



**UNIVERSITY OF NEW HAMPSHIRE
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DURHAM, NH 03824**

Annual Report

A Fishing Gear Workshop by Fishermen for Non-fishermen



Submitted to:



**The Northeast Consortium
142 Morse Hall
University of New Hampshire
Durham, NH 03824**

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Annual Report

Project title: A Fishing Gear Workshop by Fishermen for Non-fishermen

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Erik Anderson, F/V “Kris n’ Kev”, Portsmouth, NH
Joe Jurek, F/V “Mystique Lady”, Andover, MA
Tom Lyons, F/V “Marion J.”, Hampton, NH

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The Northeast Consortium
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A Fishing Gear Workshop by Fishermen for Non-fishermen

Summary. In the past decade, fishing gear and harvesting related issues have become topics among those who have interests in fisheries but are not commercial fishermen. This group of people includes federal and state scientists and researchers who work with fishermen in cooperative research projects, staff and volunteers working for various fishing and ocean related organizations, fisheries managers and staff members who work for various committees, councils, commissions and congressional delegations, and representatives of conservation organizations. While they have various strength in their respective professions, a lack of knowledge on fishing gears and their operations is evident. We proposed and received support from the Northeast Consortium to organize a pilot three-day workshop for sixteen such participants so that they will have better understanding of fishing gears, operational methods, and conservation issues of commercial fishing gears in use in New England. The workshop were primarily instructed by active commercial fishermen with at-sea and on-the-dock components. Two trawl skippers and two gillnet skippers were involved in on-the-land instructions and discussions, practical demonstrations of gears, and fishing demonstrations at sea. Very positive feedback was received from the participants. As a result, a second workshop of similar nature organized by New Hampshire Sea Grant has received funding from NMFS Cooperative Research Partners Program and will be offered during the summer of 2006.

Rationale

In the past decade, fishing gear and harvesting related issues have become topics among those who have interests in fisheries but are not commercial fishermen. This group of people includes scientists and professors who work with fishermen in cooperative research, staff and volunteers working for fishermen associations and organizations, fisheries managers and staff members who work for various committees, councils and commissions, and representatives of conservation organizations. While they have various strength in their respective professions, a lack of knowledge on fishing gears and their operations is evident.

Fisheries management in the US has become very complicated. Restrictions on fishing gears and operations have become key components in fisheries management plans. More and more people

without fishing gear background are involved in fisheries management processes and debates. Strong support for cooperative research has also brought many researchers, government scientists and university professors to work with fishermen, often on board fishing vessels. There is a need for these groups of people to have better knowledge and understanding of commercial fishing gears and their operations, so that communication between fishermen and non-fishermen groups can be improved. On the other hand, many of them do not have opportunity to go to sea on fishing trips due to their work commitment or due to insurance reasons. Such gaps can be filled with training workshops tailored to this need.

We proposed, and received support from the Northeast Consortium, to organize a pilot three-day workshop for these people so that they will have better understanding of fishing gears, operational methods, and conservation issues. The workshop will be primarily instructed by active commercial fishermen with at-sea and on-the-land components. Two trawl skippers and two gillnet skippers will be involved in classroom instruction and discussions, practical demonstrations of gears on the dock, and fishing demonstrations at sea.

Review of Previous Work

The Northeast Consortium has supported the principal investigator (Pingguo He of UNH) five industry workshops, of which four workshops have been successfully completed. These workshops were primarily attended by fishing industry participants, with representatives from federal and state agencies, sea grant colleges and funding agencies. These workshops were conducted at a flume tank in St. John's, Newfoundland, and were aimed at better understanding of conservation technologies in trawls and enhancing exchanges between scientists/managers and fishermen. The workshops have been very well received by the participants. One more workshop will be organized in 2006.

Through these workshops, it was apparent that there are other groups of interested parties which also need fishing gear knowledge, and it is impossible for many of them to travel to the flume tank due to financial and time constraints. These parties include scientists and researchers who work with fishermen, staff and volunteers working for fishing and ocean related organizations, fisheries managers and staff members who work for various committees, councils and commissions, specialists who work for funding agencies and federal and state permit offices, congressional staffers, and representatives of conservation organizations.

Objectives of the workshop

The objective of the proposed project is to improve understanding of commercial fishing gears and operational methods in use in the northeastern United States for those with personal and professional interests in fisheries but are not fishermen, so that they can be more proficient in their dealing with fishing gear related issues. Using fishermen to train non-fishing professionals can also bridge gaps in communication and understanding. The specific objectives or goals were to:

- ❖ Plan, coordinate and conduct one three-day fishing gear workshop taught by fishermen for non-fishermen with at-sea and on-the-land components;
- ❖ Involve four commercial fishermen and their vessels from trawl and gillnet sectors;
- ❖ Provide opportunities for sixteen individuals from various non-fishermen groups to participate discussion with commercial fishermen and to be on board their vessels for fishing demonstrations..

The workshop will be used a pilot for future industry-led workshops for better understanding fishing gear operations by non-fishing groups and for better communication and dialogs between fishermen and non-fishermen.

Workshop Participants

The project aimed for 16 participants in a three-day workshop. The participants of the workshop included:

- ❖ Staff in National Marine Fisheries Service's permit offices and constituent offices
- ❖ US Coast Guard officers
- ❖ Scientists and research technicians from Northeast Fisheries Science Center
- ❖ Congressional staffers
- ❖ Cooperative research funding agency staff and executives
- ❖ New Hampshire Fish and Games staff
- ❖ New Hampshire Sea Grant staff and docents

Fourteen individuals participated the workshop due to two last minute cancellations. Not all the fourteen people attended all three days of the workshop due to other commitment..



Exhibit 1. David Goethel (far right) explaining the components of trawl gear to the participants on the parking of the Urban Forestry Center.

Workshop Instruction Team (Project Participants)

The workshop was organized by New Hampshire Sea Grant, but was primarily instructed by fishermen. The team included the following five industry/science professionals:

David Goethel is a commercial trawl fisherman based in Hampton, New Hampshire. Capt. Goethel has tremendous experience in fishing gear, operations and fishing grounds in the western Gulf of Maine. He has been involved in various cooperative research projects such as cod tagging, supplying brood stocks for aquaculture experiments, and environmental monitoring. He is very active in fisheries management processes and has served in various fisheries committees of the New England Fisheries Management Council. He is currently a member of the New England Fisheries Management Council.

Erik Anderson is from Portsmouth and is an experienced gillnet fisherman with more than thirty years fishing experience. Capt. Anderson is very familiar with gillnets and other fixed gears in use in the Gulf of Maine. Capt. Anderson has been involved in various cooperative research projects including reducing marine mammal interactions with gillnets. He is the president of New Hampshire Commercial Fishermen's Association and holds various memberships in NMFS marine mammal take reduction teams He was a member of New England Fisheries Management Council.

Other two fishermen involved in the workshop instruction and at-sea demonstrations are Capt. Joe Jurek of F/V “Mystique Lady”, a trawler based in Seabrook, NH and Capt. Tom Lyons of F/V “Marion J.”, a gillnetter based in Hampton, NH. Both skippers have participated in gear demonstrations on the land and at sea, and are very enthusiastic about the project.

Pingguo He, the principal investigator, is a University of New Hampshire research associate professor of fisheries at the Institute for the Study of Earth, Oceans and Space, and a fishing gear specialist with the NH Sea Grant. He has considerable experience on fish behavior and fishing gears, and conducting underwater observations of fish near fishing gears. He is also knowledgeable about trawl design, gear operation, and analysis of video and data collected. He has recently organized four industry workshops for trawl fishermen in New England.

Workshop Venue

The workshop was conducted at sea off the coast of New Hampshire onboard four commercial fishing vessels and on the land at the Urban Forestry Center, Portsmouth. Two commercial trawlers and two commercial gillnetters owned and operated by the industry partners were used as platform for at-sea demonstrations of fishing gear operations. Parking lot at the Urban Forestry Center was used for gear demonstrations which included a variety of trawl codend, a full commercial trawl, a trawl sweep, and a variety of gillnets and lobster pots.



Exhibit 2. Joe Jurek (far right) and David Goethel (second from right) explaining the components of trawl gear and repairing techniques to the participants.

Workshop Contents

The workshop was primarily a hand-on event with actual fishing implements on display for demonstration and examination. The at-sea part of the workshop focused on the operation of the gear. Exempted Educational Activity Authorizations were issued by NMFS Permit Office for the four vessels participated in the at-sea Demonstrations. The workshop covered the following subjects:

- ❖ Introduction to fishing gears and operational methods with special references to those in use in the northeastern USA;
- ❖ Fish behavior, selectivity and conservation in commercial capture fisheries;
- ❖ Industry-led in-depth discussions and demonstrations of trawl components and its operation with hands-on identification and measurement, including selectivity devices and designs, and trawl doors;
- ❖ Industry-led in-depth discussion and demonstration of fixed gear (primarily gillnets) components and their operations with hands-on identification and measurement, including “whale-safe” requirements and devices;
- ❖ At-sea demonstrations on trawl operations
- ❖ At-sea demonstrations on gillnet operations
- ❖ Discussion harvesting related conservation issues and challenges



Exhibit 3. Various gillnets and a lobster pot on display during the workshop.

Workshop Schedule

The workshop was conducted between the August 31 and September 2, 2005. Following box provides the schedule of activities during the three days:

Schedule of Activities

Day 1 (Aug. 31)

- Introduction and overview of the workshop
- Introduction to fishing gears and methods
 - Trawl - components/operation
 - Trawl - fishery issues
 - Fixed gear - components/operation
 - Fixed gear - fishery issues
- Selectivity and conservation during capture
 - Fish behavior near fishing gears
 - Selectivity and conservation

At the parking lot

- Gear identification, measurement, and demonstration

Day 2 (Sept. 1)

- At-sea demonstration on board commercial vessels (trawl or gillnet)

Day 3 (Sept. 2)

- At-sea demonstration on board commercial vessels (trawl or gillnet)
- Discussion and wrap up

Feedbacks from the participants

Twelve participants submitted their thoughts on the workshop. Overall rating on the workshop was very good. Ratings on various workshop components are generally very good with an average of 3.8 to 4.7 out of possible 5. Specific rating may be related to background and specific interests of the participants who represented a diverse background and profession (Exhibit 3). All participants indicated that they would recommend to their colleagues if another similar workshop is held.

Participants #	1	2	3	4	5	6	7	8	9	10	11	12	Mean
Trawl - component	5	4	4	5	5	4	3	5	5	4	4	5	4.4
Trawl - Fishery	5	4	5	5	4	5	4	5	5	5	4	5	4.7
F.G - component	5	4	4	5	5	4	3	4	5	5	4	3	4.3
F.G - fishery	5	3	3	5	4	5	4	4	5	4	4	2	4.0
Fish Behavior	4	4	5	5	2	4	4	5	5	3	2	3	3.8
Conservation issues	4	4	4	5	5	5	4	5	5	5	5	5	4.7
Gillnet - demo	5	4	3	5	5	4	2	3	5	5	3		4.0
Trawl - demo	5	3	3	5	5	4	2	3	5	5	3	5	4.0

Exhibit 4. Evaluation by 12 participants of various workshop components. 5 - most interested or most useful, 1 - least interested or least useful. F.G. - fishing gear.

Workshop Impact

The workshop involved four commercial fishing vessels (eight fishermen) from New Hampshire in on-the-land and at-sea program. The workshop attracted 16 participants from staff in National Marine Fisheries Service’s permit offices, constituent offices, scientists and research technicians, US Coast Guard officers, NH congressional staffers, cooperative research funding agency staff and executives, including those from NEC, New Hampshire Fish and Games staff, and New Hampshire Sea Grant staff and docents. The workshop was well received by the participants. Due to the success of this pilot workshop, a second workshop has been funded by NOAA Fisheries to a colleague of the principal investigator, Dr. Ken LaVelly of NH Sea Grant. The four fishing vessel will again be the industry partners, and Dr. He will assist Dr. LaVelly during the workshop.

Acknowledgment

This project is financially supported by the Northeast Consortium. We would like to thank crew of F/V “Ellen Dianne”, F/V “Kris N Kev, F/V “Mystique Lady” and F/V “Marion J.” for their assistance during the sea days. We would also like to thank Dr. Ken La Valley of NH Sea Grant for his assistance prior to and during the workshop.

Workshop Brochure

Fishing Gear Workshop for Non-fishermen

Date: 08/31 - 09/02, 2005 (three days)

Venue: Urban Forest Center, Portsmouth
Hampton Harbor/Seabrook Harbor, NH
Inshore Gulf of Maine off New Hampshire

Instructors: David Goethel, F/V "Ellen Diane"
Erik Anderson, F/V "Kris n' Kev"
Joe Jurek, F/V "Mystique Lady"
Tom Lyons, F/V "Marion J."

Coordinator: Pingguo He, Univ. of New Hampshire, NH Sea Grant

Funded by: The Northeast Consortium



Provisional Schedule of Activities

Day 1

Introduction and overview of the workshop
Introduction to fishing gears and methods
Introduction to selectivity and conservation during capture

On the wharf/at parking lot
Gear identification, measurement, and demonstration
Gillnet group & Trawl group

Day 2

At-sea demonstration on board commercial vessels
(trawl or gillnet)

Day 3

At-sea demonstration on board commercial vessels
(trawl or gillnet, switch gear type with Day 2)
Discussion and wrap up

The workshop:

This three-day workshop will be instructed by commercial fishermen for non-fishermen on commercial fisheries in New England, fishing gear operations, and on board demonstration of trawls and gillnets

The purpose:

- Improve knowledge of commercial fishing gears and operation
- Foster communication between commercial fishermen and non-fishermen
- Provide opportunities for participants on board commercial trawl and gillnet vessels

The participants:

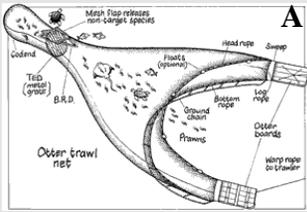
- NMFS administrative staff (grant staff, permit staff, Coast Guard, and science staff)
- Congressional fisheries staffers
- Fisheries council and commission members and staff
- Conservation and environmental groups
- University/research institute scientific/technical staff

Contact:

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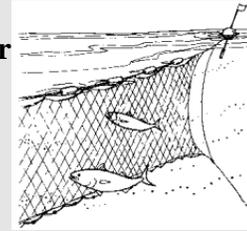


EVALUATION AND COMMENTS



A Fishing Gear Workshop by Fishermen for Non-fishermen

Aug. 31 – Sept. 2, 2005



1. Overall rating and comments on the workshop

Technical content

Logistics

2. Which topics interested you? (put an X beside the number)

	Least interested			Most interested	
	1	2	3	4	5
Trawl gear: Components and operation	1	2	3	4	5
Trawl gear: Fishery	1	2	3	4	5
Fixed Gears: Components and operation	1	2	3	4	5
Fixed Gears: Fishery	1	2	3	4	5
Fish behavior	1	2	3	4	5
Fishing Gear and Conservation Approaches	1	2	3	4	5
Gill Net Demonstration	1	2	3	4	5
Trawl Gear Demonstration	1	2	3	4	5

3. Rank the degree to which the workshop increased your knowledge (circle).

No increase 1 2 3 4 5 Extensive increase

4. How can we improve the workshop?

5. Would you recommend this workshop to your colleagues?

6. What topics (if any) would you have liked to cover?

Occupation:

Optional: Name: _____
 Organization: _____

Please mail back to: Pingguo.he@unh.edu or post to:
Pingguo He, 137 Morse Hall, UNH, Durham, NH 03824,
or fax. To: (603) 862-0243

Additional Photographs

Matt Leahy (right) of Senator Judd Greg's office chatting with Erik Anderson.



David Goethel standing by his Nordmore shrimp grid



Joe Jurek (right) explaining trawl gear to the participants.

Erik Anderson explaining his gillnet to Troy Hartley, the Outreach Director of the Northeast Consortium.





Erik Anderson (right) and Joe Jurek explaining gillnet components.



Gillnets components on display at the workshop



Various trawl gear components on display at the workshop.

The Nordmore Grid



Square mesh codend



Rockhopper sweep



Knotless shrimp codend