

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: January 3, 1994

SUBJECT: Research Priorities

ESTIMATED TIME

1 HOUR

ACTION REQUIRED

Review recommendations from Plan Teams and forward to NMFS.

BACKGROUND

In 1988, NMFS requested Council input on research priorities to be included in their budget planning process. This has become an annual request and the Council developed a policy for the development of research priorities (Item C-5(a)).

In November 1993, the groundfish Plan Teams updated their list of priority research topics for 1994. This is attached as Item C-5(b). Please note that these are more specific topics of research, rather than general areas of research as has been presented in the past. Many of these topics require continuing attention and effort over an extended period. Consequently, research budgets were not prepared. Costs may vary depending on the techniques and level of research required.

At past January meetings, the Council has reviewed research topics and developed priority recommendations. This process assists the NMFS in determining which projects to fund in their budget.

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

Policy on Development of Research Priorities*

The Council adopted an annual schedule for the development of fishery research priorities. The following schedule is intended to provide NOAA Fisheries with the Council's research priorities as they prepare their agency budget and research plan.

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| Early September | Plan teams prepare list of research topics. These topics would be influenced by ongoing research programs, stock assessment surveys, problems with management of fisheries, industry proposals, and prior Council discussion. |
| October | Research topics are more fully developed and costs estimated (this work could be performed by the plan teams and representatives of NOAA Fisheries (Alaska Region), Alaska Fisheries Science Center, and the Alaska Department of Fish and Game who are knowledgeable with the proposed work). |
| November | Plan teams review topics, finalize list and make priority recommendations. |
| December | Recommended research priorities are presented to the Council, SSC and NOAA Fisheries Regional Office for review. |
| January | Council reviews research topics and comments, and develops their priority recommendations. |
| Late January | Council recommendations for fishery research are forwarded to the NOAA Fisheries Regional Director for use in preparing its annual budget. |

The long lead time in the NOAA Fisheries budget planning process means that major research initiatives approved by the Council in January of one year will not be incorporated by NOAA Fisheries until two years later.

*Approved in January 1989.

Priority Research Topics GOA and BSAI Groundfish Plan Teams

The following research areas were recommended by the Plan Teams at their November 1993 meeting. The list is not in priority order.

Groundfish in general: Expansion of existing trawl and longline surveys into deeper water would improve biomass estimates for thornyheads and flatfish, particularly Dover sole and Greenland turbot. New or expanded surveys would improve abundance estimates of juvenile and adult pollock, and other groundfish. The effectiveness of survey strategies in assessing abundance of rockfish and Atka mackerel should be further evaluated. Seasonal sampling would allow collection of maturity and behavior information, perhaps by the Observer Program.

Pollock: Predator-prey relationships for Steller sea lions and pollock should be further evaluated. Stock assessments could be improved with additional surveys, and on survey selectivity. Additional information on maturity, stock structure, reliable recruitment indices, and areal contribution to recruitment is required.

Pacific cod: Maturity information is lacking, and will be required for stock synthesis. Questions remain concerning survey selectivity, and cod migration and natural mortality.

Sablefish: Verify longline survey abundance indices with direct observations. Additional information on maturity and areal contribution to recruitment would be helpful.

Flatfish: Age and growth data are lacking for Dover sole in the GOA. Maturity data are needed for all species. The 1994 ABC recommendations are based on $F_{35\%}$, and maturity information is only available for BS/AI yellowfin sole. Predator-prey interactions for arrowtooth flounder should be explored.

Rockfish, in general: Age and growth data need to be collected, and estimates of natural mortality refined. Stock structure investigations may determine whether regionalizing overfishing levels are necessary. Habitat stratification would help to improve surveys for several species. Additional surveys are necessary to better assess abundance, stock structure, and distribution. For black rockfish, a near shore survey would resolve questions concerning population abundance and distribution. Before stock synthesis can be used to assess thornyheads, differences between the domestic and cooperative longline surveys need to be reconciled. Bycatch and discard of thornyheads need to be evaluated.

Atka mackerel: Maturity data for this species are lacking. Improved surveys would better assess abundance, distribution, stock structure, and migration. A survey of the Aleutian Islands is needed to verify the abundance and distribution of Atka mackerel; the last survey was in 1991.

Ecosystems considerations: Because marine mammals and seabirds are an important consideration in fisheries management, further studies are needed on interactions among fisheries, marine mammals, and seabird populations. The Team recommends that surveys be developed to assess the distribution

and abundance of small pelagic prey. Specifically these surveys should target small fish (capelin, sandlance, and juvenile fish), shrimp and euphasiids. The Team recommends that efforts are initiated to describe seasonal and long term shifts in the physical environment of the Gulf of Alaska. Specific efforts should be made to describe subsurface water masses, fluctuations in the depth of the upper mixed layer and identification of regions of high nutrient concentration and upwelling.

Socioeconomic considerations: The Plan Team recommends that economic databases on the groundfish fisheries be developed and maintained. This information provides a baseline to evaluate the impacts of proposed alternative management measures. Cost data for fleets, in particular, are needed for these evaluations.

Bycatch considerations: The Plan Team recommends evaluation of methods to reduce bycatch, such as selective gear types or time/area closures. Discard mortality rates for PSCs and other discards need to be better quantified.



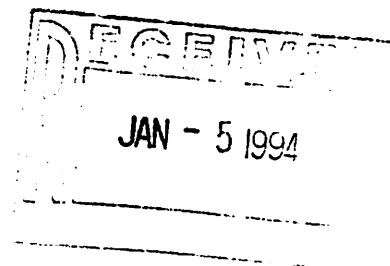
Fishermen's
Finest

North Pacific Fishing, Inc.

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January 5, 1994

Richard B. Lauber, Chairman
North Pacific Fisheries Management Council
605 West 4th Avenue
Anchorage, AK 99501



RE: Research Priorities GOA & BSAI, Agenda Item C-5

Dear Chairman Lauber:

North Pacific Fishing, Inc. operates a trawl vessel in the Bering Sea and Gulf of Alaska and is effected by the research priorities pursued by the National Marine Fisheries Service. I am writing to suggest my thoughts for the council's consideration when making recommendations to the National Marine Fisheries Service on its research priorities.

Following the passionate deliberation at the December 1993 council meeting over the status of the several of the BSAI and GOA stocks, I strongly suggest that the council recommend that NMFS place more priority on surveys to determine the status of the various Gulf of Alaska rockfish, BSAI Greenland turbot, and Atka mackerel in both the BSAI and GOA. There is a lack of data available to resolve the disparity between the catch per unit of effort put forth by the industry and the assessment of the research surveys.

I continue to emphasize the importance of the use of industry vessels capable of deep sea fishing in rough weather for the deepwater species assessments. Preliminary work has been done in conducting research using commercial vessels and obtaining funding from the resource itself by allowing retention of groundfish by the vessel. Mr. Ito's rockfish survey in the Gulf of Alaska and the summer longline surveys are examples of this approach.

I also suggest that National Marine Fisheries Service and the International Pacific Halibut Commission develop a plan, such as a tagging program, to determine how many halibut are caught and released more than once when fishing. Perhaps it would not be wise to tag all halibut which are released and considered alive, but it seems wise that a program tagging those fish that are considered dead so that dead fish are not considered as having been killed two or more times for the purposes of managing the halibut mortality caps.

Thank you for your attention to these concerns.

Sincerely,

Rudy A. Petersen
President