

Marine Fisheries Stock Assessment Improvement Plan

Report of the National Marine Fisheries Service
National Task Force for Improving Fish Stock Assessments

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Preface

This report argues for greatly increased resources in terms of data collection facilities and staff to collect, process, and analyze the data, and to communicate the results, in order for NMFS to fulfill its mandate to conserve and manage marine resources. In fact, the authors of this report had great difficulty defining the “ideal” situation to which fisheries stock assessments and management should aspire. One of the primary objectives of fisheries management is to develop sustainable harvest policies that minimize the risks of overfishing both target species and associated species. This can be achieved in a wide spectrum of ways, ranging between the following two extremes. The first is to implement only simple management measures with correspondingly simple assessment demands, which will usually mean setting fishing mortality targets at relatively low levels in order to reduce the risk of unknowingly overfishing or driving ecosystems towards undesirable system states. The second is to expand existing data collection and analysis programs to provide an adequate knowledge base that can support higher fishing mortality targets while still ensuring low risk to target

and associated species and ecosystems. However, defining “adequate” is difficult, especially when scientists have not even identified all marine species, and information on catches, abundances, and life histories of many target species, and most associated species, is sparse. Increasing calls from the public, stakeholders, and the scientific community to implement ecosystem-based stock assessment and management make it even more difficult to define “adequate,” especially when “ecosystem-based management” is itself not well-defined. In attempting to describe the data collection and assessment needs for the latter, the authors took a pragmatic approach, rather than trying to estimate the resources required to develop a knowledge base about the fine-scale detailed distributions, abundances, and associations of all marine species. Thus, the specified resource requirements will not meet the expectations of some stakeholders. In addition, the Stock Assessment Improvement Plan is designed to be complementary to other related plans, and therefore does not duplicate the resource requirements detailed in those plans, except as otherwise noted.

