig gear.

Life history and stock status information is lacking for many species of rockfish managed in Alaskan waters as well. The North Pacific Fishery Management Council (NPFMC) categorizes the information available on each stock into one of six tiers. Stocks categorized in tiers 1 through 3 are comparable to PMFC stocks with full assessments (Pacific ocean perch and thornyheads are the only 2 of 32 species of rockfish with this level of information) (NPFMC 1999). However, the NPFMC has taken a conservative approach to rockfish management and no species are considered overfished in the waters of Alaska. Since 1988 in this region, the rockfish have been divided into management assemblages based on their habitat, distribution, and commercial catch composition. Beginning in 1991, the NPFMC divided the assemblages into several subgroups; established to protect the most sought-after commercial species in the assemblage from possible overfishing.

The NPFMC sets annual harvest levels for each management group after considering factors such as economics and bycatch. These harvest levels are typically less than or equal to the maximum allowable levels based on species- or assemblage-specific stock assessments. Even with low harvest rate strategies however, sedentary and spatially isolated species such as yelloweye rockfish (*S. ruberrimus*) and shortraker rockfish (*S. borealis*) require a spatial component added to management to prevent localized depletion (O'Connell et al. 1999).

The NPFMC and the Alaska Department of Fish and Game regulate the harvest (including discard) through the use of time/area closures and maximum allowable bycatch restrictions to ensure that area-specific total mortality levels are not exceeded. A mandatory observer program for vessels greater than 60 ft in length has been in place since early 1990s to collect biological data and provide data critical for estimating discard rates and total mortality for individual rockfish species.

Other management measures that may have provided some benefit to rockfish have included a trawl ban in the Eastern Gulf of Alaska and a rebuilding plan for Pacific ocean perch (Ianelli and Heifetz 1995). The NPFMC recently passed an amendment to require full retention of demersal shelf rockfish, allowing sale of bycatch up to the allowable bycatch rate with the remainder of fish forfeited to the state. The Alaska Board of Fisheries is considering similar regulations for all rockfish species taken in state-managed fisheries. Efforts are also underway to explore alternative methods to assess rockfish abundance because of problems associated with current trawl survey methodology (Heifetz et al. 1999; Quinn et al. 1999).

Management approach. Management of Pacific rockfishes has been complicated and slow at best in its adaptation to new information (Leaman 1991; Ralston 1998). Populations have shown little response to the management measures used to date, mostly because these measures fail to consider the constraints that reproductive strategies of rockfish impose on the population's ability to recover from reductions in abundance (Giesel 1976; Leaman 1991). Long-term sustainability requires the use of the precautionary principle when setting and estimating fishing mortality (Botsford et al. 1997; Dayton 1998). The necessary management action must be to decrease fishing mortality to restore population stability, structure, and diversity. This means that management should consider not just the magnitude of fishing mortality, but how it is distributed spatially and demographically as well. With these goals, fishing mortality can be reduced and managed through a number of diverse, yet complementary actions. No single action is robust to human error or ingenuity, so all management actions must be implemented in concert and with constant evaluation and enforcement. Obviously, a direct reduction in total mortality is needed given the reproductive constraints of rockfishes and the status of many of the assessed species. Along with lower harvest levels, changes in the quota management system (e.g., use of low trip limits, short fishing periods, a year round fishery) must occur to decrease or eliminate regulatoryinduced discard, and observe the bycatch and discard that does occur. Given the

uncertainties associated with stock assessment and the mixed-species nature of rockfish fisheries, regulating landings through trip limits and estimating bycatch while ensuring an adequate stock size for recovery could result in extremely low or only incidental harvest levels for some species that are not overfished. This is essentially the approach that the PFMC took in their rebuilding plans for bocaccio and Pacific ocean perch; with similar actions planned for canary rockfish and cowcod in 2000 (PFMC 1999).

Another aspect of a diverse management plan is to reduce fishing effort through a decrease in the number of vessels or a decrease in fishing time. Although the efficiency of remaining vessels can increase through time, a substantial reduction in vessels would quickly reduce effort and decrease regulatory-induced discard because fewer trips would be made when approaching a harvest period limit or a vessel's limit for a target species. Some efforts are underway from within the fishing industry to reduce the size of the fleet to a more sustainable number of vessels and to train fishers for careers in other areas.

In addition to reduced harvest rates, a significant portion of each population and its habitat must be protected in no-take reserves or Marine Protected Areas (MPAs), where populations may be protected from harvest of any kind (Murray et al. 1999). Marine protected areas can be used to protect ecosystem structure and function, increase scientific understanding of management actions, and enhance non-extractive activities, while benefiting fish populations (Lauck et al. 1998; Hall 1998; Murray et al. 1999). Several small marine reserves currently exist in California and Washington, but these were not designed for use as commercial fishery refuges (McArdle 1998; Palsson 1998). However, evaluations of these approaches, and models of MPA systems in Alaska appear to show promise for rockfish populations (Soh et al. 1998).

An effective system of MPAs must consider the ecology and community structure of those species to be protected as well as the dynamics of the entire ecosystem. For example, Walters and Bonfil (1999) showed that the mobility of some species could reduce the protection afforded by MPAs. However, it is generally recognized that we have sufficient understanding of the management problems associated with many species of rockfish to design and implement effective MPAs (Yoklavich 1998). To be effective, these systems must be designed to meet specific goals and undergo intensive periodic evaluations to measure the ecosystem response (Allison et al. 1998; Roberts 1998; Starr 1998). Evaluation of MPA effectiveness will require intensive sampling and habitat evaluation of the reserve area as well as adjacent areas for comparison. Because implementing MPAs will not have immediate effects at the ecosystem level, sampling and evaluation will need to occur for a significant period of time (starting prior to MPA implementation) and requires a long term commitment for success (Carr and Reed 1993; Palsson 1998).

Conclusion. Several life history characteristics of Pacific rockfish require that they be managed more conservatively than most marine fishes. Applying the precautionary principle to these species will require decreases in fishing mortality rates and management strategies that protect the physical habitat, allow for a full complement of age classes, and prevent recruitment overfishing throughout the entire geographic range of the stock. Uncertainty associated with actual harvest levels, spawning biomass, and annual recruitment must be buffered with conservation measures such as reduced fishing mortality, long-term species-specific monitoring, habitat protection, and protection of a significant portion of the population through the use of appropriately designed MPAs (Lauck et al. 1998). The population dynamics of rockfishes require that these management actions be taken quickly, but as part of a multifaceted adaptive management framework to have the greatest potential to address these issues while allowing a significant mixed-species fishery to continue.

C. Needed actions

The AFS recognizes the need for conservative management of the Pacific rockfishes because of the low rebound potentials and over-fished state of many of the species and complex nature of the mixed-species fisheries (60-plus species). The end result must be robust to uncertainty with a low fishing mortality on each species, dictated by the

biological constraint of a limited and unpredictable ability for population growth. Because large changes in management strategy will take time, both to implement and to have effects, we recommend reductions in fishing mortality through changes in the current management system, as well as the development of MPAs for use as supplemental fisheries management tools as follows.

- Reduce fishing mortality by establishing reduced harvest levels and designing management systems to reduce bycatch and discard.
- Determine total mortalities by species, including mortalities associated with recreational and subsistence fishing to allow the total catch of each species to be monitored with high confidence.
- Establish mechanisms to limit harvest to the targets established each year, and set limits for each species, not groups of species, where weak stocks can be overfished.
- Collect species-specific information on age, maturity, fecundity, location and conditions of capture. Baseline data collection on unexploited species should begin before major fisheries develop.
- Document and monitor bycatch and discard rates at sea to calculate accurate estimates
 of fishing mortality. Develop mechanisms to reduce the bycatch of rockfish in nonrockfish fisheries, and to reduce the capture of unmarketable sizes or species in all
 fisheries.
- Establish adequate fishery independent surveys and develop new survey techniques to monitor population abundance and promote accurate stock assessments.
- Managers should buffer fishing pressure against variability in stock recruitment levels
 and unforeseen fishing mortality effects by protecting a portion of each population and
 its habitat through the use of marine protected areas. Experimental marine protected
 areas should be implemented as part of an adaptive management framework to develop
 effective criteria for conserving rockfish populations. They should be designed to protect
 multiple species, their habitats, demographic and genetic structure, and community
 structure.
- In addition to reductions in fishing mortality through direct reductions in catch and through population protection, decreases in fishing effort must occur. Therefore, managers should immediately implement programs that effectively reduce fishing effort, such as fleet-size reduction, training for alternative careers, and community assistance programs.
- All of these recommendations require substantial effort and infrastructure for implementation and evaluation. The AFS recommends high priority for funding of research and management activities necessary to ensure stable Pacific rockfish populations in the future.
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Report to J. Heifetz July 2002

Section II: Correlation of coloration in rougheye rockfish (Sebastes aleutianus) with microsatellite and mtDNA patterns

A.J. Gharrett¹, A.P. Matala¹, E.L. Peterson¹, A.K. Gray^{1,2}, and Z. Li¹

¹Fisheries Division, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, 11120 Glacier Hwy., Juneau AK 99801

²National Marine Fisheries Service, Auke Bay Laboratory, 11305 Glacier Hwy. Juneau AK 99801

Abstract

Alaska's marine resources are currently evaluated by stock assessment surveys; but in the absence of knowledge about their biology and life histories, considerable uncertainty remains. In our population genetics work, we observed two types of rougheye rockfish (Sebastes aleutianus) that had fixed differences at one microsatellite locus as well as divergent mtDNA complements. Both types were caught in many of the same hauls in some regions. They are clearly distinct species. Their ranges are not coincident; in some areas, one or the other predominates. For example, all the Prince William Sound samples were one type and most of the Aleutian Island samples were the other type, which suggests an ancient historic or ecological basis for their divergence. Rougheye rockfish have high commercial value and their bycatch has the potential to greatly affect the prosecution of other larger fisheries. The appearance of a new species in the rougheye-shortraker rockfish management complex underscores our need to learn more about the distribution and biology of these and other groundfish species. Here we present data demonstrating the existence of two distinct species and examine the relationship of these species to two color morphs (lightly and darkly pigmented fish) collected in the northeastern Gulf of Alaska. Although the correlation between genetic type and coloration was not perfect, the western form (Type a) is more often the dark form and the eastern form (Type b) tends to be the lighter form.

Introduction

The rougheye rockfish (Sebastes aleutianus) is a commercially valuable species caught in Alaskan longline and trawl fisheries. They are targeted by fishermen when possible, and often harvested to the maximum level allowed in bycatch guidelines. Rougheye and shortraker rockfish (S. borealis) are combined for fisheries management and together contribute to bycatch of fisheries for other species, particularly Pacific ocean perch (S. alutus), Atka mackerel (Pleurogrammus monopterygius), Greenland turbot (Reinhardtius hippoglossoides), Pacific cod (Gadus macrocephalus), sablefish (Anoplopoma fimbria), and halibut (Hippoglossus stenolepis). Populations of rougheye and shortraker rockfish are quite sensitive to overharvest and slow to rebuild, as are populations of most long-lived species. Consequently, groundfish management pays careful attention to abundance assessments, harvest levels, and in-season harvest trends of these desirable species. Because excessive bycatch of rougheye/shortraker can close fisheries for other species, even though they contribute a relatively small portion of the total catch, conservation measures taken in managing shortraker and rougheye rockfish have the potential to affect many of the other Alaskan fisheries. Although the effect of

ESTIMATED TIME

3 HOURS

For All D Items

MEMORANDUM

TO:

Council Members, AP and SSC

FROM:

Chris Oliver

Executive Director

DATE:

September 30, 2002

SUBJECT:

Other Business

ACTION REQUIRED

(a) Approve SSC replacement for Al Tyler

(b) Approve addition to GOA Groundfish Plan Team

(c) Receive update on North Pacific Research Board (NPRB) activities

(d) Clarify Council intent on Amendment 67 - BSAI P.cod endorsements

BACKGROUND

SSC replacement

With the retirement of Dr. Al Tyler, a vacancy exists on the SSC. Dr. Gordon Kruse, now President's Professor of Fisheries at UAF Juneau, has applied for appointment to the SSC, and his resume' is attached under <u>D-2(a)</u>. If appointed, he could begin serving at the December meeting.

GOA Plan Team

<u>D-2(b)</u> is a letter from Dr. Doug DeMaster asking the Council to consider appointing Sarah Gaichas to the GOA Plan Team. Sarah is completing her Ph.D. in Fisheries Sciences at the University of Washington, with her dissertation focusing on ecological modeling methods and their application to Gulf of Alaska fisheries management issues. As noted in the cover letter from Doug, she would bring valuable expertise to the Plan Team in the area of stock assessment issues and ecosystem considerations.

Update on NPRB activities

Dr. Clarence Pautzke will update the Council family on activities of the NPRB, and solicit comment on research and development needs. A survey from the NPRB in this regard was recently circulated in a Council mailing. A copy of that survey is under <u>D-2(c)</u>, along with the NPRB update.

Amendment 67 and Council intent

Item D-2(d) is a letter from attorneys for two vessels which are appealing NMFS' initial determination relative to eligibility for Pacific cod endorsements under Amendment 67, scheduled for implementation in January 2003. This letter relates specifically to eligibility of the Bristol Leader and the Galaxy. The final rule for Amendment 67 stipulates that harvests counts towards eligibility only if made from the same vessel that was used as the basis for eligibility for the license holder's LLP license, as opposed to allowing transferred fishing rights from another vessel. Council intent on this issue, based on the record of discussions and the final motion, is not entirely clear and could be subject to different interpretation. NMFS will provide further information to the Council on this issue, including what steps would be necessary to clarify the rules for this issue. For example, it appears that a regulatory amendment would likely be required to change the current rule, regardless of the Council's original intent. Additional information, related to potential numbers of vessels which might qualify under alternative transfer rules, will be provided by staff at this meeting.

Curriculum Vitae of Gordon H. Kruse

Contact Information

University of Alaska/Fairbanks

School of Fisheries & Ocean Sciences, Juneau Center

11120 Glacier Highway

Fa

Juneau, AK 99801

Office: (907) 465-8458 Home: (907) 364-3797 Fax: (907) 465-8461

Email: Gordon.Kruse@uaf.edu

Employment History

11/01 – pres.	President's Professor of Fisheries, School of Fisheries & Ocean Sciences, University of
	Alaska Fairbanks, Juneau
3/89 - 11/01	Marine Fisheries Scientist, Alaska Department of Fish and Game (ADF&G), Division of
	Commercial Fisheries, Juneau
8/85 - 3/89	Statewide Shellfish Biometrician, ADF&G, Division of Commercial Fisheries, Juneau
1/84 - 6/85	Post-doctoral Research Fellow (Fisheries Biologist), Department of Fisheries and Oceans,
	St John's Newfoundland Canada

Education

Ph.D.	Fisheries	Oregon State University	1983
M.S.	Fisheries	Oregon State University	1981
B.A.	Biomathematics	Rutgers College, Rutgers University	1977

Research Interests

Applied fisheries research on marine invertebrates and fishes, including (1) stock assessment; (2) estimation of population productivity parameters; (3) alternative fishery management strategies; (4) fishery oceanography; and (5) dynamics of marine ecosystems.

Selected Publications

- Zheng, J., and G.H. Kruse. MS. Stock-recruitment relationships for Alaskan crab stocks. Fisheries Research, in press.
- Zheng, J., G.H. Kruse, and D.R. Ackley. 2001. Spatial distribution and recruitment patterns of snow crabs in the eastern Bering Sea. Pages 233-255 In G.H. Kruse, N. Bez, A. Booth, M.W. Dorn, S. Hills, R.N. Lipcius, D. Pelletier, C. Roy, S.J. Smith, and D. Witherell (editors). Spatial processes and management of marine populations. University of Alaska Sea Grant, Report AK-SG-01-02, Fairbanks.
- Rosenkranz, G.E., A.V. Tyler, and G.H. Kruse. 2001. Effects of water temperature and wind on recruitment of Tanner crabs in Bristol Bay, Alaska. Fisheries Oceanography 10: 1-12.
- Kruse, G.H., L.C. Byrne, F.C. Funk, S.C. Matulich, and J. Zheng. 2000. Analysis of minimum size limit for the red king crab fishery in Bristol Bay, Alaska. North American Journal of Fisheries Management 20: 307-319.
- Fu, C., T.J. Quinn, II, and G.H. Kruse. 2000. Analyses of harvest strategies for pandalid shrimp populations. Journal of Northwest Atlantic Fishery Science 27: 247-260.
- Stokesbury, K.D.E., H.M. Feder, A.J. Paul, D. Pengilly, and G.H. Kruse. 2000. A workshop examining potential fishing effects on population dynamics and benthic community structure of scallops with emphasis on the weathervane scallop scallop (*Patinopecten caurinus*) in Alaskan waters. Alaska Department of Fish and Game, Division of Commercial Fisheries, Special Publication 14, Juneau.

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- Zhou, S., and G.H. Kruse. 2000. Capture efficiency and size selectivity of two types of pots for red king crabs in the Bering Sea. Alaska Fishery Research Bulletin 6(2): 94–103.
- Kruse, G.H., and J. Zheng. 1999. Are changes in Bering Sea crab and groundfish populations related? Pages 143-148 *in* Ecosystem approaches for fisheries management. University of Alaska Sea Grant Report 99-01, Fairbanks.
- Kruse, G.H. 1998. Salmon run failures in 1997-1998: A link to anomalous ocean conditions? Alaska Fishery Research Bulletin 5(1): 55-63.
- Zhou, S., T.C. Shirley, and G.H. Kruse. 1998. Feeding and growth of the red king crab *Paralithodes* camtschaticus under laboratory conditions. Journal of Crustacean Biology 18: 337-345.
- Shirley, S.M., and G.H. Kruse. 1995. Development of the fishery for weathervane scallops, *Patinopecten caurinus* (Gould, 1850), in Alaska. Journal of Shellfish Research 14(1):71-78.
- Kruse, G.H., D. Hicks, and M.C. Murphy. 1994. Handling increases incidental mortality of softshell Dungeness crabs returned to the sea. Alaska Fishery Research Bulletin 1:1-9.
- Woodby, D., G.H. Kruse, and R. Larson. 1993. A conservative application of a surplus production model to the sea cucumber fishery in Southeast Alaska. Pages 191-202 in G.H. Kruse, D.M. Eggers, R.J. Marasco, C. Pautzke, and T.J. Quinn II (editors). Proceedings of the International Symposium on Management Strategies for Exploited Fish Populations, University of Alaska Sea Grant College Program Report 93-02, Fairbanks.
- Zheng, J., F. Funk, G.H. Kruse, and R. Fagen. 1993. Threshold management strategies for Pacific herring in Alaska. Pages 141-165 <u>in</u> G.H. Kruse, D.M. Eggers, R.J. Marasco, C. Pautzke, and T.J. Quinn II (editors). Proceedings of the International Symposium on Management Strategies for Exploited Fish Populations, University of Alaska Sea Grant College Program Report 93-02, Fairbanks.
- Kruse, G.H., and A.V. Tyler. 1989. Exploratory simulation of English sole recruitment mechanisms. Transactions of the American Fisheries Society 118: 101-118.
- Kruse, G.H. 1988. An overview of Alaska's fisheries: Catch and economic importance of the resources, participants in the fisheries, revenues generated, and expenditures on management. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Research Bulletin 88-001, Juneau.
- Kruse, G.H., and A. Huyer. 1983. Relationships among shelf temperatures, coastal sea level, and the coastal upwelling index off Newport, Oregon. Canadian Journal of Fisheries and Aquatic Sciences 40: 238-242.
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UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE Alaska Fisheries Science Center 7600 Sand Point Way NE Seattle, WA 98115

JUL 25 2002

N.P.F.M.C

Mr. Christopher Oliver North Pacific Fishery Management Council 605 West 4th, Suite 306 Anchorage, Alaska 99501-2252

Dear Chris,

I am writing to ask the North Pacific Fishery Management Council to consider adding Sarah Gaichas to the Gulf of Alaska Plan Team. Sarah has worked for the Center for the last five years. She has developed an expertise in stock assessment and is the lead author on the BSAI and GOA other species and GOA thornyhead assessments. Sarah has completed her course work in support of a Ph.D. in Fisheries Science at the University of Washington. She plans to take her written exam in July. Her thesis will review a suite of ecological modeling methods and their application to Gulf of Alaska fisheries management issues. I believe that Sarah will bring new insight to the Plan Team providing guidance on assessment issues pertaining to data poor stocks and she will offer expertise in NPFMC's efforts to incorporate ecosystem considerations in stock assessment advice.

Sincerely,

Douglas P. DeMaster

Science and Research Director

Alaska Region

Enclosure



Sarah Kathleen Gaichas 6249 27th Ave NE Seattle, WA 98115

Home phone: (206) 527-9236

School phone: (206) 221-5461 Work FAX: (206) 526-4066 Internet: Sarah.Gaichas@noaa.gov

sgaichas@u.washington.edu

Education

2001	Complex Systems Summer School	Santa Fe Institute, Santa Fe, NM
2000	Entered PhD. program	University of Washington, School of Aquatic and Fisheries
		Sciences, Seattle, WA
1997	M.S. in Marine Science (Fisheries)	College of William & Mary, School of Marine Science,
		Gloucester Point, VA
1993	Studied Calculus, Physics, Chemistry	Salisbury State University, Salisbury, MD
1991	B.A. w/Distinction in English Literature	Swarthmore College, Swarthmore, PA

Experience

Research Fishery Biologist

NOAA/NMFS Alaska Fisheries Science Center, Seattle, WA March 1997 - present

Assess the condition of commercially exploited fish stocks through analysis of fishery and research survey data combined with population dynamics modeling. Evaluate the effects of fishing on non-target species and the marine ecosystem. Conduct statistical analyses of fishery observer data, evaluate present and proposed data collection methods through directed research, and examine uses of observer data in multiple fisheries resource management and stock assessment applications. Participate in research surveys at sea.

Current stock assessments: Gulf of Alaska and Bering Sea Aleutian Islands "Other species" (a management complex including all species of skates, sharks, sculpins, octopi, and squids), Gulf of Alaska Thornyheads (Sebastolobus alascanus). PhD research involves ecosystem-level modeling of the Gulf of Alaska continental shelf with fishery interactions.

Graduate Research Assistant

Virginia Institute of Marine Science, Gloucester Point, VA June 1993 - February 1997

Conducted research on age determination methods and provided basic life history data to model the population dynamics of important commercial and recreational fishes in Chesapeake Bay.

Faculty Research Assistant

U of MD Horn Point Environmental Lab, Cambridge, MD February 1992 - May 1993

Provided data for management of summer flounder and American shad by coordinating field and laboratory aspects of age and growth research, morphometric analyses, and tagging studies.

Research Assistant

TMA Corporation, Inc., Riverdale, MD October 1991- January 1992

Evaluated the potential effects of spilled oil on the habitats, properties, and industries of the U.S. East Coast from Maine to Florida using published data and telephone interviews.

SAFE Chapters

- Gaichas, S., 2001. Squid and Other Species in the Bering Sea and Aleutian Islands. Section 14 in In Stock
 'Assessment and Fishery Evaluation Report for the Groundfish Resources of the Bering Sea/Aleutian Islands
 Region. North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501.
- Gaichas, S., L. Fritz, and J. Ianelli, 1999. Other species considerations for the Gulf of Alaska. Appendix D in Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Gulf of Alaska Region. North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501.
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 Appendix E in Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Gulf of Alaska Region. North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501.
- Gaichas, S., and J. Ianelli, 2001. Section 9 In Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Gulf of Alaska Region. North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501.
- Ianelli, J. and S. Gaichas, 1999. Stock assessment of Gulf of Alaska Thornyheads (Sebastolobus sp.). Section 9 In Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Gulf of Alaska Region. North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501.

Peer-reviewed Publications

Dorn, M., S. Gaichas, S. Fitzgerald, and S. Bibb, 1999. Measuring total catch at sea: use of a motion-compensated flow scale to evaluate observer volumetric methods. North American Journal of Fisheries Management 19(4):999-1016.

NORTH PACIFIC RESEARCH BOARD

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441 West 5th Avenue, Suite 500 Anchorage, AK 99501-2340 Phone: (907) 278-6772 Web Site: www.nprb.org

September 30, 2002

North Pacific Research Board and North Pacific Marine Research Institute Accomplishments January - September 2002

1. Convened Four Meetings

- NPRB Executive Committee on February 4, 2002
- NPRB teleconference on March 8, 2002
- NPRB first full meeting in Anchorage on March 21-22, 2002
- NPRB second full meeting in Anchorage on June 2-3, 2002
- NPRB will meet jointly with EVOS Trustee Council and Northern Salmon Fund on October 29-31, 2002
- NPRB/NPMRI will join with EVOS and GEM (Gulf Ecosystems Monitoring Program),
 GLOBEC and NMFS Steller Sea Lion Research Program in hosting major marine science symposium in Anchorage on January 13-17, 2003.

2. Operating Procedures

- Approved voting procedures to require majority vote of (1) five legislatively-designated voting members and (2) those present of the other 15 members of the Board.
- Developing standard operating procedures handbook for approval this fall.

3. Science Panel Nominations

- NPRB has developed a draft statement of policy and procedures for its new Science Panel.
- Nominations are due by October 18, 2002. Nomination instructions are available at www.nprb.org.

4. Hired Staff and Approved Grant Request to NOAA

- Executive Director hired on January 1, 2002.
- Fiscal management support from Alaska SeaLife Center.
- Administrative support from EVOS.
- Temporarily collocated with EVOS Trustee Council staff in downtown Anchorage.
- Eventually collocate with Alaska SeaLife Center in downtown Anchorage.
- Grant request for 2002-2003 for \$12,099,000 submitted to and approved by NOAA.

5. North Pacific Marine Research Institute Supports North Pacific Marine Research Program Projects

- NPMRI provided \$571,000 to support continuation of five projects from North Pacific Marine Research Program at UAF (NPMR originally funded for \$6.6 million in 1999).
- Includes building a database of Bering Sea research, right whale observation and tracking, two projects studying nutrient supply to the Bering Sea continental shelf, and continuous plankton samplers deployed on various ships of opportunity traversing the North Pacific.

6. Environmental Improvement and Restoration Funds Support \$1.2 million of Marine Research.

- Request for proposals in March received 41 applications seeking total of \$6.3 million.
- NPRB approved and funded 11 projects from EIRF funds for total of about \$1.2 million.
- Projects include habitat mapping, new sonar technologies for avoiding bycatch, oceanographic observations, salmon tagging and recapture, salmon genetic stock identification, rockfish genetics, food studies for predators, marine bird and mammal studies, and environmental cues for herring spawning.
- Approved proposals came mostly from University of Alaska Fairbanks, one from University
 of Alaska Anchorage, some from Seattle, British Columbia, and even two from California,
 including Scripps Institute of Oceanography.
- Contract agreements with principal investigators were sent out on June 28, 2002. Eight of eleven agreements have been signed by September 30, 2002.

7. North Pacific Marine Research Institute Funds Research, Education, and Demonstration Projects

- NPMRI funded 4 research projects for \$433,000 (plus 5 NPMR projects noted above).
- Projects include seabird database, study of Bering Sea right whales, diet composition of sea lions, and nearshore circulation near Mekoryuk with help from community members.
- Institute also is funding 4 education and demonstration projects at the Alaska SeaLife Center for \$800,000, including:
 - 1. Enhancing opportunities for field scientists to document their research on video.
 - 2. Provide seed money for marine science education for teachers and students in communities throughout Alaska.
 - 3. Establish post-secondary education internships, short courses, and workshops in marine science and education, veterinary medicine, and teaching programs; and
 - 4. Support development of an exhibit on marine research in the Bering Sea for display at the Alaska SeaLife Center and its satellite office in Anchorage.

8. Research Planning for 2003

- NPRB may fund another \$10-14 million in marine research starting in 2003.
- Research priorities will be established at October 29-31, 2002 meeting.
- Draft priorities include fish habitat, ecosystems dynamics, endangered and stressed species, fishery management and economics, bycatch reduction, stock assessment and recruitment processes, and contaminants.
- Request for proposals will be released November 8, with proposals due by January 10, 2003.
- NPRB will make final funding decisions on projects in March 2003.

9. Science Planning

- NPRB is contracting with National Research Council to help develop long-range, comprehensive science plan to guide research. Will be interactive process with Board. Report will be available fall 2004.
- NPRB supported State of Alaska Oceans and Watersheds Symposium of June 18-19, 2002.
- NPRB will support high level science and stakeholder panels to help in science planning.
- Will map out Native and agency science activities in Alaska.
- Will support and coordinate development of common searchable database. Working jointly
 with EVOSTC and the State of Alaska Division of Governmental Coordination, NPRB
 hosted state-federal data meeting on July 25-26.
- Will help in completing research and development plan requested by State Legislature in SJR44. Executive Director is in charge of developing fisheries research component of plan.
- Gave presentation on research to U.S. Ocean Commission meeting in August.
- Will meet jointly in October with EVOS Trustee Council and North Salmon Fund.

Board Members and Their Affiliation

David Benton, Chairman	Juneau	North Pacific Fishery Management Council
Tylan Schrock, Vice Chairman	Seward	Alaska SeaLife Center
James Balsiger	Juneau	National Marine Fisheries Service
Garry Brass	Washington, D.C.	U.S. Arctic Research Commission
John Gauvin	Seattle	Groundfish Forum
Howard Horton	Corvallis	Fisheries scientist
Trevor McCabe	Anchorage	At-Sea Processors Association
Phil Mundy	Anchorage	Gulf Ecosystems Monitoring Program
Walter Parker	Anchorage	Oil Spill Recovery Institute designee
Pamela Pope	Anchorage	BP Exploration Alaska
Rich Preston	Juneau	U.S. Coast Guard
Steve Ramberg	Washington, D.C.	Office of Naval Research
John Roos	Washington State	Fishery Scientist
Frank Rue	Juneau	Alaska Department of Fish and Game
Robin Samuelsen	Dillingham	Bristol Bay Native Association
William Seitz	Anchorage	U.S. Geological Survey
Jev Shelton	Juneau	Fisherman
Jack Tagart	Olympia	Washington Department of Fish and Wildlife
Stetson Tinkham	Washington, D.C.	U.S. Department of State
John White	Bethel	Dentist and Alaska Board of Fisheries member

For more information, please contact Dr. Clarence Pautzke, Executive Director, at (907) 278-6772.

NORTH PACIFIC RESEARCH BOARD

"Building a clear understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems that enables effective management and sustainable use of marine resources."

David Benton, Chairman Tylan Schrock, Vice Chairman Clarence Pautzke, Executive Director

September 13, 2002

441 West 5th Avenue, Suite 500 Anchorage, AK 99501-2340 Phone: (907) 278-6772

Fax: (907) 276-7178

North Pacific Research Board Seeks Public Comment

Alaska Fisheries Research and Development Needs & NPRB Research Priorities for 2003

The North Pacific Research Board is seeking public comment on Alaska fisheries research and development needs for two purposes: (1) to contribute to the R&D plan requested by the Alaska State Legislature in SJR44, and (2) to help identify research priorities for a request for research proposals the Board will release on November 8, 2002, to fund research commencing in 2003. Written comments are due at the Board office by 5 p.m., Wednesday, October 16, 2002. The Board will consider them on October 29-31, 2002.

Alaska State Legislature SJR44

The Alaska State Legislature passed SJR44 in May 2002 requesting the Alaska Science and Technology Foundation, University of Alaska, U.S. Arctic Research Commission, Interagency Arctic Research Policy Committee, and North Pacific Research Board, to develop a joint research and development plan to help expand and diversify Alaska's economy, strengthen and maintain the health of state research institutions, and protect the health of Alaskans and the environment of Alaska. The joint plan will be presented to the Legislature in early 2003. NPRB is responsible for the fisheries component of the R&D plan and seeks public comment on the following issues and questions to help it identify the highest priority research and development needs for Alaska fisheries:

- Identify five long term problems or issues facing the industry and possible R&D solutions.
- What R&D is needed to enable sustainable use while protecting resources and the environment?
- What barriers exist to further development of the fishing industry? What R&D is needed to remove the barriers?
- What new facilities and technologies are needed to address the R&D needs identified above?
- How might investments in R&D contribute to supporting Alaska's training and research capabilities for fisheries? What fiscal and technical resources are necessary?
- How can Alaska fisheries be made more competitive in the global marketplace?
- Is research needed on how climate change will impact fisheries resources?

NPRB Research Priorities for 2003

The Board is developing a request for proposals for research beginning in 2003. It is seeking public comment on the following list of draft research priorities that were developed by the Board this past June. The Board will meet on October 29-31, 2002, to approve research priorities for incorporation into the 2003 Request for Proposals which will be released November 8, 2002.

Draft Priorities

a. Marine Ecosystem structure and processes

- 1. Factors affecting marine productivity, including nutrient transport and availability, water column stability and the role of sea ice.
- 2. Influence of climate variability on physical, chemical, and biological processes; unusual occurrences of specific organisms such as the coccolithophorid blooms.
- 3. Development of ecosystems models that will aid resource managers.
- 4. Origins and impacts of invasive species.
- 5. Long term monitoring of biophysical parameters and phytoplankton and zooplankton.

b. Endangered and stressed species

- 1. Factors, including fisheries, affecting survival of stressed and endangered species, particularly marine mammals, seabirds, and sea ducks.
- 2. Responses to ocean climate trends and prey availability.

c. Fish habitat

- Habitat mapping and substrate classification, including documentation of the presence of corals or other sensitive substrates, studies of factors affecting habitat including physical forcing, variations in energy flux, and overwintering conditions.
- 2. Impacts of fisheries and other human influence on habitat and its capacity to support communities of organisms, including adaptive management research.
- 3. Fishery management tools to facilitate fish habitat protection.

d. Fishery management and economics

1. Economic implications of fishery management approaches, including rights-based systems and fishing capacity reductions.

e. Bycatch

- 1. Studies that assess the impacts of, or lead to reductions in, bycatch, especially in the groundfish fisheries, and including gear designs to improve selectivity.
- 2. Stock composition research on bycatch species, including salmon, in GOA and BSAI groundfish fisheries.
- 3. Improve methods of estimating bycatch mortality, including unobserved mortality.

f. Stock assessment and recruitment processes

- 1. Studies to develop or improve fish stock assessment techniques, including estimates of all sources of fishing mortality, and quantifying estimates of natural mortality.
- 2. Research on interdependence of fisheries or stocks of fish.
- 3. Studies of factors affecting salmon stock dynamics, mortality and migration throughout their range and life cycle, particularly for Western Alaska salmon stocks.
- 4. Improve genetic identification of salmon stocks.

g. Contaminants

- 1. Studies of sources, transport, and accumulation of contaminants in subsistence, recreational, and commercial species, and other ecosystem components.
- 2. Effects on ecosystem structure and function.
- 3. Effects of climate change on contaminants.
- 4. Studies of pollution from oil spills, increased run-off as a result of logging and other coastal development, and development of predictive models.

The Board intends to review and approve successful projects by late March 2003. Over \$9-10 million may be available for research under this coming request for proposals, all based on Environmental Improvement and Restoration Funds.

Your comments on the State of Alaska research and development plan and/or research priorities for 2003 are due at the Board office by 5 p.m., <u>Wednesday</u>, <u>October 16</u>, 2002. They may be submitted by mail or email to the Board:

North Pacific Research Board 441 West 5th Ave., Suite 500 Anchorage, AK 99501-2340

Or cpautzke@nprb.org

For additional information on NPRB and its activities, please visit its new web site at www.nprb.org.

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September 5, 2002

AGENDA D-2(d) OCTOBER 2002

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Mr. David Benton Chairman, North Pacific Fishery Management Council 605 West 4th Avenue, Suite 306 Anchorage, Alaska 99501

Re: Amendment 67 - Bering Sea/Aleutian Islands Pacific Cod Fixed

Gear LLP Endorsements

Dear Chairman Benton:

, Jay H. Zulauf

XX7m. Paul MacGregor

vid Stahl

.thew L. Fick

Joseph M. Sullivan

OF COUNSEL

Janet H. Cheetham

Joe B. Stansell

John H. Chun

We represent Bristol Leader Fisheries LLC ("Bristol Leader") and Galaxy Fisheries LLC ("Galaxy"). It has come to our attention that the Final Rule implementing Amendment 67 to the BS/AI Groundfish Fishery Management Plan contains a provision that is inconsistent with the Council record concerning that amendment. Specifically, the Final Rule stipulates that harvests count toward satisfying Amendment 67 landing requirements only if they were made from the same vessel that was used as the basis for eligibility for the license holder's License Limitation Program ("LLP") groundfish license. However, the Council record indicates that vessels operating under LLP qualified fishing rights at the time they made Pacific cod landings, including those operating under transferred fishing rights, were considered LLP qualified for purposes of Amendment 67, and that their landings counted for purposes of earning a fixed gear cod endorsement.

We have raised this issue with National Marine Fisheries Service and NOAA General Counsel staff. They have informed us that they do not have the authority to revise the Final Rule on this point without having received confirmation from the Council that the revision would be appropriate. We are therefore asking that the Council provide confirmation to that effect. Background information and analysis in support of our request follow, and a transcript of the related portion of the Council's April 2000 meeting is attached as Exhibit A.

¹ 50 CFR 679.4(k)(1)(iii)(F); 67 Fed. Reg. 72, page 18138 (April 15, 2002).



BACKGROUND

1. The BRISTOL LEADER.

Bristol Leader is the owner of the F/V BRISTOL LEADER, Official No. 1060513, and the holder of LLP license LLG 4408 (the "Bristol Leader License"). The Bristol Leader License derived from the LLP General Qualification Period and Endorsement Qualification Period landings made by the F/V NEW STAR, a 188 foot converted tuna vessel that had operated in the BS/AI Pacific cod fishery from the fall of 1991 until 1996. In early 1996, the NEW STAR was determined to be unseaworthy and constructively unsalvageable, and was retired from the fishery.

The NEW STAR and its fishing rights were sold to John Sjong on July 12, 1996, who subsequently transferred the NEW STAR to Aqua Silver LLC. Aqua Silver LLC dismantled the NEW STAR and, in May 1997, sold its fishing rights to Bristol Leader.

Bristol Leader contracted for construction of the BRISTOL LEADER in May, 1997. By August 1998, the BRISTOL LEADER had been completed and, operating under the fishing rights acquired from the NEW STAR, the BRISTOL LEADER entered the BS/AI Pacific cod fishery. In both 1998 and 1999, the BRISTOL LEADER met the Amendment 67 landing requirement for hook and line catcher/processors.

2. <u>The GALAXY</u>.

Galaxy is the owner of the vessel GALAXY, Official No. 576981, and the LLP license LLG 3602 (the "Galaxy License"). The Galaxy License derived from the LLP General Qualification Period and Endorsement Qualification Period landings made by the vessel NORTHERN EMPIRE.

In late 1997, Galaxy acquired the vessel GALAXY (Official No. 576981) from Dutch Harbor Seafoods, Inc. and the fishing rights of the vessel NORTHERN EMPIRE from Venture Pacific Marine, Inc.² Galaxy assigned the NORTHERN EMPIRE fishing rights to the GALAXY, and spent over \$2 million converting it from a crab processing vessel to a freezer longliner.

² The GALAXY had been operated as a floating processor by Dutch Harbor Seafoods, and therefore did not qualify under the VMP or the LLP.



Galaxy employed the vessel in the BS/AI Pacific cod fishery in January, 1998. The vessel met the Amendment 67 landing requirement for hook and line catcher / processors in both 1998 and 1999.

3. <u>The Vessel Moratorium Program and the License Limitation Program.</u>

A brief review of the Vessel Moratorium Program (the "VMP") and the License Limitation Program (the "LLP") is helpful in connection with this issue.

The VMP took effect on January 1, 1996. VMP qualifications were issued to persons who owned a qualifying vessel or their successors-in-interest, not to the vessels themselves. In addition, VMP qualifications and the related moratorium permits were capable of being transferred or retained separately from the original qualifying vessel.

To more fully address excess capacity and overcapitalization in the BS/AI fisheries, the Council adopted the LLP in June of 1995. The LLP took effect January 1, 2000. Consistent with the approach taken under the VMP, LLP licenses were issued to persons who owned a qualifying vessel or their successors–in-interest, rather than the vessels that met the LLP landing requirements. Also, consistent with the VMP approach, the Council decided that licenses could be transferred or retained separately from the vessel on which they were earned.

Thus, in late 1997, the existing VMP and inchoate LLP fishing rights associated with the catch histories of the NEW STAR and NORTHERN EMPIRE were separable from the vessels. Galaxy's and Bristol Leader's purchases of those fishing rights and assignment of those rights to the GALAXY and BRISTOL LEADER were entirely consistent with both the VMP and LLP programs.

ANALYSIS

The Amendment 67 qualifying years for cod endorsements spanned 1995 through 1999. The VMP was in effect during 1996 through 1999, but the LLP program did not take effect until January 1, 2000. Therefore, a vessel could have met an Amendment 67 landing requirement while operating under fishing rights that were VMP qualified, but not LLP qualified. However, the Council correctly expected the LLP to be in effect by the time that Amendment 67 was implemented. Therefore, the class of persons eligible to receive a Pacific cod endorsement would have been "filtered" by the LLP by the time the endorsements were issued.



Under these circumstances, the Environmental Assessment/Regulatory Impact Review ("EA/RIR") before the Council in April of 2000 reflected two methods of projecting the number of vessels that might qualify under the various P. cod landing requirements being considered.³ The first method simply reported the total number of vessels that met various recent landing criteria, ignoring whether the vessels were LLP qualified. This represented the highest number of vessels that could potentially qualify for a cod endorsement. The second projection reported the number of vessels that met the relevant recent landings requirement and appeared to have a general groundfish (i.e., LLP) license. The second projection represented a more realistic prediction of the size of the fleet that could be expected to receive fixed gear Pacific cod endorsements under Amendment 67.

The EA/RIR projection concerning the freezer longliner fleet states that 50 freezer longliners participated in the directed BS/AI P. cod fishery from 1996 through 1999, and that <u>all 50 appeared to hold a BS/AI general groundfish license.</u> Based on this information, the EA/RIR determined that <u>all</u> of the freezer longliners met the first prong of Amendment 67 and that "the number of qualifying vessels [] depends solely on [the second prong of Amendment 67,] the minimum tonnage criteria." 5

Note that this projection does not refer to the number of freezer longliners that met the original LLP landing requirements. Rather, the projection refers to vessels that "hold a BS/AI general groundfish license." Note also that this statement indicates that the staff considered the universe of LLP qualified vessels to include not only those that met the original LLP landing requirements, but also those (including the BRISTOL LEADER and the GALAXY) that had operated under BS/AI general groundfish licenses transferred from other vessels.

The staff analysis of the Amendment 67 catch history combination alternatives also indicates that vessels that held licenses by transfer were considered LLP qualified. The Council considered three such alternatives.

The first permitted combinations of the catch histories of lost or destroyed vessels with the catch histories of their replacements, which would then be treated as though they were the catch history of a single vessel. The second permitted the catch history of a single vessel to validate more than one LLP license with a Pacific cod fixed gear endorsement. This alternative addressed circumstances where a vessel owner had

³ EA/RIR Draft for Final Review, March 8, 2000, Section 4.2.2.1.1, page 60.

⁴ EA/RIR at pg. 60, emphasis added.

⁵ <u>Id</u>. This statement stands in contrast to the rather extensive discussion of the differences between the number of longline catcher vessels that qualify under various landing requirement options, versus the number that qualify under those options and under the LLP. See EA/RIR Section 4.2.2.2.1, pages 62-65.



acquired and "stacked" multiple LLP licenses to obtain additional area endorsements. The third alternative was designed to allow a vessel that met the recent participation requirements, but that did not hold a BSAI groundfish license, to qualify by purchasing a fixed gear BS/AI license from a vessel that did not meet the recency requirements for a Pacific cod endorsement.⁶ (Note that the EA/RIR again defines eligibility with reference to whether a vessel held a groundfish license, <u>not</u> with reference to whether the vessel met the original LLP requirements.)

The scope of these three alternatives indicates that, consistent with the characterization of the freezer longliner fleet referenced above, the catch history of a vessel operated under transferred fishing rights was presumed to be valid, and thus adoption of a special alternative was not required to credit it for purposes of Amendment 67.

Further, Council discussion of the three catch history combinations indicates that Council members understood vessels operating under transferred LLP fishing rights to be LLP qualified. That discussion took place in connection with Council consideration of the Advisory Panel's ("AP") motion regarding catch history combinations.⁷

The AP had recommended that only a restrictive version of the first catch history combination alternative be adopted (i.e., the alternative that would permit combinations of a sunk vessel's catch history with that of its replacement), and that the second and third catch history combination alternatives be rejected. The Council began its discussion of the issue by asking Mr. Darrel Brannan, the primary Council staff person assigned to Amendment 67, to explain the AP's action. (Note that Mr. Brannan frames the issue of a vessel's qualification with reference to whether or not it held a license, not with reference to whether or not the vessel itself met the original LLP landing requirements.)

Mr. Brannan stated that [AP members] "were trying to make sure that vessels with a recency requirement that didn't hold a general license and a general license that didn't meet the recency requirement -- would not be allowed to combine those and form a license where it wouldn't be qualified before."

Council member Linda Behnken raised a specific case involving a person who built a vessel, bought a license and met the recency requirements, only to find out that his license was defective. Asked what recourse that person would have under the

⁶EA/RIR Section 4.5.2, page 80.

⁷ The following references are to portions of the transcript attached as Exhibit A.

⁸ Exhibit A, pages 166-67.



AP motion, Mr. Brannan replied that "[the fisherman] couldn't take his recent catch history and buy someone's LLP license and combine the two to qualify."9

Mr. O'Leary queried Mr. Brannan further regarding the circumstances of the fisherman Ms. Behnken had described. Mr. O'Leary said "I assume he would have bought a license already in order to substantiate the vessel he recently built. If that license doesn't qualify him and he falls out, he couldn't buy another license to supplement what he has?" Mr. Brannan replied "that's my understanding of the AP's intent, that its basically a vessel owner's history on the licenses that they own. The person couldn't have a recency requirement and go search out someone who is LLP qualified and combine those two." 10

The clear implication of this discussion is that the Council understood Amendment 67 to permit a person to employ a vessel in the fishery under transferred fishing rights, as long as those rights were valid. On the other hand, the Council understood that (under the AP motion), a vessel owner with an LLP groundfish license but no recent landings could not validate his license by purchasing the recent landing history of another vessel, nor could a vessel owner who had met the recent landing requirements with a non-LLP qualified vessel purchase an LLP groundfish license afterthe-fact in order to validate those landings.

This interpretation is supported by Council debate concerning combinations of catch histories of sunk vessels.¹¹ Ms. Behnken had moved that the Council allow a person who met the recency requirements while operating without a license (or while operating under a license that turned out to be invalid) to acquire a license from a vessel that sank, and combine it with his or her recent catch history to satisfy Amendment 67s' requirements .¹²

After some discussion, Mr. Bundy offered an amendment to make the catch history combination provisions for the fixed gear cod fishery LLP consistent with the related provisions in the crab LLP.¹³ Ms. Behnken accepted the amendment as friendly. Had it passed, the amended motion would have permitted persons who had met Amendment 67s recency requirements while operating without a valid license to have validated their catch by acquiring LLP qualified fishing rights after the fact, so

⁹ <u>Id</u>. at 169.

¹⁰ Id. at 170 (emphasis added).

¹¹ Id. at 174.

¹² <u>Id</u>.

^{13 &}lt;u>Id</u>. at 180.



long as the LLP rights were acquired or under contract to be acquired by the date of Council action. 14

The Council record reflects an extensive discussion of the number of vessels that would qualify under the Behnken/Bundy motion, in comparison with the number that would qualify under the original AP motion. ¹⁵ Eventually, the Council queried Mr. Brannan on the impact on the freezer longliner sector of adopting the motion. Consistent with the EA/RIR analysis, Mr. Brannan replied that "in the freezer longline category, there won't be any change. All those vessels appear to be LLP qualified to begin with. So the number of vessels would remain the same."¹⁶

In summary, the Council's discussion clearly indicates that vessels that met the Amendment 67 recent landings while operating under acquired LLP fishing rights were considered LLP qualified. This interpretation is supported by the relevant sections of the EA/RIR, by Mr. Brannan's statement to Mr. O'Leary that (under the AP motion) the catch that counts "is a vessel owner's history on the licenses they own," and perhaps most tellingly, Mr. Brannan's statement that whether the Behnken/Bundy motion passed made no difference in the freezer longline category, as "all of those vessels appeared to be LLP qualified to begin with."

On the other hand, there would be fundamental legal problems associated with interpreting Amendment 67 to require that the same vessel that made qualifying recent cod landings must have made qualifying LLP landings, as well.

The VMP and LLP constitute the general regulatory framework within which Amendment 67 was adopted. The two most fundamental elements of the VMP and LLP are that fishing rights are vested in owners and not in vessels, and fishing rights and licenses are transferable from person to person and vessel to vessel. Interpreting Amendment 67 to require recent participation by the same vessel that met the original LLP requirements is completely inconsistent with these two elements.

Nowhere does the Amendment 67 record suggest that Council intended to make such an extreme departure from its repeated emphasis on vesting fishing rights in persons rather than vessels, and the transferability of fishing rights. A change of this magnitude would have required at least some direct discussion and action on the

 ¹⁴ See 66 Fed. Reg. 48814 (September 24, 2001) (Amendment 10 Final Rule); 50 CFR 679.4(k)(5)(iv).
 ¹⁵ Exhibit A, pages 180-188.

¹⁶ <u>Id</u>. at 189 (emphasis added). Although the transcript ascribes this quote to an "unidentified speaker," context makes it clear that Mr. Brannan made the statement. <u>See Exhibit A</u>, page 190 ("... Darrell [Brannan] has told us that [the amendment] would not make any change in the freezer longline category").



record. In contrast to the numerous places in the record indicating that vessels operating under transferred licenses were LLP (and therefore Amendment 67) qualified, we have found no suggestion in the record that Amendment 67 was intended to extinguish the P. cod rights associated with transferred licenses.

Further, had the Council had actually intended to extinguish the cod fishing rights associated with transferred licenses, there is a good argument that it would have effected a regulatory taking in violation of the 5th Amendment by doing so. In 1997 and 1998, when Galaxy acquired the NORTHERN EMPIRE's fishing history and Bristol Leader acquired the NEW STAR's fishing history, they purchased transferable fishing rights in reasonable reliance on the VMP and LLP program elements. The fishing rights transfers were approved and effected by NMFS. The BRISTOL LEADER and the GALAXY operating under the previous vessels' fishing rights in full compliance with the VMP and LLP during the Amendment 67 qualifying years. At no time during that period were Bristol Leader and Galaxy given any indication that the vessels were operating in violation of the spirit, intent, or explicit provisions of the Council's rationalization policies. However, under the interpretation of Amendment 67 reflected in the Final Rule, the vessels would be retroactively disqualified from operating in the fishery that represents their primary source of income, and the reasonable, investment backed expectations of their owners would be completely thwarted.

CONCLUSION

In accord with VMP and LLP regulations, Galaxy and Bristol Leader acquired LLP qualified fishing rights and assigned them to their respective vessels, which, while operating under these fishing rights, met the recent landing requirements set forth in Amendment 67. The Amendment 67 record shows that the Council expected and intended that vessels that made qualifying landings under transferred licenses be considered "LLP qualified," and their landings count toward the BS/AI P. cod endorsement requirements. The Council was informed, both in the EA/RIR and by Mr. Brannan orally, that all 50 freezer longliners that had participated in the BS/AI P. cod fixed gear fishery during the 1996-1999 period appeared to be LLP qualified, and thus did not need an explicit catch history combination alternative to qualify. The Council acted with the understanding that the BRISTOL LEADER's and the GALAXY's landings would qualify their respective licenses for a P. cod fixed gear endorsement.



In light of the foregoing, we respectfully request that the Council confirm the intent and understanding reflected in the Amendment 67 record, and request NMFS to amend the Amendment 67 Final Rule accordingly.

Very truly yours,

MUNDT MacGREGOR L.L.P.

Joseph M. Sullivan

JMS:cjk Enclosures

cc: E

Bristol Leader Fisheries, LLC

Galaxy Fisheries LLC Ms. Sue Salveson Mr. Jay Ginter Mr. John Lepore Mr. Phil Smith

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EXHIBIT A

NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL

MEETING EXCERPT REGARDING PACIFIC COD GEAR ENDORSEMENTS

April 16 & 17, 2000

Alaska-Juneau

Court Reporting & Secretarial Services
326 FOURTH STREET, SUITE B, JUNEAU, ALASKA 99801
(907) 586-6846

MR. CHAIRMAN: If he accepted -- he hasn't accepted it. Are you making it as a motion?

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DR. FLUHARTY: I -- I'll leave it alone. I mean, Darrell wants to -- Darrell wants to comment.

MR. CHAIRMAN: Darrell.

DARRELL: Mr. Chairman, under that section that's on page 6 of the AP minutes, under combining catch histories of different vessels. The way this reads, I don't think is exactly what the AP meant. If you read it literally it says the AP recommends the Council prohibit transfer or stacking of licenses or catch history except as outlined in grandfather provision 1 of the amendment. And my understanding is that the Council doesn't wish to prohibit the transfer of licenses -- any licenses except as under the grandfather provision. The Council isn't intending to change the -- the license transfer provisions in general. This was specific to how catcher vessels or freezer longliners could combine histories in general. In other words, the AP had intended that a vessel that had earned the recency requirements and then sank would be allowed to transfer that license because they'd already earned it, they'd met all of the qualification history, and they wanted to make sure that just because a vessel sank, it didn't void the license. wanted that to be transferable to another boat. And also under this, they were trying to make sure that vessels with a

recency requirement that didn't hold a general license and a general license that didn't meet the recency requirement would be allowed -- would not be allowed to combine those and form a license where it wouldn't be qualified before. They only wanted people that replaced a vessel and used the replacement history and the lost vessel to be able to combine those histories. And so it's not exactly what it says in the minutes. But I just wanted to clarify that on the record.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Thank you, Mr. Chairman. I'm not sure I followed all that, but we did have someone who testified who had built a vessel, had bought a license, which I guess just misses somehow qualifying, and he met all our recency requirements that we approved today. So where would he stand? Would he have to go buy -- I mean, could he buy a different license that did qualify him and put him together under what the AP has recommended to us? Or is he -- what he was interpreting is that the only way he could get a license that was going to bring them in was if he bought it off a boat that sank after January 1, 1995. And I don't think that's correct, but I'm not -- maybe you could just explain to me what his options are so I can understand where we are.

DARRELL: Mr. Chairman, my understanding, Ms. Behnken, my understanding of the way the AP crafted this language is the only way a vessel could qualify is if the

owner of a vessel had an LP license, that vessel sank, and

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with the replacement vessel that that person brought back into the fishery, the combining of those two catch histories would qualify. It wouldn't allow someone whose vessel sank to sell that catch history to someone else who had recent participation and qualified a vote. So it's very specific on who would be allowed to use recent participation from another boat from a vessel that sank, unlike what was done in the original license limitation program, where if a vessel sank, they could sell that catch history to anyone, under the AP's motion, they had to bring a vessel back into the fishery themselves and just combine their past history with a new vessel's history in order to qualify a vessel.

> MS. BEHNKEN: Could I follow up, Mr. Chairman? MR. CHAIRMAN: Go ahead.

MS. BEHNKEN: I think I understand that, but I'm not sure this guy even had a boat that sank. He built the vessel and brought it into the fishery. He met all our recency requirements, he bought a license, and I don't quite understand but it didn't quite meet some -- the window for either the moratorium period or something, but -- the LLP So what is -- what are his options? He -- what can he do to be in?

DARRELL: Mr. Chairman, Ms. Behnken. My understanding based on the AP motion is he would have to find

someone that had a complete license and recency in order to qualify. He couldn't take his recent catch history and buy someone's LLP license and combine the two to qualify.

MS. SALVESON: Mr. Chairman.

MR. CHAIRMAN: Ms. Salveson.

MS. SALVESON: Thank you, Mr. Chairman.

Darrell, is -- is that provision different from what the Council adopted for the crab recency criteria? I thought it was a two-way street. You can combine LLP license with the recency, and there wasn't a one-way combination which -- from what I'm hearing from you, it's just a one-way street. Is -- is there a difference?

DARRELL: Mr. Chairman, Ms. Salveson. There is a difference. And the AP specifically discussed that. They discussed that under the crab LLP program, people with a recency and people with an LLP license would be allowed to combine those sunken vessel provisions. So a person whose vessel sank would be allowed to sell that history to anyone who met the recency requirements and form a complete eligible package. What the AP's intent was that that not be allowed, but if that person had brought a vessel into the fishery, and with their own personal vessel met the recent qualification criteria, that they should be allowed to join those two catch histories from the vessels. They just didn't want to open up the window to allow them to sell just because a vessel sank,

to be able to sell that to anyone to create a -- a complete package.

MR. CHAIRMAN: I think Mr. O'Leary was next.

MR. O'LEARY: I guess I'm a little confused too, and I want to understand this. It's too bad the fellow isn't here, but in his particular situation, I assume he would have bought a license already from someone in order to substantiate the vessel he recently built. And if that -- you're saying if that license doesn't qualify him under recency requirements, and he falls out, he falls out in this particular set of circumstances, that he couldn't buy another license to supplement what he has?

DARRELL: Mr. Chairman, Mr. O'Leary, that's my understanding of the AP's intent, that it's basically a vessel owner's history on the licenses that they own. The person couldn't have a recency requirement and go search out someone who is LLP qualified and combine those two. If -- if that were allowed, then the tables we've been looking at would be the number of vessels that met the recency criteria, and that would be the maximum universe of vessels that could qualify under the alternatives that we've been considering. Because anyone with recency could match up that catch history with anyone who held a general license and form a complete package.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Thank you, Mr. Chairman. So I

guess first off I would have to question why we're doing something different here than what we do with crab. And then, second, to ask if you have any sense of what the impact would be if we did what we did with crab here instead of what the AP has recommended.

DARRELL: If it's solely focused on sunk vessels, when we went through the analysis of the grandfather provision for sunk vessels, we looked at the time period from June 17, 1995 forward to December 31, 1999 and looked at the number of vessels with any P. cod recency that fished during that time window. And it turned out that they were the seven vessels that we identified under the grandfather provision number 1. The AP has moved that date back slightly to January 1, 1995 for the vessel to have sunk. And so I know there's at least one vessel that would be additional to the ones we've already looked at, and so that makes at least eight. I'm not sure how many more vessels sank between January 1, 1995 and June 17, 1995 that weren't accounted for under that original analysis of grandfather provision number 1.

MS. BEHNKEN: Follow-up?

MR. CHAIRMAN: Go ahead.

MS. BEHNKEN: Of these seven vessels or this one additional, do you know whether they're pot or longline?

DARRELL: The -- under grandfather provision number 1, there were four pot vessels and three longline

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vessels that had sunk. Mr. Uri's [ph] boat is the other boat. And there's the handout that -- from his public testimony from before, and I can't recall off the top of my head whether he was a pot boat or a longline boat. I think he was a pot boat, but I'm not 100 percent sure. So that would be, what is it, four -- or five and three.

MR. CHAIRMAN: Where is he now? I mean, not in the room, but ...

> UNIDENTIFIED SPEAKER: In qualifying?

MR. CHAIRMAN: ... I mean, what is the Did we pick -- did anything we do pick him up? situation? I recall, the AP didn't because for one reason, I don't know if they would have, but he didn't -- they didn't have the benefit of his comments. We did, and is he picked up yet? Anything that we did or -- yes, can you answer that, Dr. Fluharty?

DR. FLUHARTY: I -- I believe that the change that the AP made in part 3 of the grandfather clause 1 as a statement of policy, that they had to qualify with -- with the second vessel, makes it impossible for Mr. Uri to qualify since he was only able to fully get a -- you know go through the -- I mean, he did one and two on his way to doing what we had earlier said in number three, but he -- he didn't do what -- what the AP has asked. So the -- you know the person that originated this is -- is left out in this formulation.

UNIDENTIFIED SPEAKER: And he wouldn't be picked up by the hardship ...

DR. FLUHARTY: Well, I think -- I think that that was why I was suggesting for the one that I do know, he also assured me that of the six vessels that he -- plus his that we knew had sunk during that time, I don't know about this additional vessel, that the other six -- none of them had any new vessel put in to replace them during this time period. So I think that the -- having, you know, deleting this would leave him open to use the rules and regulations that Mr. Smith and all has proposed. The only thing, by leaving this in, I suppose you could say that that would be an expression of the Council that we agreed with the AP that someone should not be qualified in the event that they had both catch histories. mean, that sort of -- if we act with this, I think that would tend to give direction to that review that would obviously prejudice the case in favor of what the Council wanted. But I'm not sure that that's what -- that that was why I was proposing to delete this and just let it go forward, because that's -- the others in that same category, if there are any, will make their representations to National Marine Fisheries So I'm just trying to find us the simplest way that Service. people can all get fairly treated.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Mr. Chairman, this may not get

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at what Mr. Fluharty's raising, but I think that guy maybe will be accommodated in the appeals process through the language that's been proposed, but I would move -- and I guess, you know, be interested in hearing debate or objections to this, that we handle stacking on sinking vessels the same way in this fishery as we did in crab. And that would be that if someone has met the recency requirements, they'd have to acquire a license from a vessel that sank, but as long as that was a qualified LLP license that they combine with their recency requirement, they would be legal in the fishery. That's a motion.

> UNIDENTIFIED SPEAKER: I'll second it.

UNIDENTIFIED SPEAKER: Mr. Chairman, how many vessels is that going to involve?

MS. BEHNKEN: My understanding from what Darrell said was it was maybe six or seven vessels that might be affected by that.

> MR. CHAIRMAN: Is that right?

DARRELL: Yes, Mr. Chairman, that's about as close as I can come. From the June 17th time period -- '95 time period forward, there's been approximately seven vessels that have sank. This stretches back another six months, and if there's a few vessels that sank in that time period, I haven't accounted for those, but that's pretty close to the number that I would expect to see under this provision.

MS. BEHNKEN: If -- if I -- could I speak to

that?

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MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Yeah, Mr. Chairman, I guess, and I don't know if there's other people out there in this situation, but we did have one person testify that had very significant landings in this, you know, window, the recency requirement window that we're looking at. And he had an LLP license that I guess he's appealing 'cause it may not quite make the qualifications, but if I'm understanding from Darrell what the AP's recommended, if we went with this, his recency requirement -- or his recent history would do him absolutely no good. He would have to go buy a license that was both an LLP license and had the recency requirement. So basically his history would be invalidated by what the AP has recommended. And that strikes me as really disenfranchising him from some significant participation dependence on this fishery history and the fishery. So I hope I have this all right, but that -that would be my intent, and I think also it would be consistent with what we've done before, and I haven't really heard a reason from anybody as to why we should do anything different with this fishery than what we've done in the crab fishery.

MR. CHAIRMAN: Ms. Salveson.

MS. SALVESON: Thank you, Mr. Chairman. And

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this question, I think, is to Linda, and maybe Darrell. Not speaking to the hardship provision so much as the stacking issue, and the AP kind of rolled both these in the same recommendation. If I understood you correctly, are you suggesting that we allow basically the two-way stacking of licenses that was provided under the crab recency criteria that the Council adopted October '98, allow that same sort of two-way street as -- versus the one-way street that the AP recommended. And if that's the case, I'm wondering if the motion that was put forward by Mr. Bundy that would allow about 48 vessels in under 4A would now be more akin to what we see on Table 413, which would be 4A based just on the recency criteria not the LLP constraint. That's rather long-winded, I'm sorry.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Mr. Chairman, I don't think I'd gone quite that far yet, but I might -- I might accept a friendly amendment. But what I was just proposing was that they at least have the option of acquiring the qualified LLP from a vessel that sank, which really limits who they can buy them from and only adds the opportunity for seven vessels, and maybe there's a few that sank that we don't know about, but it's a pretty limited pool. And I'm not even sure that's going far enough. And I don't really know why we're differing from what we did with crab LLP. And I hope someone can build

a case for why we're doing something different or amend my motion to broaden it to be the same as what we did for crab.

MR. CHAIRMAN: Mr. Kyle.

MR. KYLE: Yeah, Mr. Chairman, if I understand, and I'm certainly not sure that I do, it seems like what the AP did that's different this time is -- is more restrictive than what we did under crab. And for the life of me, I don't know why -- you know, we went the other way on crab. I have no recollection whatsoever why we were less restrictive under crab when we were trying to reduce licenses as well.

MR. CHAIRMAN: Mr. Benton.

MR. BENTON: Mr. Chairman, I think that holds for a number of decisions we made here to this day. Thank you.

UNIDENTIFIED SPEAKER: Mr. Chairman.

MR. CHAIRMAN: Mr. Bundy, were you -- I thought you were seeking recognition.

MR. BUNDY: No.

MR. CHAIRMAN: Mr. Kyle.

MR. KYLE: Yeah, I -- I -- as I recall, we we're about the same thing under crab as we are under P. cod, and that's getting rid of latent licenses. And I just really -- this -- I mean, Darrell, do you know why we went the other way on crab? Why the -- I mean, that -- sounds like we need

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to get something in the record here.

MR. CHAIRMAN: Obviously you limit your comments to something you know he said that we apparently didn't.

UNIDENTIFIED SPEAKER: Or you can just make it up. We -- we're not asking you to interpret why we did something.

- UNIDENTIFIED SPEAKER: Yeah, Mr. Chairman, without going back and researching this, I would really be climbing out on a limb to get you an answer.

MR. CHAIRMAN: Yeah, I suspected that. Mr. Samuelson

MR. SAMUELSON: Thank you, Mr. Chairman, I'm reading Mr. Dewey's [ph] letter dated April 15, 2000, when he gave public testimony. It was pretty confusing. I asked him to write us a letter. I hope you all have it. And I'd like to read the last paragraph. I think it'll clear up the AP's motion. In summary, I would like the grandfather clause applied for those vessels that were LLP qualified and sank after January 1, 1995 and replaced within two years and began fishing after replacement, thereby demonstrating intent to be a viable participant in the cod fishery but for the sinking. The Endurance immediately fished after its purchase in September 1998 and continued to fish since then. And that previous page kind of mirrors exactly what's in the AP motion.

UNIDENTIFIED SPEAKER: Mr. Chairman, except the AP motion does not allow him in.

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UNIDENTIFIED SPEAKER: Mr. Chairman, there's one word missing from his letter which is "not". If you use the language from the -- of the original from our -- what do we call this -- the executive summary, it talks what the Council wanted [indisc.], but not the language in grandfather clause 1, item 3 of the AP. So that everything works if you keep the language the same as it was when we started out, which was owner of a replacement vessel has demonstrated continued interest, intent to fish for Pacific cod by recent landings as defined by any landing before December 31, 1999. And then -- and so that was -- that would take care of that single case. But the current language says that you would have to meet the recent cod landing requirement in order to qualify, and he -- he clearly doesn't do that. And I think the letter explains why that was not possible. And that's why I'm thinking it's -- it's easier to let Phil Smith and people who get this down would notarize, you know, go after the facts against a statement of policy by the Council. And I think that -- that's probably going to be an easier way to -- to handle this -- this specific case that we know about as well as perhaps some of these others that are coming up, and I -- I think this -- the stacking issue really should be separated, 'cause that wasn't the starting point of this. It was just

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trying to address both ends of that, so it's really kind of -confuses the situation.

> UNIDENTIFIED SPEAKER: Mr. Chairman.

MR. CHAIRMAN: Yes.

UNIDENTIFIED SPEAKER: Mr. Chairman, I'd like to propose a friendly amendment to -- hopefully a friendly amendment to Ms. Behnken's motion that we make the stacking provisions for the Bering Sea Aleutian Island P. cod fishery LLP program consistent with the stacking provisions in the Bering Sea/Aleutian Islands crab fishery.

> UNIDENTIFIED SPEAKER: That's what she said.

MS. BEHNKEN: Mr. Chairman, no, it wasn't quite what I said, but I'll accept that because no one has given me a reason for why they should be different, and failing a reason for why they should be different, it makes sense to me that we should be consistent with what we did in the past. And if I -- could I go on just a little bit?

MR. CHAIRMAN: So you've accepted it and now you're speaking to it?

MS. BEHNKEN: I have accepted it, yeah. -- I guess, you know, Mr. Kyle asked why did we do what we did in the past. Well, I think our intent there was to say you can't have these two histories, which neither quite make it, and end up with two licenses. You have to put two together to make one, which, you know, is going in the right direction,

but what we did here was say even if you come up with the two that both make it, they still don't make one license. And I can't understand why we would invalidate someone's history to that extent. So I'll accept it as a friendly amendment, and I'll be supporting it unless someone can give me a reason for why we wouldn't allow that kind of combination of histories to equal one license.

MR. CHAIRMAN: Yes, Ms. Salveson.

MS. SALVESON: Thank you, Mr. Chairman. I'm not going to speak for or against the motion, just a clarification then. During the whole Council discussion, particularly on the pot catcher vessel recency criteria, we would then be reverting to another series of tables than the ones that we had been working off of because potentially every vessel that exempted -- or participated in the fishery between '95 and '99 under options 1A -- well, all the options listed on page 73 of the analyses, potentially, they -- if they're not already hooked up to an LLP license they could be. So to the extent they would not have qualified under Table 4.14, they would qualify under -- potentially, if they found an LLP license to buy, under 4.13.

MS. BEHNKEN: Mr. Chairman, ...

MR. CHAIRMAN: Ms. Behnken.

 ${\tt MS.}$ BEHNKEN: ... that's my understanding of the effect of the friendly amendment ...

MS. SALVESON: Okay.

MS. BEHNKEN: ... is that we're then working off the tables on page 73, which is not to say all those guys will come up with an LLP license, but they have that opportunity.

MS. SALVESON: Right.

MS. BEHNKEN: And we recognize it's going to be a fairly significant investment on their part, but that's what we -- that's the option we gave the crabbers and that's the requirement we gave the crabbers was if you got recency and you have LLP, you got to go get the other and vice versa. So, you know, it's laid out for us in those tables so everybody knows what we're talking about. We're still applying the same criteria for landing. We're just dealing with the stacking issue a little differently from what the AP, but I appreciate the qualification -- clarification.

MR. CHAIRMAN: Mr. Kyle.

MR. KYLE: Then just to be sure what we're talking about here, the -- if we were to support this, we're going from 48 qualified folks -- boats to 65. Is that ...

UNIDENTIFIED SPEAKER: Potentially 65.

MR. KYLE: So potentially 65, or is there just the seven, Mr. Chairman, that ...

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Thank you, Mr. Chairman, the --

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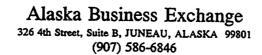
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the effect of my original motion before the amendment was that there were only seven more licenses available because they had to come from a boat that sank. And, well, maybe there's one or two boats that sank we didn't know of, but anyway around seven more that could be added to the 48, but what -- with Mr. Benton's friendly amendment, which makes it consistent with what we did in crab, these boats that meet the recency requirement can buy an LLP license so the highest number then is this 65, because those licenses are available to them to buy.

MR. KYLE: Mr. Chairman.

MR. CHAIRMAN: Mr. Kyle.

MR. KYLE: Yeah, I -- I'm going to oppose the amendment. And I'll tell you why. I am sure that what we did under crab made very good sense at the time. We're looking at different years. We're looking at a different fishery that's very short for the most part, fisheries that there can only be one or two landings in. We had years that fisheries weren't even open. You know, and I -- I just think the fact scenario that led us to do what we did under crab, and if we had the time go and research it, it is totally different than the fact scenario that we have existing under this fishery. And I'm going to rely on the fact that we probably took the AP recommendation back then, and that they thoroughly vetted the issue and that they've thoroughly vetted it this time with a



different set of facts, a different fishery, a different set of quotas, a different set of markets, and I'm going to stick with the intent of the AP and oppose the motion.

MR. CHAIRMAN: Any further discussion? Mr. Bundy.

MR. BUNDY: Thank you, Mr. Chairman. Really a question of the maker of the motion now. Would -- are we talking only about the pot side of this equation or the rest of it also, is one question. And then the other question that I've got is just so that I understand it a little bit better. And maybe this really would be a question to Darrell, but as a practical matter are we talking about probably crab boats that have a crab license and then also they have a pot or a groundfish license, and would that be a separate license then that they could sell off to somebody to help them make ...

DARRELL: No, they can't do that.

MR. BUNDY: Okay. That -- that's my question that I just want to understand.

DARRELL: Mr. Chairman, ...

MR. CHAIRMAN: Darrell.

DARRELL: ... if I may. Currently licenses -original licenses issued to a vessel, if they earned both a
groundfish license and a crab license, those are unseverable
licenses. If a -- if a crab boat had gone out and bought a
groundfish license from someone else, those licenses would not

be fused together if they were not originally issued that way. They would remain separate and they could sell off one or the other, but I think most of the licenses that we're concerned about here are probably licenses that were initially issued as both groundfish and crab and can't be separated.

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MR. CHAIRMAN: Mr. O'Leary.

MR. O'LEARY: Yeah. Mr. Chairman, I -- I think I could be somewhat sympathetic to this motion if -- if the motion basically said the action had been done by final action of the Council, but because I don't necessarily want to thwart someone who is out there, who has gone and bought a license and has recent catch history with the expectation when they bought that license that -- that by combining them, they would be all right in this fishery, but our intent here is to draw the fishery down to a level, at least of the people who carried the motion, to a level of participation somewhere in the neighborhood that we've wound up. And to me, going to 65 blows that out of the water. I -- I cannot -- I can't support the motion for this to happen subsequent to our current Because subsequent to our current action, then anybody who didn't qualify who either has recency or who has a license is going to be out there either selling their recency or selling their catch history. And that, to me, that goes too far to thwarting Council action.

MR. CHAIRMAN: Mr. Benton.

MR. BENTON: Thank you, Mr. Chairman. Chairman, irrespective of the vote on the qualifications for pot catcher vessels with regard to recency, it strikes me that we would be in a very difficult situation of treating similarly situated fishermen with very substantially different set of criteria, and that is exactly what the Council is doing unless we adopt this. And in fact in many instances, I think these are the same fishermen, and we probably need to keep that in mind, that we are dealing with a group of vessels and fishermen that are either the same people or similarly And we adopted a set of criteria in the pot situated. fisheries for crab. You know, they weren't exactly what everybody wanted, but it's sort of how it came down, and it -it fit the facts then. And what we're talking about now fits the facts now. The fact of the matter is, is that what we're really doing here is we're providing an opportunity for those very similarly situated fishermen that we are disenfranchising, by adopting the overly restrictive measure that we did for the pot cod fishermen we're affording them the opportunity to perhaps make themselves whole and get into the I mean, I don't know who these people are and I don't even know exactly that these are the same people, but I bet you that a bunch of them may be the same people or that certainly they are similarly situated. If we don't adopt something like this, and I think what we've done is we've

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created a very selective targeted differential for qualifications for people that are basically in the same fishery, and I don't know if that meets the national standards; I don't know if it meets the Magnuson Act requirements.

MR. CHAIRMAN: Ms. Salveson.

MS. SALVESON: Mr. Chairman, this is a question to Ms. Behnken, and forgive me if this has already been clarified, but when we talk about establishing the criteria by which licenses can be combined or not, the conversation has kind of been focused on the pot catcher vessels, but that same provision would affect the pot catcher processors and longline catcher vessels and perhaps also the freezer longline group. So is the intent of your motion to apply broad scale across every single fixed gear sector we've been talking about, and if that's the case, again, it might be useful to get clarification, maybe from staff to the Council on what tables we're working from because I think it is different from what the AP may have provided -- or had assumed.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: Mr. Chairman, my motion is to make what we do with regards to cod consistent with what we did in the crab fishery. So yes, it applies to all sectors. And I think throughout this analysis we're provided with

tables that include the first set, that's people that meet the recency requirement but don't necessarily make the LLP And then another table that says these are the guys numbers. So the information is certainly there, and that make both. you know, I've sort of flipped through while we've been in this discussion and looked at some of those numbers. And you know, I will say I didn't start this sort of exploration of where we stood with the intent to do this, but I really don't see how we can do anything but be consistent with our action in the crab fisheries, particularly given the fact that the crab fisheries are very unsafe stocks that are depleted, a whole bunch of reasons why we would have been more restrictive than we would be with a cod stock that's fairly robust and long season, and so for, you know the reasons Mr. Benton cited, for consistency reasons for my own sense of doing what's fair and equitable to the people in both these fisheries, that would be my intent, and I would -- I'll be

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voting for it.

MR. BENTON: Mr. Chairman.

MR. CHAIRMAN: Mr. Benton.

MR. BENTON: Thank you, Mr. Chairman. Just to quickly look through some of the data here, and I don't -- I couldn't find it quick enough for freezer longliners, maybe Darrell has that. But if you look at the pot catcher vessels, the difference, I think, Ms. Salveson you pointed that out.

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The difference is probably between Table 4.14 and 4.13, the difference being 48 vessels, which is a 75 percent reduction in the fleet to 65 vessels, which is a 68 percent reduction in the fleet. All right? If you go over and you look at Table 4.12, I believe it is, that shows the LLP qualified catcher processor pot vessels, and if I'm looking at this correctly, it's option 3A, is what was chosen by the AP with 300,000 That's five vessels down from a total of 14, and the change is potentially an extra two vessels to come in because you would use Table 4.11, and under 300,000 pounds, 3A, there's seven vessels, down from a potential group of 20. that would be the differential that we're talking about in those two categories. I haven't got the freezer longliner handy because I didn't have time to look it up.

UNIDENTIFIED SPEAKER: Mr. Chairman.

MR. CHAIRMAN: Yeah.

UNIDENTIFIED SPEAKER: If I may go through the freezer longliner. In the freezer longliner category, there wouldn't be any change. All those vessels appear to be LLP qualified to begin with. So the number of vessels would remain the same. In the longline catcher vessel, because the less-than-60-foot vessels were exempted, the number of vessels greater than 60 feet doesn't change; it's three in each case. So really what we're talking about is the pot sector here.

MR. CHAIRMAN: Any further discussion?

the roll on the Behnken motion.

MR. AUSTIN: Mr. Chairman.

MR. CHAIRMAN: Yes, Mr. Austin.

MR. AUSTIN: Can I ask one more question before we [indisc.]? All these other numbers, we're dealing with reality. In this number, we're dealing with a potential. Can anybody address that? How much of a reality is in the petential? Are you getting what I'm talking to, Darrell?

UNIDENTIFIED SPEAKER: I thought he did, but

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MR. AUSTIN: I know -- I know the numbers, but they're -- we're looking at apples and oranges, and that's -- that's my question. Has anybody -- can anybody -- 'cause -- I mean, we haven't had any public testimony to this. This is totally coming out of [indisc.].

MR. CHAIRMAN: Well, let me ask this, Darrell. Do you know of anything that's germane to this issue that you haven't already told us that would have an effect?

DARRELL: No, Mr. Chairman.

MR. CHAIRMAN: Okay.

MS. BEHNKEN: Mr. Chairman.

MR. CHAIRMAN: Ms. Behnken.

MS. BEHNKEN: I just -- just if it gives Mr. Austin any -- helps him at all with his decision, there was someone who testified who is sort of in a world of hurt if

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they can't get an LLP -- if they can't make themselves whole. They have significant history recently, they've sort of discovered there LLP misses by like 50 days or something. they are the ones that brought this to my attention. And then in terms of looking at the numbers, the one table that we're working off before are the guys who will automatically qualify under what we've done. The other table says, well, you guys who are in -- who are getting cut out between Table --[indisc.] Table 1, but do have the recency requirement that go out and buy an LLP license, you can come in. So we're requiring a fairly significant investment of them to come in. But the maximum, you know barring some appeals are what's listed in that other table. Because there's only that many recency requirements. There are only that many that can go So those guys can buy LLPs or an LLP guy can buy those recencies, but there are only a limited number of recency. And I don't know what those licenses are going to sell for, so I can't tell you, you know, whether there's ten people who can afford the license or 50, but I think that's the way I'm evaluating it anyway.

MR. AUSTIN: Thanks.

MR. KYLE: Mr. Chairman.

MR. CHAIRMAN: Mr. Kyle.

MR. KYLE: Mr. Chairman, yeah. If I -- if I'm not mistaken, Mr. Chairman, I think that person's original LLP

qualification is under appeal. And so I don't know if that's a good justification for springboarding into where we're headed now, but what I would really like, and I think it's time to call the question, is to have the motion restated on the record 'cause I've lost track of what the motion says.

MS. BEHNKEN: Mr. Chairman, may I?

MR. CHAIRMAN: Go ahead.

- MS. BEHNKEN: Thank you. My motion would be it would be a substitute for what the AP recommended on
stacking. And that is that we make our stacking provision
here consistent with the stacking provision from the crab LLP.
That allows people who have the recency requirements to buy an
LLP and become one license, or who have their LLP
qualifications to buy the recency and make one license. In
any case, we only end up with one license out of that, but I
think as Mr. Benton put it, it puts -- it gives people the
opportunity to become whole.

MR. CHAIRMAN: Okay, any further discussion? Call the roll, on the Behnken motion.

UNIDENTIFIED SPEAKER: Mr. Chairman. Mr. Chairman, so this motion in no way addresses the grandfather provision 1 that we had originally started out on.

MR. CHAIRMAN: NO.

UNIDENTIFIED SPEAKER: That'll be a separate thing. Okay.

1	DR. POTSKY: Mr. Bundy.
2	MR. BUNDY: No.
3	DR. POTSKY: Dr. Fluharty.
4	DR. FLUHARTY: No.
5	DR. POTSKY: Mr. Kyle.
6	MR. KYLE: No.
7	DR. POTSKY: Mr. Mace.
8	- MR. MACE: No.
9	DR. POTSKY: Mr. O'Leary.
10	MR. O'LEARY: I recuse myself.
11	DR. POTSKY: Ms. Salveson.
12	MS. SALVESON: Yes.
13	DR. POTSKY: Mr. Samuelson.
14	MR. SAMUELSON: [Indisc.].
15	DR. POTSKY: Mr. Austin.
16	MR. AUSTIN: No.
17	DR. POTSKY: Ms. Behnken.
18	MS. BEHNKEN: Yes.
19	DR. POTSKY: Mr. Benton.
20	MR. BENTON: Yes.
21	DR. POTSKY: Mr. Lauber.
22	MR. CHAIRMAN: Yes.
23	DR. POTSKY: Failed.
24	UNIDENTIFIED SPEAKER: Mr. Chairman.
25	MR. CHAIRMAN: Yes, Mr. [Indisc.].
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CERTIFICATE

STATE OF ALASKA) : ss. FIRST JUDICIAL DISTRICT)

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I further certify that the transcript consisting of pages 1 to 261, both inclusive, was thereafter reduced to typewriting by me or someone under my direction, and that said transcript contained herein is a full, true and correct transcript of the proceedings.

I further certify that I am not a relative or employee of any of the parties, nor financially interested in the action.

I further certify that the original of this transcript has been sealed in an envelope and transmitted to the party requesting the transcription, according to law.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 7th day of June, 2000.

Notary Public, State of Alaska My commission expires: 12/16/02

STATE OF ALASKA
OFFICIAL SEAL
Mary Fiorella
NOTARY PUBLIC
My Commission Expires 12-11-02

Alaska-Juneau

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Dr. Clarence Pautzke
Executive Director
North Pacific Research Board (NPRB)
441 West 5th Ave. Suite
Anchorage, Alaska 99501-2340

Dear Dr. Pautzke

October 5, 2002

Thank you for your update of the NPRB program and schedule at the NPFMC meeting in Seattle, October 2002.

In response, the North Pacific Fishery Management Council (NPFMC) prepared the following list of priority research topics for consideration by the NCRB in its Request for Proposal processes. Due to time constraints, the normal Council process of obtaining recommendations from the Plan Development Teams and vetting them through the Advisory Panel (AP) and the Scientific and Statistical Committee (SSC) was not available. However, input from some AP, SSC members and the public was received and incorporated into this short thematic list. We append the June 2002 list of potential research topics prepared by the SSC. We anticipate that we will develop a process by which to provide full consideration for fishery management research needs in future iterations.

The top five thematic areas for research to assist in fisheries management identified by the Council are as follows:

Improving the understanding and management of the effects of fishing on essential fish habitat. This would include, 1) dependence of the abundance of managed fish populations on the quality or quantity of specific seafloor habitat features: 2) distribution or proportions of seafloor habitat types in the Gulf of Alaska and Aleutian Islands; 3) rates of recovery of seafloor habitat features from effects of fishing;. 4) effects of gears other than bottom trawls on seafloor habitats and; 5) effectiveness of fishing gear modifications to reduce seafloor fishing effects, and 6) efficient monitoring strategies for assessing distribution of fish and fish behavior before, during and after fishing. [Rich Marasco, Chairman, SSC and supported by EFH Draft Motion by ADFG].

Identification of the factors causing decline in crab stocks and impeding their recovery. This could include: 1) study of stock structure and life history parameters; 2) investigations of harvest strategies; 3) regime shift/climate and other environmental conditions potentially affecting crab recruitment and survival; 4) predator / prey interactions; 5) bycatch, especially with respect to age and sex and discard mortality rates; and 6) fishing practices including handling mortality. [Crab rationalization discussions, SSC list, Oliver, Fluharty].

Revision of rockfish management strategy. This could include: 1) review of long term management by single species and species complexes in light of new information; 2) distribution of rockfish species in relationship to habitat; 3) comparison of alternative harvest strategies (biological, ecological, economic analyses).

Ecosystem change and implications for fishery management. This could include: 1) continued investigations of regime shifts and implications for fisheries; 2) indicators of or predictors for regime shifts; 3) development of robust strategies for adjusting management [harvest strategies, assignment of fishery privileges/ rights, assessment of socio-economic effects] as a result of regime shifts; 4) examination of long term trends in salmon distribution relative to measures to reduce bycatch in groundfish species; 5) increasing understanding of, forage fish, fisheries/seabird [and other non-fish] interactions with respect to fishing gears and through trophic impacts, and 6) influence on recruitment and growth with respect to models of population dynamics. [Ecosystem SAFE App. C, Public testimony, Tony DeGange, Oliver, Fluharty].

Socio-economic and cultural research. This could include: 1) develop appropriate methods, in consultation with coastal residents and fishermen to request, gather and archive local knowledge of the ecosystem over time; 2) explore ways to organize fisheries to promote long-term sustainable communities; 3) examine the impacts of increasing demands for preservation of North Pacific ecosystems and how to balance these interests with those of communities, sustainable fish production, and fishery management processes.

Accessibility and synthesis of research results. The NPFMC encourages the NPRB to take on the important responsibility of assembling and maintaining a data base of past and on-going studies related to the North Pacific, Bering Sea and Arctic Ocean ecosystem. In addition, as discussed in plenary session, NPFMC urges the NPRB to assume the key function of synthesizing research results and developing a strategic public outreach program to put the most recent research results into the hands of entities like NPFMC that can apply them in a management context. [Council discussion with Executive Director, Pautzke]

Please accept these research themes as the research needs of the NPFMC. If we can assist with further explanation or information, please do not hesitate to let us know.

Sincerely,

David Benton, Chairman NPFMC

Discussion of BSAI Amendment 67 Agenda Item D-2(d) October 2002

Under BSAI Amendment 67, vessels ≥60' LOA fishing BSAI Pacific cod with fixed gear (hook-and-line or pot) must have a cod endorsement in addition to a BS/AI area endorsement on their general groundfish (non-trawl) license. At the time the analysis for Amendment 67 was being developed, the License Limitation Program (LLP) was not yet in place. The LLP became effective January 2000, and NMFS continues to address administrative appeals. Thus, given the uncertainty surrounding the number of LLP qualified vessels, the analysis for Amendment 67 provided a range of the number of vessels that would potentially qualify for a BSAI Pacific cod endorsement in each fixed gear sector.

Those vessels that met the participation and catch history criteria for a Pacific cod endorsement represented the *maximum* number of vessels that would qualify under Amendment 67 in each sector. Those vessels that met the criteria for a Pacific cod endorsement and earned a BSAI LLP license represented the *minimum* number of vessels that would qualify in each sector. Thus, while the exact number of qualifying vessels could not be identified at the time, within this range was captured those vessels that qualified under the Pacific cod endorsement criteria and received through transfer another vessel's fishing history upon which their LLP license was based.

The final rule for Amendment 67 qualifies the minimum number of vessels discussed in the analysis: those that earned an endorsement and a BSAI (non-trawl) LLP license on the same vessel. The issue at hand is whether to amend the rule to include those vessels that met the qualifying criteria for a cod endorsement but received an LLP license from another (originating) vessel. Amending the rule to this effect would add more vessels to the program but would still be within the range presented in the analysis for Amendment 67 and considered by the Council in April 2000.

The following represent the maximum¹ number of additional fixed gear vessels that would qualify for a Pacific cod endorsement if the rule was modified to include vessels that currently hold an LLP license that was not earned on the same vessel which earned the cod endorsement.

Longline catcher processors: <u>Two</u> longline catcher processors would be added to the 40 vessels that RAM currently maintains are qualified for a Pacific cod endorsement.² This represents a 5% increase in the number of endorsed vessels.

¹The numbers presented represent a maximum because the Council indicated in its April 2000 motion that cod recency and LLP qualification could not be combined from different vessels to meet the cod endorsement requirements on a license. Therefore, the Council will need to identify the date at which a vessel must have held the rights which gave rise to an appropriate LLP license, such as the date of final Council action on BSAI Amendment 67.

²These numbers reflect the state of RAM's current Amendment 67 determinations; note that RAM determinations may be appealed, so the endorsements (or lack thereof) maintained at this time may change. Non-transferable licenses will be issued in the case that an applicant has made claims that differ from the "NMFS Official LLP Record." This status may be due to Amendment 67 claims, or to claims related to any other license endorsements or designations.

Pot catcher processors: One pot catcher processor would be added to the five vessels that RAM currently maintains are qualified for a cod endorsement. This represents a 20% increase in the number of endorsed vessels.

Pot catcher vessels ≥60': Three pot catcher vessels ≥60' would be added to the 58 vessels that RAM currently maintains are qualified for a cod endorsement. This represents a 5% increase in the number of endorsed vessels.

Because the pot share of the fixed gear BSAI Pacific cod quota (18.3%) is combined for pot catcher processors and catcher vessels, adding four vessels (one catcher processor and three catcher vessels) to the 63 pot vessels RAM currently maintains are qualified results in a 6% increase in the number of pot vessels with a cod endorsement.

Note also that of the 58 pot catcher vessels that are potentially qualified, several currently hold interim groundfish licenses. This means that several LLP licenses continue to be under appeal, and their status will remain uncertain until a final agency determination is made in each case. The analysis noted that only 47 pot vessels $\geq 60'$ qualified for a cod endorsement under the Council's preferred alternative and earned an LLP license. Thus, the number of endorsed pot catcher vessels $\geq 60'$ will be within the range of 47 - 58, excluding the three potential additional vessels mentioned above. Considering this range, adding the three vessels represents a 5-6% increase in the number of endorsed pot catcher vessels.

Summary: There are potentially 2 longline catcher processors, 1 pot catcher processor, and 3 pot catcher vessels $\geq 60'$ that would be affected by the interpretation of Amendment 67. These 6 vessels met the qualifying criteria for a cod endorsement and currently hold a BSAI (non-trawl) LLP license (received through transfer). These vessels would be added if the Council clarifies its intent so as not to require that the same vessel must have earned both the cod endorsement and the LLP license.

³Allowing longline catcher processors that met the catcher vessel qualification criteria to qualify as catcher vessels would increase the number of qualified boats to ten. These vessels would only be allowed to harvest from the 0.3% of the BSAI cod quota allocated to the longline catcher vessel fleet.

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM D-2 Other Business

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Biomass (tons) of rockfish in the Aleutian Islands survey, by area and year. SBS=Southern Bering Sea

Northern rockfish

Aleutian Islands Management Sub-Areas					
YEAR	western	central	eastern	SBS	Total
1991		64202	4068	582.3	215,255
1994		15831.5	5932.8	855.2	93,289
1997				204.2	87,390
2000				48.8	205,348
					176,240
2002					155,505
average	111,895				.00,000
Percentage	72.0%	22.4%	5.3%	0.576	

rougheye

Aleutian Islands Management Sub-Areas						
YEAR		western	central	eastern	SBS	Total
	1991		1969.9	5220.8	676.1	11,131
	1994		3439.4	7037	1208.4	14,552
	1997			2924.9	561.2	11,596
	2000			4224	1053.6	15,259
	2002	E. and an analysis of the second	3934.1	3099.1	1251.2	9,613
average		2,322		4,501	950	12,430
Percen		18.7%		36.2%	7.6%	

Shortraker

		Aleutian Isl	ands Mana	gement Sub	-Areas	
YEAR		western	central	eastern	SBS	Total
	1991	17557.6	3166.7	1053.2	1925.2	23,703
	1994		8110.5	11626.9	1959.1	28,190
	1997			7840.2	2428.4	38,487
	2000			5862.7	645.3	37,782
	2002			2796.6	1463.2	16,845
average		10,477		5,836	1,684	29,001
Percent		36.1%			5.8%	

Rougheye/Shortraker combined

	Aleutian Islands Management Sub-Areas					
YEAR		western	central	eastem	SBS	Total
1	1991	20822.1	5136.6	6274	2601.3	34,834
	1994	9360.5	X		3167.5	42,742
	1997	10160.5			2989.6	50,083
	2000				1698.9	53,041
	2002					26,457
avorage		12,800				41,431
average Percent		30.9%				

NMFS AKFC OCT:02

Dark Dusky

	Aleutian Is	lands Mana	gement Sui	o-Areas	
YEAR	western	central	eastern	SBS	Total
1991					
1994					
1997	481.6	9.9	32.4	0	524
2000	98.9	0	0	0	99
2002	317.6	0	0	5.4	323
average	299	3	11	2	315
Percentage	95.0%	1.0%	3.4%	0.6%	

Light Dusky

Aleutian Islands Management Sub-Areas					
YEAR	western	central	eastern	SBS	Total
1991					
1994					
1997	54.4	77.5	442	138.3	712
2000	185.5	579.4	467.5	55.4	1,288
2002	35.5	260.7	149	96.9	542
average	92	306	353	97	847
Percentage	10.8%	36.1%	41.6%	11.4%	

Shortspine Thornyhead

Aleutian Islands Management Sub-Areas					
YEAR	western	central	eastern	SBS	Total
1991	5143.3	907.6	114.7	187.4	6,353
1994	4498.9	1554.2	186.6	1070.8	7,311
1997	6726.4	2010.9	158.9	1545.1	10,441
2000	5475.6	3815.2	522.1	1051.3	10,864
2002	8245.6	5454.3	543.3	1012	15,255
average	6,018	2,748	305	973	10,045
Percentage	59.9%	27.4%	3.0%	9.7%	

From NK B-21

Discussion of BSAI Amendment 67 Agenda Item D-2(d) October 2002

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Longline catcher vessels $\geq 60'$: All three longline catcher vessels $\geq 60'$ that earned a cod endorsement also earned an LLP license. No vessels would be added in this sector.³

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Craig Cross Rob Wuram D-2

Agenda - O - 2(d) Amendment 67

1. March 8 2000 EA/RIR Pg 60

2. April 2000 Council Meeting

Transcript SectionDebate regarding "combinations of

Catch history"

I harted by Bristol Leader Fisheries LCC and Galaxy Fisherien LCC

Oxfober 8, 2002

Draft for Final Review

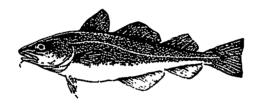
ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW/ INITIAL REGULATORY FLEXIBILITY ANALYSIS

for proposed

AMENDMENT 67

to the Fishery Management Plan for Bering Sea/Aleutian Islands Groundfish

Pacific Cod License Limitation Requirements for Fixed Gear Vessels and Establishment of Species and Gear Endorsements



Prepared by staff of the North Pacific Fishery Management Council

4.2.2.1.1 Number of Freezer Longline Vessels Projected to Qualify

Qualifying vessels in each sector of the fixed gear fishery are reported in two ways in Chapter 4: the universe of vessels that comprise the current fleet, and the universe of vessels in the current fleet that also appear to have a general groundfish license for the BSAI. The list of LLP qualified vessels represents the most recent information from NMFS, RAM Division; it includes those vessels that have applied for a license and have at least some catch history on file and excludes vessels that have applied but do not appear to have landings in the official database. The final list will not be available from NMFS until the appeals process is complete. Because of the uncertainty in recent individual license transactions, making eligibility projections on a vessel by vessel basis is only preliminary at this point. Therefore, the analysis reports both vessels with recency, and vessels with recency that also appear to be LLP qualified. The number of qualifying vessels most likely falls between the two, but it is likely to be closer to the list that are LLP qualified.

Given that the current LLP, as passed by the Council, does not differentiate among gears types within the fixed gear sector, there are 67 licenses attributable to all catcher/processors within the existing program. Therefore, not instituting a gear specific endorsement would allow the maximum possible number of freezer longliners eligible to fish BSAI P. cod to be 67. This scenario is possible, however, only if every catcher/processor under the LLP uses longline gear. Understanding that the 67 catcher/processors eligible under the current LLP are made up of both longline and pot gear, and that the catcher/processor fleet will likely not evolve to consist solely of freezer

catcher/processors qualified to fish BSAIP. cod any qualifying year under the no action alternative.

There are 50 freezer longliners that have participated in the directed BSAIP. cod fishery since 1996. All 50 of these vessels also appear to hold a general groundfish license to fish in the BSAI. Tables 4.2 and 4.3 portray the suite of alternatives proposed for limiting the number of freezer longliners in the BSAI P. cod fishery. The number of freezer longliners projected to qualify is a range of 39-43 under both Option 1 and Option 2. Compared to the current LLP eligibility of up to 67 catcher/processors (Table 4.1), either option reduces the potential number

longliners, this comparison is made to show the Table 4.2: OPTION 1: Freezer longline vessels qualified maximum number of licenses available to any 1 year 1996-1998/minimum poundage required during

Length	100+ mt	200+ mt	300+mt
60-124'	13	12	10
125'+	30	30	29
Total	43	42	39

Table 4.3: OPTION 2: Freezer longline vessels qualified any 1 year 1996-1999/minimum poundage required during any qualifying year

Length	100+ mt	200+ mt	300+ mt
60-124'	13	12	10
125'+	30	30	29
Total	43	42	39

of qualified freezer longliners by 24-28 vessels, or 36-42%. Adding 1999 as a qualifying year in Option 2 has no effect on the number of qualified freezer longliners. This is because the criteria under both options is participation in any one year, and there were no vessels that harvested at least 100 mt that fished only in 1999.

Tables 4.2 and 4.3 show that between 7-11 of the existing 50 vessels fishing do not qualify under either proposed option. As stated above, the number of qualifying vessels within the range depends solely on the minimum tonnage criteria. Overall, the number of qualified freezer longliners does not vary dramatically regardless of whether the vessel qualifies at the high or low end of the minimum tonnage requirement.

NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL
MEETING EXCERPT REGARDING PACIFIC COD GEAR ENDORSEMENTS

April 16 & 17, 2000

Alaska-Juneau

Court Reporting & Secretarial Services
326 FOURTH STREET, SUITE B, JUNEAU, ALASKA 99801
(907) 586-6846

The difference is probably between Table 4.14 and 4.13, the difference being 48 vessels, which is a 75 percent reduction in the fleet to 65 vessels, which is a 68 percent reduction in the fleet. All right? If you go over and you look at Table 4.12, I believe it is, that shows the LLP qualified catcher processor pot vessels, and if I'm looking at this correctly, it's option 3A, is what was chosen by the AP with 300,000 That's five vessels down from a total of 14, and the change is potentially an extra two vessels to come in because you would use Table 4.11, and under 300,000 pounds, 3A, there's seven vessels, down from a potential group of 20. And that would be the differential that we're talking about in those two categories. I haven't got the freezer longliner handy because I didn't have time to look it up.

UNIDENTIFIED SPEAKER: Mr. Chairman.

MR. CHAIRMAN: Yeah.

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UNIDENTIFIED SPEAKER: If I may go through the freezer longliner. In the freezer longliner category, there wouldn't be any change. All those vessels appear to be LLP qualified to begin with. So the number of vessels would remain the same. In the longline catcher vessel, because the less-than-60-foot vessels were exempted, the number of vessels greater than 60 feet doesn't change; it's three in each case. So really what we're talking about is the pot sector here.

MR. CHAIRMAN: Any further discussion?

see if I got this right. We have the Behnken motion as friendly amended ...

UNIDENTIFIED SPEAKER: By Benton.

MR. CHAIRMAN: ... by Benton which, in effect, makes the P. cod the same as crab. Okay, are you ready for the question?

> MR. SAMUELSON: Mr. Chairman.

> MR. CHAIRMAN: Call the roll.

MR. SAMUELSON: Mr. Chairman.

MR. CHAIRMAN: Oh, yes, Mr. Samuelson.

MR. SAMUELSON: Yeah, [indisc.] continue to be

neutered. I'll recuse myself.

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LAUREN: Excuse me, Mr. Chairman.

MR. CHAIRMAN: Yes, Counselor.

LAUREN: Thank you. Are we -- does this motion, Ms. Behnken, now include freezer longliners as well? I guess I'm a little confused as to whether it does or not.

MR. CHAIRMAN: Well, I guess technically it does, but Darrell has told us that it would not make any change in the freezer longline category.

MS. BEHNKEN: That's correct.

MR. CHAIRMAN: So I think the way it -- the motion was made, my interpretation was across the board, which would include freezer longliners, but it would not make any change in the freezer longliners category. Okay? And so call