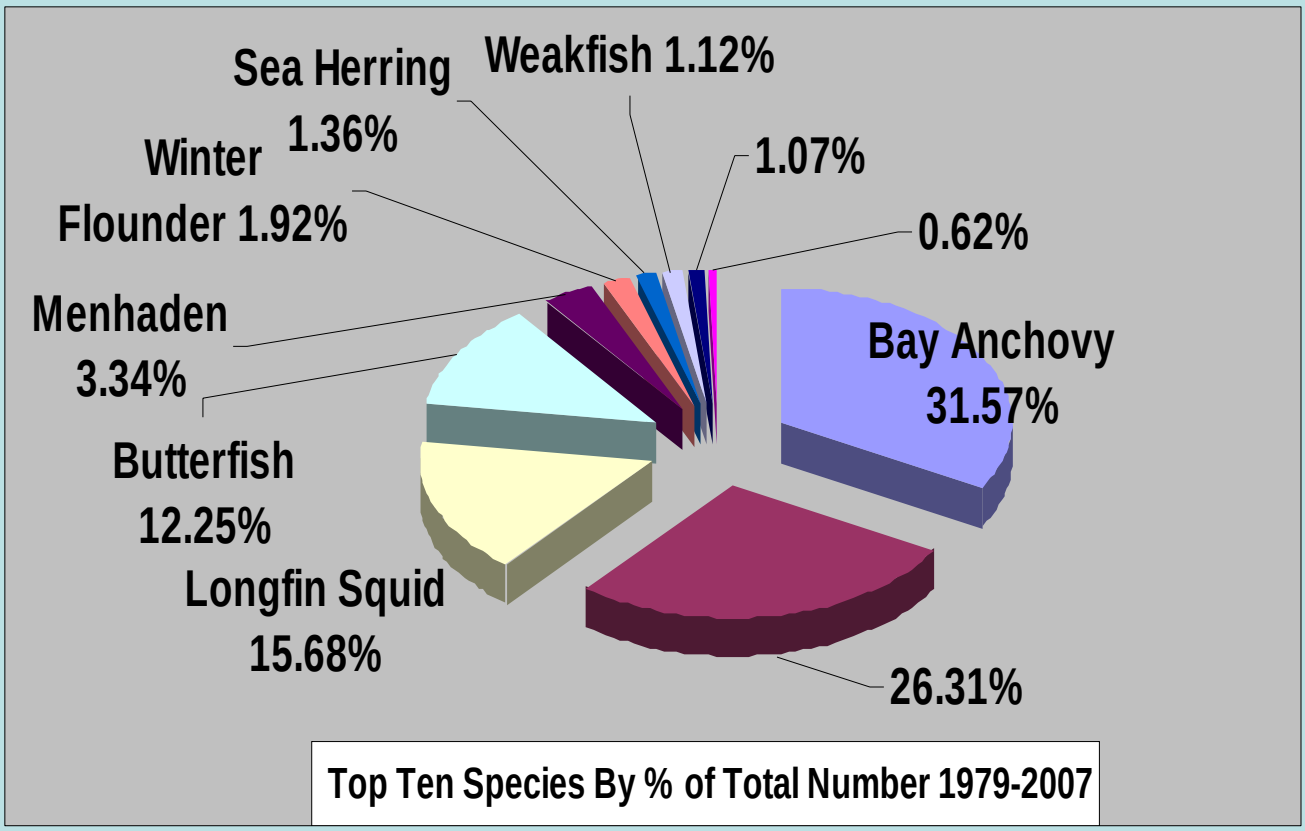
# RI Department of Environmental Management
# Marine Fisheries Section

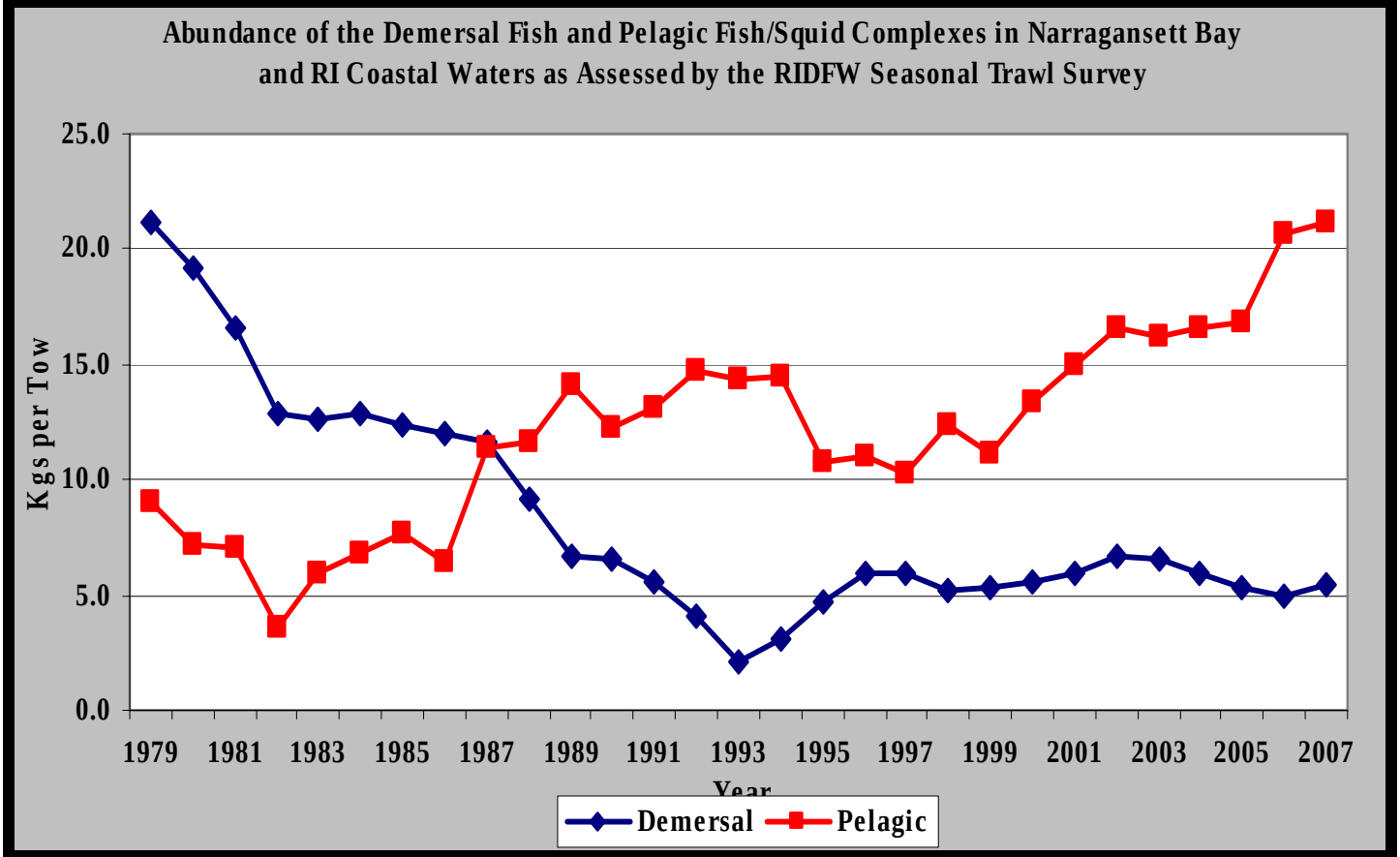

CRMC Presentation
August 26, 2008

# Overview of Section Responsibilities & Surveys

- Bay and Sound Bottom Trawl Surveys
- Young of the Year Beach Seine Surveys
- Bay Ichthyoplankton Survey
- Bay Shellfish Survey & Management
- Winter Flounder Adult Survey in Pt Judith Pond
- Young of the Year Glass Eel Survey*
- Fisheries Habitat Assessment Reviews
- Lobster Research and Management
- Artificial Reef Monitoring Project
- Horseshoe Crab Survey
- Aquaculture Site Review and Planning
- Atlantic Menhaden Monitoring
- Bay Cooperative Study w/ NMFS and URI
- Atlantic Coastal Statistics Program
- Marine Mammal Response
- Fish Kill Response
- RIMFC, ASMFC, & NEFMC Management

# Seasonal Bottom Trawl Survey




Abundance of the Demersal Fish and Pelagic Fish/Squid Complexes in Narragansett Bay and RI Coastal Waters as Assessed by the RIDFW Seasonal Trawl Survey
Kgs per Tow
25.0
20.0
15.0
10.0
5.0
0.0
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
Year
Demersal
Pelagic

Beach seine surveys are conducted in both Narragansett Bay and five of Rhode Island's southwestern coastal ponds. Juvenile finfish are collected using beach seines at sixteen stations in the coastal ponds and eighteens stations within Narragansett Bay. Stations are sampled monthly from May through October. Fish collected are identified, counted and measured. Data collected are used to estimate abundance and recruitment levels of commercially and recreationally important finfish populations.

The Narragansett Bay Ichthyoplankton survey began in 2002. Paired bongo plankton nets are used to sample the ichthyoplankton of Narragansett Bay with respect to abundance and distribution. Results of the ichthyoplankton survey help determine which areas of the bay are the most important spawning areas for commercially and recreationally important species.

Since November 1990, the RI Lobster Research and Management Project has collected biological data on over 750,000 lobsters and fishery effort data from over 513 sea sampling trips onboard RI commercial lobster trap vessels in both inshore and offshore fishing areas.


Sea sampling lobsters

Data collected include sex, carapace length, maturity status, shell disease, v-notch presence, and sexual maturity is collected from tens of thousands of lobsters every year.

settlement survey

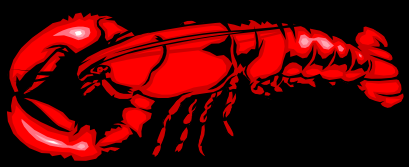
**The four components of the lobster research and management program include:**

•**Sea sampling** - Performed twice monthly (inshore) and once quarterly (offshore) aboard RI commercial lobster vessels for collection of biological and effort data.

•**Port Sampling** - Conducted dockside four times monthly from offshore areas from Georges Bank to Hudson Canyon for collection of biological and effort data.

•**Ventless Trap Survey** - Performed in the summer at 24 random stations in RI waters to monitor shell disease and sub-legal juvenile and adolescent lobster abundance.

•**Settlement Survey** – A diver based survey that is conducted at 6 fixed stations in RI waters during the summer to collect recruitment data.

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The Narragansett Bay Quahog Survey is conducted annually on the State Research Vessel *Inspector Clambeaux*. Conducted by towing hydraulic sampling dredge in established stations. Provides information on the distribution and abundance of quahogs in Narragansett Bay. Quahogs are a commercially and recreationally important shellfish species.


Quahaug transplants/relays are conducted annually in cooperation with the Narragansett Bay Commission, The Department of Health, and the Rhode Island Shellfish Industry. Transplanted quahaugs spawn, and replenish adjacent areas and are available to industry for a winter harvest. Large scale transplants from the Providence River are conducted by RIDFW using the research vessel and large dredge.


# Rhode Island Division of Fish & Wildlife
# Narragansett Bay Cooperative Study
# Biological Sampling/Age and Growth Program

Scup

Bluefish

Black Sea Bass

- The Narragansett Bay Cooperative Study project is budgeted in phases from NMFS and is continuing forward with the research begun six years ago. The current DFW grant supports increased biological sampling at Rhode Island ports to characterize the catch from local commercial fisheries for enhanced fisheries population monitoring.
- This project is part of a multi-agency, multi-disciplinary study of the fisheries, water quality, and sediment contaminants of Narragansett Bay. NMFS has partnered with the Division in the cooperative study of Narragansett Bay fisheries since 1998.
- The State of Rhode Island conducts its dockside biological data collection of commercial finfish at three major ports in the state; Point Judith, Newport and Sakonnet Point.
- Samples are taken from floating fish trap as well as rod and reel gear types.
- The choice of an age determination method for a given species involves deciding on an appropriate ageing structure (scales, otoliths, opercula, etc.) and processing method (impressions, thin sections, etc.) for that structure.
- One of the major goals of dockside sampling is to provide standardized, compatible coast wide data that is easily available to all users such as fisheries managers, scientists, fishermen as well as the public.
- Implementation of coast wide standards and protocol improves the way the Atlantic states collect, manage and disseminate fisheries statistics for stock assessments.

## Floating Fish Trap Operation

# Rhode Island Management of Menhaden

## RI Department of Environmental Management

## Division of Fish and Wildlife

Figure 1. Fish Spotting 2007. Looking south over Mt. Hope Bay. Arrows indicate schools of menhaden. Photo by Matt Griffin

Figure 8. Purse seine being deployed around a school of menhaden. Photo by Matt Griffin

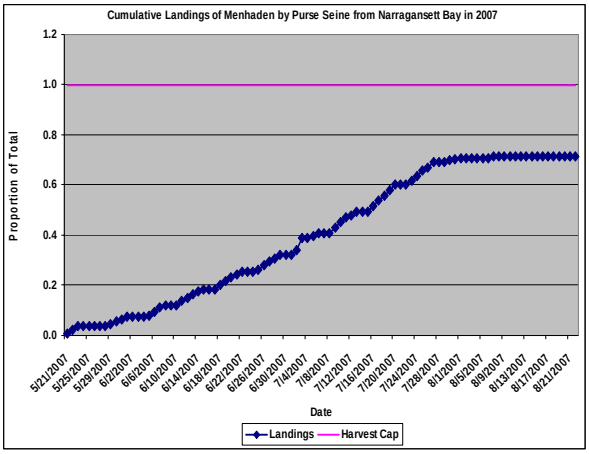



Figure 3. Cumulative landings of menhaden by purse seine in Narragansett Bay during 2007. Measured in proportion of total catch. Pink line denotes harvest cap.

Figure 5. Menhaden schooling in the Providence River in downtown Providence. Photo courtesy of the Providence Journal.

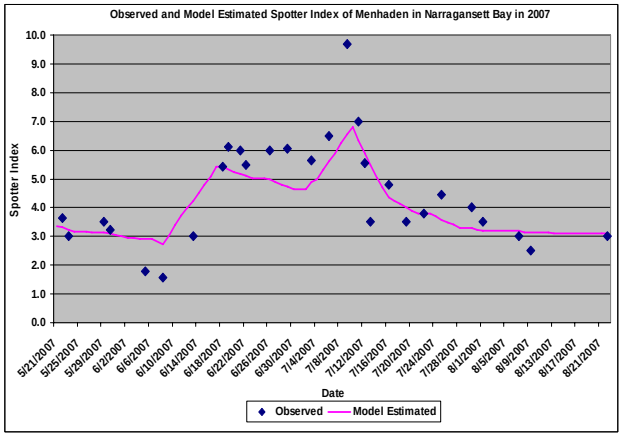
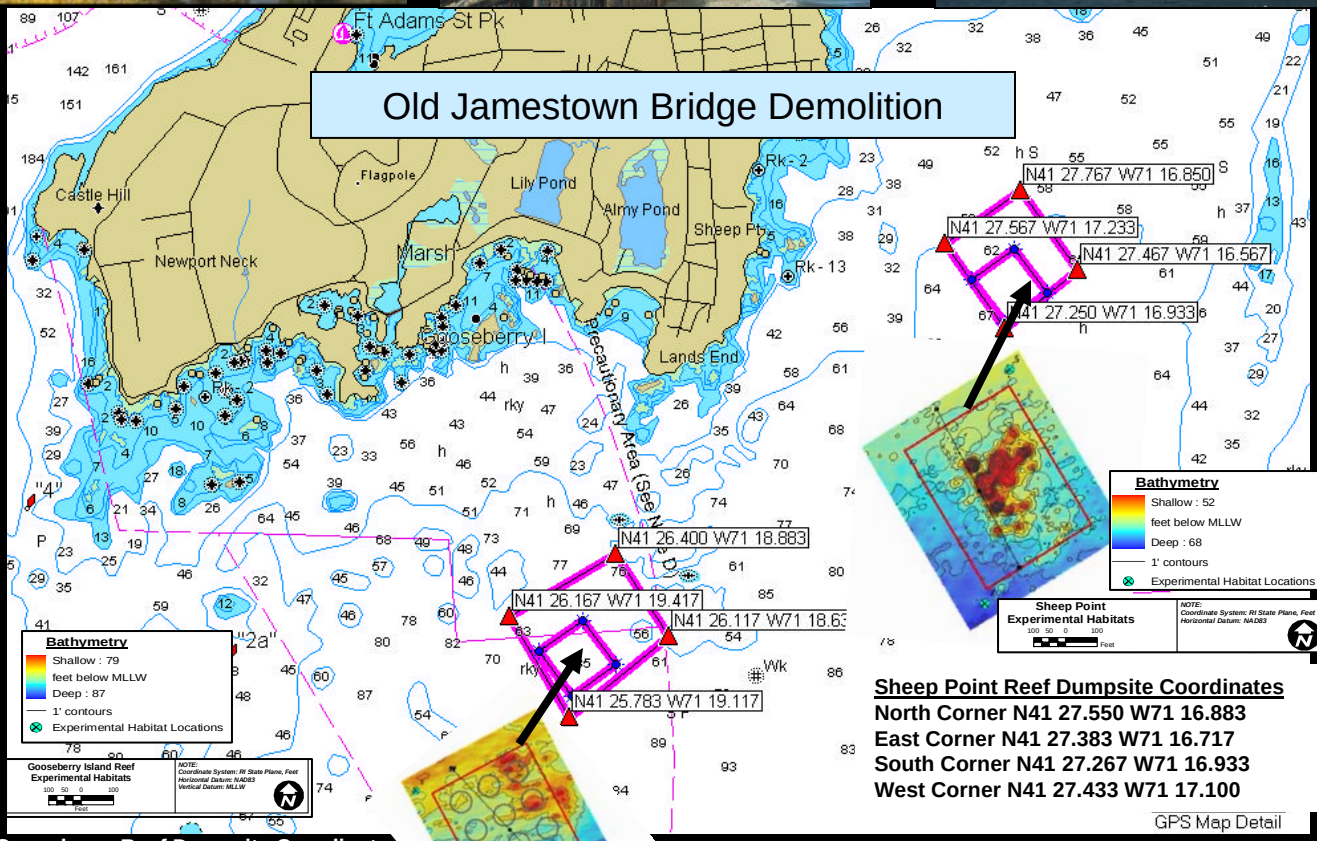



Figure 6. Observed and model estimated spotter index of menhaden in Narragansett Bay in 2007. Dot represents observed, Pink line represents modeled.

The Jamestown-Verrazzano Bridge opened to the public in 1992, rendering the Old Jamestown Bridge obsolete. Following partial destruction of the Bridge in the Fall of 2007, construction on the two inshore reef sites began on 21 March 2006 and concluded during Aug 2007. Performance monitoring is being conducted to allow administrators to assess if the reefs are meeting established goals. Cryptic habitats have been deployed to study the fouling and epifauna communities. A census of adult fishes will be made on a monthly basis by divers. Voluntary divers logs and fishermen's logs are being developed as well as an interactive e-form to be posted on the Division of Fish and Wildlife website.




**Sheep Point Reef Dumpsite Coordinates**
**North Corner N41 27.550 W71 16.883**
**East Corner N41 27.383 W71 16.717**
**South Corner N41 27.267 W71 16.933**
**West Corner N41 27.433 W71 17.100**

**Gooseberry Reef Dumpsite Coordinates**
**North Corner N41 26.150 W71 19.050**
**East Corner N41 25.983 W71 18.883**
**South Corner N41 25.867 W71 19.100**
**West Corner N41 26.033 W71 19.267**

Indicates bathymetry of dumpsite (smaller box)

Transect Line

**Installing transects on reef**

**Black Sea Bass**

**Cryptic habitats**

Photographs by Rich Hittinger/RISAA, Natasha Pinckard and file photo

**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**Division of Fish & Wildlife**
**Essential Fish Habitat (EFH) Evaluation Form**

Agency requesting evaluation (circle): ACOE CRMC EPA NMFS USF&W RIDEM - Division _____ Other _____

**Project Information**

Project File Number:----- ---_____
Date:_____
Project Location: _____---------_____
Street and Number: _____ City/Town: _____
Plat Number: _____ Lot Number: _____
Waterway: _____
Project Description: _____
_____

**Site Visit Information**

Date of site visit: _____ Time of visit: _____
Tidal stage (circle): High Low Incoming Outgoing
Site evaluation method (circle): Visual - (surface only) (underwater viewscope)
Underwater camera - video camera still camera
Diver - snorkel SCUBA

Underwater Survey: Yes No If yes, methodology: _____
_____
Substrate (check all that apply): silt sand gravel cobble rocky other _____
Vegetation: Type Species % Cover Condition
Macroalgae: _____
SAV: _____
Marine invertebrates observed:_____
_____
Fish species observed: _____
_____

Additional comments:_____
_____
_____
Sketch of site showing: project location, shoreline, depths, substrate type(s) & distribution and vegetation type(s) & distribution.

N
↑

Comments and recommendations:_____
_____
_____
_____
Site inspection by: _____Title: _____
RIF&W Form date 6/26/06

# Industry Collaboration


# Marine Mammals


RI 2147 FW