# Comparison of Catch and Bycatch with Beam and Otter Trawls in Northeast Shrimp Fishery from F/V Ocean Reporter NEC-BL2003-1 in the Gulf of Maine from January to March 2004 (NEC\_ProjDev project)

Website: https://www.bco-dmo.org/dataset/3084

Version: final

**Version Date**: 2006-01-01

Project

» Northeast Consortium: Project Development (NEC ProjDev)

#### **Program**

» NorthEast Consortium (NEC)

Contributors	Affiliation Role	
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#### **Table of Contents**

- <u>Dataset Description</u>
- Data Files
- Parameters
- Deployments
- <u>Project Information</u>
- Program Information
- Funding

#### **Dataset Description**

# Comparison of Catch and Bycatch with Beam and Otter Trawls in Northeast Shrimp Fishery

Project leader: Captain Bill Lee, F/V Ocean Reporter

**Additional Project Participants:** 

Alan Michael, ADM Associates
Melissa Ferraro
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Jason Pollison, F/V Rumboogie
Paul Theriault, F/V Terminator
Jay VanDerpool, F/V Rover

#### **Final Report**

"A 17' beam trawl was built and tested for the possible application of this gear in the northeast shrimp fishery. The 1.75" mesh net was fitted with a Nordmore grate and towed from the fishing vessel during the months of January through March, 2004. Seven additional vessels reported their catch and bycatch while towing for shrimp using standard otter trawls during the same time period and in the same general area as the vessel using the beam trawl. The beam trawl had a significantly lower catch rate for shrimp than the vessels using standard otter trawls. This was, in part, due to the relative size of the gear since the opening of the beam trawl was 17' and that for the otter trawls ranged from 28 - 34'. Percent bycatch (by weight) for the beam trawl was

13%, whereas that for the otter trawl fleet was 10.7%. There was a wide variation in the bycatch rate among the seven vessels using the otter trawl (0.4 - 16.5%). Composition of the bycatch differed with a higher percentage of groundfish in the beam trawl and a higher percentage of pelagic fish in the otter trawl(s). Fuel consumption was greatly reduced with the use of the beam trawl. The gear is inexpensive to make and can be used with a single warp and from small vessels with lower horsepower. Further modifications might make this gear useful under specific conditions, near hard bottom, or where fixed gear is deployed. Additional research that could be done would be an evaluation of the relative impact of the lightweight beam trawl versus the standard otter trawl on the benthic environment." *extracted from: Summary of Completed Cooperative Research Projects Funded by the Northeast Consortium, January 2006* 



(Photo by Bill Lee)

More information is found at the website.

[ table of contents | back to top ]

#### **Data Files**

#### File

**beam\_trawl.csv**(Comma Separated Values (.csv), 4.81 KB)
MD5:564181e7f6fda313299b4378a5217141

Primary data file for dataset ID 3084

[ table of contents | back to top ]

#### **Parameters**

Parameter	Description	Units
date_local	date, reported as m/dd/yyyy	text
boat_name	Name of fishing vessel.	text
trawl_type	Type of trawl; otter or beam.	text
time_towed	Duration of tow, hours.	hours
wt_shrimp	Weight of shrimp caught.	pounds
wt_shrimp_per_hr	Rate of shrimp caught, pounds per hour of tow.	pounds per hour
wt_bycatch	Weight of bycatch caught.	pounds
wt_bycatch_per_hr	Rate of bycatch caught, pounds per hour of tow.	pounds per hour
pcnt_bycatch	Bycatch percentage.	dimensionless
wt_groundfish	Weight of groundfish category of bycatch.	pounds
wt_pelagic_fish	Weight of pelagic fish category of bycatch.	pounds
wt_other_species	Weight of other species category of bycatch.	pounds

[ table of contents | back to top ]

### **Deployments**

#### NEC-BL2003-1

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Website	https://www.bco-dmo.org/deployment/57974			
Platform	F/V Ocean Reporter			
Report	$\underline{\text{http://northeastconsortium.org/ProjectFileDownload.pm?report\_id=575\&table=project\_report}$			
Start Date	2004-01-19			
End Date	2004-03-05			

[ table of contents | back to top ]

## **Project Information**

Northeast Consortium: Project Development (NEC\_ProjDev)

Website: http://northeastconsortium.org/

Coverage: Georges Bank, Gulf of Maine

The Northeast Consortium encourages and funds **cooperative research** and monitoring projects in the Gulf of Maine and Georges Bank that have effective, **equal partnerships** among fishermen, scientists, educators, and marine resource managers.

Priority areas for Northeast Consortium funding include selective fishing-gear research and development. The development of selective fishing gears that enhance gear selectivity, target healthy stocks, reduce bycatch and discard, reduce or eliminate technical barriers to trade, minimize harvest losses, and improve fishing practices. Studies of new and developing fishing gears and technologies aimed at reducing environmental impact is funded under Project Development.

#### [ table of contents | back to top ]

#### **Program Information**

NorthEast Consortium (NEC)

Website: http://northeastconsortium.org/

Coverage: Georges Bank, Gulf of Maine

The Northeast Consortium encourages and funds

**cooperative research** and monitoring projects in the Gulf of Maine and Georges Bank that have effective, **equal partnerships** among fishermen, scientists, educators, and marine resource managers.

At the 2008 Maine Fisheremen's Forum, the Northeast Consortium organized a session on data collection and availability. Participants included several key organizations in the Gulf of Maine area, sharing what data are out there and how you can find them.

The Northeast Consortium has joined the Gulf of Maine Ocean Data Partnership. The purpose of the GoMODP is to promote and coordinate the sharing, linking, electronic dissemination, and use of data on the Gulf of Maine region.

The Northeast Consortium was created in 1999 to encourage and fund effective, equal partnerships among commercial fishermen, scientists, and other stakeholders to engage in cooperative research and monitoring projects in the Gulf of Maine and Georges Bank. The Northeast Consortium consists of four research institutions (University of New Hampshire, University of Maine, Massachusetts Institute of Technology, and Woods Hole Oceanographic Institution), which are working together to foster this initiative.

The Northeast Consortium administers nearly \$5M annually from the National Oceanic and Atmospheric Administration for cooperative research on a broad range of topics including gear selectivity, fish habitat, stock assessments, and socioeconomics. The funding is appropriated to the National Marine Fisheries Service and administered by the University of New Hampshire on behalf of the Northeast Consortium. Funds are distributed through an annual open competition, which is announced via a Request for Proposals (RFP). All projects must involve partnership between commercial fishermen and scientists.

The Northeast Consortium seeks to fund projects that will be conducted in a responsible manner. Cooperative research projects should be designed to minimize any negative impacts to ecosystems or marine organisms, and be consistent with accepted ethical research practices, including the use of animals and human subjects in research, scrutiny of research protocols by an institutional board of review, etc.

# **Funding**

Funding Source	Award
National Oceanic and Atmospheric Administration (NOAA)	unknown NEC_ProjDev NOAA

[ table of contents | back to top ]