

# Trophic Ecology of Atlantic Cod, off Cape Cod, MA, from F/V Riena Marie NEC-FA2001-1 in the Gulf of Maine from 2001-2004 (NEC-CoopRes project)

**Website:** <https://www.bco-dmo.org/dataset/3087>

**Version:** final

**Version Date:** 2005-10-01

## Project

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

## Program

» [NorthEast Consortium](#) (NEC)

Contributors	Affiliation	Role
<a href="#">Almeida, Frank</a>	Northeast Fisheries Science Center - Woods Hole (NOAA NEFSC)	Principal Investigator
<a href="#">Ligenza, Theodore</a>	Northeast Consortium (NEC)	Captain
<a href="#">DuBois, Dave</a>	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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## Dataset Description

### Trophic Ecology of Atlantic Cod: Insights from Tri-Monthly, localized Scales of Sampling Years 1 & 2

Project Leader: Theodore Ligenza, F/V Riena Marie

Additional Project Participants:

Frank Almeida, Researcher, Northeast Fisheries Science Center

Jason Link, Researcher

Brian Smith, Scientist, Northeast Fisheries Science Center

[Final report](#)

[Project Website](#)

The project examined the small scale variation of Atlantic cod feeding based upon tri-monthly stomach sample collections from a nearshore, localized region off Cape Cod, Massachusetts. The first objective was to relate any detectable changes in cod diet and amount of food eaten with changes in temperature, spawning, prey abundance, and major weather events, filling in the information gap between broad scale and in vivo laboratory studies. The second objective was to work cooperatively with the fishing industry to transform anecdotal information into quantitative data. Results suggest that the amount of food eaten by cod is generally stable throughout the year, except when pelagic forage fish migrate through the area. This corresponds to critical periods in the life history of cod. The temporal variation in diet composition remained remarkably consistent each year over the 28-months of the project, suggesting important feeding periods for cod, which correspond to environmental and biological cues. The diet is comprised primarily of several species of forage fish (e.g. Atlantic herring, sand lance, Atlantic mackerel, ophiuroids, Cancer crabs, and other small crustaceans.) Additionally, these results confirm the preference cod exhibit for prey such as herring, sand lance, and crabs.

We infer that cod generally eat local forage fish and benthic macro-invertebrates and then supplement their diet by gorge feeding upon migrating pelagic species. (*from project abstract*)

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## Data Files

File
<b>cod_troph.csv</b> (Comma Separated Values (.csv), 584.32 KB) MD5:d1aec9f029e817f4baba4ca0e662a2aa Primary data file for dataset ID 3087

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## Parameters

Parameter	Description	Units
date_local	local date	
stomach_id	code for stomach content specimen	
location	sampling location	dimensionless
temp_ss_f	sea surface temperature	degrees fahrenheit
drift	drift	
length_cod	fish length	centimeters
sex	male (M) or female (F)	
maturity	maturity code: D = developing ? = ripe & running S = spent ? = resting	
prey_taxon	taxonomic group of prey	
prey_weight	weight of prey	
prey_no	number of prey in stomach samples	
prey_digestion	code for degree of digestion of prey, whole(W)/partial(P) ??	
depth_w	depth of water	feet

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## Deployments

### NEC-FA2001-1

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57977">https://www.bco-dmo.org/deployment/57977</a>
<b>Platform</b>	F/V Riena Marie
<b>Report</b>	<a href="http://northeastconsortium.org/ProjectFileDownload.pm?report_id=323&amp;table=project_report">http://northeastconsortium.org/ProjectFileDownload.pm?report_id=323&amp;table=project_report</a>
<b>Start Date</b>	2001-10-09
<b>End Date</b>	2004-01-22

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## 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.

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## Program Information

### NorthEast Consortium (NEC)

**Website:** <http://northeastconsortium.org/>

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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.

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## Funding

Funding Source	Award
National Oceanic and Atmospheric Administration (NOAA)	<a href="#">unknown NEC-CoopRes NOAA</a>

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