

COMMERCIAL FISHERIES RESEARCH FOUNDATION

The Commercial Fisheries Research Foundation is a non-profit, private research foundation founded and directed by members of the commercial fishing industry. The CFRF's primary mission is to conduct collaborative research and education projects that assist in the achievement of sustainable fisheries and vibrant fishing communities.

MESSAGE CORNER:

The CFRF is pleased to welcome Chris Lee, Mike Marchetti, and Norbert Stamps to the Board of Directors! They all have unique sets of experience and expertise that will enhance CFRF's vision and research development. Visit CFRF's website for their bios!

In August, over 30 fishermen, scientists, and managers gathered at CFRF to discuss the value of the Lobster and Jonah Crab Research Fleet, from the collaborative approach to the robust data produced. The CFRF is extremely proud of this program and the dozens of fishermen that have collected data for the past 5 years. As Al Eagles, F/V Catherine Ann, put it *"We have the opportunity to collect this data, so I think it is a great opportunity for us to give back to the industry and supply the data that is needed for the biologists to do the stock assessments and management. I think it is just a terrific program, and I am really proud to be a part of it"*. The CFRF strives to provide opportunities for members of the fishing community to get involved in research that benefits their fisheries and businesses and we hope to continue to do so for many years to come.

Fred Mattera, CFRF President

NEW PROJECT: DEVELOPMENT OF A MARKETABLE SEAFOOD PRODUCT FROM SCUP



Every year, less than 50% of the scup quota is harvested, primarily due to restricted markets and unpredictable ex-vessel prices. This fall, the CFRF will launch a new project that seeks to develop a novel refreshed (previously frozen) scup fillet product that meets consumer demand, results in higher ex-vessel prices, and justifies expanded harvest of this underutilized species. Specifically, the project will: 1) Determine the at-sea handling, shore-side processing, and storage techniques that produce a high quality, fully traceable refreshed scup fillet product, 2) Determine the economic viability of producing refreshed scup fillets, including production costs, byproduct utilization, and retail price, 3) Certify the sustainability, organoleptic quality, and nutritional value of refreshed scup fillets to ensure

suitability for retail markets, and 4) Introduce and market refreshed scup fillets to food businesses and consumers, highlighting the traceability from fisherman to consumer, the sustainability of the scup resource, and the health benefits and culinary versatility of the product. Project partners include Pier Fish Company, Sea Freeze Ltd., Johnson and Wales University, and The Sustainability Incubator. We can't wait to scup it up! Follow along at www.cfrfoundation.org/scup-fillet/.



PROJECT UPDATE: BLACK SEA BASS RESEARCH FLEET

As expected, the Black Sea Bass Research Fleet diligently picked up sampling as the summer came into full swing and vessels began fishing more regularly. Since April, the Research Fleet has sampled over 2,000 black sea bass from nearly 200 different locations throughout southern New England. This brings the total number of black sea bass sampled since the inception of the Research Fleet to over **10,000!** This is a truly impressive sampling effort and data set and none of it would be possible without the commitment of our fishermen collaborators. Thank you Aaron, John, Kenny, Mike, Phil, Rick, Tim, Todd, and Trip!



In other news, this past June the CFRF submitted another round of Research Fleet data to the black sea bass biosamples database at ACCSP. Ultimately, the data will be used to create a discard characterization for the southern New England fishery by investigating the lengths and sex of fish discarded and how those two variables are affected by gear type. In August, the CFRF organized a black sea bass research symposium at the American Fisheries Society annual meeting in Atlantic City, New Jersey and presented the findings and methods of the Research Fleet. The symposium provided a great venue to discuss advances in black sea bass research and its current limitations directly with managers and scientists.

ATTENTION FISHERMEN: CFRF will be adding an additional F/V to the Black Sea Bass Research Fleet this fall and will be seeking applications from interested fishermen. F/Vs that interact with black sea bass during the winter months are especially encouraged to apply. Application materials will be coming soon to www.cfrfoundation.org/black-sea-bass-fleet/

PROJECT UPDATE: ELEVATING SUSTAINABLE SEAFOOD IN THE OCEAN STATE



The new Rhode Island Seafood website is now live! New components include RI seafood species profiles and seasonality (www.dem.ri.gov/riseafood/learn.php) and an interactive map and catalogue of markets and wholesalers that carry local seafood (www.dem.ri.gov/riseafood/buy.php). The CFRF will continue to work with the RI Seafood Marketing Collaborative to add content to this website, including recipes and new seafood access points.

This spring, the CFRF worked with four students at Brown University to develop a suite of educational and promotional materials for Rhode Island seafood. The students created two short videos about Rhode Island seafood and the fishing industry, an infographic about Rhode Island's seafood production, and a directory of wholesale seafood suppliers in the state. Please visit www.cfrfoundation.org/ri-seafood to view the materials!

While "fresh off the boat" sales shorten supply chains and allow fishermen to capture a greater percentage of the value of their catch, these sales are subject to robust regulatory restrictions in order to safeguard public health and ensure compliance with harvest restrictions. Over the summer, the CFRF worked with a Roger Williams University Legal Fellow to identify the permits and processes that fishermen are required to follow to sell finfish directly to consumers. The ultimate goal is to create a guide to help fishermen navigate the permitting process. Summer may be winding down, but RI seafood is always fresh and abundant, so get out there and pick up some local seafood for dinner!

PROJECT UPDATE: LOBSTER AND JONAH CRAB RESEARCH FLEET

The Lobster and Jonah Crab Research Fleet has been very busy these past few months, having sampled over 6,000 lobsters and over 7,200 Jonah crabs since April! Overall, the Research Fleet has collected biological data from more than 114,500 lobsters and 55,200 Jonah crabs - an impressive feat!

Did you know that Jonah crab was the 7th most valuable fishery in Rhode Island and the 5th most valuable fishery in Massachusetts in 2017? This June, CFRF released a short film highlighting Jonah crab, a species of emerging importance and value to southern New England fishermen. We would like to convey our appreciation to the Research Fleet participants and partners at the MA Division of Marine Fisheries for their contributions to this video. View the video titled "*Jonah Crab: Embracing Ecosystem Change and Ensuring Sustainability*" at www.cfrfoundation.org/jonah-crab-lobster-research-fleet/.



This summer, CFRF staff have been very busy sharing the approach, success, and data of our Lobster and Jonah Crab Research Fleet. CFRF staff co-hosted and presented at two symposiums at the American Fisheries Society Annual Meeting in Atlantic City, NJ highlighting CFRF's Lobster and Jonah Crab Research Fleet and CFRF's other industry-led projects. And in August, the CFRF hosted a Lobster and Jonah Crab Research Session where CFRF staff shared the story of the Research Fleet and dug into the scientific findings that have been produced. Research Session participants also enjoyed several terrific presentations from the MA Division of Marine Fisheries, the Northeast Fisheries Science Center, and University of Rhode Island highlighting fishermen's knowledge and the value of the Research Fleet data in the lobster stock assessment and Jonah crab management plan. Thank you to the dozens of attendees who provided great questions and discussion!

ATTENTION FISHERMEN: The CFRF is adding two additional F/Vs that fish in NMFS statistical areas 522, 561, 526, or 616 to the Lobster and Jonah Crab Research Fleet! This expansion will help fill data gaps listed as high priority in Addendum XXVI. If you fish in these areas or know someone who may be interested in participating, please contact Aubrey at aellertson@cfrfoundation.org or (401) 515-4892.

PROJECT UPDATE: SHELF RESEARCH FLEET

This summer, our Shelf Research Fleet collected 50 new water column profiles south of Rhode Island. To date, the Shelf Research Fleet has collected over 485 water column profiles using wireless Conductivity, Temperature, and Depth instruments. These data have shown that the southern New England continental shelf was much colder than previous years at the start of the summer, but transitioned to being unusually warm in August and September, likely due to the movement of Gulf Stream water across the shelf. Did your catch change drastically in August? This might be why!

This May, CFRF staff and Glen Gawarkiewicz from the Woods Hole Oceanographic Institution had an exhibit in the One Ocean Exploration Zone at the Volvo Ocean Race in Newport, RI. The purpose of the exhibit was to broaden awareness of the marine environment, and educate visitors on conservation, sustainability, and research efforts. The exhibit was visited by thousands of spectators and school children.



In June, a peer-reviewed manuscript was pre-published in the Annual Review of Marine Sciences titled "*Partnering with Fishing Fleets to Monitor Ocean Conditions.*" This manuscript covers the benefits of collaborative research and citizen science, and highlights case studies from around the world including the Shelf Research Fleet. To read the article and to learn more about the Shelf Research Fleet, please visit www.cfrfoundation.org/shelf-research-fleet/.



PROJECT UPDATE: THE ECONOMIC IMPACT OF RI'S FISHING INDUSTRY



Dr. Tom Sproul from URI has been busy gathering data, running numbers, and developing models to estimate the economic impact of the fishing industry in Rhode Island. From fishing gear suppliers to seafood processors to marine insurance providers, the breadth and value of the fishing industry is far greater than the dollars generated by seafood landings. We hope that this project will highlight how the fishing industry contributes to all facets of the local economy and job market. Project results will be released this fall.

PROJECT UPDATE: QUAHOG RESEARCH FLEET

Despite a rough winter and early spring, the Quahog Research Fleet has sampled just shy of 10,000 quahogs from over 200 locations throughout Narragansett Bay since April. The warmer summer weather marked the commencement of the RI DEM dredge survey and the completion of calibrations by our partners at RI DEM and Roger Williams University. This summer, dredge calibrations have focused on deeper water and softer bottom types, where catch efficiencies were expected to be the lowest. Dredge calibrations are a major component of this project as they will allow Research Fleet data to be compared directly to traditional survey data. Calibrations will also be used to develop a correction factor for dredge-calculated quahog densities by adjusting catch efficiency relative to the depth and substrate type. Calibrations with all of the Research Fleet members alongside the RI DEM dredge should be completed this fall. Once the calibrations are complete, the CFRF will work with RI DEM and RWU to analyze and incorporate the multi-year dataset into quahog management. To follow along with project updates and milestones, check out the project webpage at www.cfrfoundation.org/quahog-research-fleet.



PROJECT UPDATE: SNE COOPERATIVE VENTLESS TRAP SURVEY

The Southern New England Cooperative Ventless Trap Survey (SNECVTS) is currently in the heart of its sampling season. After a slow spring around Cox's Ledge, things have really picked up this summer. Our teams sampled around 300 lobsters in May and June combined, then July sampling saw the lobster catch increase to over 1,800 lobsters! Jonah crab catches have been more consistent through the first three months of sampling, with a total of 5,642 sampled through July. As for the lobster tagging aspects of SNECVTS, nearly 1,500 t-bar tags have been deployed to date around Cox's Ledge and in Rhode Island Sound. Sampling teams have recaptured 42 tags, and commercial lobstermen have reported an additional 11 tags. We were surprised to see that a few of these lobsters were recaptured far north of Cox's Ledge after they were released in the spring and early summer. An additional 1,500 t-bar tags will be deployed through the end of SNECVTS sampling in November, as well 100 acoustic tags which will be deployed in September. These acoustic tags will allow the SNECVTS team to continuously track the movements of tagged lobsters after they are released, as opposed to t-bar tags, which only provide a release and recapture location. The only catch is, we will need to recapture the acoustic tagged lobsters to collect the data their tags are recording! **Be sure to report any tagged lobsters you catch to CFRF so we can continue to gather information on where these lobsters are heading after they are released, and you could wind up with some extra cash in your pocket!** Habitat camera surveys have also been completed at 16 of the 24 SNECVTS sampling stations to date, revealing exactly what type of bottom our trawls are setting on over the course of this year. Sampling will continue through November, at which point the SNECVTS project efforts will transition from field work to data crunching! If you'd like to find out more about SNECVTS, visit the website at www.cfrfoundation.org/snecvts/.



OFFICE LOCATION:

2nd Floor, Building #61B
Commercial Fisheries Center of Rhode Island
East Farm Campus, URI
Kingston, RI 02881
Phone: (401) 515-4892



CFRF BOARD OF DIRECTORS

Fred Mattera
President

*Commercial Fisheries Center
of Rhode Island*

John Kennedy
Vice-President

*The Washington Trust
Company*

David Spencer
Treasurer

F/V Nathaniel Lee

Donald Fox
The Town Dock

Jeffrey Grant
Commercial Fisherman

Jonathan Knight
Superior Trawl

Christopher Lee
Sea Fresh USA, Inc.

Michael Marchetti
*F/V Captain Robert
F/V Mister G*

Christopher Roebuck
*F/V Karen Elizabeth
F/V Yankee Pride*

Norbert Stamps
Commercial Lobsterman

Mark Sweitzer
F/V Erica Knight

CFRF STAFF

Anna Malek Mercer, PhD
Executive Director
amalek@cfrfoundation.org

Terry Winneg
Business Manager
twinneg@cfrfoundation.org

Aubrey Church
Research Associate
aellertson@cfrfoundation.org

Thomas Heimann
Research Associate
theimann@cfrfoundation.org

Michael Long
Research Associate
mlong@cfrfoundation.org

New Project: Operationalizing Real-time Telemetry Onboard Commercial Fishing Vessels

The CFRF is working with the Gulf of Maine Lobster Foundation and the NEFSC to install real-time telemetry systems on F/Vs throughout the Northeast. The real-time telemetry of bottom temperature data from commercial fishing boats helps ocean circulation modelers to better understand ocean processes. In May, CFRF staff helped install new telemetry equipment on the F/V Excalibur, a lobster boat in Newport, RI. To view real-time bottom temperatures please visit: www.studentdrifters.org/huanxin/telemetry.html.



New Project: Understanding the Ecological & Economic Implications of Black Sea Bass Range Expansion

Over the next two years, the CFRF will be working with Dr. Jonathon Grabowski and Dr. Melissa McMahan from Northeastern University on a project that seeks to elucidate the ecological and socioeconomic consequences of the northern range expansion of black sea bass. The CFRF Black Sea Bass Research Fleet will collect samples to help scientists understand differences in the life history traits and diet of black sea bass in its native and newly expanded range. Otoliths will be used to assess age and growth rates, gonads will be analyzed to assess sex and reproductive stage, stomach content and stable isotope analysis will be used to determine diet and trophic position, and tissue samples will be used for genetic analysis to understand the population structure of black sea bass in its newly expanded range.



RECENT RELEASES AND PUBLICATIONS

- **Video:** “Jonah Crab: Embracing Ecosystem Change and Ensuring Sustainability” (www.cfrfoundation.org/jonah-crab-lobster-research-fleet/)
- **Video:** “Buy Local! A Guide to Rhode Island Seafood” (www.cfrfoundation.org/ri-seafood/)
- **Video:** “RI Seafood: From The Ocean State to Your Plate” (www.cfrfoundation.org/ri-seafood/)
- **Peer Reviewed Manuscript:** “Fishers Fill Data Gaps for American Lobster and Jonah crab in the Northeast USA” *Bulletin of Marine Science*. Volume 94 (3): 1121-1135.
- **Peer Reviewed Manuscript:** “Partnering with Fishing Fleets to Monitor Ocean Conditions” *Annual Review of Marine Science*. Volume 11.
- **RI Infographic and Seafood Directory:** A Guide to Local Seafood in Rhode Island and A Directory of Rhode Island’s Wholesale Seafood Suppliers. (www.cfrfoundation.org/ri-seafood/)



Annual Review of Marine Science

Partnering with Fishing Fleets
to Monitor Ocean Conditions

Glen Gawarkiewicz¹ and Anna Malek Mercer²

¹Department of Physical Oceanography, Woods Hole Oceanographic Institution, Woods Hole,
Massachusetts 02543, USA, email: ggaw@whoi.edu

²Commercial Fisheries Research Foundation, Saunderson, Rhode Island 02874, USA



COMMERCIAL FISHERIES
RESEARCH FOUNDATION

P.O. Box 278, Saunderson, RI 02874
Phone: (401) 515-4892 | Fax: (401) 515-3537
www.cfrfoundation.org