

# Inshore Gulf of Maine Survey of Atlantic Herring Sentinel Spawning Grounds: Acoustic time and location data from the F/V Jennifer & Emily NEC-JA2005-1 from the Gulf of Maine, 2006 (NEC-CoopRes project)

**Website:** <https://www.bco-dmo.org/dataset/2984>

**Version:** 31 March 2009

**Version Date:** 2009-03-31

## Project

» [Northeast Consortium: Cooperative Research](#) (NEC-CoopRes)

## Program

» [NorthEast Consortium](#) (NEC)

Contributors	Affiliation	Role
<a href="#">Annala, John</a>	Gulf of Maine Research Institute (GMRI)	Principal Investigator
<a href="#">Cieri, Matthew</a>	Maine Department of Marine Resources (Maine DMR)	Scientist
<a href="#">Sullivan, Patrick</a>	Cornell University (Cornell)	Scientist
<a href="#">Alexander, Lendell</a>		Captain
<a href="#">Bichrest, Mark</a>		Captain
<a href="#">Leeman, III, Alden</a>		Captain
<a href="#">Rosen, Shale</a>	Gulf of Maine Research Institute (GMRI)	Technician
<a href="#">Salerno, Daniel J</a>	Gulf of Maine Research Institute (GMRI)	Technician
<a href="#">Copley, Nancy</a>	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

## Table of Contents

- [Dataset Description](#)
  - [Methods & Sampling](#)
  - [Data Processing Description](#)
- [Data Files](#)
- [Parameters](#)
- [Instruments](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)
- [Funding](#)

## Dataset Description

### Inshore Gulf of Maine Survey of Atlantic Herring Sentinel Spawning Grounds Year 6 - Acoustic time and location data

This dataset contains date, time and position data for acoustic transects taken during 7 cruises in 2006.

This project was designed to acoustically monitor the locations, timing, and biomass levels of prespawning and spawning aggregations of Atlantic herring on significant "sentinel" spawning grounds. The western portion of the Gulf of Maine (Figure 4), which encompasses Jeffreys Ledge, Scantum Basin, and the coastal waters from Cape Ann, MA to Cape Porpoise, ME was chosen for a trial of this sentinel survey approach. The long-term goal is to extend the sentinel survey model to additional areas in the nearshore Gulf of Maine. Specific information collected on the timing and locations of spawning Atlantic herring will allow comparison with historical distributions and abundance of spawning Atlantic herring and provide insight into the relative importance of

this region for spawning Atlantic herring.

## Methods & Sampling

### Project Reports:

Herring Acoustic Survey (Year 6) Final Report - July 2007 ([Annala\\_05\\_HerringAcoustic\\_FINAL.pdf](#))

## Data Processing Description

### DATA

Three sets of data files are included with the project report to be posted on the Northeast Consortium's Fisheries and Oceans Database:

1. CTD cast data: These files include the cruise or leg number, cast number, date, time, latitude, longitude, depth (m), temperature (°C), salinity (ppt) and fluorescence (mg/m3).

\*2. (these data) Survey transect data - These files include ping number, year, month, day, time, latitude and longitude.

3. Herring biological sample data - These files include date, time, latitude, longitude, length (mm), weight (g), sex, ICNAF maturity stage and gonad weight (g).

The raw acoustic data files will not be submitted since it can only be interpreted by users with specialized analysis software. GMRI is presently aware of only two other groups that possess the software necessary to view the data collected, both part of the Canadian Department of Fisheries and Oceans. The data are therefore unsuitable for posting on a general access database such as the Northeast Consortium's Fisheries and Oceans Database.

A technical problem was encountered while collecting the CTD surface data files. No date or time was recorded; therefore, they can not be matched to any positions from the survey transect data. These files will not be submitted.

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

---

## Data Files

File
<b>herr_spawn_acous_sm.csv</b> (Comma Separated Values (.csv), 17.37 KB) MD5:69ff34b6d775566f28ff4c2e5b1c63bf
Primary data file for dataset ID 2984

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

---

## Parameters

Parameter	Description	Units
year	year	
yday_local	local year day	
day_local	local day	
month_local	local month	
time_local_start	local start time	
lat_start	latitude at start of transect	decimal degrees
lon_start	longitude at start of transect	decimal degrees
lat_end	latitude at end of transect	decimal degrees
lon_end	longitude at end of transect	decimal degrees
cruiseid	sequential cruise number for this project	
transect	transect number	
time_local_end	time at end of transect	

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

---

## Instruments

<b>Dataset-specific Instrument Name</b>	Echo Sounder
<b>Generic Instrument Name</b>	Echo sounder - single-beam
<b>Dataset-specific Description</b>	FEMTO Electronics Limited DE9320 Digital Echosounder interfaced with a 75 kHz hull mounted transducer.
<b>Generic Instrument Description</b>	A single-beam echo sounder is an instrument that measures water depth at a single point below the platform by timing pulses of sound reflected on the seafloor. The echo sounder transmits and receives sound, accurately measuring the time it takes to leave the sounder, reach the bottom and return to the sounder. It then converts this information into digital or graphic representations of the bottom depth and relief. The average echo sounder consists of a transmission and reception unit that sends sound signals through the water, receives and decodes information and converts that information into either a graphic or visual form. Attached to the receiver is a transducer that acts as a microphone and a speaker under the water. Sound waves travel at approximately 1500 m/s through the water dependent on water temperature". more from LMS Technologies

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

---

## Deployments

NEC-JA2005-1

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57853">https://www.bco-dmo.org/deployment/57853</a>
<b>Platform</b>	F/V Jennifer & Emily
<b>Report</b>	<a href="http://northeastconsortium.org/ProjectFileDownload.pm?report_id=830&amp;table=project_report">http://northeastconsortium.org/ProjectFileDownload.pm?report_id=830&amp;table=project_report</a>
<b>Start Date</b>	2006-07-21
<b>End Date</b>	2006-11-03
<b>Description</b>	F/V Jennifer & Emily

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

---

## Project Information

### Northeast Consortium: Cooperative Research (NEC-CoopRes)

**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.

The Northeast Consortium seeks to fund projects that will be conducted in a responsible manner. Cooperative research projects are 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.

[ [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 Fishermen'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.

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

---

## Funding

Funding Source	Award
National Oceanic and Atmospheric Administration (NOAA)	<a href="#">NA05NMF4721057</a>

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