Managing Our Nation's Fisheries 3
Advancing Sustainability

CONCURRENT SESSIONS: THEME AND FOCUS TOPICS

Session 1: Improving Fishery Management Essentials

1. Annual catch limit (ACL) science and implementation issues, including managing "data-limited" stocks
2. Rebuilding program requirements and timelines
3. International fisheries management: Leveling the playing field

Chair: Dave Witherell, Deputy Director, North Pacific Fishery Management Council

After 35 years of evolution under the Magnuson-Stevens Fishery Conservation and Management Act[1] (MSA), marine fishery management in the United States now involves an impressive set of principles, practices, and tools that are essential to our current success in achieving long-term sustainability. Such elements include the recently-implemented system of setting annual catch limits (ACL) for each fish stock or stock complex, including accountability measures to insure their achievement; efforts to rebuild depleted stocks[2]; and the promotion of the U.S. model of science-

[1] The primary law governing marine fishery management in the United States, the *Magnuson-Stevens Fisheries Conservation and Management Reauthorization Act of 2006* (referred to here as the Magnuson-Stevens Act), was originally enacted as the *Fishery Conservation and Management Act of 1976* (also referred to as the *Magnuson Fishery Conservation and Management Act* and the *Magnuson Act) and* reauthorized in 1996 as the *Sustainable Fisheries Act* (also referred to as *Magnuson-Stevens Fishery Conservation and Management Act*).

[2] Stocks in a depleted condition are designated to be in an overfished condition in current Federal parlance, even if overfishing was not the primary cause of the depletion. While fishing is often the cause of the depletion of stocks involved in an active fishery, depletion could also be caused by ecosystem productivity cycles or changes (see Session 2, focus topic 1) or

based, precautionary management in international arenas. However, recent experience has shown that there is still room for improvement in how these elements are approached and implemented. Finding ways to refine current practices will improve fishery management sustainability and the attendant benefits to the nation.

All federally-managed fisheries are now required to have ACLs and accountability measures (AMs) to ensure their effectiveness at ending and preventing overfishing. Unlike season approaches or effort controls, total catch limits have consistently proven effective for sustainably managing fisheries, preventing overfishing, and addressing overfishing when it occurs. Nevertheless, the transition to ACLs has posed challenges in many commercial and recreational fisheries. Some say this change has led to overly precautionary restrictions, while others say ACLs do not sufficiently account for scientific and management uncertainties, and should be more precautionary. One area of concern is how to best set ACLs on data-limited stocks—stocks with inadequate scientific information for sophisticated management.

Rebuilding plans for depleted (overfished) stocks also affect the amount of fish available to a fishery. The MSA requires that rebuilding take as short a time as possible, after due consideration of the effect on fishing communities, with a maximum rebuilding time of 10 years if possible. Alternatively, for long-lived stocks that cannot rebuild in 10 years, rebuilding must occur in the time to rebuild if there were no fishing, plus one generation time. This requirement necessarily leads to large reductions in catch of directed fishery stocks that are being rebuilt, and can restrict mixed-stock fisheries when the rebuilding stock coexists with healthy stocks. However, it is important to note that rebuilding programs are designed to increase stock sizes to provide for biological stability and the attendant future economic benefits.

Some believe that the current focus on rebuilding in a certain amount of time results in overly restrictive fishery management that is unnecessarily harmful to fishermen and fishing communities, and that more flexibility is needed to optimize multiple goals. Others believe current rebuilding policies are too lenient towards short-term economic urgencies, and that they insufficiently consider the long-term benefits of fully rebuilt stocks.

Advancing the U.S. model for science-based, precautionary management in international arenas has been done towards the goal of providing long term fishery and seafood production sustainability and to "level the playing field"

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habitat destruction (see Session 2, focus topic 3). Notably, full rebuilding depends on normal environmental conditions allowing average reproduction and growth, which, in some cases, is outside the control of fishery managers.

in terms of conservation burden equity. The 2006 reauthorization provided some impetus to accomplish this, and mechanisms to assess compliance of foreign countries and their vessels with international conservation measures with potential impact on U.S. seafood markets[3]. While there have been improvements in international fishery management, some say that more should be done to achieve conservation objectives and help the U.S. fishing industry remain competitive. As an example, U.S. fishing restrictions that limit incidental take of protected species can result in a domestic fishery being unable to harvest its quota of a particular stock, only to see the market demand filled by imports of the same species from international fisheries that are not subject to similar restrictions.

The purpose of this session is to examine the challenges of using ACLs, implementing rebuilding programs, and participating in international fishery management, towards a meaningful discussion of potential ways to improve sustainable management practices that maintain vibrant fisheries.

Session 1 Topic 1

Improving Fishery Management Essentials

ACL Science and Implementation Issues, including Managing Data-Limited Stocks

The 2006 reauthorization of the MSA included requirements for ACLs and AMs to be put in place by 2011 in order to end and prevent overfishing. However, the MSA did not specify how ACLs would be developed and implemented. To assist the Regional Fishery Management Councils (RFMCs) in meeting these requirements, the National Marine Fisheries Service (NMFS) developed extensive guidance on ACLs and AMs through a process that revised National Standard (NS) 1 guidelines in 2009.

The MSA and NS1 guidance defines an ACL to be no greater than the biologically permitted safe catch level. The NS1 guidelines require a buffer for scientific uncertainty in determining the acceptable biological catch level, and providing a buffer for management uncertainty in achieving a particular catch target. Three national workshops of RFMC Scientific and Statistical Committee (SSC) members were held to explore the scientific basis and best practices for establishing the scientific uncertainty buffer. With the help of this collective groundwork, all of the RFMCs were able to meet the MSA requirements by amending existing Fishery Management Plans, and ACL provisions have been fully implemented.

However, experience dealing with ACLs and AM specifics has shown that there are still improvements to be made in both the scientific basis and

[3] Also see Session 3, *Providing for Fishing Community Sustainability*, Focus Topic 2, *Integrating Community Protection, Jobs Emphasis, and Seafood Quality Assurance.*

management application areas. Many people do not support how ACLs and AMs are currently implemented. Challenges remain in addressing scientific and management issues such as taking into account multi-year overfishing definitions, accounting for discards, operating in mixed stock fishery situations, identifying and quantifying scientific and management uncertainty buffers, and ensuring accountability of unharvested (carry-over) allocations from one year to the next. Some believe implementation of the new ACL system has greatly reduced the amount of fish they are allowed to catch compared to previous management approaches, and that the scientific and management uncertainty buffers represent an overly precautionary risk policy. On the other hand, there are others who believe that the RFMCs' policies do not adequately protect against systematic uncertainty, and therefore undermine the long-term sustainability of fishery resources.

One area of concern that has emerged is how to develop and implement ACLs effectively when the requisite data are lacking (also known as a "data-limited" situation). This includes situations where essential data are lacking or no data collection program is in place, and when major natural fluctuations in stock abundance occur more rapidly than stock assessments can be updated. ACLs have greatly increased demand for timely and accurate stock assessments, but resources (e.g., surveys, quantitative assessment analysts, landings and bycatch information processing) are not available to fully address these issues. When less information about a stock is available, or the data are outdated, the current model calls for a RFMC to set a particularly low ACL compared to the theoretically maximum allowable catch, out of recognition of a higher level of scientific uncertainty. This can be frustrating for fishermen who believe fish to be in great abundance based on their observations, but who are restricted from catching the fish because of the limited scientific data available to set a higher ACL. It can also lead to severe economic consequences when a rarely-caught stock about which little is known appears occasionally in a healthy mixed stock fishery, and a new, highly buffered ACL for this rare stock suddenly requires a large reduction in catch, creating a bottleneck species that closes or substantially reduces an otherwise healthy fishery (Reference 1.1.3).

The purpose of this focus topic session is to consider experiences with ACLs to date, to discuss ways to address problems and limitations, and to attempt to reach findings to improve current practices. Prior to this conference, NOAA Fisheries convened a National ACL Science workshop in February 2011 to advance understanding of the issues (Reference 1.1.5), and an Advanced Notice of Proposed Rulemaking process was issued in 2012 to collect a broad perspective of issues and possible solutions (Reference 1.1.4). Trigger questions to propel conference dialogue and relevant reference material are shown below.

Session 1
Topic 1
Questions

Improving Fishery Management Essentials
ACL Science and Implementation Issues

Trigger Questions

1. How can we advance sustainability with ACLs?
2. Are the RFMC risk policies for setting ACLs overly precautious with regard to accounting for scientific and management uncertainty?
3. What socio-economic and biological factors influence the right degree of precaution?
4. What is the appropriate way to set an ACL for a complex of species?
5. How can we better manage data-limited stocks with ACLs?
6. Are ACLs for data-limited stocks effective in meeting the dual objectives of NS1 (prevent overfishing and achieve optimum yield)?
7. Is there an alternative management approach that would be more effective than ACLs in meeting the dual objectives of NS1?
8. Are multi-year average ACLs the best approach for highly fluctuating stocks?
9. Have sector ACLs improved fishery management? (e.g. separate commercial and recreational ACLs and AMs)
10. How could the MSA or NS Guidelines be changed to provide additional details on ACLs?

Session 1
Topic 1
Speakers

Improving Fishery Management Essentials
ACL Science and Implementation Issues

Speakers and General Perspectives

- Richard Methot, NMFS, Science Advisor for Stock Assessments, Office of Science and Technology. A NMFS perspective on challenges and successes with ACLs, and possibilities to improve fishery sustainability.
- Bill Kelly, Executive Director of the Florida Keys Commercial Fisherman's Association and South Atlantic Fishery Management Council Advisory Panel member. A fishing industry perspective on impacts of ACL implementation and consequent changes in fishing regulations.
- Dick Brame, Atlantic States Fisheries Director, Coastal Conservation Association. A recreational fishery perspective on possible improvements in the development and implementation of ACLs.

Moderator:	David Witherell, Deputy Director, North Pacific Fishery Management Council
Rapporteurs:	Diana Stram, North Pacific Fishery Management Council, Fishery Management Plan Coordinator John DeVore, Pacific Fishery Management Council, Groundfish Fishery Staff Officer

References

1.1.1. H.R. 1646 - American Angler Preservation Act. Amends the MSA to require each SSC of the eight Regional Councils to provide ongoing risk neutral scientific advice. Prohibits SSCs from recommending to increase or decrease an ACL by 20 percent or greater unless the recommendation has been approved in a nongovernmental peer review process. http://tinyurl.com/afyqect

1.1.2. H.R. 2304 - Fishery Science Improvement Act of 2011. Amends the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 to postpone from fishing year 2011 to 2014 the effective date upon which a mechanism for specifying ACLs and AMs for fisheries other than those determined by the Secretary of Commerce to be subject to overfishing. http://tinyurl.com/by4pt5w

1.1.3. House Natural Resource Committee Legislative Hearing on Legislative Hearing on H.R. 594, H.R. 1013, H.R. 1646, H.R. 2304, H.R. 2610, H.R. 2753, H.R. 2772 and H.R. 3061; testimony of Chris Oliver, North Pacific Fishery Management Council Executive Director. December 1, 2011. http://tinyurl.com/a9eevo5

1.1.4. Comments received on NMFS Advance Notification of Proposed Rule to modify National Standard 1. http://tinyurl.com/beybn78

1.1.5. Proceedings of the February 15-17, 2011 National ACL Science Workshop. http://tinyurl.com/bxkceg2

1.1.6. Reports from the 2009, 2010, and 2012 National SSC Workshops. http://fisherycouncils.org/

Rebuilding Program Requirements and Timelines

The MSA requires that if a stock is designated overfished, the relevant Council must implement conservation and management measures to rebuild it. The MSA further requires that a time period for rebuilding must be 1) as short as possible (taking into account the biology of the fish stock, the needs of fishing communities, international recommendations, and ecosystem interactions); and 2) not to exceed 10 years (with few exceptions: biology of the stock, environmental conditions, international agreements). The MSA also specifies that overfishing restrictions and recovery benefits must be fairly and equitably allocated among sectors of the fishery.

The NS1 guidelines provide additional details on how Councils should address rebuilding. In particular, the MSA term "as short as possible" is interpreted to be the amount of time it would take a stock to rebuild to MSY biomass level in the absence of any fishing mortality, including directed fishing and incidental take in all other fisheries, regardless of how minor the incidental take may be. Further, the guidelines note that if the time for the stock to rebuild in the absence of fishing is 10 years or less, then the maximum rebuilding time must be 10 years. This can be problematic if it requires complete closure of all fisheries with any incidental take. If the time period to rebuild in the absence of fishing is more than 10 years, the NS1 guidelines state that rebuilding must take place in the minimum time to rebuild with no fishing, plus one generation time (time between birth of an individual and birth of its first offspring).

There have been numerous disputes about how to appropriate take into account "the needs of fishing communities" in setting a rebuilding date target that otherwise rebuilds as quickly as possible. Notably, current policy has been shaped by challenges in court, and subsequent court decisions, claiming that the Councils and NMFS have not interpreted these criteria appropriately. For example, in a court decision on the West Coast regarding a challenge that the Pacific Fishery Management Council and NMFS chose too lengthy of a rebuilding period, the Court described the need for the Pacific Fishery Management Council to avoid "disastrous short-term consequences for fishing communities" in achieving the correct balance between impacts to communities and the benefits of rebuilding as quickly as possible (Reference 1.2.2).

On the other hand, some believe the current practice is too generous to the short-term needs of fishing communities because the long-term socio-

economic benefits of rebuilt stocks have not been adequately described. Still others believe that current scientific methods are incapable of detecting real biological differences and benefits in rebuilding long-lived species over a period of many years, and that more flexibility is needed in weighing policy choices about the benefits of shorter rebuilding targets.

The purpose of this session is to use our experience with past and current rebuilding plans to discuss issues associated with these plans, towards identifying findings that could improve contemporary practices. Trigger questions to propel conference dialogue, and relevant reference material, are shown below.

Improving Fishery Management Essentials
Rebuilding Program Requirements and Timelines

Trigger Questions

1. Is 10 years a reasonable timespan for a rebuilding requirement? If not, what should the timespan be, and why?
2. How does one properly evaluate stock rebuilding effects many decades into the future?
3. What is the best way to address factors to extend rebuilding times beyond the shortest time possible?
4. Is there a better scientific approach to setting and modifying rebuilding targets for long-lived stocks, when it is expected that stock assessments will show a great deal of variability and methodological change over the course of the rebuilding plan?
5. What type of environmental conditions should be presumed when calculating the minimum time to rebuild and setting a rebuilding date target? How should rebuilding parameters be adjusted if an environmental regime shift occurs during the course of the rebuilding plan?
6. Should the MSA be amended to add clarity to a "disaster" criteria, as described above in litigation case history, in balancing impacts to fishing communities with speed of rebuilding?
7. Should there be more situational flexibility for RFMCs to rebuild stocks at an optimum rate for fishermen, communities, and the ecosystem?
8. Can longer rebuilding times be adopted without sacrificing essential elements of a fully sustainable approach?
9. Would it be more appropriate to emphasize control of fishing rate in rebuilding, rather than focusing on achieving rebuilding by a specific date?
10. How can cooperative research, and information besides full stock assessments, be used to monitor whether stocks are making adequate progress in rebuilding?

11. Should the overfished designation be redefined as depleted to acknowledge habitat and environmental effects?

Session 1
Topic 2
Speakers

Speakers and General Perspectives

- Andre Punt, Professor, School of Aquatic and Fishery Sciences, University of Washington. A perspective from the scientific community about the strengths and weaknesses of rebuilding time period estimates.
- Jackie Odell, Northeast Seafood Coalition. A commercial fishing industry perspective on the adequacy and appropriateness of rebuilding program requirements as currently administered.
- Chris Dorsett, Gulf of Mexico Restoration and Fish Conservation Director, Ocean Conservancy. An environmental perspective on the strengths of rebuilding as quickly as possible in the context of the current law as interpreted by court.

Moderator: David Witherell, Deputy Director, North Pacific Fishery Management Council

Rapporteurs: Kelly Ames, Pacific Fishery Management Council, Groundfish Fishery Staff Officer
Richard Seagraves, Mid-Atlantic Fishery Management Council, Fishery Management Specialist

Session 1
Topic 2
References

References

1.2.1. S. 632 (H.R.3061) - Flexibility in Rebuilding American Fisheries Act of 2011. Amends the MSA to require fishery management plans, amendments, or regulations for overfished fisheries to specify a time period for ending overfishing and rebuilding the fishery that is as short as practicable (under current law, as short as possible). Modifies the exceptions to the requirement that such period not exceed 10 years. http://tinyurl.com/bxw6nx3

1.2.2. NRDC v. NMFS, 421 F.3d 872, 880 (9th Circuit 2005); see also NRDC v. Locke, No. 01-cv-421, Slip Op. at 9 (Northern District California Apr. 23, 2010). http://tinyurl.com/am4cy2o

Session 1
Topic 3

International Fisheries Management - Leveling the Playing Field

Over the last decade, the U.S. has promoted the application of its domestic model of science-based, precautionary fisheries management to the highly migratory fish stocks subject to the jurisdiction of various international Regional Fishery Management Organizations (RFMOs). The demand for international cooperation is high, since a large proportion of seafood consumed in the United States (84 percent) is imported from other nations, and there is a broad expectation of equity in the conservation burden of international fisheries that provide seafood to American markets. The 2006 MSA reauthorization and the 2011 Shark Conservation Act contained provisions designed to enhance U.S. influence in international fishery management arenas. The application of these provisions is seen as having mixed success by those involved and affected by the changes: while most U.S. constituents generally support the current provisions, they also believe that limitations in the statute have prevented the United States from being as effective as possible in addressing fishing activities of concern by foreign fishing fleets, including especially illegal, unreported, and unregulated (IUU) fishing. Further, there is broad concern about an uneven "playing field" that results in international seafood production and common stock conservation when some countries practice high levels of precautionary management and compliance with internationally adopted measures and other countries do not.

The 2006 reauthorization of the MSA required that NMFS and the RFMCs take various steps to advance the sustainability of international fisheries and level the playing field, strengthen RFMOs, combat IUU fishing, and reduce the bycatch of protected marine species such as sea turtles, marine mammals, and corals. It also required a biennial report to Congress to include a list of nations whose vessels have been identified as engaging in IUU fishing or insufficient protection of identified bycatch species. After notification and a process of consultation with the nation in question, remedial actions are required or enabled that range from negotiation of bilateral agreements to institution of economic sanctions. Two biennial reports to Congress have been written in response to the charge to identify IUU fishing or insufficient protection of protected species, one in 2009 and one in 2011. Both reports indentified six countries engaged in IUU fishing (Reference 1.3.1).

There have been both successes and difficulties in promoting the U.S. domestic model of science-based, precautionary fisheries management as a global model. Catch data collection and reporting, observer systems and vessel tracking technologies, scientifically defendable overfishing and

overfished reference points, fishing gear and operations practice improvements, ACLs designed to not exceed quotas, intensified post-season evaluations and at-sea enforcement practices are just a few of the approaches U.S. delegations have emphasized in the RFMO arenas. Further, there has been continued success in international fishery management at the bilateral level, such as the International Pacific Halibut Commission, the U.S. - Canada Pacific Salmon Treaty and the U.S.-Canada Resource Sharing Agreement in the Northeast region. While there have been successes, there have also been difficulties. Convincing countries to alter their fishery management practices towards a preferred U.S. model in unanimous consent RFMO arenas is time consuming and complicated. Some feel the U.S. has made insufficient progress in enhancing international conservation objectives. On the other hand, there are those who are critical of U.S. positions to lead by example, characterizing the positions as "leading with their chin" that fail to garner conservation improvements from foreign countries and, by default, provide them a competitive advantage in the international seafood markets.

The promotion of international cooperation and assistance warrants further consideration. Given the highly migratory nature of some U.S. fish stocks and protected living marine resources, it is crucial for the U.S. to work cooperatively with its international partners to implement fishery management programs, improve data collection and monitoring, and utilize fishing gear and practices that reduce bycatch and adverse impacts of fishing. One of the most effective ways to promote these practices is to provide other nations with the tools, training, and technical resources to increase their own ability to manage sustainably and enforce effectively. Consistent with authority provided under the MSA, federal agencies and RFMCs have been involved in many international technical assistance efforts. The U.S. has hosted workshops on how to reduce bycatch of turtles and other protected species; conducted cooperative research to understand species statistics and improve harvesting practices; and provided training to strengthen enforcement of IUU fishing and improve fisheries observer programs in other countries.

The discussion during this focus topic is intended to increase our understanding of the domestic-international interface and to explore current activities and future challenges. It is also intended to identify ways to increase the sustainability of international stocks and achieve a more level playing field for domestic fishery production with international seafood markets. Possible findings include prioritization of current international activities, identification of areas for potential Congressional actions, and identification of possible policy changes.

Session 1
Topic 3
Questions

Improving Fishery Management Essentials
International Fisheries Management

Trigger Questions

1. What measures are necessary to level the playing field in RFMO forums?
2. What international activities (research, management, enforcement) should receive priority?
3. Is Congressional action is needed to mandate stronger consequences for nations with IUU or inadequate protection of certain bycatch species, or when U.S. fishermen are regulated more than fishermen from other countries when fishing for international stocks?
4. How should NOAA and the RFMCs change the way they currently implement international fishery management policy?
5. How can consideration of transfer effects be incorporated into management of international stocks?
6. Should inadequate compliance with international fishery conservation measures, such as typically exceeding quotas and incomplete catch reporting, be incorporated into a broader definition of IUU fishing?

Session 1
Topic 3
Speakers

Improving Fishery Management Essentials
International Fisheries Management

Speakers

- Russell Smith, Deputy Assistant Secretary for International Fisheries, NOAA. The U.S. Government perspective on achieving conservation goals in RFMO forums while also achieving equity between U.S. and foreign seafood production sectors.
- Sean Martin, President, Hawaii Longline Association. A perspective on a playing field tilted against U.S. fishery interests as currently administered, and potential ways to address inequities.
- Bill Fox, Fisheries Vice President, World Wildlife Fund. An environmental perspective on ways to improve U.S. performance in RFMO arenas while not disadvantaging U.S. fisheries.

Moderator:	David Witherell, Deputy Director, North Pacific Fishery Management Council
Rapporteurs:	Eric Kingma, Western Pacific Fishery Management Council, Enforcement/NEPA Coordinator Kit Dahl, Pacific Fishery Management Council, Highly Migratory Species Staff Officer

References

1.3.1 Implementation of Title IV of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006; 2009 and 2011 Biennial reports to Congress. http://tinyurl.com/bcopjhv

1.3.2 S. 52 - International Fisheries Stewardship and Enforcement Act. 2011. A bill to establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes including implement the Antigua Convention. http://tinyurl.com/byc5b6t

1.3.3 Improving International Fisheries Management: Report to Congress. NOAA Fisheries, January 2013. http://tinyurl.com/aftsrr3