

# **Proceedings of the Fifth National NMFS Stock Assessment Workshop**

## **Providing Scientific Advice to Implement the Precautionary Approach Under the Magnuson-Stevens Fishery Conservation and Management Act**

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# 1

# INTRODUCTION

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Since 1991, the National Marine Fisheries Service (NMFS) has held five national workshops devoted to examining issues of contemporary interest in stock assessment. These workshops have become an important venue for NMFS scientists to exchange ideas of direct relevance to NOAA's mission and, more importantly, to focus efforts on problems of national interest such as bycatch or uncertainty and risk estimation in stock assessments.

### Objectives

The fifth National Stock Assessment Workshop (NSAW) focused primarily on the theme "Providing Scientific Advice to Implement the Precautionary Approach Under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA)<sup>1</sup>." In order to convey the importance of this theme in the context of issues of national interest, a brief recap of key points from U.S. fisheries management is given below.

The MSFCMA contains a set of ten National Standards for fishery conservation and management. National Standard 1 states,

*"Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield [OY] from each fishery for the United States fishing industry."*

The MSFCMA also requires the Secretary of Commerce to prepare guidelines for assisting in the development of fishery management plans that adhere to the National Standards (the National Standard Guidelines, NSG<sup>2</sup>). As the current status of many U.S. fisheries is either overfished<sup>3</sup>, approaching an overfished condition, or unknown, there is a widely perceived need to adopt a precautionary approach to the management of these fisheries. In this context, and in reference to National Standard 1, §600.310(f)(5) of the NSGs states,

*"OY and the precautionary approach. In general, Councils should adopt a precautionary approach to specification of OY."*

And, in the Preamble, the NSGs state,

*"Because specification of a precautionary approach can be a complicated exercise, NMFS plans to supplement these guidelines in the near future with technical guidance for use in implementing such an approach."*

Thus, the workshop served as a forum to facilitate discussions and presentations of ideas by many NMFS scientists, managers, and colleagues from outside the agency, many of whom had considerable experience from similar efforts to formulate a precautionary approach in national and international fora.

Concurrent with the planning and execution of the workshop, a team of scientists was asked to draft a document providing the detailed technical guidance for implementing the precautionary approach, in accordance to the need expressed by the NSGs. In preparing that document<sup>4</sup>, the drafting team made use of information given during workshop presentations and of the general discussions held throughout the workshop. As such, these workshop Proceedings are complementary to the technical guidance document.

### Organization of the Workshop

The workshop was held at the Holiday Inn hotel in Key Largo, Florida. It was organized by a Steering Committee comprised by Wendy Gabriel, Loh-Lee Low, Alec MacCall, Richard Methot, Joseph Powers, Victor Restrepo (co-Convenor), and John Witzig (co-Convenor). Eighty-two participants (listed in Annex A) included individuals from all Fisheries Science Centers, two Regional Offices, two Headquarters Offices, one Management Council, and scientists from several external organizations who attended by invitation.

Twenty-four presentations were made at the workshop (see the Agenda in Annex B). The remainder of the workshop, or about 40% of its duration, was used for working group meetings and plenary discussions.

<sup>1</sup> The MSFCMA, U.S. Public Law 94-265, as amended through October 11, 1996, establishes the legislation upon which the management of all fisheries in U.S. EEZ waters is based. The MSFCMA is available as NOAA Technical Memorandum NMFS-F/SPO-23, 1996.

<sup>2</sup> The NSGs were published in the Federal Register as proposed rule on August 4, 1997; the final rule was published after the NSAW on May 1, 1998.

<sup>3</sup> The MSFCMA requires the Secretary of Commerce to report to Congress annually on the status of stocks. In the 1997 report (NMFS 1997, Status of Fisheries of the United States), 31% of the species whose status was known were listed as being overfished, and 62% of the species examined were listed as having unknown status.

<sup>4</sup> Restrepo, V.R., G.G. Thompson, P.M. Mace, W.L. Gabriel, L.L. Low, A.D. MacCall, R.D. Methot, J.E. Powers, B.L. Taylor, P.R. Wade, and J.F. Witzig. 1998. Technical guidance on the use of precautionary approaches to implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act. NOAA Technical Memorandum NMFS-F/SPO-31, 54p.

## Organization of this Document<sup>5</sup>

The remainder of this document is organized into two sections: Section 2 contains abstracts and papers corresponding to the presentations made at the workshop. Section 3 contains reports from four working groups that met to discuss aspects of the precautionary approach from the point of view of four different tiers of information (data) richness or complexity.

## Other Issues

During the last plenary session, NSAW participants discussed several issues that are not captured in the remainder of this report. Three of these were:

*Toolbox:* Several presentations were made about software “toolboxes” for analyses in support of stock assessment (see Annex B). Participants noted that a standard toolbox could bring several benefits, from providing a minimum standard platform, to facilitating software development. Ideally, a minimum standards toolbox should have redundant built-in diagnostics procedures to help the user evaluate model performance.

*Communication/Education:* The scientific advice on how to interpret and implement the NSGs should be communicated to Council staff and other interested persons as clearly as possible. Some participants proposed a structured seminar series, originated in headquarters, to be given in all regions. Other participants felt that scientists from each Center ought to give such presentations as needed, tailored to each particular region’s needs.

*Next Workshop:* Participants agreed that the next SAW should be held approximately 18-24 months after this one. At least two-thirds of the workshop should be devoted to a theme that is NOAA-NMFS mission-relevant.

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<sup>5</sup> Most of the papers and group reports contained in this publication have not been updated to reflect the many NSG-related activities that have taken place since February of 1998. These documents have not been subjected to full peer-review and do not necessarily reflect NOAA-NMFS policy.

**2**

**ABSTRACTS AND  
SCIENTIFIC PAPERS**

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