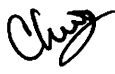


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver 
Executive Director

DATE: March 24, 2004

SUBJECT: National/Regional Bycatch Plans

ESTIMATED TIME 1 HOUR

BACKGROUND

In February we received a report from NOAA Fisheries on the National Bycatch Strategy, and reviewed a draft Regional Implementation Plan for the Alaska region. We provided comments to Dr. Hogarth on aspects of both the National Strategy and the Regional Plan (Item C-9(a)), and received a response earlier this month (Item C-9(b)). There is nothing substantial to report at this time on the Regional Implementation Plan, but we have provided a copy of the funding request relative to this initiative that was forwarded from the Regional Office of NOAA Fisheries (Item C-9(c)), and a brief NMFS discussion paper on the definition of 'bycatch' (Item C-9(d)). This was an issue of significant concern by our Council, and we may wish to provide additional feedback to the agency on this issue.

Also attached (Item C-9(e)) is a brief overview of a recent observer program related workshop held in Seattle.

North Pacific Fishery Management Council AGENDA C-9(a) APRIL 2004

Stephanie Madsen, Chair
Chris Oliver, Executive Director



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February 18, 2004

Dr. Bill Hogarth
NMFS/NOAA/Route F
1315 East West Highway
Silver Springs, MD 20910

Dear Dr. Hogarth:

At its recent February meeting, the Council reviewed the draft Alaska Region Bycatch Priority and Implementation Plan, and received a report from NOAA Fisheries staff that related aspects of this plan to the National Bycatch Strategy. We of course are eager to provide input relative to the Alaska Region Plan, and we also have comments relative to some aspects of the National Bycatch Strategy.

Relative to the Alaska Region Plan, we understand that is a 'living' document, and will be subject to ongoing input from the Council. While we generally agree that the draft plan accurately captures the status and priorities relative to bycatch management in the North Pacific, we do have a few specific comments, some of which derive from our SSC's review of the document, and some of which derive from public comment received by the Council. The SSC comments, endorsed by the Council, include: (1) that the section addressing gear technology to reduce bycatch should include specific reference to the use of experimental (or exempted) fishing permits as a means to achieve that objective; (2) because potential bycatch-related activities are so reliant on future funding, developing creative approaches to additional funding should be pursued, such as advancing bycatch priorities to such forums as the S-K program, the North Pacific Research Board, or Alaska Sea Grant; (3) note that the objectives of the Alaska Region Plan overlap considerably with the objectives in proposed revisions to the North Pacific observer program.

Further issues identified during Council discussions include: (1) relative to seabird incidental take, the draft Plan should focus more on reduction of that take, rather than on methods of counting dead seabirds, noting that the approaches identified in the draft Plan may not constitute a scientifically sound methodology relative to assigning causes of mortality of those seabirds; (2) given funding and workload limitations, the list of specific bycatch-related tasks in the document should be subjected to a considered prioritization. These comments summarize our initial input relative to this draft Plan and we look forward to working further with NOAA Fisheries on future iterations of the Plan. Relative to the National Bycatch Strategy which overlays all of the Regional Implementation Plans, we do have some questions and comments which are summarized below.

First, there appears to be no specific process identified for providing input on the National Bycatch Strategy. Given the implications to our Council and Region of this overarching Strategy, we respectfully request that some mechanism be established to allow the Councils some ability to influence that Strategy. One very significant issue became clear to us during our February meeting - that is the definition of bycatch used in the National Strategy. Our Council recommends that the National Bycatch Strategy use the same definition

of bycatch as used in the Magnuson-Stevens Act. The Magnuson-Stevens Act considers only discards as bycatch, whereas the National Bycatch Strategy considers bycatch, potentially, as inclusive of retained, incidental catch. The difference is much more than a matter of semantics, because the National Bycatch Strategy strives "to implement conservation and management measures ... that will minimize ... bycatch." This National Strategy overlays the Regional Implementation Plans, and therefore has the potential to influence the overall direction of that Implementation Plan, particularly with regard to the definition of bycatch.

Our Council believes strongly that retained incidental catch should not be considered bycatch. We have successfully managed our multispecies fisheries based on the principle that 'if you catch it, you can and should keep it, when possible'. We have implemented numerous regulations specifically designed to require retention of such catch in order to reduce discards, which have the ancillary effect of reducing 'bycatch' as defined under the MSA. The objective is to allow, or require, this incidental catch to be retained and processed, rather than wasted. In the North Pacific groundfish fishery, all catch is counted towards the TACs, whether it is targeted or not, and whether it is retained or not. We believe that the focus of the National Bycatch Strategy, and the Alaska Implementation Plan, should be to monitor and evaluate bycatch (discard) levels, and to reduce this discard to the extent practicable.

The Council and its (SSC) also reviewed a related document summarizing NOAA Fisheries' objectives for precision goals for standardized bycatch reporting methodologies. The SSC noted that the precision goals are 20-30% coefficient of variation (CV) for each protected species and for total discards of fish for each fishery. NOAA Fisheries notes that these levels are goals it "strives to achieve" (not requirements) and lists several caveats. Nevertheless, the SSC notes that a variety of factors ultimately determine the CV, including size of the fishery, sample size, species-specific aggregating behaviors, proportion of the fishery observed, and the distribution of bycatch amounts and species by area, time, and vessel. Without a database of CV values for current levels of bycatch, it is impossible to evaluate whether these precision goals are achievable or useful. Moreover, an equally important consideration in catch or bycatch estimation is the bias, the expected difference between the observed bycatch and the true bycatch due to failures to achieve a strictly random sample. They recommended that NOAA Fisheries should also include a goal to develop statistically sound sampling strategies that minimize significant levels of bias.

We hope that you will take these comments into consideration as you refine the both the National Bycatch Strategy, and the Regional Implementation Plans. Again, thank you for the opportunity to provide these comments.

Sincerely,



Chris Oliver,
Executive Director

CC: Dr. James Balsiger
Ms. Sue Salvesson
Dr. Joe Terry



UNITED STATES DEPARTMENT OF
National Oceanic and Atmospheric
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

AGENDA C-9(b)
APRIL 2004

THE DIRECTOR

MAR - 5 2004

RECEIVED

MAR 8 2004

N.P.F.M.C.

Mr. Chris Oliver
Executive Director
North Pacific Fishery Management Council
605 W 4th Avenue,
Anchorage, Alaska 99501-2252

Dear Mr. ^{Chris} Oliver,

Thank you for your comments on the National Marine Fisheries Service (NOAA) Fisheries National Bycatch Strategy and the Alaska Region Current Bycatch Priorities and Implementation Plan (Regional Plan). Monitoring and reducing bycatch are top priorities for NOAA Fisheries, and we look forward to working with the Regional Fishery Management Councils to improve and implement the National Bycatch Strategy and the Regional Plans.

It is indeed true that the Regional Plans are "living" documents. Some Councils have already started to work with their Regional Administrators to implement and in some cases revise and update the Regional Plans that were posted on the NOAA Fisheries bycatch website in early December 2003. The Alaska Regional Administrator plans to work with the North Pacific Fishery Management Council to improve the Alaska Regional Plan and address the five comments and issues listed in your letter.

I think it is important that fora be established for the Councils to engage NOAA Fisheries in a discussion of its National Bycatch Strategy, and I believe that the upcoming Council Chair and Executive Directors' Meeting on April 13-15, 2004, will be a good opportunity for such a discussion. According to the most recent draft agenda I have, bycatch management is scheduled to be discussed on April 15. The issue of incidental catch being considered bycatch, as it is in the 1998 agency report *Managing the Nation's Bycatch*, certainly expands the definition of bycatch from the Magnuson-Stevens Act definition. We felt that the definition of bycatch in the Magnuson-Stevens Act was too narrow to address the variety of bycatch challenges that NOAA Fisheries faces (e.g., marine mammal and seabird bycatch). However, this definition is worthy of a serious discussion.

I appreciate your Council's comments on the document entitled *NOAA Fisheries Objectives, Protocol, and Recommended Precision Goals for Standardized Bycatch Reporting Methodologies*. The National Working Group on Bycatch, chaired by Dr. Joseph Powers, is in the process of revising both this document and its larger parent document entitled *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs*. I will pass your comments along to the Working Group and ensure that the comments are considered during the revision process.

THE ASSISTANT ADMINISTRATOR
FOR FISHERIES




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I appreciate the numerous successful efforts made by the North Pacific Fishery Management Council to monitor and decrease bycatch. I look forward to a productive partnership with the Council as NOAA Fisheries moves forward to improve and implement the National Bycatch Strategy, including the Alaska Regional Plan.

Sincerely,



 William T. Hogarth, Ph.D.
Assistant Administrator
for Fisheries

List of Alaska Region and Alaska Fisheries Science Center Bycatch Proposals Submitted to NMFS

The status of each proposal with respect to the National Bycatch Reduction Spending Plan is identified as a high priority, a low priority, or eliminated from the current plan.

A. Gear Research/Outreach/Coordination Proposals

The following proposals are not in priority order.

1. Fishing Technology to Reduce Trawl Bycatch: Halibut and Salmon Excluders (\$116,000, gear research/outreach, a high priority)
2. Industry Contact Agents in Dutch Harbor and Kodiak for Communication, Outreach and Cooperation on Reducing Bycatch (\$44,000, tech. transfer/education/outreach, a low priority)
3. Gear Modifications to Reduce the Bycatch of Benthic Species in the Pollock Fishery (\$65,000, gear research/outreach, a low priority)
4. Development of Mitigation Methods to Reduce the Incidental Catch of Seabirds by Trawl Gear (\$50,000, gear research, a low priority)
5. Practical Assistance in Developing Applications for Exempted Fishing Permits (\$45,000, tech. transfer/education/outreach, a low priority)
6. NOAA Fisheries National Seabird Program (\$227,000, enhancement & coordination of technical expertise to reduce levels of seabird bycatch, a high priority)

B. Observer Program Proposals

The following proposals are not in priority order.

1. Kodiak Salmon Set Gillnet Fishery Observer Program (\$600,000, a high priority)
2. Pacific Halibut Longline Fishery Observer Program (\$100,000, eliminated from the National Plan)
3. North Pacific Groundfish Observer Cadre (\$200,000, a high priority)
4. North Pacific Decision-Making Model (\$45,000, a high priority)
5. Determining Coverage Levels for AK Marine Mammal Observer Program (\$50,000, a high priority)

Alaska Region and Alaska Fisheries Science Center Bycatch Proposals Submitted to NMFS

The status of each proposal with respect to the National Bycatch Reduction Spending Plan is identified as a high priority, a low priority, or eliminated from the current plan.

A. Gear Research/Outreach/Coordination Proposals

The following proposals are not in priority order

1. **Fishing Technology to Reduce Trawl Bycatch: Halibut and Salmon Excluders** (\$116,000, gear research/outreach, a high priority)

Statement of Need and Proposed Work: The Conservation Engineering program of the AFSC helps industry develop methods to reduce bycatch using a range of underwater observation systems and testing methods. A number of industry partners have cooperated on such projects and are willing to pursue further cooperative research to improve fishing gear and methods. Funds for this proposal will expand our ability for such work.

The proposed funding for 2004 will be applied to the development of halibut excluders for the Gulf of Alaska groundfish fisheries and salmon excluders for the Bering Sea pollock fishery. Both of the problems addressed present major limitations to the fisheries. The halibut project is in cooperation with the Alaska Druggers Association and the Alaska Groundfish DataBank and will include contracts for flume tank tests and chartering a trawler for field observations in July or September. The resulting design will be tested in 2005 under an exempted fishing permit obtained by our industry partners. The salmon excluders are an ongoing project with the United Catcher Boats and J. Gauvin and Assoc. supported by a wide range of participants in the pollock fishery. Ways of improving performance should come from detailed analysis of existing behavior observations, for which this project funds two biologists for the last four months of 2004. These biologists will also participate in fieldwork on both projects, using video and sonar systems to document fish reactions to trawl modifications. Finally, flow sensors and a scanning sonar system will be acquired for recording the shape and water flow changes resulting from installation of bycatch reduction devices. Both projects are expected to provide practical excluders to the fishing fleet for use in 2005.

Proposed spending:

Personnel (temp or term employees)	36 K
Contracts	40 K
Travel	10 K
Supplies	30 K
Total funds requested	116 K

Performance Measures: Documentation of practical configurations for both excluders will be available to industry partners by September 2004. The salmon excluder will be tested under an exempted fishing permit in September 2004. Preliminary results will be discussed in meetings with interested fishermen and gear designers in late 2004 and early 2005. Descriptive literature and videos will be developed to describe devices and their performance.

2. Industry Contact Agents in Dutch Harbor and Kodiak for Communication, Outreach and Cooperation on Reducing Bycatch (\$44,000, tech. transfer/education/outreach, a low priority)

Statement of Need and Proposed Work: Alaska presents a difficult challenge for those carrying out and communicating about cooperative research to reduce bycatch. The major fishing ports are Kodiak and Dutch Harbor, with additional fleets operating out on a number of smaller ports, while many of the vessels come from Washington or Oregon. Travel between these locations is time consuming, expensive and often unpredictable. We propose to establish industry contacts in both of the major ports to facilitate communication and services regarding methods for bycatch reduction. We will contract with industry organizations (such as United Catcher Boats for Dutch Harbor and Alaska Draggers Association or Alaska Groundfish Databank for Kodiak) to identify individuals who can a) provide information from bycatch reduction research to the fleet, b) feed back information to researchers on bycatch issues, problems with bycatch devices, and ideas for solutions, and c) provide and train vessel crews in using gear/fish observation systems provided by the Conservation Engineering Program. These agents will need to be knowledgeable about fishing gear operations and structure, and good communicators who can be respected by the fleet. These will not be full time positions, but ancillary work for someone directly involved in the fishing community.

Proposed spending:

Contracts	30 K
Travel	8 K
Supplies	4 K
Shipping	2 K
Total funds requested	44 K

Performance Measures: Agent contracts will be established in late spring. Evaluations will occur after the fishing season (November). Performance will be judged on the amount and quality of communications and the program's and fleet's uses of the services provided by the contact agents.

3. Gear Modifications to Reduce the Bycatch of Benthic Species in the Pollock Fishery (\$65,000, gear research/outreach, a low priority)

Statement of Need and Proposed Work: Pollock trawls generate a large portion of the estimated area of seafloor contacted by fishing gears off of Alaska. This contact and the resulting bycatch of benthic species could be nearly eliminated by gear modifications that hold the footropes 7 - 15 cm above the bottom. Reluctance to try this idea centers on whether pollock schools seen on echo sounders as being "on-bottom" would escape under such gear. During Summer 2004, the behavior of pollock encountering sections of raised footropes will be recorded and analyzed to assess the potential for catch loss. Observations will be made with the DIDSON imaging sonar and underwater cameras, allowing identification and tracking of individual fish. Experimental footrope sections will be deployed ahead of the footrope of the vessel's pollock trawl, allowing simple installation and removal.

Pilot study observations will indicate the most effective gear modifications for reducing the bycatch of benthic species in this fishery. Initial results will be presented and discussed with pollock fishermen and gear designers, to generate and select several practical gear modifications. These will be tested in a flume tank and at least one will be implemented on a full-scale commercial trawl. Effects of this design on catch rates and bycatch rates will be evaluated during subsequent field tests. Results will be presented to the industry and prepared for publication.

Proposed spending:

Contracts	60 K
Supplies	5 K
Total funds requested	65 K

Performance Measures: The pilot study will test the feasibility of the off-bottom footrope and performance of modified nets will be documented by the subsequent fieldwork. These should be completed by mid 2005. Video and written description of designs and results will be developed for the industry and management bodies. If successfully developed, the use of such gear modifications should greatly reduce the bycatch of benthic species of living marine resources by pollock trawls. This could reduce substantially the potential for the pollock fishery to have adverse effects on essential fish habitat.

4. Development of Mitigation Methods to Reduce the Incidental Catch of Seabirds by Trawl Gear (\$50,000, gear research, a low priority)

Statement of Need and Proposed Work: Observer data indicates that several seabird species (albatrosses, fulmars) are known to interact with trawl fishing gear and result in incidental mortalities. Because of the potential for interactions with the endangered short-tailed albatross (*Phoebastria albatrus*), a USFWS Biological Opinion requires NMFS to address this fishery gear interaction.

Although the specific manner of interaction is still being studied, several mitigation methods and devices are being discussed. Several trawl fisheries in the Southern Hemisphere have experienced similar interactions and researchers there are developing mitigation methods to reduce the interactions.

The Alaska Fisheries Science Center is currently collaborating with the trawl industry and scientists from the University of Washington and Washington Sea Grant Program to further elucidate the interaction and then to develop effective mitigation tools. Trawl industry input is being sought to identify the most plausible mitigation devices to evaluate.

Proposed spending: An additional \$50K is necessary to support the mitigation phase of this collaborative research program.

5. Practical Assistance in Developing Applications for Exempted Fishing Permits (\$45,000, tech. transfer/education/outreach, a low priority)

Statement of Need and Proposed Work: Exempted Fishing Permits are a valuable tool in the development of bycatch solutions by the fishing industry. However, it is often not easy to develop an effective application for a permit and follow it through the evaluation process. Clear and complete applications are necessary both for successful use of the EFP tool and for an efficient consideration process. This proposal establishes a mentoring program, supporting experienced, successful applicants or those with related expertise in advising those just encountering the process in developing and presenting their applications. Willing mentors will be identified and contracted for a) initial reviews and meetings to learn about the goals and concepts of the proposed fishery, while familiarizing the applicant with the EFP requirements and process b) follow up meetings as necessary and approved to plan, review and clarify the application. This service would provide advice and limited technical assistance and is not intended to provide a consultant to directly prepare applications.

Proposed spending:

Mentor Contracts	45 K
Total funds requested	45 K

Performance Measures: Performance will be judged by the number of applications facilitated by this process, their success and the satisfaction of the applicants. Given the current EFP approval process, program performance is not likely to be reflected in successful applications until well into 2005.

6. NOAA Fisheries National Seabird Program (\$227,000, enhancement & coordination of technical expertise to reduce levels of seabird bycatch, a high priority)

Objective: Provide additional resources to support a National Seabird Program in order to assist in meeting NOAA Fisheries' objectives to monitor and reduce seabird bycatch. Those objectives are guided by the following:

- United States' National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (NPOA)
- NOAA Fisheries Strategic Plan
- NOAA Fisheries National Bycatch Strategy
- Pro-active Conservation Planning (FY06-10)
- Executive Order (EO) 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds"

Proposed spending:

National Seabird Coordinator (0.5 FTE)	84 K
Coordinator and invitational travel	43 K
Five regional project activities	100 K
Total funds requested	227 K

Performance Measures:

- Complete of 2 seabird identification guides, one for Atlantic seabirds, and one for non-albatross species in the N. Pacific
- Sample seabird abundance as part of existing research and survey cruises off the West Coast and Alaska in 2004
- Demonstrate progress towards development of a seabird bycatch database
- Conduct at least one outreach workshop, one seabird TV segment, and one brochure for recreational fishermen related to seabirds in the Hawaiian Islands and Western Pacific
- Coordinate with Fishery Management Councils, the Longline Fishing industry, and the U.S. Fish and Wildlife Service to develop methods to reduce bycatch of seabirds

B. Observer Program Proposals

The following proposals are not in priority order

1. Kodiak Salmon Set Gillnet Fishery Observer Program (\$600,000, funding expected, a high priority)

Objective

To monitor bycatch of marine mammals and general fishery characterization

Performance Metrics

- Level of Coverage: Developing
- Observer days proposed: 131-168 permit days
- Percent of Fishing Effort Observed: 5-7% of the Alitak Bay Region

2. **Pacific Halibut Longline Fishery Observer Program** (\$100,000, eliminated from the National Plan)

Objectives

- To characterize the extent of this fishery's interaction with seabirds, in general, and endangered short-tailed albatross, in particular
- To monitor compliance with seabird avoidance regulations

Performance Metrics

- Increased level of compliance with ESA biological opinion monitoring requirements
- Successful completion of pilot evaluation of mechanisms to monitor seabird bycatch
- Preliminary estimates of seabird bycatch
- Quantitative information on fleet compliance with required deterrence measures

3. **North Pacific Groundfish Observer Cadre** (\$200,000, a high priority)

Objective

Enhancement of the program's field presence to sustain the program's ability to provide essential management information

Performance Metrics

- Increased number of days providing shoreside and at-sea support
- Increased number of mid-deployment and final debriefings
- Increased research sea days to assist in implementation of new sampling protocols and regulations

4. **North Pacific Decision-Making Model** (\$45,000, a high priority)

Objective

- To supplement development of a model that will enable informed decision
- Making relative to coverage choices in a multi-objective observer program

Performance Metric

Determine trade-offs among observer deployment strategies on an annual basis and provide a mechanism for optimizing coverage

5. Determining Coverage Levels for AK Marine Mammal Observer Program (\$50,000, a high priority)

Objective

To provide analytical support on adequate levels of coverage for the Alaska Marine Mammal Observer Program for ten MMPA Category II fisheries

Performance Metric

Estimated observer coverage levels for ten Category II fisheries that will allow MMPA mandates to be met, optimally and within reasonable budgetary allowances

**The Definition of Bycatch:
A Brief Background Paper**

The term bycatch has been used for many years and often without being well defined. The 1996 amendments to the MSA included a definition of bycatch as well as requirements both to minimize bycatch to the extent practicable and to monitor bycatch. The following is the section of the MSA that defines bycatch:

The term "bycatch" means fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program.

NMFS used a broader definition of bycatch in its 1998 report, *Managing the Nation's Bycatch (MTNB)*, it used the same broader definition in the recent final draft report, *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs*, and it used a variant of that broader definition in the *Regional Bycatch Report Card Reports* that were completed in 2003. The definitions used in the final draft report and the *Report Cards*, respectively, are as follows:

Bycatch is defined as the discarded catch of any living marine resource plus retained incidental catch and unobserved mortality due to a direct encounter with fishing gear (NMFS 1998a)

Bycatch working definition (slightly modified from MTNB): *Discarded catch of any living marine resource and unobserved mortality due to a direct encounter with fishing gear. When possible and appropriate, retained incidental catch must also be considered as bycatch.*

Compared to the MTNB definition, the new (i.e., Report Card) definition provides more flexibility with respect to the inclusion or exclusion of retained incidental catch.

The MSA definition explicitly includes fish discards and implicitly includes unobserved fishing mortality, where the latter is defined as follows:

Mortality of living marine resources due to a direct encounter with fishing gear that does not result in the capture of that species by a fisherman. This includes mortality due to lost or discarded fishing gear.

The MTNB definition made the latter explicit, added all other living marine resources (i.e., marine mammals and seabirds), and added retained incidental catch.

The following explanation of why the broader definition was used is in MTNB.

The definition of bycatch in this plan is clearly more inclusive than that in the Magnuson-Stevens Act, but appropriate given NMFS' broad responsibility to conserve the nation's living marine resources. The two definitions address different, though complementary, purposes. The plan's definition provides a basis for long-term bycatch research, management, and planning for NMFS. The Magnuson-Stevens Act definition of *bycatch* will be used in fishery management plans and implementing regulations to support National Standard 9. However, in assessing and managing total fishing-related mortality imposed on a stock, fisheries scientists and managers will likely have to consider components of fishing mortality beyond bycatch as defined in the Magnuson-Stevens Act. The plan's definition allows scientists and managers to examine the full spectrum of total fishing-related mortality within the context of a national policy, consistent with NMFS' mission to build sustainable fisheries. *Managing the Nation's Bycatch* is meant to be a strategic document that will assist the agency in meeting its goals not only under the Magnuson-Stevens Act, but also under the Marine Mammal Protection Act, the Endangered Species Act, other domestic statutes, and international agreements, including the FAO's *Code of Conduct for Responsible Fisheries*.

A more expansive definition of bycatch is consistent with the terminology used in the International Council for the Exploration of the Seas (ICES) and that used in Alverson and Hughes (1996), which emphasizes the additive nature of various sources of fishing-related mortalities. The 1992 National Industry Bycatch Workshop, one of the earliest fora to explore bycatch issues, included both discards and retained incidental catch in its definition of bycatch (McCaughran 1992). This approach is also consistent with the work of Alverson et al. (1994), the FAO's Code of Conduct for Responsible Fisheries, and the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. Retained incidental catch is also included as bycatch in current federal fishery regulations, such as those implementing the fishery management plans for the Bering Sea/Aleutian Islands groundfish fishery, the Gulf of Alaska groundfish fishery, and the Pacific Coast groundfish fishery. The definition in this plan recognizes that, particularly in a multispecies fishery, target catch is not a static concept, but may change by fishing season, day, or even set. The FAO's Report of the Technical Consultation on Reduction of Wastage in Fisheries also recognized the dynamic nature of target catch, but recommended that the term bycatch be used as a generic term to describe that portion of the catch made up of nontarget species or species assemblages.

The following is a justification that was developed initially for the 1996-98 NMFS Bycatch Team and then revised for the National Working Group on Bycatch (NWGB). The NWGB prepared the final draft report, *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs*.

Retained incidental catch is similar to the other components of bycatch in several ways. It is a byproduct of fishing activities that principally are directed at other species. It often is unintended catch. It precludes other productive uses of living marine resources, but in some cases it is the most productive use. Finally, it should be decreased if doing so will increase the overall net benefit to the Nation.

It differs from the other components of bycatch in that typically it is monitored as well as other retained catch and it is more obvious to the casual observer that this can be a productive use of living marine resources. In some cases, it is difficult to differentiate between target catch and retained

incidental catch. However, it is not necessary to do so unless too much incidental catch is occurring in a fishery.

Excluding retained incidental catch from the definition of bycatch would lead to some very misleading conclusions. The following are two three examples of this.

1. If the juvenile red snapper and other finfish taken in the Gulf of Mexico shrimp fishery were all retained, there would be no finfish bycatch and, therefore, no finfish bycatch problem in the shrimp fishery.
2. As a result of the 1998 implementation of the full retention and utilization regulations for the Alaska groundfish fisheries, all the juvenile pollock taken as incidental catch are retained; therefore, there is no juvenile pollock bycatch and no juvenile pollock bycatch problem in those fisheries.
3. The Canadian salmon fishery interceptions of endangered salmon species from the Columbia River are not a bycatch problem if the Canadian fishermen retain them.

The allocative consequences of bycatch cannot be properly addressed if all the components of bycatch are not included in the definition of bycatch. The inclusion of all living marine resources and retained incidental catch is essential to meeting NMFS' responsibility for the stewardship of living marine resources for the benefit of the Nation through science-based conservation and management of living marine resources and their habitat.

The key to much of this is remembering the following: (1) the critical MSA qualifier, "to the extent practicable, minimize bycatch"; (2) the NMFS interpretation of that phrase; (3) this broader definition of bycatch does not affect the National Standard 9 or other MSA requirements to minimize bycatch and bycatch mortality, as defined in the MSA, to the extent practicable; and (4) NMFS stewardship responsibilities for reducing bycatch existed before the MSA was amended by the SFA in 1996 and they are not limited to the additional bycatch management requirements that were added by the SFA.

The following interpretation of "to the extent practicable" is from the NMFS Bycatch Web site.

What does "to the extent practicable mean"? From a National perspective, there is too much bycatch mortality in a fishery if a reduction in bycatch mortality would increase the overall net benefit of that fishery to the Nation through alternative uses of the bycatch species. In this case, a reduction in bycatch mortality is practicable and the excess bycatch mortality is a wasteful use of living marine resources. In many cases, it may be possible but not practicable to eliminate all bycatch and bycatch mortality.

This suggests that there is excess bycatch when the overall benefits to the Nation from a fishery can be increased by decreasing bycatch. Clearly in some cases, overall benefits can be increased by retaining incidental catch rather than discarding it. However, in some cases reductions in retained incidental catch will increase overall benefits. Regardless of whether retained incidental catch is included as bycatch, any proposed management action to decrease bycatch should be evaluated in terms of its expected effects on the overall benefits to the Nation.

NPGOP Observer Deployment Strategies Workshop

Staff from the Alaska Fisheries Science Center's North Pacific Groundfish Observer Program, the Alaska Region, and the North Pacific Fishery Management Council held three days of meetings with MRAG Americas in Seattle March 8 – 10, 2004. These meetings were scheduled to discuss ongoing work by MRAG on the development of analytical methods for optimizing observer placement under conflicting objectives, and to review previous research on observer sampling and estimation in the Alaska groundfish fisheries, and to consider possibilities for future research on these topics. This workshop was part of Project 9, Develop approaches for optimizing observer deployment and tasking, under Objective 1, Improve Standardized Bycatch Reporting Methodologies (SBRMs), in the Alaska Bycatch Implementation Plan.

During the first two days, staff spent a great deal of time briefing MRAG on science and management uses of observer data, details of current inseason management procedures, and likely inseason management challenges under Gulf rationalization. MRAG plans to synthesize this information and develop recommendations for development of the aforementioned analytical procedures. On the third day, MRAG staff reviewed studies conducted by MRAG, other consultants, and agency staff during recent years. The discussions focused on research designed to develop improved observer sampling methods on trawlers and longliners. These studies produced promising results and should be followed up with additional field research.

**Public Testimony Sign-Up Sheet
and
Other Handouts Received**

C-9 handout
4-5-04 fr.
NMFS

Responses to Council Comments on the Draft Alaska Region Bycatch Priority and Implementation Plan

The SSC Comments, Endorsed by the Council

1. The section addressing gear technology to reduce bycatch should include specific reference to the use of experimental (or exempted) fishing permits as a means to achieve that objective.

The sections that describes recent gear technology research (Section 2.1) does mention the use of exempted fishing permits and the suggested change will be made to Section 3.3. Note that a proposal to provide practical assistance in developing applications for exempted fishing permits was one of the gear research/outreach proposals submitted to NMFS as part of the Alaska Region Bycatch Plan.

2. Because potential bycatch-related activities are so reliant on future funding, developing creative approaches to additional funding should be pursued, such as advancing bycatch priorities to such forums as the S-K program, the North Pacific Research Board, or Alaska Sea Grant.

We agree and a similar point is made in the following text from Section 3.5.3.

The Alaska Region and Science Center will continue to support a broad range of data collection and research programs to provide bycatch information and will attempt to encourage and attempt to coordinate funding for this research from internal sources (including Saltonstall-Kennedy grants), Sea Grant, NPRB, and foundations. The internal funds will be used to support internal research, contract, grants, and cooperative agreements, and, where appropriate, they will be used to leverage external funds.

3. Note that the objectives of the Alaska Region Plan overlap considerably with the objectives in proposed revisions to the North Pacific observer program.

We agree and the Plan will be revised to make that point more clearly. The Alaska Bycatch Plan states that

Improved SBRMs will be developed with research projects and they will be implemented with policy and regulatory actions. The regulatory actions will be developed and implemented cooperatively with the Council.

Four of the methods listed for improving the standard bycatch reporting methodologies (SBRMs) are linked to efforts to establish a new program for observer procurement and deployment in the North Pacific.

Further Issues Identified During Council Discussions

1. Relative to seabird incidental take, the draft Plan should focus more on reduction of that take, rather than on methods of counting dead seabirds, noting that the approaches identified in the draft Plan may not constitute a scientifically sound methodology relative to assigning causes of mortality of those seabirds.

The Plan strives for an appropriate balance between monitoring and decreasing bycatch. However, additional efforts to attain that balance will be made. The proposed research that prompted this comment has been revised to better reflect the priority level and nature of that research. The fact that it was not included in the bycatch proposals that were submitted to NMFS indicates that it is not a high priority project.

2. Given funding and workload limitations, the list of specific bycatch-related tasks in the document should be subjected to a considered prioritization.

We agree and expect that setting priorities will be one of the objectives of efforts to improve the Plan.