

**OVERFISHING REFERENCE POINTS AND UNCERTAINTY BUFFERS**

*A Workshop in the Massachusetts Marine Fisheries Institute's  
End-To-End Review of New England Groundfish Stock Assessments*

*November 6-8 2013; Waypoint Event Center, 185 MacArthur Drive, New Bedford MA*

Directions - From I-195 take MA-18 S via exit 15 toward Downtown New Bedford, turn left onto MacArthur Drive and a left into the Fairfield Inn and Suites, Waypoint Event Center Parking Lot

Background - An appropriate starting point for the workshop terms of reference (TORs) are the recommendations made by the SSC in their report on MFI's analysis "A Report on Economic and Scientific Conditions in the Massachusetts Multispecies Groundfishery". In order to address the SSC's recommendations, the workshop should provide a catalog of reference points and document the effect of their utilization on the probability of overfishing and catch limits. Best practices should be developed utilizing different scenarios of data availability and model choice. The workshop should also address the risk implications of these decisions. The workshop should document current practices relative to setting OFL-ABC buffers and address the potential costs and benefits of these buffers. The workshop should analyze alternative methods to setting buffers and should recommend best practices.

Terms of Reference

1. Evaluate the biological, social and economic risk implications of commonly used  $F_{MSY}$  and  $B_{MSY}$  proxies.
2. Provide guidance on the magnitude of the buffer between the catch associated with overfishing (OFL) and acceptable biological catch (ABC), which is intended to take account of scientific uncertainty.
3. Provide recommendations that are relevant to the general topic.

## **AGENDA**

Wednesday, November 6

### **Introductions**

1:00 Welcome and background on MFI End-to-End Review of New England Groundfish Stock Assessments – Brian Rothschild

1:10 Groundfish reference points and buffers – Steve Cadrin

1:30 Failure to eliminate overfishing and attain optimum yield in the New England groundfish fishery - Emily Keiley

### **Age-Based Approaches to MSY**

2:00 The structure of complex biological reference points and the theory of replacement and simulation study of biological reference points for summer flounder – Brian Rothschild and June Jiao

2:30 Implications of Alternative Stock-Recruit Functions for Gulf of Maine cod – Doug Butterworth

3:00 Discussion on age-based approaches

*3:30 afternoon break*

### **Biomass Dynamics Models**

4:00 Density-dependence and environmental change – Des Kahn

4:30 Comparison between maximum sustained yield proxies and maximum sustained yield –Brian Rothschild and June Jiao

5:00 Applications to New England groundfish – Steve Cadrin

5:30 Discussion on biomass dynamics models

*6:00 adjourn for the day*

Thursday, November 7

**Overfishing Proxies**

9:00 Variable productivity and reference points: priors, proxies, and pragmatism – Liz Brooks

9:30 Characterizing uncertainty in fish stock assessments: the case of the southern New England-Mid-Atlantic winter flounder – Brian Rothschild and June Jiao

10:00 Unintended consequences of overfishing proxies – Steve Cadrin

*10:30 morning break*

11:00 Can stock–recruitment points determine which spawning potential ratio is the best proxy for maximum sustainable yield reference points? Chris Legault

11:30 Discussion on overfishing proxies

*12:00 pm lunch break*

**Uncertainty Buffers**

1:30 New England groundfish ABC control rules – Tom Nies

2:00 Considerations for developing a risk policy underlying annual catch limits – Jake Kritzer

2:30 Risk-based derivation of catch limits – Dan Georgianna

3:00 Considering accountability measures in catch limits – Cate O’Keefe

*3:30 afternoon break*

4:00 Management strategy evaluation – Doug Butterworth

5:00 Discussion on uncertainty buffers

*6:00 adjourn for day*

6:30 **Workshop Dinner** - Inner Bay 1339 Cove Rd, New Bedford (organized but not funded by MFI, please RSVP by November 1 to [ekeiley@umassd.edu](mailto:ekeiley@umassd.edu))

Friday, November 8

9:00 Perspectives on reference points and uncertainty buffers from the fishing industry and fishery managers – panel discussion

10:00 Review of workshop discussions

- age-based msy
- biomass dynamics
- overfishing proxies
- uncertainty buffers

*11:00 morning break*

**11:30 Final Discussion and Recommendations**

*1:00 Adjourn*