

# Public Testimony Sign Up Sheet


Agenda Item D-1(a) NON-target

	NAME (PLEASE PRINT)	AFFILIATION
1	ED RICHARDSON	POLLOCK INTERVENTION COOPERATIVE
2	<del>Ed</del> Dorothy Childers	Alaska Marine Conservation Council
3	Julie Penny	AGDB
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

MEMORANDUM

TO: Council, AP, and SSC Members

FROM: Chris Oliver   
Executive Director

ESTIMATED TIME  
8 HOURS  
(all D-1 items)

DATE: April 1, 2005

SUBJECT: Non-target Species Committee Report

**ACTION REQUIRED**

Receive report from Non-Target Species Committee

**BACKGROUND**

The Non-Target Species Committee is working to develop improved measures to manage non-target groundfish species. The committee has recommended a problem statement, goals and objectives, and draft alternatives for revising management of non-target species (attached). The Council is proceeding with interim steps for managing non-target groundfish species until revised National Standard 1 (NS1) guidelines are published. The Council's first step is an amendment to the Gulf of Alaska (GOA) Groundfish FMP to revise the TAC-setting process for the other species category under the next agenda item.

Under this agenda item, the Council will consider whether to take a second interim step to initiate a combined GOA and Bering Sea/Aleutian Islands FMP amendment to address management of the other species complex. For several years, the BSAI Groundfish Plan Team and SSC have recommended eliminating the other species category and setting separate catch specifications for sharks, skates, squid, sculpin, and octopus. In February 2005, the Council requested that the Non-Target Species Committee provide recommendations on this proposal. At its March 2005 meeting, the committee recommended that only BSAI skates, or BSAI skates and BSAI and GOA sculpins, be separated from the complex since this action is intended to address the potential for developing fisheries, while the larger issue of non-target species management awaits publication of revised NS1 guidelines. If the Council decides to initiate this joint plan amendment, it should adopt a problem statement for the analysis. Final action by the Council would be scheduled for June 2006 to incorporate the 2006 BSAI and GOA groundfish SAFE reports. Implementation would be targeted for 2007.

In February, the Council also requested that the committee develop an outline for the rockfish paper along the following topics: (1) by FMP area (both GOA and BSAI); (2) by species (all, some, case example); and then by: (a) harvest rates, (b) spatial and temporal bycatch information, and (c) habitat considerations/refugia. The committee recommended that Council staff develop the discussion paper by applying Alternative 4\* to all rockfish species. It requested that staff develop a "strawman" (data analysis) for BSAI rockfish by May 31, for review and revision by the committee. Committee minutes will be distributed during the Council meeting.

The committee will reconvene in late summer/early fall to review the completed rockfish discussion paper. The Groundfish Plan Teams will review the paper in September, and the Council will review the paper at its October 2005 meeting.

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\* The selection of either Alternative 4a or 4b will be informed by the publication of revised National Standard 1 guidelines.

**Status of Council, Non-Target Species Committee, BSAI Groundfish Plan Team  
and SSC Recommendations on Non-target Species Management**

1. **General problem statement.** The current management regime may not provide appropriate protection for all species in the ecosystem impacted by the groundfish fisheries, including species for which little biological information is available. The current management system also purports to manage species that are not targeted by groundfish fisheries and may be unaffected or minimally affected by groundfish fisheries. These non-target species are often managed as a complex, which carries the risk that individual species within the complex may be overfished while the complex catch as a whole is within allowable catch guidelines. Conversely, attempts to remove these species from complexes often result in single species quotas that constrain targeted groundfish operations. Since many of these non-target species are either not abundant, not well surveyed, or have life histories that are not well understood, the quotas may not be set appropriately. However, obtaining sufficient data to appropriately manage them under the current quota system may be prohibitively expensive or not possible with current sampling technology. In addition, there is no mandate to manage these species for optimum yield so it may be desirable for both management and conservation to move these species outside of the current quota system.

The problem is then one of deciding how to manage data-poor non-target species outside of the traditional yield-oriented framework used for groundfish species, while still maintaining appropriate protection for those species. If yield-based approaches are not used, then other guidelines for acceptable levels of catch must be determined. Also, if acceptable levels of take cannot be determined and catch is still of concern, protection measures outside of the current quota system may also be considered. Additionally, since markets and circumstances change, a process for transitioning in a timely manner between quota-based target and non-target species management should be established. (*Committee recommendation*)

2. **General goal and 3-step approach** for revising management of non-target species:
- a. general approach and application to rockfish
  - b. other flatfishes
  - c. other species and non-specified species
- (*Committee recommendation*)

3. **Draft alternatives for analysis:**

Alternative 1 No action.

<u>Alternative 2</u>	Revise the TAC-setting formula for GOA "other species." <i>Initial Review: April 2005</i>
Option 1.	Set TAC $\leq 5\%$ of the sum of target groundfish TACs.
Option 2.	Set TAC at a level anticipated to meet incidental catch in other directed fisheries throughout the fishing year
Suboption:	Revise maximum retainable amount for "other species" complex by fishery.

Bering Sea Plan Team and SSC recommendation (Nov. – Dec. 2004)

Alternative 3(a) Eliminate “other species” assemblage and manage squids, skates, sculpins, sharks, and octopi as separate assemblages under specification process  
Option: Add grenadiers and other non-specified species that are caught in the fishery.

Non-Target Species Committee recommendation (March 2005)

Alternative 3(b) Break out BSAI skates from the other species category

Alternative 3(c) Break out BSAI skates and BSAI and GOA sculpins from the other species category

**ALTERNATIVE 4 ON HOLD PENDING PUBLICATION OF REVISED NATIONAL STANDARD 1 GUIDELINES**

Ad hoc group recommendation (2003); Committee recommendation (November 2004)

Alternative 4(a) Revise the BSAI and GOA groundfish FMPs to:

Part 1 Identify a *policy* based on scientific *criteria* to determine when sufficient data are available to move species between the target and non-target species categories

Step 1 Separate species that are currently in the target category into:

- target species category, if there is an intent by the commercial fishery to catch and market it; OFL and ABC would be set for each species, but TAC could be set for assemblages)

- non-target species category for all remaining single species and all species complexes with no industry intent to catch/market it; ***OFL, ABC, and TAC would not be set***

Step 2. Characterize non-target species as:

- (a) sensitive
- (b) non-sensitive

Step 3. Manage:

- (a) fisheries in the target species category under status quo management;
- (b) non-target species category by protecting them from negative fishing effects of the fisheries:
  - (1) sensitive species: protection measures (maximum retainable allowances, closed areas, seasonal apportionments, etc.);
  - (2) non-sensitive species: monitor only (details to be decided)

Part 2 Identify a *policy* based on scientific *criteria* to determine when sufficient data are available to move species between the target and non-target species categories (*yet to be drafted*)

OR

Alternative 4(b). Revise the BSAI and GOA groundfish FMPs to:

Part 1. Identify a *policy* to outline a *process* based on scientific *criteria* to determine core stock or assemblage management

Step 1. Separate species that are currently in the target and non-target category into:

- (a) Core stocks, if there is an intent by the commercial fishery to catch and market it or if sufficient information exists to set species-specific status determination criteria and the stock is considered sensitive or important (see draft NS 1 guidelines); (OFL, ABC, and TAC would be set for each species)
- (b) Stock assemblages for all remaining single species and all species assemblages with no fishery intent to catch or market it but that are caught by the fishery; (***OFL, ABC, and TAC would be set for each assemblage***)
- (c) Non-specified species for all remaining species or assemblages that are not caught in the fishery and remove them from the FMP

Option. Revise the forage fish category to include species from the current target and revised non-specified species categories, as appropriate

Step 2. Characterize species in stock assemblage group as:

- (a) sensitive
- (b) non-sensitive

Step 3. Manage:

- (a) Core stocks and stock assemblages under status quo management;
- (b) Species within stock assemblages: protecting them from negative fishing effects of target fisheries:
  - (1) sensitive species: protection measures (maximum retainable allowances, closed areas, seasonal apportionments, etc.);
  - (2) non-sensitive species: monitor only (details to be decided)
- (c) Non-specified species: monitor only

Part 2. Identify a *policy* to outline a *process* based on scientific *criteria* to determine when sufficient data are available to move species between the core stock and stock assemblage categories (*yet to be drafted subject of future ad hoc group meetings*)

4. **Reconvene ad hoc working group** on Alternative 4a or 4b after publication of revised NS1 guidelines. (*Committee recommendation*)

**Non-target Species Committee Meeting  
Seattle, WA  
March 14-15, 2005**

Committee members Dave Benson (chair), Lori Swanson, Julie Bonney, Paul Spencer, Eric Olson, Dave Wood attended. Ed Richardson attended for Karl Haflinger and Lisa Butzner and Thorn Smith attended for Janet Smoker. Whit Sheard and Michelle Ridgway were absent. Jane DiCosimo and Sarah Gaichas provided staff support. Approximately ten agency staff and two members of the public also attended. The meeting convened at approximately 10:30 am on March 14, 2005 at the Alaska Fisheries Science Center (AFSC) and adjourned at noon, March 15. The committee approved the agenda, with the addition of a presentation on localized depletion of rockfish.

In February 2005, the Council requested that the committee address two management issues at this meeting and report its conclusion to the Council in April 2005. The Council expanded the charge to the committee to also address management of target rockfish species. The Council requested that the committee develop an outline for the rockfish paper that organizes material in the following manner: (a) by FMP area and (b) by species; and then by: (i) harvest rates, (ii) spatial and temporal bycatch information, and (iii) habitat considerations/refugia. The Council also requested that the committee review the other species category discussion paper prepared by Council staff in February 2005 and provide recommendations on a proposal to break the complex into groups for setting catch specifications.

**National Standard 1** No update on proposed revisions to agency guidelines for National Standard 1 was available since the proposed rule has not been published. At issue is whether all FMP species must have overfishing status determinations. The Council and staff have communicated directly with NOAA-Fisheries headquarters staff on the Council's interest in using alternative management methods to catch specifications for non-target groundfish, which may require modification of proposed draft guidelines released in February 2003.

**Rockfish discussion paper** Jane DiCosimo reported that she and Paul Spencer met briefly with five members of the AFSC rockfish working group immediately prior to the committee meeting. Group members suggested that the proposed rockfish discussion paper should address localized depletion studies and summaries of research to be presented at the Lowell Wakefield Symposium, "Biology, Assessment, and Management of North Pacific Rockfishes" on September 12-14, 2005 [<http://www.uaf.edu/seagrant/Conferences/rockfish/info.html>].

Paul Spencer presented a paper on localized depletion of Pacific ocean perch (POP) in the Aleutian Islands (AI) during the 2000-2004 fisheries, which he and Rebecca Reuter prepared in February 2005 at the request of the SSC. Localized depletion is defined as a reduction in population size over a relatively small spatial area as a result of intensive fishing. Local depletion is a potential conservation issue for rockfish because their stock structure could occur at relatively small spatial scales and thus local depletions could affect local aggregations to a greater degree than the overall population. For example, genetic information indicates that Pacific ocean perch (POP) have fine spatial structure (smaller than management areas), while other rockfish species exhibit stock structure consistent with our management areas. Three study areas, approximately half a degree square each, near Buldir and Atka islands were examined. These areas represented approximately half the western AI POP commercial catch, so was deemed representative of the 5-6 day fisheries, comprised of 3-5 vessels. The short fisheries and few participants resulted in only a few data points to determine whether catch-per-unit-effort (CPUE) was significantly reduced during the course of the fishery, which is taken as an indicator of localized depletion. Only two of ten datasets exhibited significant declines in CPUE.

The committee discussed the paper in detail and offered a number of comments on the POP fishery and our ability to detect depletion from this fishery. These include: (1) the short duration of the fishing season reduces the number of data points from which we can determine depletion; (2) the fleet may top off on different species at the end of a reporting week; (3) high CPUE at the start of the season may be due to naïve behavior and the fish may become hook smart; (4) there may vessel specific effects; (5) the last day is often not a full day of fishing. Further investigation could explore: (1) age structure of the population; (2) how to separate fishing effects from strong

recruitment; (3) hierarchical analysis which would treat each data point as a random sample of where fishing could occur; and (4) potential changes to behavior of the population once it is fished.

The Council's June 2004 request for a discussion paper on rockfish occurred in the context of the Programmatic Groundfish SEIS. It is difficult, however, to identify a management solution until a problem in the fishery has been identified. While the AFSC has responded to the "F<sub>40</sub> review" by Goodman et al. (2002) that current harvest rate policies are appropriate for rockfishes, other management issues have been raised: (1) harvest rate studies have been explored only for a few species (e.g., POP and northern rockfish); (2) high discard rates (e.g., northern rockfish); (3) whether the occurrence of species at the edge of its range should lead to more or less protection; (4) managing small TACs; and (5) stock identification .

The committee identified two management issues for Council consideration: (1) the need to enhance rockfish management for data poor species; and (2) the need to build a research framework to gather sufficient data to determine whether a management problem for data poor rockfish species exists. Therefore, rockfish biology makes these species different from other managed groundfish species and managers should identify short term and long term research plans to gather the information needed to identify and address management problems.

The committee identified the following management priorities for the BSAI and GOA rockfishes. Major management issues in the BSAI include: (1) bycatch and discards; (2) area splits of catch specifications between BS and AI; (3) small TACs; (4) genetic stock structure for POP in AI, northern rockfish in BSAI; and (5) the need for refugia. Major management issues in the GOA include: (1) disproportionate fecundity in adult female rockfishes (i.e., do older spawners produce more viable larvae (do "mothers matter")?); and (2) appropriate harvest rates for target species and bycatch assemblages [these two issues could be examined for the AI as well].

The committee recommended that the discussion paper should be structured by applying the proposed alternative to all rockfish species in a given management area and focus on management issues related to target and non-target rockfishes separately. The paper would address appropriate harvest rates for target rockfish species, and spatial refugia for non-target rockfish species. Under Alternative 4a, the first step is to define target vs. non-target rockfish species. Target species would remain under the current catch specification system. Non-target species would not. Under the second step, non-target rockfishes would be characterized as sensitive or non-sensitive. Sensitive species would be managed; non-sensitive species would be monitored. How sensitive species would be managed would be based on individual life history and management needs to be identified by the Council. Lastly, a process for moving species between the target and non-target category would be developed.

If the proposed NSI guidelines require that all species be managed under an OFL, then a different procedure would be analyzed. Under the first step, all target species, and stocks considered sensitive or important with sufficient information to set species-specific status determination criteria, would be identified as core stocks. Any species not to be managed under quotas may have to be removed from the FMU(s) as defined in the FMPs. All remaining single species and complexes that are not intentionally caught would be managed as assemblages. Both core stocks and assemblages would be managed under the specification process.

For instance, the other rockfish category includes: dark dusky, light dusky, harlequin, red banded, redstripe, yelloweye, shortspine thornyhead, and aurora rockfishes. It also includes the following 20 rockfish species, which individually comprise <1 percent of the fishery and would not be managed under quotas under the proposed management regime: blackgill, blue, boccaccio, canary, chillipepper, copper, dark blotched, greenstriped, pygmy, rosethorn, silvergray, splitnose, stripetail, tiger, vermillion, widow, yellowmouth, yellowtail, and longspine thornyhead. Currently, the specifications are set based on the first 8 species, although catches of the remaining 20 species also count against the quota. More importantly, catches of these 20 species could be taken up to the total quota for the 8 species.

**Research review** The committee discussed scientific and policy needs that may be conflicted, or how to better link science to specific management goals. Defining different management goals for target species vs. non-target species may guide scientific research. Harvest strategies and whether "mothers matter" could be focused for target species. If mothers matter, for instance, refugia or other innovative approaches may be identified as an alternative

management measure. Setting quotas for EBS northern rockfish is an example of a management problem that could become a research priority.

The committee reviewed a summary on proposed rockfish research for 2005 that was presented by Paul Spencer (see Appendix). The committee addressed the need for more information on stock structure (e.g., rougheye rockfish; northern rockfish stock identification is being researched by Tony Gharrett), improved survey techniques for estimating rockfish biomass (e.g., longline survey), gear modification to reduce northern rockfish in the Atka mackerel fishery (what accounts for difference in selectivity of northern rockfish in the trawl survey vs. fishery?). Buck Stockhausen, AFSC, reported that he is developing an analysis of potential rockfish refugia. Within a year, he plans to use physical oceanographic models which use larval dispersion to look at potential locations for marine reserves/refugia. Ideally, these areas would be a source of larvae for the overall population, but also within the refugia itself. Ideally, some retention would occur within refuges but larvae also would flow out and not be dependent on recruitment from fished areas.

**Other rockfish management initiatives** The Council has also tasked staff with preparing an FMP amendment to separate light and dark dusky rockfish (in the GOA only) and defer management of GOA dark dusky rockfish to the State of Alaska. The Council may expand this analysis to separate black, blue, and dark rockfish in the BSAI and defer management to the State, for parity. The Council is scheduled to take final action on a pilot program to rationalize the rockfish fishery in central GOA. And the committee discussed how the Council's February 2005 preferred alternative on essential fish habitat (EFH) and habitat areas of particular concern (HAPC) in the GOA and AI may relate to possible closed areas/refugia for non-target groundfish species. It discussed how to reconcile EFH (e.g., leave some areas pristine and fish already fished areas) with rockfish depletion (e.g., do not fish the same area all the time). The committee noted that the BS was not included in the preferred alternative, but was recommended for future action. It considered whether such recommendations would occur under the non-target initiative or a separate call for proposals under EFH/HAPC.

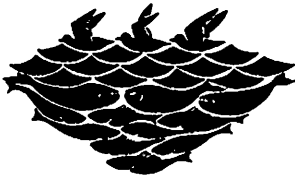
**Other species complex** The committee reviewed the suite of alternatives for other species management. It noted that Alternative 2 (to revise the TAC-setting formula for GOA other species) was scheduled for action by the Council for implementation for 2006. It recommended that the Council proceed with a revised Alternative 3 to break out some of the groups from the other species category in the GOA and BSAI. It recommended separate alternatives to break out: (1) skates in the BSAI (already separated in the GOA); or (2) skates in the BSAI and sculpins in the GOA and BSAI (and leave sharks, octopus and squid (in the GOA) in the other species category). The rationale for these alternatives is: (1) TACs for high biomass species (skates and sculpins) could overwhelm smaller groups; (2) only BSAI skates might become a target fishery and is the dominant biomass in the BSAI; (3) grenadiers should not be added as a catch specification category at this time. The committee discussed but did not recommend that octopus be re-categorized as a forage fish.

The committee scheduled its next meeting for May 31<sup>st</sup> in Anchorage/Girdwood to review staff progress on an annotated outline of the proposed rockfish discussion paper that is described above. The committee would not report to the Council in June. It would reconvene in the latter part of Summer 2005 to review the draft rockfish discussion paper, which would be presented to the Council at its October 2005 meeting.



## **Appendix. Proposed AFSC rockfish research projects, FY 2005**

- 1) **Rockfish stock structure.** Improve knowledge of northern and rougheye rockfish genetics and stock structure.
- 2) **Estimation of key life-history parameters.** Determine maturity at age for northern rockfish and Pacific ocean perch in the Aleutian Islands, and evaluate the effects of spawner age on reproductive output and larval mortality rates.
- 3) **Improve age determinations for selected species.** Upgrade equipment, provide support to prepare otoliths for reading.
- 4) **Design and evaluate survey sampling protocols to improve rockfish biomass estimates.** Hire worker to compare rockfish signal observed in echosounder on hydroacoustic surveys to signal on echosounder on trawl survey. This research will be used to evaluate the utility of using trawl-based echosign data in survey designs that reduce the variance of biomass estimates.
- 5) **Evaluation of the catchability of selected rockfish to the groundfish trawl survey and their habitat associations.** Compare density estimates of the trawl to those made from a submersible – used to assess how well our research survey trawl nets sample rockfish. Also, collect observations on habitat and the rockfish densities in various habitats.
- 6) **Investigate the genetics and spatial distribution of young of the year rockfish.** Examine the interannual variation and genetic stock structure over small spatial scales using fish from the same cohort – these samples are pelagic young of the year POP collected opportunistically in salmon surveys.
- 7) **Assessment of nursery area requirements of age 1+ slope rockfish.** Locate age 1+ slope rockfish and identify their nursery habitat during the critical life stage when rockfish settle into demersal habitat
- 8) **Evaluate potential sites for rockfish marine reserves based on patterns of larval dispersal.** Conduct computer simulation studies of dispersal of rockfish larvae from natant sites in the Aleutian Islands, eastern Bering Sea and Gulf of Alaska.



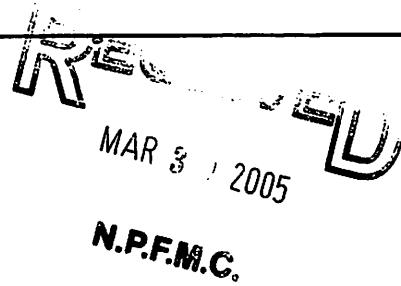
# Alaska Marine Conservation Council

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

AGENDA D-1(a)  
APRIL 2005  
Supplemental

March 30, 2005

Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501-2252



**RE: Agenda Item D-1(a): Groundfish Management: Recommended Rockfish Problem Statement**

Dear Ms. Madsen:

Roughly thirty-four species of rockfish are known to occur in Alaskan waters, with unique life history characteristics, habitat associations and population structures. The North Pacific Fishery Management Council manages many of these rockfishes with a great deal of uncertainty for how fisheries may be affecting their populations. The data limitations and complexity of managing rarely recruiting and long-lived rockfishes have added to the difficult task of developing a discussion paper that outlines alternative management measures for fisheries that target or incidentally catch North Pacific rockfishes. The Alaska Marine Conservation Council (AMCC) believes this to be a central fisheries conservation issue and we appreciate the Council's commitment to pursue solutions to issues facing rockfish management.

In June 2004, the Council requested an analysis of potential changes to harvest rates as recommended by Goodman et al. (F<sub>40</sub> Review), alternative management measures (e.g. spatial management), and habitat considerations. This decision was made when considering the policy level goals and objectives outlined in the Council's groundfish management policy as part of the Programmatic SEIS. In February 2005, the Council further refined its request of Council staff, and asked that the paper review rockfish management; a) by area, and b) by species, plus consider c) harvest rates, d) spatial and temporal bycatch information and e) habitat considerations (such as refugia). Further, the Council requested that the Non-Target Species Committee assist in the guidance of this paper.

During its March 14-15, 2005 meeting, the Non-Target Species Committee opted to consider target and non-target rockfish concerns through the scope of their existing problem statement for non-target species. While the existing problem statement for non-target species addresses the issue of managing species in a complex, with the potential of overfishing individual species within the complex, it does not address bycatch concerns, harvest rates or habitat considerations. It appears that by addressing target and non-target rockfish concerns through the scope of the existing problem statement and process

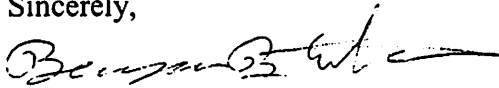
outlined by the Non-Target Committee, key management issues will not be adequately addressed.

AMCC agrees with the Council's earlier directive that the rockfish management paper should discuss rockfish management by area, by species and consider harvest rates, spatial and temporal bycatch information and habitat considerations such as refugia. After the management paper is finalized, the Council will be able to make a more informed decision for how to focus its actions to improve the management of North Pacific rockfishes.

AMCC recognizes the challenges in addressing rockfish conservation concerns and in developing alternative management measures that ensure sustainability and productive fisheries. We recommend that the Council further direct the development of the rockfish discussion paper by adopting the attached problem statement. It is our hope that the suggested problem statement adequately elucidates rockfish conservation concerns and management challenges, and provides clarity for how to move forward with this issue.

Thank you for your time.

Sincerely,



Ben Enticknap  
Fisheries Project Coordinator

Attached: Recommended Problem Statement for NPFMC Rockfish Management Paper.

## **Recommended Problem Statement for NPFMC Rockfish Management Paper:**

Approximately thirty-four species of rockfish have been identified in the North Pacific region. Many rockfish species are long-lived, have complex population structures, reproduce slowly and exhibit fidelity to localized habitats at certain life stages. The North Pacific Fishery Management Council manages many of these species either as individual stocks or aggregated in stock complexes. Recent scientific studies indicate that some rockfish species (e.g. rougheye, shortraker and Pacific ocean perch) may have unique population structures with ranges that do not coincide with existing management boundaries. Because population structures for rockfish species are complex, rockfish populations may be susceptible to age truncation, localized depletions or overfishing. There remains the potential for overfishing reproductively isolated populations in one region or sub-area, without exceeding the overfishing level of the broader management area. Similarly, there is the risk that individual rockfish species managed in a complex may be overfished while the complex catch as a whole is within allowable catch guidelines. Moreover, recent scientific research indicates that older female rockfish produce more viable larvae, therefore to ensure sustainability it is important to maintain older age classes in rockfish populations. Groundfish fisheries may have an effect on rockfish populations through directed fishing and incidentally as bycatch. High amounts and rates of rockfish discards (i.e. northern and "other" rockfish in the BSAI) are of concern even when the total retained catch and discards do not exceed allowable catch levels.

The unique life history characteristics, population structure and data limitations for North Pacific rockfishes present the Council with a distinct and challenging management problem. Moving species from complexes or managing catch levels at smaller areas may result in catch levels that constrain targeted groundfish operations. Conversely there remains the risk of age truncation, localized depletions, potential overfishing and continuing high discards if nothing is done. At this time, the Council wishes to consider alternative management strategies for BSAI and GOA rockfish such as lower harvest rates for low productivity rockfish stocks that are rarely recruiting and long-lived, spatial and temporal bycatch reduction, and habitat considerations such as refugia. The management paper should address rockfish management; a) by area, and b) by species, plus consider c) harvest rates, d) spatial and temporal bycatch information and e) habitat considerations (such as refugia).

RECEIVED

MAR 31 2005

March 30, 2005

Ms. Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501-2252

 **OCEANA** **N.P.F.M.C.**  
Protecting The  
World's Oceans.  
175 South Franklin Street, Suite 418 +1.907.586.4030  
Juneau, AK 99801 USA www.oceana.org

RE: Agenda Item D-1(a): Groundfish Management/ Rockfish

Dear Ms. Madsen:

Scientists have attributed at least part of the collapse of West Coast rockfish stocks to the failure of management to conserve large old fish and account for fine-scale spatial dynamics of recruitment (Berkeley et al. 2004). We fear that the current management of rockfish in the North Pacific is on course to make the same mistakes.

Sustainability of rockfish stocks has previously been defined as to whether sufficient spawning biomass remains after fishery removals. However, new research indicates that some long-standing assumptions in fishery management may not hold true, specifically:

- that each mature fish contributes equally to recruitment
- that total spawning biomass is the only factor necessary to ensure sustainability
- that spatial consideration is unnecessary

The studies have indicated that successful recruitment comes from a small fraction of the spawning biomass, and conserving the old age structure of rockfish populations is important for maintaining long-term sustainability. Simply put, only a fraction of the fish that spawn each year are responsible for recruitment. It is those fish that spawn at the right time and place which successfully contribute to each new cohort. In addition, it is the large old female fish that produce offspring that are most likely to survive to contribute to the next generation.

This research underscores the need for a change in the North Pacific, particularly in reference to management of rockfish. Under the current management regime in the North Pacific, rockfish populations are susceptible to age truncation and localized depletions, which increases the risk of overfishing. Many species are managed in the aggregate, increasing the risk of unsustainable removal of individual species and populations. Furthermore, overfishing limits are still set on a gross scale, in some cases across the entire Bering Sea and Aleutian Islands area. Also, a Council requested review of harvest rates (Goodman et al. 2004) indicated that an  $F_{40}$  harvest strategy for rockfish is too high and is inappropriate.

We urge the Council to develop specific plans to address management problems associated with rockfish. This is particularly critical where groundfish fisheries overlap rockfish populations along the Bering Sea slope and the Aleutian Islands. We believe that the required plans that address alternative management strategies, such as lower harvest rates, finer spatial management, bycatch, habitat considerations, and refugia may be beyond the scope of the Non-Target Species Committee and we continue to emphasize the need for a hard look at rockfish management by the NPFMC.

Sincerely,

  
Jim Ayers  
Director, Pacific Region