COMMERCIAL FISHERIES RESEARCH FOUNDATION

# CFRF NEWSLETTER

**OCTOBER 2014** **ISSUE 2**

## COMMERCIAL FISHERIES RESEARCH FOUNDATION

*The Commercial Fisheries Research Foundation (CFRF) is a non-profit, private research foundation founded and directed by members of the commercial fishing industry and other support businesses based in Rhode Island. Its primary mission is to support teams of scientists and fishing industry members working together collaboratively on research and data collection projects important to the fishing industry in the southern New England region.*

### MESSAGE CORNER:

*Welcome to the second edition of the CFRF newsletter. We are proud to acknowledge that 2014 marks the CFRF's 10th anniversary as a non-profit research foundation. These past 10 years have been filled with hard work, learning, and growth, and the CFRF remains strong in its dedication to carrying out the vision of its original founders. Utilizing a collaborative approach to conduct sound research in support of sustainable fisheries here in the southern New England region seems more important than ever. It is at the heart of supporting a viable, sustainable fishing industry and securing a healthy source of food for our region and beyond. Thank you to all who have contributed to making this fishing industry run research foundation a successful endeavor. We all look forward to the next 10 years.*

***David Spencer. CFRF President, F/V Nathaniel Lee and Fred Mattera, CFRF Vice-President, NESTCO, Inc.***

### LOBSTER FLEET UPDATE:

In June 2014, the CFRF entered the second year of its Lobster Research Fleet Pilot Project ("On-Deck Data Program"). Captains and crew members from a fleet of 12 lobster fishing vessels continue to collect and relay biological lobster data from a subsample of their catch. The Google tablets and electronic calipers have been holding up well at sea, and to date biological data for more than 42,000 lobsters has been collected and relayed to a central database. The ASMFC stock assessment scientists have received the first complete year of data, and the data collected in the 2013 time frame is being used in the current lobster stock assessment.

In response to industry's requests, the On-Deck Data tablet application was modified to enable lobstermen to rate the severity of shell disease and designate when they discard legal size lobsters due to a soft shell or severe shell disease. These details will help provide a more accurate picture of the lobster fishery for those working with the data. At the same time, given the increase in Jonah crab landings and anticipated development of a management plan by the ASMFC, fleet members requested that the On Deck Data program be modified to provide an opportunity to record biological information for Jonah crabs. The Jonah crab component of the On Deck Data program was launched in June 2014, and data from more than 5,200 Jonah crabs has been recorded to date.

Captain Brian Thibeault, F/V Ashley Ann

A bottom water temperature monitoring component was also added to the Lobster Research Fleet in June 2014. This addition involves each fleet member deploying a temperature sensor on a ventless lobster trap that is kept in the same location for at least one month at a time. When a temperature sensor is retrieved, fleet members transfer and view the data onboard via the "Ocean Temps" tablet application. Within Ocean Temps, fishermen are able to view a time series of temperature readings, record notes, and wirelessly upload data to a central database. Temperature data are beginning to be coupled with the biological lobster data collected at the same location to provide a new perspective on how this critical environmental factor may be affecting the distribution and life history of lobsters.

For more information, please visit the CFRF Lobster Research Fleet project page at: http://cfrfoundation.org/lobster-research-fleet .

*Funded through NOAA Award # NA09NMF4720414 and # NA10NMF4720285*

## SHELLFISH RESEARCH IN NARRAGANSETT BAY:

Commercial shelllfisherman David Ghigliotty and Dale Leavitt, Professor, RWU

The team working on the SNECRI research project entitled *"An Assessment of Quahog Larval Supply and Distribution in the Upper Narragansett Bay with a Focus on Spawning Sanctuaries and Alternative Area Management Strategies"* recently completed their project. The primary research results were included in the team's final project report posted on the CFRF home website earlier this year. Over the summer months, scientists and students from Roger Williams University continued to work with commercial shellfishermen to assess and calibrate bullraking as a technique to supplement state dredge surveys for stock assessments. A video documentary of this project is expected to be released later this fall. For more information on this project visit: http://cfrfoundation.org/projects/quahoglarval

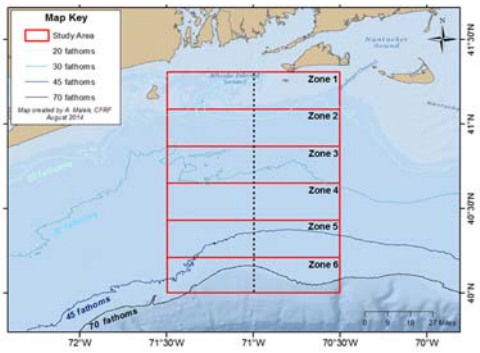
*Funded through NOAA Award # NA08NMF4720595*

## RESEARCH ON SCUP PROCESSING:

The CFRF continues to work with local processing companies and a manufacturer of seafood processing machinery to investigate if there is machinery available to fillet and debone scup efficiently. Fresh, whole scup have been shipped from RI to the manufacturer and then shipped back for inspection. So far, the results have been promising. The next trial, anticipated to be completed this month, will involve frozen scup. The CFRF staff will review the results with all of the local participating processing companies and seek their feedback on next steps. Scup is currently an underutilized species with marketing potential.

*Funded through NOAA Award # NA09NMF4720414*

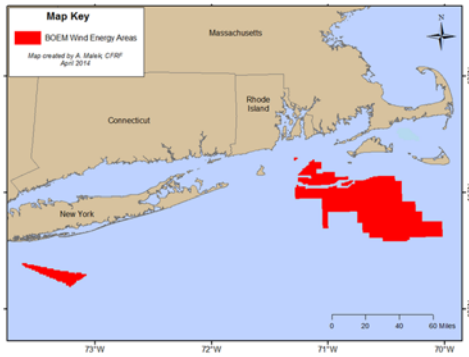
## NEW PROJECTS:




**Shelf Research Fleet Project:**
The CFRF has teamed up with the Woods Hole Oceanographic Institution (WHOI) to begin a two year study aimed at collecting weekly temperature and salinity profiles across the continental shelf south of Rhode Island. The CFRF has organized a fishing vessel research fleet that will collect year-round oceanographic data from six study zones as part of their routine fishing and transiting activities. See adjacent map. In addition, members of the fleet will meet with WHOI scientists periodically to share at sea observations. The project provides an opportunity to better understand how changing environmental conditions are impacting key fishery resource in the region. For more information about this project, please visit: http://cfrfoundation.org/shelf-research-fleet

*Funded by the MacArthur Foundation*

**BOEM Project: Identifying Research Needs and Approaches for Assessing Potential Impacts of Offshore Wind Farm Development on Fisheries Resources in the Northeast Region**




The CFRF, in partnership with the federal Bureau of Ocean Energy Management (BOEM), and the Cornell Cooperative Extension Marine Program (Cornell CEMP), has begun a project aimed at soliciting, gathering, and summarizing input from leaders in the commercial fishing industry, and fisheries scientists and managers based in the northeast. Specifically the project is aimed at identifying and reporting on: 1) potential impacts on fisheries resources from offshore wind energy development in the RI/MA and NY BOEM wind energy areas (see adjacent map); and 2) recommended research approaches for impact assessment. The project will focus on potential impacts to commercially and ecologically important fish and invertebrate species inhabiting or migrating through these areas (vs. impacts to commercial fishing activities). The goal is to compile and synthesize the input received into a draft best practices document that outlines standard protocols for monitoring and assessing impacts associated with offshore wind energy development. Ultimately, this effort is aimed at assisting BOEM with its development of guidelines, protocols and regulations for how offshore wind farm development in the northeast will proceed, including aspects such as wind farm micro-siting, design, size, and construction schedule decisions, as well as how fisheries resource impacts will be evaluated once wind farms are operational. A draft project report is planned to be completed by the summer of 2015. For more information about this project or to provide input, please visit: http://cfrfoundation.org/offshore-wind

*Funded through BOEM Contract #M14PC00005*

## CONSERVATION GEAR ENGINEERING PROJECTS:

### Winter Flounder Bycatch Reduction:

Since the last newsletter, research projects funded under the CFRF Challenge Grant Program for Conservation Engineering Projects have been coming to completion. The Cornell Cooperative Extension Marine Program staff, working together with the fishing vessels F/V Lightning Bay and F/V Excalibur, have completed preliminary trials aimed at reducing winter flounder bycatch using the 12" drop chain sweep and the large mesh belly panel in the small mesh whiting fishery. Winter flounder bycatch results were inconclusive given the limited available days at sea and the inconsistent amounts of winter flounder in the fishing area, but the testing did show that: 1) The targeted catch (whiting) was retained in experimental nets (i.e. there was no significant difference in whiting or squid catch between the control and experimental nets); 2) Both experimental nets proved to be functionally effective in significantly reducing the quantity of all flounders (including winter flounder); and 3) It is likely that both of these gear types could be effective in reducing winter flounder bycatch in the whiting fishery while retaining the targeted catch, but more rigorous testing is needed. For more information on this project see: http://cfrfoundation.org/gear-trials

The field trials for the project entitled "Testing of a Modified Groundgear to Reduce the Catch of SNE Winter Flounder in the Large Mesh Groundfish Fishery" (Project team: Pingguo He, SMAST, UMass Dartmouth, Natalie Jones, SMAST, UMass Dartmouth, Tor Bendiksen, Reidar's Manufacturing, and Aaron Williams, F/V Tradition ) have also been completed, and the final results will be reported out in December 2014. The team has been testing an "escape window" approach aimed at triggering the escape behavior of flatfish and juvenile cod while retaining legal size cod. Preliminary analysis indicates that the experimental net design was effective in significantly reducing all bycatch species including winter flounder, but the mean catch of cod was also reduced. For more information on this project see: http://cfrfoundation.org/projects/2012/11/13/testing-of-a-modified-groundgear-to-reduce-the-catch-of-sne-winter-flounder-in-the-large-mesh-groundfish-fishery

*Funded through NOAA Award # NA09NMF4720414*

### Juvenile Butterfish Bycatch Reduction:

In September, 2014 the CFRF issued funding to support two new proof of concept projects aimed at reducing the catch of juvenile butterfish. The two experimental designs include an 8 cm square mesh constructed cod liner and an 8 cm T-90 mesh cod liner. Both designs will be tested onboard the F/V Prevail (Captain Phil Ruhle Jr., vessel owned by SeaFreeze Ltd). Team partners include staff from the Cornell Cooperative Extension Marine Program, Glenn Goodwin of SeaFreeze Ltd., Captain Phil Ruhle Jr., and Jon Knight of Superior Trawl. The sea trials are planned to take place during the fall 2014/winter 2015 time frame, and results will be reported out in the spring of 2015. This project is an example of the commercial fishing industry being pro-active in solving an anticipated conservation problem before it becomes limiting to the butterfish fishery.

*Funded through NOAA Award # NA08NMF4720595*

## WELCOME:

The CFRF staff and Board members offer a warm welcome to Michael Long, CFRF intern, who joined the staff in September 2014. Michael has a bachelor's degree in Aquaculture and Fisheries Technology from the University of Rhode Island and has plans to continue his education in fisheries. His CFRF work will be focused on the new BOEM and Shelf Research Fleet projects.

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CFRF COMMERCIAL FISHERIES RESEARCH FOUNDATION

## GEAR TRIALS PROGRAM UPDATE:

The Gear Trials Program still has openings available for members of the small mesh trawling fleet in the region to apply and receive vouchers to cover the costs of obtaining one or two types of gear modifications to reduce winter flounder bycatch: 1) a 12" drop chain sweep and 2) a large mesh belly panel. Participation in this program is critical to demonstrating that the industry is being proactive in reducing winter flounder bycatch as the NEFMC moves towards accountability measures such as closed areas. To apply for gear vouchers, visit www.geartrials.org or call the CFRF office at (401) 515-4892.

**Reminder: To those who have received vouchers, you need to use the vouchers at either Superior Trawl in Pt. Judith, RI or Reidar's Manufacturing in New Bedford, MA as quickly as possible or risk losing them. This program will end in the spring of 2015. Unused vouchers will not be honored after that time**.

*Funded through NOAA Award # NA09NMF4720414*

## WHAT WE WILL BE SEEKING FUNDING SUPPORT FOR IN THE COMING YEAR:

- Research aimed at reducing uncertainties in black sea bass stock assessments
- Continued funding for the On-Deck Data Program beyond May 2015 to collect much needed biological data for lobster and Jonah crab, and bottom water temperature data
- Research to further develop technology for industry-based data collection
- Development of the fishing vessel research fleet approach in other fisheries
- Scup processing and marketing research
- Conservation gear engineering projects aimed at reducing the catch of juvenile butterfish
- Further testing and verification of "flounder friendly" gear approaches in the small mesh trawl fisheries
- Increased ocean monitoring to properly identify in situ conditions and possible impacts of climate change on fisheries