

**WELCOME
TO
THE**

North Carolina Aquaculture Gear Management and Storm Preparedness Workshop

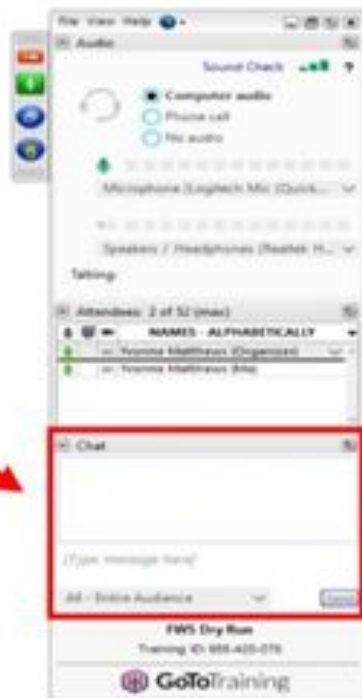


Gear tags
provided for
interested growers
who attend!

Photo: Baxter Miller, Courtesy NC Sea Grant.
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COMMUNICATING With the Presenters

1



Type your Question or Comment in the Chat box. Select who you would like to send it to, i.e., All-Entire Audience or a specific attendee. Click the **Send** Button

2



Don't see the question box?

3



Use the *Raise your Hand* button to respond to the presenter(s) when they ask for a show of hands.

Planning Team



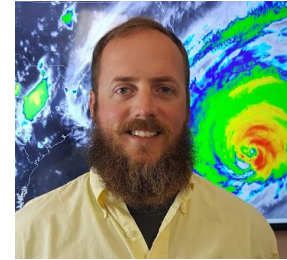
Sarah Latshaw
NOAA Marine Debris
Program



Charles Grisafi
NOAA Disaster
Preparedness Program



Erik Heden
NOAA National
Weather Service



David Glenn
NOAA National
Weather Service



Ken Riley
NOAA Coastal
Aquaculture Siting and
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Eric Herbst
North Carolina Sea Grant



Bryan Snyder
North Carolina Sea Grant



Jacob Boyd
North Carolina
Marine Fisheries



Owen Mulvey-McFerron
North Carolina Marine
Fisheries



Ana Nenadovic
North Carolina
Coastal Federation

THANK YOU!

Southeast and Caribbean
Regional Team



Workshop Goal

The workshop will bring together the shellfish aquaculture community to *improve aquaculture gear management and storm preparedness* throughout coastal North Carolina.



Objectives | after this workshop you should be able to:

- Discuss the importance of *environmental and community stewardship* within the aquaculture industry
- Find available *resources and information* pertaining to aquaculture gear management
- Understand *practical gear management techniques* and *proper gear deployment and maintenance*
- Understand the *impacts of derelict gear* and work being done to prevent loss and retrieve gear for farmers
- Know how to *use NOAA National Weather Service products and forecasts* to prepare aquaculture farms and businesses for different severe weather events
- Know how to *develop a storm preparedness plan* for a shellfish aquaculture farms or businesses in line with current state initiatives



Poll Questions:

1. On a scale of 1-5 (1 being no impact and 5 being extremely impacted), how significantly have storms impacted your operations?
2. In storms where gear was broken and lost, roughly what percentage was recovered and returned to working order?
 - 0-25%
 - 25-50%
 - 50-75%
 - 75-100%
 - Unsure

NOAA Marine Debris Program

Sarah Latshaw, Southeast Regional Coordinator

Marine Debris Program

Office of Response and Restoration

National Oceanic and Atmospheric Administration / Lynker



NOAA Marine Debris Program

Established in **2006** by Congress and reauthorized in **2018** through the Save Our Seas Act



Program Pillars

- Prevention
- Removal
- Research
- Emergency Response
- International Engagement
- Regional Coordination



Removal Grants

- Annual Competition (Opens Jul/Aug)
- Community-based marine debris removal projects
- Benefit coastal habitat, waterways, and wildlife
- Medium and large debris
- Alternative disposal



Photo: North Carolina Coastal Federation



Photo: North Carolina Coastal Federation



2019 Southeast Marine Debris Action Plan

June 2019

- **Coordinated** effort and message
- Provides a **roadmap** - focused direction
- Developed by **those working on the issue**
- Focuses on **reducing**:
 - Abandoned and Derelict Vessels
 - Consumer Debris
 - **Derelict Fishing Gear**
 - Wildlife and Habitat Impacts

A satellite image of a large hurricane with a distinct eye and spiral cloud bands over the ocean. The image is the background of the slide.

NOAA Disaster Preparedness Program

National Ocean Service
Charles Grisafi

*NC Aquaculture Gear Management and
Storm Preparedness Workshop
April 8, 2021*



Genwest



Disaster Preparedness Program Overview

Vision: Communities are safer through optimal disaster preparation.

Mission: To prepare the National Ocean Service (NOS) and Partners to respond to and recover from pollution events and natural disasters

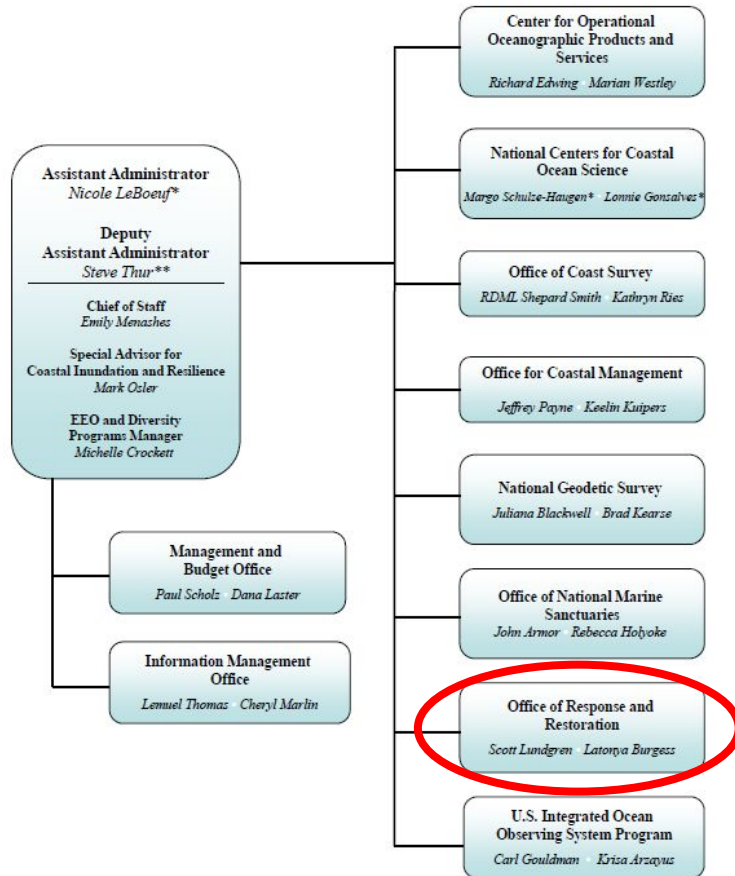
Mandate from NOAA leadership to support all of the National Ocean Service

Program includes the NOAA Gulf of Mexico Disaster Response Center



National Ocean Service Organization Chart

Positioning America for the Future



Disaster Preparedness Program

Program Capabilities

- **Plan.** Ensuring NOS emergency plans for continuity of operations are up-to-date and feasible.
- **Organize/Equip.** Ensure NOS responders have the right resources, sufficient manpower, and adequate support to carry out mission essential work.
- **Train.** Emergency preparedness, response, and recovery training for NOAA field responders, federal partners, and state and local emergency managers.
- **Exercise.** Annual exercises ensure the plans, personnel, and training are coordinated to deliver the best possible response posture.
- **Evaluate/Improve.** A dedicated continuous improvement program.
- **Recovery.** Support NOAA planning, coordination and operational engagement in long term recovery of coastal communities and natural resources after disaster.





Planning

Continuity of Operations (COOP)

- Update NOS COOP to ensure the continuous performance of identified NOS essential functions and operations during an emergency
- NOS COOP maintained by DPP

Support Plan Development

- Support planning efforts for NOS Program Offices and government agency partners
- Support storm preparedness planning for coastal industries



Training Workshops and Exercises

Training

- NOAA ICS 300: Intermediate Incident Command System for Expanding Incidents
- Resource Advisor Training
- Science of Oil Spills
- Science of Chemical Releases
- Science of Coastal Hazards (*in development w/ FEMA*)

Workshops

- NOAA Regional Preparedness Training Workshops
 - 2 to 4 workshops per year
 - Focus on regional and state needs

Exercises

- Exercises help NOS and our partners test our abilities to ensure we can carry out our missions effectively and efficiently during a disaster



Disaster Coordination and Response

NOS Incident Management Team

- Focus on NOS incident coordination, preparedness, and improvement across NOS program offices
 - Activations: PMI – Personnel – Mission – Infrastructure
 - Team includes Ops, Planning, Safety, Contracts, IT, etc.

Response Liaisons

- Liaison to NOAA Homeland Security Program Office, FEMA, and state emergency management agencies
- Regional liaisons strategically placed throughout the country including the Southeast



Florida Aquaculture Gear Management Workshop

Shellfish Aquaculture Gear Management Workshop 2018

Florida Department of Agriculture and Consumer Services
Division of Aquaculture



Date
September 12th, 2018

Location
FWC Senator
Kirkpatrick Marine Lab,
11350 SW 153rd Court,
Cedar Key, FL 32625

Project Summary

The National Marine Sanctuary Foundation in coordination with NOAA Marine Debris Program provided funding to the Florida Department of Agriculture and Consumer Services, Division of Aquaculture (FDACS) to host a training workshop targeting the aquaculture industry and shellfish farmers in Cedar Key, FL. Travel funds were utilized to support diverse representation at the workshop.

Currently, there are no existing resources to educate the Cedar Key shellfish farming community on aquaculture debris issues or to organize routine cleanup events. FDACS aimed to address these resource gaps through a training workshop and an associated cleanup event. The workshop discussed the importance of environmental stewardship and provided practical management techniques to farmers, such as proper gear anchoring methods and severe-storm preparation strategies. FDACS conducted a marine debris survey in June 2018 and presented marine debris maps and information following workshop training sessions in order to organize an effective cleanup, which was held on September 15, 2018.

More Information

A full recording of the workshop and copies of all presentations are available at:
<https://shellfish.ifas.ufl.edu/wp-content/uploads/2018/09/2018-Shellfish-Gear-Management-Workshop-Recording.pdf>

Shellfish Aquaculture Gear Management technical bulletin:
<https://www.ifas.ufl.edu/wp-content/uploads/2018/09/2018-Shellfish-Gear-Management-Workshop-Recording.pdf>

Florida Division of Aquaculture:
<http://www.ifas.ufl.edu/Division-Of-Aquaculture/>

Florida Marine Debris Reduction Guidelines (May 2017):
<https://www.ifas.ufl.edu/wp-content/uploads/2017/05/Florida-Marine-Debris-Reduction-Guidelines-May-2017.pdf>

UF/IFAS Shellfish Extension:
<https://shellfish.ifas.ufl.edu/>



Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner

