



Squid Management Workshop Goals and Agenda January 15-17, 2013

Workshop goals:

The purpose of the workshop is to consider options for improving management of the longfin and *Illex* squid fisheries, with a focus on responsive harvest strategies that account for changing stock conditions over the course of the year. The Council intends for managers, scientists, and fishermen to collaboratively consider if responsive harvest strategies are feasible and appropriate for optimizing yield in these fisheries.

For the purposes of this workshop, the term "responsive harvest strategy" may refer to a range of management strategies such as "adaptive" or "in-season" management. Discussion and public comment will be incorporated throughout the workshop.

Specifically, workshop participants will:

- Review the harvest strategies currently used to manage longfin and *Illex*, consider the challenges of assessing and managing squid, and discuss the rationale for a management approach that is more responsive to fluctuations in abundance;
- Characterize the challenges that the industry faces under current management, including interactions between species;
- Consider the different forms that a responsive harvest strategy could take;
- Examine lessons learned from past work on in-season data collection and assessment in the *Illex* fishery, and explore the models, information inputs, data collection platforms, costs, and coordination required to implement more responsive harvest strategy in both squid fisheries;
- Investigate the Falkland Islands model of real-time management of their squid fishery for *Doryteuthis gahi* (formerly "*Loligo gahi*")
- Characterize the problems for which a responsive harvest strategy may or may not provide a solution; and
- Assess the feasibility and appropriateness of more responsive harvest strategies, and identify key tradeoffs, information needs, and opportunities for further discussion.

Agenda begins on next page

Day 1/Tuesday, January 15th: Defining the issue

1:00 – 1:30 pm

Introductions and opening remarks

- Chris Moore, MAFMC Executive Director
- Katie Latanich and John Henderschedt, Fisheries Leadership & Sustainability Forum
- Participants and invited speakers

1:30 – 2:30 pm

Panel session: Where are we now?

Objective: Describe how the unique biology and life history of longfin and *Illex* have contributed to the current management approach, provide an overview of the current management and monitoring framework, and discuss the rationale and regulatory considerations behind a responsive harvest strategy.

Challenges of assessing the longfin and *Illex* stocks

Lisa Hendrickson, Illex and longfin squid stock assessment scientist, NOAA Fisheries/Northeast Fisheries Science Center

Regulatory considerations and short-lived species

Peter Christopher, Team Supervisor, Sustainable Fisheries Division, NOAA Fisheries/Northeast Regional Office

Current management of the longfin and *Illex* resources

Jason Didden, Squid, Mackerel and Butterfish FMP Coordinator, Mid-Atlantic Fishery Management Council

Landings monitoring in the longfin and *Illex* squid fisheries

Hannah Goodale, Chief, Analysis and Program Support Division, NOAA Fisheries/Northeast Regional Office

2:30 – 3:30 pm

Industry perspectives: How do regulatory and non-regulatory factors influence effort in the longfin and *Illex* fisheries?

Objective: Provide managers and scientists with insight into the regulatory and non-regulatory factors that currently influence fishing behavior and effort in the squid fisheries.

Fisheries Forum facilitators

Discussion questions:

- What do you think is most important for managers and scientists to understand about the factors that influence fishing effort? How do these factors vary by perspective (e.g. fishermen, dealer, processor), vessel size, holding method (fresh/refrigerated sea water and frozen), and other characteristics?
- How are your fishing decisions influenced by the behavior and performance of the rest of the longfin and *Illex* fleets? By other

fisheries? By global markets?

- Do you make these decisions independently, or as a leader or employee of a larger corporation? What relationships or processes are involved?
- How do current regulatory measures, including the butterfish cap, affect your fishing effort?

3:30 – 3:45 pm

BREAK

3:45 – 5:30 pm

Interactive presentation and discussion: Why consider a responsive harvest strategy?

Types of responsive harvest strategies and implementation needs

Objective: Outline some of the different forms that a responsive harvest strategy could take, and identify the basic components of each.

Jason Didden and Lisa Hendrickson

Full group discussion: Current challenges and expectations for a responsive harvest strategy

Objective: Identify current challenges in the longfin and *Illex* fisheries, assess reasons for moving toward a responsive harvest strategy, and share strategy definitions and expectations.

Fisheries Forum facilitators

Discussion questions:

- From your perspective, what are some of the current challenges facing each of the squid industries?
- How do you define “responsive harvest strategy”? What are your expectations?
- What are the attributes of successful management from a legal and biological standpoint? From an industry and business planning standpoint?

Day 2/Wednesday, January 16th: Responsive management: Past experience and future possibilities

8:30 – 8:45 am

Recap of Day 1

Fisheries Forum facilitators

8:45 – 9:30 am

A short history of in-season assessment of the *Illex* stock and a new in-season assessment method for the longfin stock

Objective: Review the evolution of stock assessment methods and information inputs for the longfin and *Illex* stocks, including an overview of previous feasibility studies for implementation of in-season

management of the *Illex* resource. Describe the relationship between in-season assessment, management, and data collection.

Lisa Hendrickson

9:30 – 10:15 am

Advances in in-season data collection

Objective: Describe past research on in-season, at-sea catch and effort reporting, and the challenge of creating a metric for effort/CPUE. Review basic sampling and data collection considerations.

Dr. Eric Powell, Director, Gulf Coast Research Laboratory, University of Southern Mississippi

10:15 – 10:30 am

BREAK

10:30 – 12:00 pm

Presentation and discussion: Real-time management in the Falkland Islands squid fishery for *Doryteuthis gahi* (formerly “*Loligo gahi*”)

Objective: Introduce the Falkland Islands model for real-time squid management, including assessment model, information inputs, and coordination between managers, scientists and industry. Discuss similarities and differences between the Falklands and Mid-Atlantic squid fisheries.

Dr. Andreas Winter, Stock Assessment Scientist, Directorate of Natural Resources, Falkland Islands Government

Q&A/Discussion

12:00 – 1:00 pm

LUNCH

1:00 – 2:00 pm

Research roundtable: Introduction to other squid-related research and collaborations

Objective: Provide participants with a common frame of reference regarding research and projects related to the squid fisheries, in order to support discussions about the feasibility and utility of responsive management in the broader context of the SMB fisheries.

Short presentations:

- The Northeast Cooperative Research study fleet and tow-by-tow electronic reporting – *John Hoey, Director, Northeast Cooperative Research Program, NOAA Fisheries/Northeast Fisheries Science Center*
- The NorthEast Area Monitoring and Assessment Program - *Jim Gartland, Multispecies Surveys Leader, NEAMAP/Virginia Institute of Marine Science*
- Squid Trawl Network – *Emerson Hasbrouck, Director, Cornell Cooperative Extension Marine Program and Principal Investigator, Squid Trawl Network*
- OpenOcean. 2013. A multi-disciplinary & institutional collaboration

among academic, government and industry partners in the application of an ecosystem based approach to the assessment of small forage species central to the mid-Atlantic Bight food web. – *Dr. John Manderson, Research Fishery Biologist, NOAA Fisheries/Northeast Fisheries Science Center*

Q&A/Discussion

2:00 – 3:30 pm

Building a responsive harvest strategy

Part I: What do we have, and what do we need?

Objective: Identify inputs that could contribute to the construction of one or more options for responsive management of longfin and/or *Illex* squid.
Fisheries Forum facilitators

Discussion questions:

- Based on your perspective and area of expertise (Council, agency, industry, scientists, other), what are some of the known resources (e.g., models, information, experiences) we could draw on to construct a responsive harvest strategy?
- What are some of the questions, conditions, and information needs associated with these resources? Who can address these needs?
- Of the range of resources and needs discussed, which factors help advance the development of a responsive harvest strategy? Which are constraints?

3:30 – 3:45 pm

BREAK

3:45 – 5:00 pm

Building a responsive harvest strategy

Part II: How do we get started?

Objective: Explore the interdependence between the resources and needs identified in Part I, and how these relationships shape the options for responsive management of the longfin and/or *Illex* squid fisheries. Identify key questions, concerns, and decision points that could help the region make progress toward building a responsive harvest strategy.
Fisheries Forum facilitators

Discussion questions:

- From your perspective, what do you think should be the starting point or the most important consideration in designing a responsive harvest strategy? Why?
- How do the resources and needs identified in Part I influence or constrain one another?
- Given the resources and needs identified in Part I, and the relationships between them, what do you see as the potential pathways toward a responsive harvest strategy for longfin and/or *Illex*?
- What additional feedback and information could help the Mid-Atlantic continue exploring these possible pathways?

Day 3/Thursday, January 17th: Looking ahead

8:30 – 8:45 am **Recap of Day 1 and 2**
Fisheries Forum facilitators

8:45 – 10:15 am **Industry roundtable discussion: Is a more responsive harvest strategy a solution for challenges in the longfin and *Illlex* fisheries?**

Objective: Discuss whether one or more of the responsive harvest strategies discussed on Day 2 would address the industry challenges identified in Day 1.

Discussion questions:

- How do you think a more responsive harvest strategy might impact your participation and role in the fishery (harvesting, processing, distributing, marketing, etc.)?
- Moving forward, what additional questions, concerns, and information might influence your support for a responsive harvest strategy?
- Of the challenges identified on Day 1, which do you think could be fully or partially resolved through responsive harvest strategies? Which do you think could not? What other issues could be addressed through the specifications, framework, or amendment processes?

10:15 – 10:30 am **BREAK**

10:30 – 12:00 pm **Full group discussion: Recommendations and next steps**

Objective: Review the procedural requirements and timeline for moving forward with a more responsive harvest strategy, and share perspectives on whether the Council should continue to explore one or more of the pathways discussed. Identify the questions and information that should be captured in a workshop report, and communicated back to the industry for further discussion via follow-up port meetings.

Fisheries Forum facilitators

Discussion questions:

- From your perspective as a scientist, manager, Council member, or industry participant, what questions do you still have? What insight or recommendations can you share based on your role in the management process?
- What was your most significant take-away from this workshop? Has your view on a responsive harvest strategy changed?
- How would you like to see the information and themes from this discussion captured in a report, and communicated back to the Council and to the industry?

12:00 – 12:30 pm **Closing remarks**