Census of Marine Life: Fishing Industry Perspectives

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Introduction

Ocean Trust conducted a series of workshops, meetings and interviews with association leaders from the commercial fishing industry between November 1997 and May 1998 on behalf of the Alfred P. Sloan Foundation to determine the level of interest, priorities and concerns with a proposed census of marine life. In all regions, there was great interest in the fisheries census.

Need for the Census

Much of the industry's interest in the census focused on improving data used for fishery management decisions. The lack of annual surveys and stock assessments has forced fishery managers to make management decisions in the absence of reliable data. As a result, fishable biomass and harvest quotas are set at precautionary levels that underestimate stock size and availability of resource.

On the West Coast, it was reported that assessments were conducted on only sixteen out of eighty stocks that make up the Pacific groundfish complex. Surveys were done on three-year cycles and limited in area, leading to wide estimates for criteria used in developing catch levels. In the North Pacific, there was concern over the lack of information on salmon stocks, escapement data, and salmon growth and survival in the North Pacific Gyre. Variations in assessments and catch quotas for stocks, which migrate between nations, were also identified. For example, pollock stock assessments in Russia generated higher catch quotas compared to U.S. quotas.

In the Gulf of Mexico, the industry expressed concern over red snapper. Catch rates for red snapper have increased dramatically, yet increases in abundance have not been confirmed by National Marine Fisheries Service assessments. The industry also expressed a need for better information on the predator/prey relationships. Reference was made to models demonstrating that a 50% reduction of finfish bycatch in the shrimp fishery might lead to a 20% reduction in shrimp due to increased foraging on shrimp by released finfish.

Other stock assessments in the Gulf and South Atlantic identified as problematic include King and Spanish mackerel, red grouper, amberjack, red snapper, red drum, striped bass, vermilion snapper, and bluefin tuna. Industry expressed concern about relationships between spawning potential ratios (SPR), overfishing designations, and stock abundance. Examples were given demonstrating how changes in SPR could shift fisheries into overfished classifications even though assessments showed increases in stock abundance. Weakfish was mentioned as a fishery considered overfished even though there is no fishing pressure.

Concern was also expressed in the use of landings as an index of abundance. Landings were considered the poorest measure of abundance because they are influenced by the movement of fish as well as market demand for fish product. Similar concerns were raised in New England. Great interest was expressed in the need to integrate fishermen's first-hand knowledge and sea sampling information into the data collection and management process to address shortcomings in landings data and scientific surveys. Scientific surveys were viewed as providing statistically valid data over time about the relative state of the resource from year to year (i.e. trend data for areas sampled), but not timely for quick reaction by managers to short-term phenomena.

Additional areas of concern include stock assessments used to determine incidental take levels of marine mammals or endangered species, and the lack of information on historic marine mammal stock levels used to determine various levels of protection.

Census Issues

Several representatives expressed a lack of confidence in current assessment programs. It was reported that support would not be forthcoming for the fish census if current assessments are accepted without an independent review and consideration of alternative stock assessment models. Concern was also expressed over the impact of perceived "political" pressure in fisheries science to influence or manipulate mathematical models and hypotheses to reach a desired and predetermined outcome.

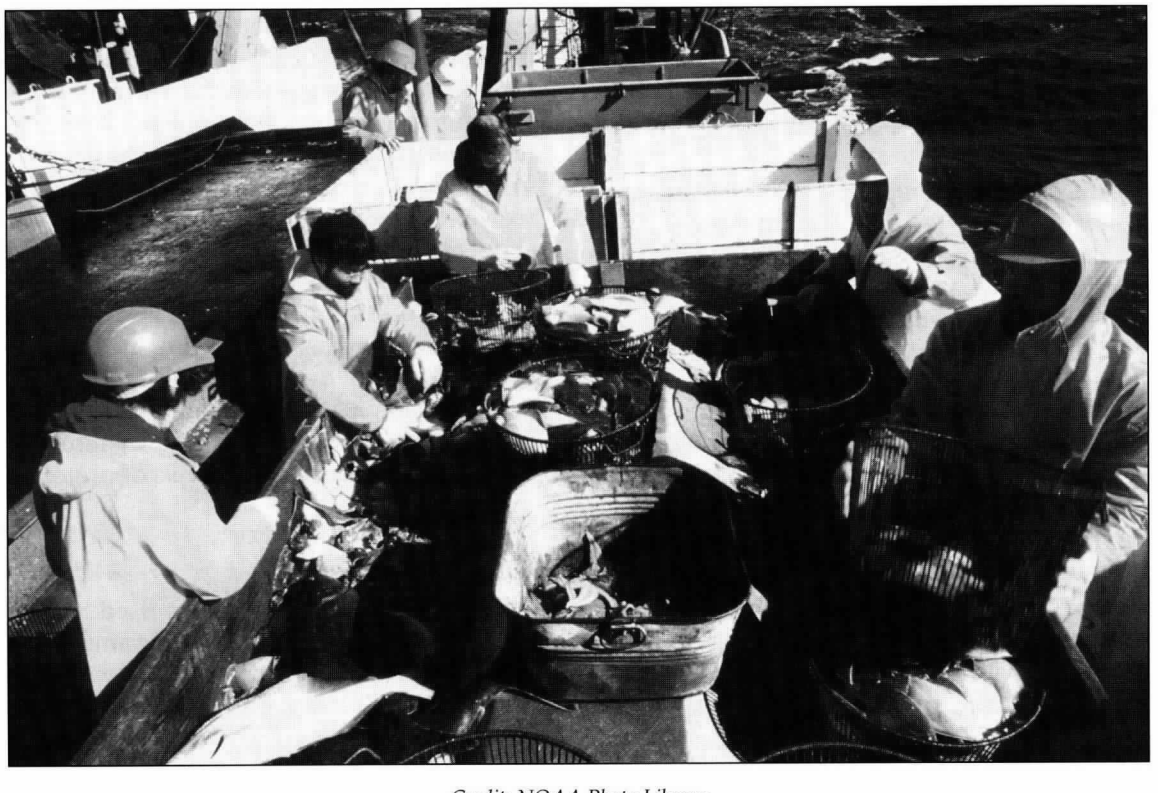
Access and use of data were also raised as a major issue. Would the census data be used to add regulations to what many believe is an already over-regulated industry? This would influence the level of industry support. Many industry members question how the data would be used by competing gear fishermen, recreational fishermen, environmental groups, and other non-governmental organizations to further agendas contrary to equitable access and sustainable use of living resources as a food source. Gross misrepresentation of fisheries data was considered a serious issue nationwide. Many examples were given of news reports, environmental statements, and recreational initiatives that distort information on the status of fisheries.

The industry reported that there were no satisfactory methods to survey demersal species. Survey by capture was not considered a good way to count fish. Swept area bottom surveys currently used for rockfish, for example, are considered "hit or miss" efforts. Regular surveys can spot trends, but don't serve as indicators of absolute abundance. It was suggested that before new surveys were designed or conducted, all available data from international, national and state agencies be reviewed.

Several other questions were raised by workshop participants. How would the census survey be integrated into existing research at national and international levels? What impact would the proposed program have on current efforts to improve data in U.S. jurisdictional areas? Would the census divert funding from existing research priorities based on fisheries management needs to a more global project and broader set of priorities? As one workshop participant put it, "Why sponsor a global, international project when we don't know what's going on in U.S. waters?"

Conclusions

Within each region, there were specific needs for improved fishery data and/or stock assessments. Concerns ranged from basic lack of data, problems with current survey designs, fishery data interpretation, survey area of coverage, and infrequency of surveys. These deficiencies were viewed as having a direct impact on stock assessments, management decisions, and quota allocations among gear types and different user groups. As a result, there was unanimous support from all meetings and workshops for any effort to improve the existing database on the abundance and distribution of marine life.



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