

Appendix D

Industry-Based Survey
for
Gulf of Maine Cod
Pilot Study

Outreach Materials and Minutes from Subcommittee Meeting

Appendix E. An article that was published in a local news paper

Gloucester Daily Times -- *Monday December 19, 2005*

Cod numbered



Bill Hoffman, an aquatic biologist for the Division of Marine Fisheries, heads the Industry Based Cod Survey.

By Patricia Cronin

Staff writer

Editor's note — Fisheries reporter Patricia Cronin joined researchers from the Massachusetts Division of Marine Fisheries and the crew of the Gloucester fishing vessel Lady Jane for a 12-hour cod survey Friday. Scientists hope the data collected during the Industry Based Cod Survey will hold the key to rebounding Gulf of Maine cod.

ON MASSACHUSETTS BAY — As the boat pulled away from the wharf at Rocky Neck, Capt. Russell Sherman turned the wooden wheel in the predawn darkness and mumbled under his breath.

"Sometimes you look like a jockey riding a race horse, and sometimes you look like a stumbling, old drunk," he said, shimmying the boat's rear back and forth in the low tide and finally squeezing her free from a tight spot between another vessel and the wharf.

A kettle of water had already begun to boil when researchers boarded the 76-foot steel dragger just before 4:30 a.m. It was 16 degrees outside, but the metal boat had already been warming for several hours. Along with Division of Marine Fisheries biologist Bill Hoffman and two other state researchers, Sherman and his three-man crew waited for the ship to reach the first spot where they would drop a specially designed net in hopes of catching cod.

"We're looking for distribution of fish," Hoffman said. "We're trying to figure out if they are here to spawn, feed or leave and then spawn."

The Industry Based Cod Survey, launched in 2003, teams up fishermen and scientists on trawl surveys of the waters off Massachusetts and Maine. Researchers hope their data will provide scientists with a way to save the dwindling number of cod thought to be reproducing in the Gulf of Maine in late December and January.

Last year, a large number of spawning cod were common just one mile offshore. This year, cod have been few and far between.

Cod Conservation Zone

The inshore area researchers had set out to explore lay within the Cod Conservation Zone, established by the DMF to protect spawning clusters of cod. The zone runs from Marblehead to Boston and ends to the east at the 3-mile nautical line, where federal waters begin.

Any gear capable of catching cod is prohibited within these waters from Dec. 1 to Jan. 15, except for the ship's 4- to 3-inch mesh nets with specially designed 2-inch cod ends.

Fishermen helped design the nets used on board the locally owned fishing boat, rather than a research vessel. For those whose livelihoods depend on the study's results, the fishing boat lends additional credibility to IBCS data, Sherman said.

"If we do the right job, then the truth will be known and let the cards fall where they may," he said. "I have every bit of faith in this survey."

There has never been a survey of the zone during winter months, and Hoffman said scientists hope the data collected will help fill gaps in federal and state trawl surveys conducted in the past.

The first haul

Daylight had finally broken over the horizon as the crew reached its first drop. Hoffman said the survey spots were picked using a grid of Massachusetts Bay. Each square in the grid represented one haul.

With orange slickers on over sweat shirts and thermals, Mike Ragusa, Joe Parisi and Steven Cambria made their way onto the slush-covered deck and lowered the nets. A layer of sea smoke over the icy water soon swallowed the orange buoys, and the boat lurched forward. We had caught something other than fish, a wreck or old lobster traps perhaps, and Sherman had to back up the boat to free the tangled net. Finally, the net was freed and, after a 20-minute tow, hauled back onboard. There were no cod. "It's just been that kind of season," Hoffman said. "I don't

know if the cod are just late. That's what some fishermen have been saying. They say (the cod) haven't shown up yet."

Sampling the cod

The second tow yielded 17 pounds of cod. Hoffman, marine biologist Dan Salerno and sea sampler A.J. Macfarlan got to work, separating the cod from other fish and crustaceans recovered in the tow, such as yellowtail flounder and lobster. The cod were weighed together and individually before they were measured, sliced through the middle and examined. The researchers checked the sex and maturity level of each fish, removed its stomach and then sliced down its head from behind the eyes to remove ear bones called otoliths. When baked, tiny rings form on the bones, Salerno said. Similar to the rings on a tree, they reveal a fish's age. Using tweezers, the crew performed the delicate work quickly, placing the bones into tiny envelopes. But it soon turned competitive for Hoffman and Ragusa.

"Yeah, by one second you beat me," Ragusa said, accusing Hoffman of cheating after he lost a race to slice and remove the ear bones from five cod.

In search of more data

After recording survey results on paper, researchers will store the information in a large database within 40 to 60 days. The New England Fishery Management Council, working on additional cod regulations in a document known as Framework 42, has already agreed to use the data in its 2008 Groundfish Benchmark Assessment.

"We're at a time when we really need to enhance the survey or expand it," Hoffman said. "It's just not enough, in my eyes, to mean significant results. You would need five years, at a minimum, for a better picture." Now entering its third year, the survey lacks additional funding for 2006.

In the pilothouse, where computer screens surrounded the old, wooden wheel and medallions of St. Peter hung on the wall near Hoffman's laptop, Sherman steered the Lady Jane back to port after six hauls and little cod.

"If there has to be a fish that has to be surveyed, it's Gulf of Maine cod," he said. "The whole industry has been regulated to the tune of Gulf of Maine codfish for the past 10 years."

With the sunset hours behind and the light of a full moon dancing on the water ahead, the boat pulled back into its spot beside the dock and the men prepared to go home.

They will survey additional spots during five more scheduled trips in 2006.

Where have the cod gone?

The IBCS is recording data on cod thought to be spawning in the Cod Conservation Zone during the winter months. But recent assessments show Gulf of Maine cod are already in trouble.

* Gulf cod numbers have declined 21 percent since the last assessment in 2002.

* A larger than normal number of cod were thought to have been born in 2003, known as the '03 year class. Conservationists have stated that if the '03 year class is not protected from overfishing, Gulf of Maine cod might not rebound.

* In 2007, the same year the '03 year class would be large enough to be caught, the total allowable catch targets for Gulf cod will nearly double.

Appendix E (cont).

IBS Outreach Subcommittee Draft Meeting Minutes January 18, 2005

Attendees: Chris Moore, MAFMC, Marla Trollan, NMFS, Terry Alexander, Industry, F/V Jocka, Bill Duffy, Northern Geomantics, Bill Hoffman, MADMF, Dan Salerno, MADMF, Sarah Pierce, RIDMF, Cheri Patterson, NHFGD, By phone: April Valliere, RIDMF, Pat Fiorelli, NEFMC. Absentees – Azure Westwood (NMFS) and Robert Johnston (NMFS)

Action Items to address:

- Further public outreach of all IBS-Addressed
- General information (overview of all projects)-Addressed
- Fixed gear interactions, other type of communication problems-Addressed
- Message out to constituents/industry/public/Congress (\$) -Addressed with the exception of Congressional outreach. See
- Consult with Bill Duffy on methods to link websites, etc...

Agenda:

- 10:00 Welcome/Introductions
- 10:15 IBS Website – Bill Duffy – Northern Geomantics
- 11:00 NMFS Cooperative Research Partners Initiative (CRPI) Outreach Program – Marla Trollan – NOAA/NMFS Regional Outreach Coordinator
- 12:00 Lunch
- 12:30 Discussion of IBS Outreach Subcommittee Action Items from IBS meeting – August 2004
- Develop protocol of notification to industry regarding IBS trawl activities.
 - Develop general information of IBS projects (Yellowtail flounder and GOM Cod Trawl surveys).
 - Other communication needs – constituents, industry, public, congress, etc..
 - Linking Agency/Industry websites to IBS website.
- 2:00 Adjourn

1) Overview of IBS Website: Bill Duffy – Northern Geomantics

Bill Duffy gave an overview of the IBS Cod Trawl Survey website (<http://projects.northgeo.com/trawl>). The IBS website currently includes data from IBS Cod Trawl Survey, Yellowtail Flounder Survey and Cod Tagging Survey. Bill reviewed the GOM Cod Trawl survey.

Features include but not limited to:

- 1) GIS map of GOM cod survey range.
- 2) Circles on map indicate where cod inshore trawl surveys were conducted and how many fish were caught.
- 3) If click on circles, can obtain species, species weight, length frequencies, etc. As well as, date and location (longitude and latitude) of actual trawl. This information can be printed.
- 4) Can show graphs (bar, line, etc..) of species composition of a single leg.
- 5) Currently is available for administrative changes to the following: Linda Mercer – Maine DMF, Bill Hoffman – MADMF and Bill Duffy and other Northgeo design personnel.

Bill Duffy would like to can get final comments, concerns, etc so he can move the website out of development stage and into production. Bill Duffy brought up the concern that now the website is close to production an agency needs to be available to host the IBS website. Currently, Maine DMF has volunteered to host this site temporarily as early as next week until NMFS or another state/council entity can host. NOAA/NMFS will look into hosting this site permanently and will be in contact with Bill Duffy for maintenance costs and site specifics. The requirements to host this developed website are in Appendix 1.

A “wish list” of what the Outreach Subcommittee would like to see for changes, additions and improvements in the future is outlined below:

Request From	Requested change, addition and/or improvements to website
Industry (fishermen)	Produce a single sheet for basic information on how to move around website easily.
Industry, science and management (state, councils, etc...	Add a descriptive cover page introducing the various surveys and CRPI, IBS, etc.. to website.
Science and Management	Add surface temperature as a field in database and data collection requirements to allow website access for both cod and yellowtail surveys. Ultimately have both bottom temperature and surface temperature available on website.
Industry	Add date to screens currently not showing date of trawls.

2) Overview of outreach funding applied to Cooperative Research Partnership Initiative (CRPI) through NOAA/NMFS – Marla Trollan, Outreach Coordinator.

NOAA/NMFS is already working from an approved spending plan for outreach towards all the CRPI programs in an integrated and coordinated approach through all the related committees. Marla outlined that outreach funding (\$65,000 – \$70,000) was provided to the CRPI program in 2005. The projects being addressed under the CRPI program are the Cod Tagging surveys, Industry-Based Surveys (GOM Cod Trawl and SNE Yellowtail Flounder surveys) and Study Fleet surveys. NOAA/NMFS will be meeting with media producers on January 21, 2005 to initiate the development of a 20-30

minute video with loop feed for trade shows, various interested organizations, etc... This video will introduce the CRPI program and current programs/projects. Marla will also be developing displays, brochures and handouts of the CRPI program and for the individual programs/projects housed under CRPI.

The CRPI logo that was developed will no longer be used, as there was concern of perception that CRPI is separate from NOAA fisheries. Whereas, it actually is a program funded through the NMFS/NOAA. Therefore the CRPI logo will not be used any longer and the NOAA logo will be on all developed media materials.

Marla will be coordinating with Bill Hoffman (GOM Cod Trawl Survey coordinator) and April Valliere (SNE Yellowtail Flounder Survey coordinator) to obtain and/or schedule photos, video footage and interviews with fishermen on the vessels.

Bill Hoffman explained that he has already developed media material for the IBS GOM Cod trawl survey and has already displayed this information at trade shows and distributed information through mailings. He also has developed maps and coordinates of the survey sites for distribution through these media. He will be sharing these developed media materials with Marla.

Conversation developed, at the prompting from Chris Moore, MAFMC, on how to best reach the audience who will be most interested in the data from the various CRPI programs/projects. The audience was defined by the Outreach Subcommittee as industry (fishermen and fishing organizations) and the various state and federal agencies, stock assessment and private organizations concerned with the science and management of the surveyed species. Other questions that Chris would like clarified is whether this data will be used, in what capacity and the timing of data availability? Who has requested data from these surveys to date? Chris will be developing a white paper that will track the data used for management and/or researchers.

Some of the outlets to best reach interested parties through media that were discussed for Marla to work with, as well as, some that have already been used for specific IBS project were:

Outlets that have been used:

- 1) Trade shows (Bill Hoffman, MA).
- 2) Article written in GIS newsletter by Bill Duffy. *Please send to Cheri as informational material for the next meeting for the IBS Committee.*
- 3) State website links and public notices/press releases (MA and RI).

MA: <http://Mass.gov/marinefisheries>

To access GOM Cod Trawl Survey from website -
Programs and Projects

RI: <http://www.state.ri.us/dem>

To access SNE Yellowtail Flounder Survey from website -
Programs
Fish and Wildlife
Marine Fisheries
“Fall Industry-Based Surveys” – bottom right

Outlets to access:

- 1) Atlantic Offshore Lobstermen's Association, Bonnie Spinazzola, Executive Director – (603)483-3030.
- 2) Actual person-to-person contact in downeast Maine at local stores, gathering spots for local fishermen, etc... At a minimum deliver posters, etc... to these areas of concern for specific outreach for this program in an area that has been a large problem with fixed gear conflicts for both GOM Cod survey and ME/NH inshore trawl survey. – Suggestion by Industry.
- 3) Further networking by:
 - a. Hanging posters at industry gathering points,
 - b. Develop display for booth at trade shows,
 - c. Presentations/displays at council meetings where industry is present,
 - d. Presentations at local commercial fishermen meetings,
 - e. Presentations to law enforcement so they may pass information on to industry.
 - f. Ad's provided to commercial fishermen magazines, etc...
 - g. Distribute media and information through email lists that partners may have available. (NEFMC has extensive email list).
 - h. Committee industry members become involved in promoting projects in more personal fishermen interaction relating to area projects.
 - i. Get informational home page of CRPI at the host site (NOAA/NMFS?) with links to the states currently coordinating projects and have information on their home web page.

Summarize how to distribute and address outreach media discussed and which partner involved (yellow highlight is priority):

Partner	Outreach Effort
Industry	Obtain a list of fishermen that would be interested in personal contact to help advertise IBS, CRPI, etc..., get a video loop for upcoming local fishermen meetings, distribute posters and brochures.
NOAA/NMFS	Design poster as priority and then get brochure out. (~500 posters). Include MA and RI websites in media distribution.
NOAA/NMFS	Half page/Full page ad in commercial fishermen media outlets.
NOAA/NMFS	Get general CRPI informational web page set up that will link with IBS website no matter where it is hosted. NOAA/NMFS CRPI website has recently undergone a redesign.
NOAA/NMFS	Design brochures for individual studies (IBS, Study Fleet, Cod Tagging) and CRPI.
NOAA/NMFS	Video of ongoing pilot projects– by using current video footage from MA, and working with MA and RI to get videographers on vessels conducting surveys.
States	Informing fixed gear fishermen or other conflict gear where and when IBS trawls occur.
States, Council, NOAA/NMFS	Distribute posters to local fish exchanges and fishing gear stores and appropriate meetings (council, trade, commercial fishermen

and Industry	meetings, etc..)
States, Council, NOAA/NMFS and Industry	Distribute information through email lists. (Pat – Council and has extensive email list to use).

Other items addressed prior to Chris Moore and Marla Trollan leaving:

- MA is concerned that there has been no indication from NOAA/NMFS that the IBS GOM Cod Trawl survey is funded for 2005. MA does not have the ability to spend forward. Will need to get information about budget ASAP. Chris Moore will address this soon.
- Get poster and display finalized for Maine Fisherman's Forum – Samoset, ME for NOAA/NMFS booth. Possible use MA video loop of GOM Cod Trawl Survey. Bill Duffy and Bill Hoffman may help represent IBS website and GOM Cod Trawl Survey.

3) **Discussion of IBS Outreach Subcommittee Action Items from IBS meeting – August 2004**

Develop Protocol of notification of surveys to industry:

Timing for GOM Cod Trawl Survey: Start in November 1

- See Appendix 2 for GOM Cod Trawl survey notification/outreach from Bill Hoffman, MA.
- Letters sent to NH, ME and MA by GOM Cod Survey coordinator to distribute to fixed gear fishermen prior to survey (Appendix 3). *ME, Linda Mercer – how best should Bill deal with this with ME and would program outreach be able to be posted on ME website?*
Subcommittee Chair, Cheri - Check with MA/NH inshore survey partners to see how they would like outreach to complement IBS GOM Cod Trawl survey - not interfere/overwhelm industry.
- Terry Alexander (Industry) will call industry members to communicate with downeast fixed gear fishermen. *Bill Hoffman, MA, will send downeast problem areas to Terry. Terry will call lobster zone council presidents that are in downeast ME affected areas to obtain names, emails and/or phone numbers of "Independent Industry Outreach members". Get outreach information to Terry for him to distribute.*
- Mail reminder cards as survey legs approach time within each individual states waters.
- Send radio communication on VHF of trawling activity on appropriate marine radio channels as vessels are trawling in specific areas.
- Send trawl activity timing to Coast Guard and state's law enforcement. Can be done with same letter sent to industry.

Timing for SNE Yellowtail Flounder Survey: March 1st

Not sure what needs are currently –fixed gear is not a problem as with GOM Cod survey. Suggestions from subcommittee are as follows:

- Yearly informational card or CRPI’s brochure developed on SNE Yellowtail Flounder survey and send out with RI mass mailings (i.e. license renewals). The brochure should contain CRPI and RI website addresses for further reference for industry.

Agenda Items (see above) Addressed:

1. Develop general information of IBS Projects: Addressed above - NOAA/NMFS - will be doing this with funded outreach initiative for CRPI, which IBS is housed under.
2. Other communication needs –
 - a. Constituent – Addressed above. In addition, keep contact with NEFMC members (Pat Fiorelli). GOM Cod Trawl survey and SNE Yellowtail Flounder survey coordinators will be sending what they mass mail to the industry or other outreach materials so she can send out with her email/mailing lists.
 - b. Industry – Addressed above – All involved partners will be working as described above.
 - c. Public – Addressed above – See NOAA/NMFS CRPI outreach initiative.
 - d. Congress – NOAA/NMFS (Marla Trollan) and NEFMC (Pat Fiorelli) to determine. *Please send suggestions to subcommittee chair for discussion during conference call in February.*
3. Linking Agency/Industry websites to CRPI/IBS website. Addressed above - NOAA/NMFS will be working on this if they host the designed IBS website.

Summarization of tasks:

Linda Mercer, ME – Will this process work within ME and would program outreach be able to be posted on ME website?

*Cheri Patterson, NH - Check with MA/NH inshore survey partners to see how they would like outreach to complement IBS GOM Cod Trawl survey - not interfere/overwhelm industry.
Develop template of mass mailing reminder cards of GOM Cod Trawl Survey to industry.*

*Bill Hoffman, MA - Send downeast problem trawl areas to Terry Alexander (Industry).
Get outreach information to Terry for him to distribute to the “Industry Outreach members”.
Get outreach materials and letters of notification of trawl survey to Pat Fiorelli for NEFMC distribution.*

Terry Alexander, Industry - Terry will call lobster zone council presidents that are in downeast ME affected areas to obtain names, emails and/or phone numbers of "Industry Outreach members".

Help Bill and ME distribute letters of notification of trawl survey and outreach of IBS to downeast ME problem areas.

Marla Trollan, NMFS – Develop CRPI and IBS outreach media materials as presented and discussed above as part of funded initiative. Supply posters, brochures, etc.. to coordinators of projects and state's involved to distribute with mass mailings.

Check into having IBS Website hosted at NOAA/NMFS (work with Bill Duffy).

Work with Pat Fiorelli to arrive at suggestions for congressional outreach methods for CRPI (IBS, etc..) if NOAA/NMFS has not already addressed this in-house. If have addressed this in-house please send the information for the IBS Outreach Subcommittee conference call.

Pat Fiorelli, NEFMC – Work with Marla Trollan, NMFS, to arrive at suggestions for congressional outreach methods for CRPI (IBS, etc..) if NOAA/NMFS has not already addressed this in-house.

Work with Bill Hoffman, GOM Cod Trawl Survey and NMFS to help distribute outreach media as appropriate to NEFMC.

April Valliere – Let Subcommittee know if there is any other media outlets that RI would like to reach for IBS (CRPI) to industry or science and management.

Bill Duffy - Please send GIS article to Cheri as informational material for the next meeting for the IBS Committee.