

## COMMERCIAL FISHERIES RESEARCH FOUNDATION

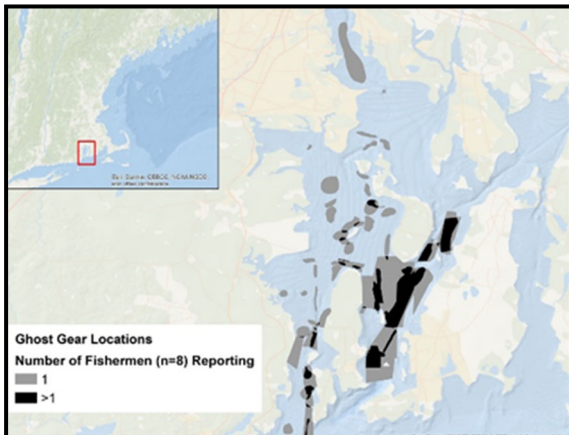
*The Commercial Fisheries Research Foundation is a non-profit, private research foundation founded and directed by members of the commercial fishing industry. The CFRF's primary mission is to conduct collaborative research and education projects that assist in the achievement of sustainable fisheries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

### MESSAGE CORNER:

This is the time of year where gratitude and reflection are paramount. The CFRF is fortunate to have a skillful team of researchers. They have allowed us to increase the amount of research and education we are conducting and therefore our impact on the communities we hope to support. We are grateful for all the members of the fishing community who make this research possible through their contributions on land and sea. Our work is also made possible due to collaborations with fishery scientists, managers, and culinary professionals. Thank you all! As I reflect upon this past year, my thoughts go to Norbert Stamps who passed away a few months ago. Norbert was a champion of collaborative research who played a key role in the founding of our Lobster-Crab and Shelf Research Fleets. As a Board member of CFRF, he was never short on new ways for CFRF to pursue its mission. We'll keep working to make Norbert and all of our supporters proud in this upcoming year. Happy holidays to all and make sure you enjoy some local seafood during your celebrations!

Fred Mattera, CFRF President

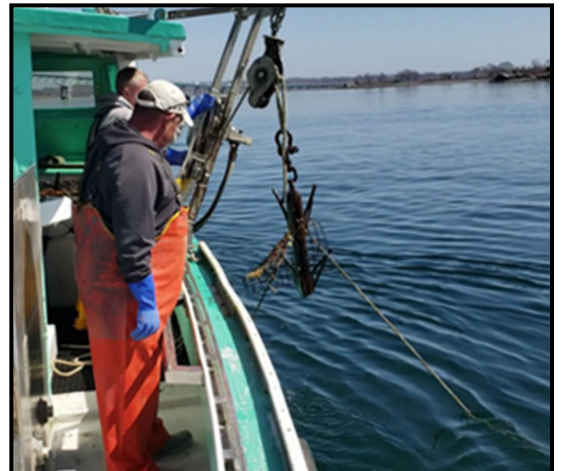
### PROJECT RESULTS: MAPPING HOTSPOTS AND PILOTING UNDERWATER VIDEO TECHNOLOGY



This project tested and confirmed the use of fishermen's knowledge and underwater video as a method to refine ghost gear (discarded or lost fishing gear) locations for removal. A map of ghost gear locations was generated for Narragansett Bay using nautical charts and interviews with eight commercial fishermen that use lobster traps, fish pots or trawl. The map, pictured left, was then used to navigate to ghost gear hotspots during two surveys, one in June aboard the trawler Christopher Andrew and a second in August aboard the lobster vessel Catherine Anne (pictured). Two live-feed camera systems were deployed and evaluated for utility during these surveys. We were able to find ghost gear on the sea floor and learned a lot about ways to improve this approach. To test reproducibility of finding gear identified by camera, we used a waypoint location from the June survey to relocate a ghost gear rope during the August survey. We were successfully able to renavigate to the location. The less expensive GoPro camera system performed the best during the surveys. The survey results were developed into an interactive ghost

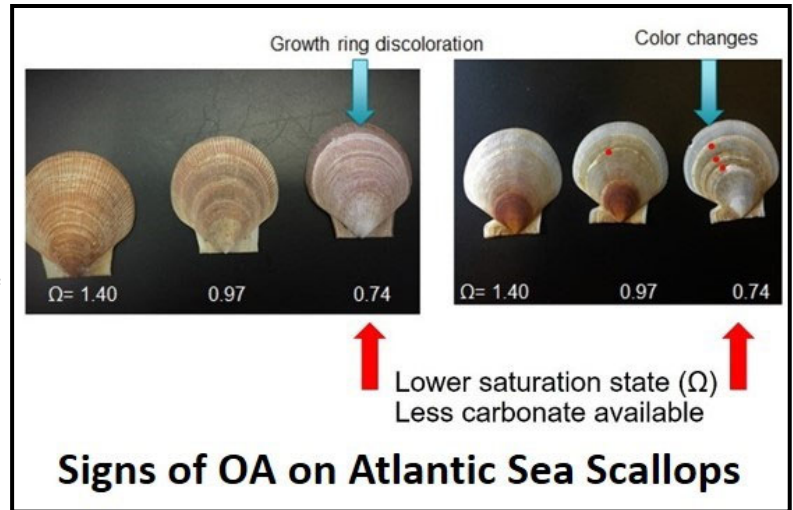
gear image map of Narragansett Bay. This map and a video produced by 11th Hour Racing that summarizes the project can be viewed at the [project webpage](#). This project also provided us with an opportunity to network with other organizations working on ghost gear removal both regionally and internationally. We jointly hosted a webinar with the Global Ghost Gear Initiative that brought together local ghost gear removal programs in Maine (Gulf of Maine Lobster Foundation) and Cape Cod (Center for Coastal Studies). Thank you to all the fishermen that helped with this project and the funder, 11th Hour Racing.

The results from this project were key to our next step in ghost gear work; a sustainable plan for its removal from Rhode Island waters. Next month we will begin developing this plan with a Southeast New England Program Watershed grant!



## **PROJECT UPDATE: ASSESSING THE VULNERABILITY OF THE ATLANTIC SEA SCALLOP SOCIAL-ECOLOGICAL SYSTEM:**

This project's objective is to determine the vulnerability of the sea scallop fishery, both the scallops and the communities that rely on them, to ocean acidification (OA) and temperature changes. A focus of the first year was a set of workshops in New Bedford, MA, Point Judith, RI, and Barnegat Light, NJ to establish interest in the project and create positive partnerships with sea scallop fishermen. We wrapped up our last fishing community workshop for year one of the project earlier this month. The workshops generated lively and constructive discussions that continued on site after the end of their designated times. Although each workshop had some regional differences in comments from the participants, the workshops also revealed some common perceptions on the impact of ocean warming and acidification on the scallop fishery that we will address in year two. Other feedback focused on improving the workshops including increasing the length of the workshops to allow more time for question and answers. Initially we assumed that a shorter workshop would provide a more positive experience for the participants. Further, we will modify the presentations for each workshop to include more local and regional results from the project. Lastly, based on feedback from a pilot workshop, we moved the timing of the workshops this year to late summer early fall and we plan to hold the workshops next year in the late fall period. For more information on this project visit the [webpage here](#). We look forward to updating everyone on the progress of the different project components in next year's workshops.



## **PROJECT UPDATE: DEVELOPMENT OF A MARKETABLE SEAFOOD PRODUCT FROM SCUP**



This project seeks to develop a frozen scup fillet product that meets consumer, fisherman, fish processor, and chef needs. Efforts for this project have largely been on hold since the spring of 2020 due to the Covid-19 pandemic. The project team recently partnered with Chef Joshua Berman of J.B. Cuisine to promote the scup fillet product at the Rhode Island Seafood Festival. CFRF managed a vendor booth at the festival, and 500 free samples of “Crispy Narragansett Bay Scup Tacos” prepared by Chef Berman were distributed to festival attendees. At the booth we also discussed and promoted the project and local sustainable seafood. All patrons gave positive feedback on the scup tacos and indicated that they would be open to buying and cooking scup in the future. Extra frozen scup fillets were donated to the Jonnycake Center Food Pantry in South Kingstown, RI. The project team is now preparing to promote the frozen scup fillet product to a global audience at the Seafood Expo North America in Boston this March. If you'd like to follow along with our scup processing and marketing efforts, visit the CFRF project [webpage here](#).

## **PROJECT UPDATE: PILOTING A LOW-BY-CATCH AUTOMATIC SQUID JIG FISHERY IN SNE**

This project investigates the feasibility of automatic squid jiggging machinery, used in other large-scale squid fisheries worldwide, in the southern New England Longfin squid fishery. We faced initial delays when the jig equipment was caught up in customs on its way over from Sweden. Once the equipment arrived, some quick thinking and working with Champlin Welding was required to make the squid jigs fully operational on both vessels piloting the gear. We completed five at-sea trials aboard our in-shore collaborating vessel, the F/V Miss Edi, between May 19 to August 12. Sampling occurred between the hours of 7:00 pm to 5:00 am in waters off Rhode Island with waning success as spring progressed to summer. We also completed a four-day trip aboard the F/V Mattie and Maren south of Nantucket, MA in late June. The automatic squid jigs ran overnight, similar to the inshore trips. Functionally, the squid jigs ran very smoothly aboard both vessels, however, we had limited success in catching squids. We believe that the squid's summer time reproductive behaviors made them less likely to attack and be caught by our jigs. We will see how this theory pans out as we complete the rest of the at-sea trials in the spring. Check out the project [webpage here](#) for more information and updates. Thanks to our partners at Town Dock and support from the NOAA Bycatch Reduction Engineering Program and the Mid-Atlantic Fishery Management Council.



## **PROJECT UPDATE: SOUTH FORK WIND FARM FISHERIES MONITORING— BEAM TRAWL SURVEY**

Year one of the beam trawl survey was completed this October! The goal of the survey is to help determine potential impacts of wind farm development on bottom dwelling animals. The South Fork Wind Farm development area and two reference areas to the east and west are monitored. The main takeaway from the year one data is that our eastern control area is very different from the impact area and the western control area. The eastern area has a muddy bottom that is dominated by rock crab and little skate, while the other two areas have more hard structure and higher biodiversity. We have also observed some minor seasonal changes particularly with the higher catch of fish during the spring in all areas, more details on the seasonal changes can be viewed on the survey webpage [here](#). A big thank you to the F/V Mister G and all those who participated in year one of the survey. Stay tuned for what the next year will bring!



## **PROJECT UPDATE: SOUTH FORK WIND FARM FISHERIES MONITORING — VENTLESS TRAP SURVEY**

From May through November of 2021, we worked with University of Rhode Island Graduate School of Oceanography students, the F/V Amelia Anne, F/V Ashley Ann II, and F/V Erica Knight out of Point Judith, RI to complete the first year of this survey. The goal of the survey is to assess the seasonal abundance, distribution, movement, and habitat use of lobster and Jonah crab in the South Fork Wind Farm development area and two reference areas to the east and west. Through the first few months of the survey, the wind farm area and western control had relatively low catch rates of lobster, Jonah crab, and rock crab, while the eastern control area was dominated by rock crabs, regularly getting over 100 crabs in each ventless trap. As the survey moved into late summer and fall, the catch rates of all three areas became more comparable with higher catch rates and a mix of lobster, Jonah crab, and rock crab dominating the catch in all three areas. In addition to the survey, in each of the three survey areas 500 lobsters were tagged to monitor their movement and occupancy behaviors. These green t-bar tags are designed to stay in the lobsters through at least one molt, so all Southern New England lobstermen should keep their eyes out for tagged lobsters while hauling gear! We would like to thank all the fishing vessel captains, crews, and research staff who contributed to the first year of data collection for survey. If you'd like to find out more about the survey, visit the CFRF survey [webpage here](#).



## **NEW PROJECT: WHELK RESEARCH FLEET**

We are pleased to announce the latest expansion of the Research Fleet model; the Whelk Research Fleet. Whelk (conch) are notoriously difficult to manage due to their slow maturation and growth rate coupled with localized larval and adult distributions. Despite the relatively high value of the fishery in both Rhode Island and Massachusetts there is substantial uncertainty around whelk populations and management due to a lack of biological data. The Whelk Research Fleet will seek to fill data gaps in the combined Knobbed and Channeled Whelk fishery across southern New England through fishermen collected data. The same



principles and at-sea protocols established by our other Research Fleets will be applied. We officially began work on this Atlantic Coastal Cooperative Statistics Program funded project in September and are looking forward to commencement of sampling in the spring fishery. The Whelk Research Fleet will be cooperatively run with the Rhode Island Department of Environmental Management and the Martha's Vineyard Fishermen's Preservation Trust. If you are interested in learning more about the project or are interested in applying, please visit the project [webpage here](#).

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## **CFRF STAFF**

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Research Biologist

**Noelle Olsen**  
Research Biologist

**Hannah Verkamp**  
Research Biologist

## **MORE ON-GOING PROJECTS:**

- **A Pro-Seafood Climate Action Agenda:** A group of RI and MA fishing organizations initiated a process to craft a narrative on climate solutions that places wild seafood production at its core. Contact Sarah Schumann (schumannsarah@gmail.com) for more information.
- **Black Sea Bass Research Fleet:** In partnership with RI DEM, the Black Sea Bass Research Fleet produces year-round estimates of black sea bass catch, bycatch, and biological data for seven different gear types in the Southern New England and Mid-Atlantic regions. More information can be found on the project webpage [here](#).
- **Catalyzing the Restoration of the Bay Scallop:** This project seeks to help develop a restoration plan for bay scallops in Rhode Island. Information on this project can be found [here](#).
- **Lobster and Jonah Crab Research Fleet:** This Research Fleet provides year-round biological data and environmental data from lobster and Jonah crab traps. Please visit our project webpage [here](#) to find more information about this project and the Lobster and Jonah Crab Research Fleet.
- **Phase II Piloting a N-Viro Dredge in the Scallop Fishery:** This project builds on previous work to utilize this dredge to reduce bycatch, including small scallops, in the sea scallop fishery. To follow along with the N-Viro dredge project and read the Phase I project report, visit the CFRF project webpage [here](#).
- **Salinity Maximum Intrusions:** This project will map intrusions of warm, salty water that may influence fish distributions in Southern New England. Check out the [blog](#) and our project webpage [here](#) for more information and stay tuned for the meeting announcement.
- **Scallop Research Fleet:** The main goal of this pilot Research Fleet is to develop and test methods of collecting individual weights and spawning condition of scallop during normal fishing operations. For updates visit the project webpage [here](#).
- **Shelf Research Fleet:** In partnership with Woods Hole Oceanographic Institution the Shelf Research Fleet collects oceanographic data along the continental shelf. More information can be found on the shelf research fleet the project webpage [here](#).
- **South Fork Wind Farm Fisheries Monitoring—Fish Pot Survey:** This survey is designed to determine the spatial scale of potential impacts on the abundance and distribution of structure associated finfish in the immediate area around the wind farm installation. More information on this project can be found at the survey webpage [here](#).
- **South Fork Wind Farm Fisheries Monitoring—Gillnet Survey:** This survey is designed to assess the seasonal abundance and distribution of monkfish and winter skate in the South Fork Wind area and two reference control areas to the east and west. More information on this project can be found at the survey webpage [here](#).

## **EDUCATION AND OUTREACH:**

- In September, David Bethoney presented “The Commercial Fisheries Research Foundation: Who we are and what we do” at the University of Massachusetts Dartmouth School for Marine Science graduate student seminar
- In October, Michael Long presented to thirteen Indonesian government officials attending the Science for Sustainable Fisheries Policy in Indonesia course at the University of Rhode Island.
- In October, David Bethoney gave “An overview of annual Atlantic sea scallop management and the science behind it” to Roger Williams University students as part of their Marine Resource Management course.
- In November, we made presentations on the Research Fleets (David Bethoney), characterizing Black sea bass discards (Hannah Verkamp), and the wind farm surveys (Carl Huntsburger) at the American Fisheries Society Annual Meeting. Noelle Olsen moderated the collaborative research symposium and coordinated student volunteers at the meeting.

## **RECENT RELEASES, PUBLICATIONS, AWARDS AND UPCOMING EVENTS:**

- Video Release: Check out the new CFRF introductory video [here](#).
- Video Release: In the summer of 2021, Charlie Enright of the 11th Hour Racing Team took an excursion out on his local waters of Narragansett Bay with the Commercial Fisheries Research Foundation onboard the fishing vessel Christopher Andrew to learn about the problems ghost gear causes for local habitats and commercial fishermen. The video of that June 28, 2021 ghost gear survey can be viewed [here](#).
- Upcoming Event: Seafood Expo North America, Boston, MA, March 13-15, 2022.
- Upcoming Event: Massachusetts Lobstermen’s Association Meeting, Hyannis, MA, March 24-27, 2022.

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