Lobster larvae abundance, Gulf of Maine, 2001-2003 from F/V Shearwater NEC-LI2001-1 between Cape Small and Lubec Maine from July to August 2001 (NEC-CoopRes project)

Website: https://www.bco-dmo.org/dataset/2785
Version: final
Version Date: 2003-01-01

Project
» Northeast Consortium: Cooperative Research (NEC-CoopRes)

Program
» NorthEast Consortium (NEC)

Contributors	Affiliation	Role
Incze, Lewis	University of Southern Maine (USM)	Principal Investigator

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Dataset Description

"Inshore/Offshore Patterns of Lobster (Homarus americanus) Larvae and Postlarvae in the Northern Gulf of Maine, with Implications for Spatial Relationships Between Egg Production and Settlement"

Project Leader: *Lewis Incze,* University of South Maine - Bioscience Research Institute
Additional Participants:
Proctor Wells, F/V Tenacious
Matthew Thomson, Cape Cod Commerical Hook Fisherman's Association
Eric Annis, Rugters University
Nicholas Wolff, University of South Maine - Bioscience Research Institute

"This project involved two field sampling efforts. The first was a two-year (2001-2002) study of the distribution, stage composition and abundance of lobster larvae and postlarvae and hydrography from the central coast of Maine to the Canadian border. Eight survey transects, conducted over a 2+ week period in the middle of the larva/postlarval season, went across-shelf from near shore to approximately the 150 m (82 fIn) isobath, crossing three hydrographic and current regimes: the inner shelf or near-shore; the Eastern Maine Coastal Current (EMCC); and the stratified offshore. The objective was to understand the contribution that each area might make to lobster recruitment, both temporally and spatially. For example, the EMCC seems to move early life stages down to the central coast: how many, and where do these end up settling? How important is this compared to other processes driving postlarval abundance in that region? How many move offshore? A series of hypotheses dealing with the three regimes can be partially addressed by the survey design. The second sampling effort was directed at larval and postlarval production estimates along the central coast of Maine, immediately west of the surveys described above. This one-year effort involved a season-long study of all stages that complemented a preliminary study done in 2000. The study found that the settled abundance of Young-of-Year lobsters is determined to a significant degree by the abundance and delivery of postlarvae to

appropriate settlement habitats. Settlement densities and the productivity of the lobster fishery in Maine are distinctly different east and west of Penobscot Bay. The research is helping understand the mechanisms behind those differences. More specific research has continued on egg production, circulation modeling, settlement, growth, and fisheries production. It is funded by NOAA Fisheries Coastal Ocean Program to L. Incze and ten co-PI's." *extracted from: Summary of Completed Cooperative Research Projects Funded by the Northeast Consortium, January 2006*

Note:
This lobster_larvae data set is complemented by a CTD hydrographic survey also located on this site (see "Related Datasets section).

For Questions Contact:
Nicholas Wolff
University of Southern Maine
Bioscience Research Institute
Portland, ME 04101

phone: 207 228-809
e-mail: nwolff@maine.edu

revised August 30, 2006; gfh

Methods & Sampling

The study found that the settled abundance of Young-of-Year lobsters is determined to a significant degree by the abundance and delivery of postlarvae to appropriate settlement habitats. Settlement densities and the productivity of the lobster fishery in Maine are distinctly different east and west of Penobscot Bay. The research is helping understand the mechanisms behind those differences. More specific research has continued on egg production, circulation modeling, settlement, growth, and fisheries production. It is funded by NOAA Fisheries Coastal Ocean Program to L. Incze and ten co-PIs."

Data Processing Description

"This project involved two field sampling efforts. The first was a two-year (2001-2002) study of the distribution, stage composition and abundance of lobster larvae and postlarvae and hydrography from the central coast of Maine to the Canadian border. Eight survey transects, conducted over a 2+ week period in the middle of the larva/postlarval season, went across-shelf from near shore to approximately the 150 m (82 fIn) isobath, crossing three hydrographic and current regimes: the inner shelf or near-shore; the Eastern Maine Coastal Current (EMCC); and the stratified offshore. The objective was to understand the contribution that each area might make to lobster recruitment, both temporally and spatially. For example, the EMCC seems to move early life stages down to the central coast: how many, and where do these end up settling? How important is this compared to other processes driving postlarval abundance in that region? How many move offshore? A series of hypotheses dealing with the three regimes can be partially addressed by the survey design. The second sampling effort was directed at larval and postlarval production estimates along the central coast of Maine, immediately west of the surveys described above. This one-year effort involved a season-long study of all stages that complemented a preliminary study done in 2000.

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Data Files

File
lobster_larvae.csv (Comma Separated Values (.csv), 25.08 KB) MD5:706dd99c64ef17c109f65908479d5605 Primary data file for dataset ID 2785

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Related Datasets

IsRelatedTo

Incze, L. (2006) **CTD data from F/V Tenacious, Gulf of Maine, 2001-2003, associated with lobster larvae study from F/V Shearwater NEC-LI2001-1 in the between Cape Small and Lubec Maine from July to August 2001 (NEC-CoopRes project).** Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version final) Version Date 2006-02-01 http://lod.bco-dmo.org/id/dataset/2784 [view at BCO-DMO]
Relationship Description: This lobster_larvae data set is complemented by a CTD hydrographic survey at the same site.

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Parameters

Parameter	Description	Units
year	year, four digit year i.e 2001	
transect	transect number	
month_local	month of year, local time (1-12)	
day_local	day of month, local time (1-31)	
station	station number within transect	
tow	tow number	
lob_stage	lobster larvae intramoult stages I - IV, as a code (1-4)	
count	number of lobsters per stage	
no_per_1000m2	calculated number of lobsters per 1000 square meters	n/1000m²
time_local	time of day, local time, 24 hour clock	HHmm
yrday_local	year day, local time, year day 1.5 = Jan. 1 at 1200 hrs	YYY.Y
lat	latitude, negative = South	decimal degrees
lon	longitude, negative = West	decimal degrees
depth_w	depth of water	
temp_ss_f	sea surface temperature, Fahrenheit scale	degrees F
tow_dist_m	tow distance	meters
comments	comments, free text	
ctd_cast	related CTD cast	

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Deployments

NEC-LI2001-1

Website	https://www.bco-dmo.org/deployment/57759
Platform	F/V Shearwater
Report	http://northeastconsortium.org/ProjectFileDownload.pm?report_id=320&table=project_report
Start Date	2001-07-30
End Date	2001-08-13
Description	Other vessels were also used in this project: F/V Tenacious was one. See final report for others. **Methods & Sampling** The study found that the settled abundance of Young-of-Year lobsters is determined to a significant degree by the abundance and delivery of postlarvae to appropriate settlement habitats. Settlement densities and the productivity of the lobster fishery in Maine are distinctly different east and west of Penobscot Bay. The research is helping understand the mechanisms behind those differences. More specific research has continued on egg production, circulation modeling, settlement, growth, and fisheries production. It is funded by NOAA Fisheries Coastal Ocean Program to L. Incze and ten co-PIï¿½s." **Processing Description** "This project involved two field sampling efforts. The first was a two-year (2001-2002) study of the distribution, stage composition and abundance of lobster larvae and postlarvae and hydrography from the central coast of Maine to the Canadian border. Eight survey transects, conducted over a 2+ week period in the middle of the larva/postlarval season, went across-shelf from near shore to approximately the 150 m (82 fIn) isobath, crossing three hydrographic and current regimes: the inner shelf or near-shore; the Eastern Maine Coastal Current (EMCC); and the stratified offshore. The objective was to understand the contribution that each area might make to lobster recruitment, both temporally and spatially. For example, the EMCC seems to move early life stages down to the central coast: how many, and where do these end up settling? How important is this compared to other processes driving postlarval abundance in that region? How many move offshore? A series of hypotheses dealing with the three regimes can be partially addressed by the survey design. The second sampling effort was directed at larval and postlarval production estimates along the central coast of Maine, immediately west of the surveys described above. This one-year effort involved a season-long study of all stages that complemented a preliminary study done in 2000.

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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/

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.

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