

## Session 1

Improving Fishery  
Management  
Essentials

## Topic 1

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

# Speakers

Agenda Item C.1.a  
Attachment 3  
June 2013

- **Richard Methot**, NMFS
- **Bill Kelly**, Florida Keys Commercial Fishermen's Association
- **Dick Brame**, Coastal Conservation Association

# Panelists

- Matt Tinning
- Ed Richardson
- Gway Kirchner
- Michael Sissenwine

# Findings (Session 1, Topic 1)

Revise National Standard 1 guidelines to:

1. Consider multi-year minimum stock size thresholds and Annual Catch Limit (ACL) framework
  - Phase in ACL changes
  - Constrain large inter-annual changes in ACLs
  - Do not base overfished determination on single year estimate

# Findings (Session 1, Topic 1)

2. Allow and provide guidance for using the mixed stock exemption
3. Use management strategy evaluation to evaluate the performance of harvest control rules
4. Provide better guidance on setting ACLs for transboundary stocks where no international treaty exists and only US removals are known

# Findings (Session 1, Topic 1)

## Different tools and strategies for managing recreational fisheries

5. Eliminate hard quotas managed in-season for recreational stocks. Adjust pre-season input controls (e.g., bag limits, seasons) to stay within ACL (based on numbers of fish, not poundage)
6. Manage with long-term mortality rates for more stability (e.g. eliminate wide fluctuations in catch limits)

# Findings (Session 1, Topic 1)

## Assessments and Data-Poor Stocks

7. Prioritize assessment of target stocks over non-target stocks
8. Set minimum data quality standards for stock assessment\*
9. Do not require ACLs for data-poor stocks\*
10. Improve data-poor assessment methods
11. Consider default buffer (e.g., 75% maximum fishing mortality threshold)
12. More than one indicator species in a complex leads to better estimate of stock status

## Session 1

Improving Fishery  
Management  
Essentials

## Topic 2

Rebuilding Program  
Requirements and  
Timelines

# Speakers

- **André Punt**, University of Washington
- **Jackie Odell**, Northeast Seafood Coalition
- **Chris Dorsett**, Ocean Conservancy

# Panelists

- Gordon Kruse
- Brad Gentner
- Rod Moore
- Greg DiDomenico

# Findings (Session 1, Topic 2)

Modify MSA to address the following:

1. Revise rebuilding time requirements\*
  - Always set  $T_{MAX}$  equal to  $T_{MIN}$  plus one mean generation
  - Set exploitation rates less than  $F_{MSY}$  and rebuilding will occur naturally over time
2. Refine and include the mixed stock exception in MSA; harvest of one species at its optimal level may result in overfishing another stock, only if strict criteria are met\*

# Findings (Session 1, Topic 2)

Modify MSA to address the following:

3. Stocks later determined to have never been overfished should no longer be subject to rebuilding requirements
4. Replace the term “overfished” with “depleted” (status may not be due to excessive fishing)\*

# Findings (Session 1, Topic 2)

Modify MSA to provide flexibility

5. Establish a standardized process for reviewing rebuilding progress
  - Maintain an existing rebuilding plan when minor changes occur in estimated  $T_{\text{TARGET}}$
6. Address social and economic issues (e.g., “possible” to “practicable”)\*

# Findings (Session 1, Topic 2)

Modify MSA to provide flexibility

7. Extend annual species exemption to short-lived species
8. Allow a transboundary exemption when a significant proportion of the stock is outside U.S. jurisdiction

# Findings (Session 1, Topic 2)

## Additional Findings

9. Increase the frequency and quality of stock assessments and rebuilding analyses and incorporate ecosystem dynamics; recognize limitations of science
10. Don't chase noise: Assessments and projections will always be uncertain; develop smoothing strategies to provide stability

# Findings (Session 1, Topic 2)

## Additional Findings

11. Utilize management strategy evaluation tools to evaluate stock rebuilding approaches
12. Develop harvest control rules that incorporate rebuilding provisions; early investments increase the probability of success

## Session 1

Improving Fishery  
Management  
Essentials

## Topic 3

International  
Fisheries  
Management:  
Leveling the  
Playing Field

# Speakers

- **Elizabeth McLanahan**, NOAA
- **Sean Martin**, Hawaii Longline Association
- **Bill Fox**, World Wildlife Fund

# Panelists

- Eugenio Pineiro-Soler
- John Connelly
- Joe Plesha
- Manny Duenas

# Findings (Session 1, Topic 3)

## International Cooperation and Assistance:

1. Help developing countries build fishery management and enforcement capacity
2. Support immediate adoption of appropriate target and limit reference points by RFMOs
3. E-NGOs should continue to leverage compliance with RFMO conservation measures (e.g. through supply chains)

# Findings (Session 1, Topic 3)

## Combating IUU Fishing:

4. Increase support for at-sea and in port monitoring and enforcement
5. Broaden trade sanctions domestically and within RFMOs to address non-compliance
6. Implement stricter imported seafood labeling requirements in the US market
7. Ratify Port State Measures Agreement
8. Amend MSA to change “vessels” to “vessel” in the IUU certification section

# Findings (Session 1, Topic 3)

## Promote US Competitiveness Internationally:

9. Promote measures to reduce overcapacity:
  - Fishery rationalization (e.g., catch shares)
  - Restrict national subsidies for fuel and vessel construction
  - Limit vessel numbers by RFMO member states

# Findings (Session 1, Topic 3)

## Promote US Competiveness Internationally:

10. Consider a national sustainable seafood certification program\*
11. RFMOs should consider transfer effects when developing conservation and management measures
12. RFMOs should adopt measures that reward compliance (e.g. quota allocations)

# Findings (Session 1, Topic 3)

## Communication and Stakeholder Engagement:

13. Improve communication among US delegations across tuna RFMOs (e.g. WCPFC, IATTC, ICCAT)
14. Maximize participation of fishermen and other stakeholders in US RFMO delegations

# Session 2

## Advancing Ecosystem-Based Decision Making

# Findings (Session 2)

1. Evaluate ecosystem productivity change
2. Evaluate effectiveness and utility of closed/fixed areas
3. Engage across disciplines and increase coordination between NMFS, Councils, Science Centers, stakeholders, other governmental agencies
4. Increase reliance on industry while shifting councils' role in evaluating effectiveness

# Findings (Session 2)

5. Consider broad range of ecosystem services
6. Build capacity throughout the fishery management system to use new tools to advance ecosystem-based decision-making
7. Establish ecosystem SSC at the council level.
8. Invest in ecosystem-based management (i.e., advancing scientific models, training staff) and identify and remove impediments to the transition from single species to ecosystem based management

## Session 2

Advancing  
Ecosystem-Based  
Decision Making

### Topic 1

Assessing  
Ecosystem Effects  
and Integrating  
Climate Change

## Speakers

- **Phil Levin**, NMFS Northwest Fisheries Science Center
- **Malin Pinsky**, Princeton University
- **Cora Campbell**, Alaska Department of Fish and Game

## Panelists

- Jason Link
- John Annala
- Brad Warren

# Findings (Session 2, Topic 1)

1. Address the root causes of climate change as MSA is a limited tool and addresses mainly symptoms
2. Increase coordination between and across jurisdictions to address changing species distribution and ecosystem change (regional councils, states, and international)

# Findings (Session 2, Topic 1)

## Precautionary and adaptive management

3. Flexibility to respond to spatial, allocative and distributional effects of climate change
4. Address rebuilding requirements when environmental conditions may be a predominate factor in a stock's decline
5. Assess barriers to adaptation (fishing communities and fish stocks)
6. Utilize a precautionary approach for developing/emerging fisheries

# Findings (Session 2, Topic 1)

## Precautionary and adaptive management

7. Recognize and manage in response to ecosystem productivity change
8. Develop a comprehensive national plan and tools which facilitate development of regional management strategies
9. Incorporate environmental trigger mechanism to initiate management action/measure
10. Evaluate effectiveness and utility of closed/fixed areas

# Findings (Session 2, Topic 1)

11. Modify reference points as climate changes (precautionary vs. recalibrating MSY)
12. ESA: Base listings on actual trends rather than projected trends of climate change
13. Assess the efficacy of the National Ocean Policy as a vehicle to address climate change

# Findings (Session 2, Topic 1)

## Integrated Ecosystem Assessments (IEAs)

14. Integrate IEAs and all component models into management process
15. Derive less data and resource intensive tools for use in management process

# Findings (Session 2, Topic 1)

16. Develop ecosystem models, tools and assessments at a regional level that:

- Synthesize existing data from non-fishing sources and incorporate socio-economic as well as ecosystem parameters
- Respond to changing parameters
- Predict future ecosystem states
- Provide short- and long-term guidance
- Account for cumulative impacts of climate change

# Findings (Session 2, Topic 1)

17. Develop decision support tools that allow councils to develop responses to a wide range of uncertainty (such as MSE)

## Session 2

Advancing  
Ecosystem-Based  
Decision Making

## Topic 2

Forage Fish  
Management

# Speakers

- **Peter Baker**, Pew Environmental Group
- **Ronald Lukens**, Omega Protein Corporation
- **Isaac Kaplan**, NMFS Northwest Fisheries Science Center

# Panelists

- David Crabbe
- Mary Beth Tooley
- Geoff Shester
- Julie Morris
- Dick Brame

# Findings (Session 2, Topic 2)

1. No changes to MSA are necessary to sustainably manage forage fish
2. Establish a new national standard to ensure adequate forage base
3. Require explicit consideration of the impact of forage fish to the ecosystem and fishing communities to inform OY and ACL decisions
4. Prohibit new forage fisheries until scientific and management evaluation are conducted
5. Define forage at the regional council level

# Findings (Session 2, Topic 2)

6. Use threshold harvest control rules to adopt ecologically-based reference points
7. Implement real time data collection to inform adaptive management
8. Require scientists to provide managers with an index of key forage species abundance
9. Establish an ecosystem SSC at the council level
10. Invest in ecosystem-based fisheries management

# Findings (Session 2, Topic 2)

## Best Practices

11. Improve inter-jurisdictional collaboration and coordination on forage fish management.
12. Use meta-analysis/global studies and rules of thumb as a starting point in discussions for forage fish management or as a guide in data poor situations

# Findings (Session 2, Topic 2)

## Best Practices

13. Advance tools and develop methodologies to:

- evaluate tradeoffs between uses of forage
- account for the needs of predators when doing stock assessments and ACLs;
- estimate the varying and complex economic value of forage fish;
- measure localized depletion; and
- evaluate effects of climate change on forage

## Session 2

Advancing  
Ecosystem-Based  
Decision Making

## Topic 3

Integrating Habitat  
Considerations:  
Opportunities and  
Impediments

# Speakers

- **Frederick “Buck” Sutter**, NMFS
- **Rip Cunningham**, New England Fishery Management Council
- **John Boreman**, North Carolina State University

# Panelists

- Tony Chatwin
- Greg Stunz
- Fran Recht
- Merrick Burden

# Findings (Session 2, Topic 3)

1. Consider a national standard for habitat: “Minimize adverse impacts on essential fish habitat to the extent practicable”
2. Build partnerships to achieve landscape and ecosystem level habitat improvements
3. Improve understanding of relationships between habitat and productivity to support identification and evaluation of tradeoffs

# Findings (Session 2, Topic 3)

4. Resolve status of artificial substrates with regard to EFH designation
5. Establish a timeline for improving the scientific basis for designation of EFH for key species and habitats
6. Maintain and strengthen the EFH designation process by developing objectives and metrics for successful habitat protection
7. Define “essential” habitat more broadly

# Findings (Session 2, Topic 3)

8. Shift interpretation of EFH from single-species to multispecies and ecosystem focus
9. Set measurable conservation objectives and utilize a “common currency” to evaluate adverse and cumulative impacts
10. Identify priority habitats that benefit fisheries, focus habitat research
11. Provide guidance on “minimize to the extent practicable adverse impacts...caused by fishing” and consider relationship to OY

# Findings (Session 2, Topic 3)

12. Strengthen EFH consultation process and ensure compliance with and effectiveness of existing laws and recommendations
13. Develop a long-term, standardized process for monitoring and evaluating habitat to establish a baseline, assess long term impacts, and support rapid response to non-fishing habitat impacts
14. Provide tools other than spatial closures for addressing adverse impacts from fishing

## Session 3

Providing for  
Fishing  
Community  
Stability

### Topic 1

Recreational and  
Subsistence Fishery  
Connections

## Speakers

- **Ken Franke**, Sportfishing Association of California
- **Manny Duenas**, Guam Fishermen's Cooperative Association
- **Mike Nussman**, American Sportfishing Association

## Panelists

- Steve Joner
- Andy Mezirow
- T.J. Tate
- Craig Severance

# Findings (Session 3, Topic 1)

1. Idea to be replicated/expanded: Scientists can learn much more from fishing community via greater use of cooperative research. This promotes buy-in, empowers fishermen, and can be more cost-effective
2. Fishermen want to be involved with data analysis as well – provides legitimacy to the process and helps build trust

# Findings (Session 3, Topic 1)

3. Councils and NMFS need new creative communication strategies & investments to reach, engage, and support underrepresented fishermen's participation in process
4. Goals specific to each sector and stakeholder group need identification, early in the process, to customize development of a suite of fishery management strategies

# Findings (Session 3, Topic 1)

5. Allocations are not 'permanent' - need to be more proactive in routine review and modification as needed. Decisions should be left to the regions, and creative solutions may result from constructive dialog between sectors
6. Recreational and subsistence considerations need higher priority in fishery management policy choices, AND in other policy arenas that affect fisheries (e.g., alt. energy)

# Findings (Session 3, Topic 1)

7. Define subsistence fishing in the MSA, and expand recognition of tribes and indigenous people engaged in subsistence fishing
8. Qualitative information vs. quantitative – need more thought/guidance on how to utilize both in fishery management decisions
9. Need better data - Target ledger-type submissions and other data collections as condition of access/use of a public trust resource

## Session 3

Providing for  
Fishing  
Community  
Stability

## Topic 2

Integrating  
Community  
Protection, Jobs  
Emphasis, and  
Domestic Seafood  
Quality Assurance

# Speakers

- **Robin Alden**, Penobscot East Resource Center
- **Larry Band**, Fisheries Finance Consultant
- **Roger Bing**, Darden Restaurants

# Panelists

- Sebastian Belle
- Ray Riutta
- Michael Conathan
- Patricia Clay

# Findings (Session 3, Topic 2)

1. Create, modify and promote financial tools and training to support small and community-based borrowers (e.g., NOAA Fisheries Finance Program, CA Fisheries Fund)
2. Resolve institutional impediments to fisheries commerce (e.g., Establish central registry to facilitate lending; Improve aquaculture permitting process)

# Findings (Session 3, Topic 2)

3. Link ecosystem-based management scales to fisheries management and governance (e.g. Revise National Standard 3 (Management Unit))
4. Link fishery participation to stewardship obligation
5. Need policy statement on devolving governance

# Findings (Session 3, Topic 2)

6. Preserving the past is not always the best path forward
7. Diversify Council management actions to accommodate differences between small & large-scale operators (e.g., mobility of fleet, business models, supply needs)
8. Anchor quota in communities (Utilize ecosystem-based management, Community Fishing Associations)

# Findings (Session 3, Topic 2)

9. Devolve more responsibilities and accountability to communities and industry, engage in science via cooperative research
10. Elevate and promote best practices; become a learning organization (e.g. State examples, Fisheries Improvement Projects, National Fish & Wildlife Foundation funded projects)
11. Modify Council process to improve participation of small-scale and community sectors

# Findings (Session 3, Topic 2)

12. Cooperative research results needs to be more fully incorporated into management
13. Recognize certification of U.S. fisheries that meet the 10 MSA national standards
14. Need end-end streamlined regulatory process for aquaculture
15. Wild harvest and aquaculture, more similar than different, both needed to meet supply needs, attain economic objectives

## Session 3

Providing for  
Fishing Community  
Stability

## Topic 3

Assessment and  
Integration of  
Social and  
Economic  
Tradeoffs

# Speakers

- **Richard Robins**, Mid-Atlantic Fishery Management Council
- **Marty Smith**, Duke University
- **Jim Martin**, Berkley Conservation Institute

# Panelists

- Shirley Marquardt
- Doug Lipton
- Rick Algert
- Columbus Brown

# Findings (Session 3, Topic 3)

1. MSA needs to incentivize response to challenges, population growth, climate change, globalization, and budget cuts
2. MSA needs to complement other ocean users and relevant statutes that affect fisheries management, such as ESA, Clean Water Act
3. Give full consideration to impacts from other uses/users for marine resources (non–fisheries)

# Findings (Session 3, Topic 3)

4. MSA should explicitly promote use of adaptive management approaches, particularly for data-poor species where the precautionary approach limits information on stock performance under higher catch rates
5. Need to define, ID sideboards & metrics of elements of OY; redefine OY/MSY relationship to no longer be one-direction, and social, economic and non-economic values could allow OY to be above MSY

# Findings (Session 3, Topic 3)

6. Expand socioeconomic analysis requirements to include economic value and non-market value quantification
7. Trade-off analysis requires giving higher priority than other disciplines for acquiring additional capacity in social scientists including anthropologists, sociologists, and economists at Councils, regional offices and/or externally

# Findings (Session 3, Topic 3)

8. Facilitate cooperation and partnerships with states, local governments, and other agencies
9. Improve engagement with competing sectors in scoping process
10. Develop mitigation plans to reduce impacts on communities due to management actions
11. Reform MSA confidentiality provisions, access to data from public trust resource users while protecting sensitive information

# Findings (Session 3, Topic 3)

**Allocations** (one of four grand challenges besides ACLs for assemblages, recreational mgt tools, & Habitat reform)

12. MSA mandate for Councils to consider review of recreational and commercial allocations every {x} years after scoping allocations based on a set of objective guidelines
13. NOAA standardized methods on how to review allocations
14. Improve NOAA support for allocation reviews (contracted analysts/economists)