Ocean and Coastal Acidification Monitoring Plan for the Northeast:

Regional insights on current assessments, monitoring priorities, and gaps.

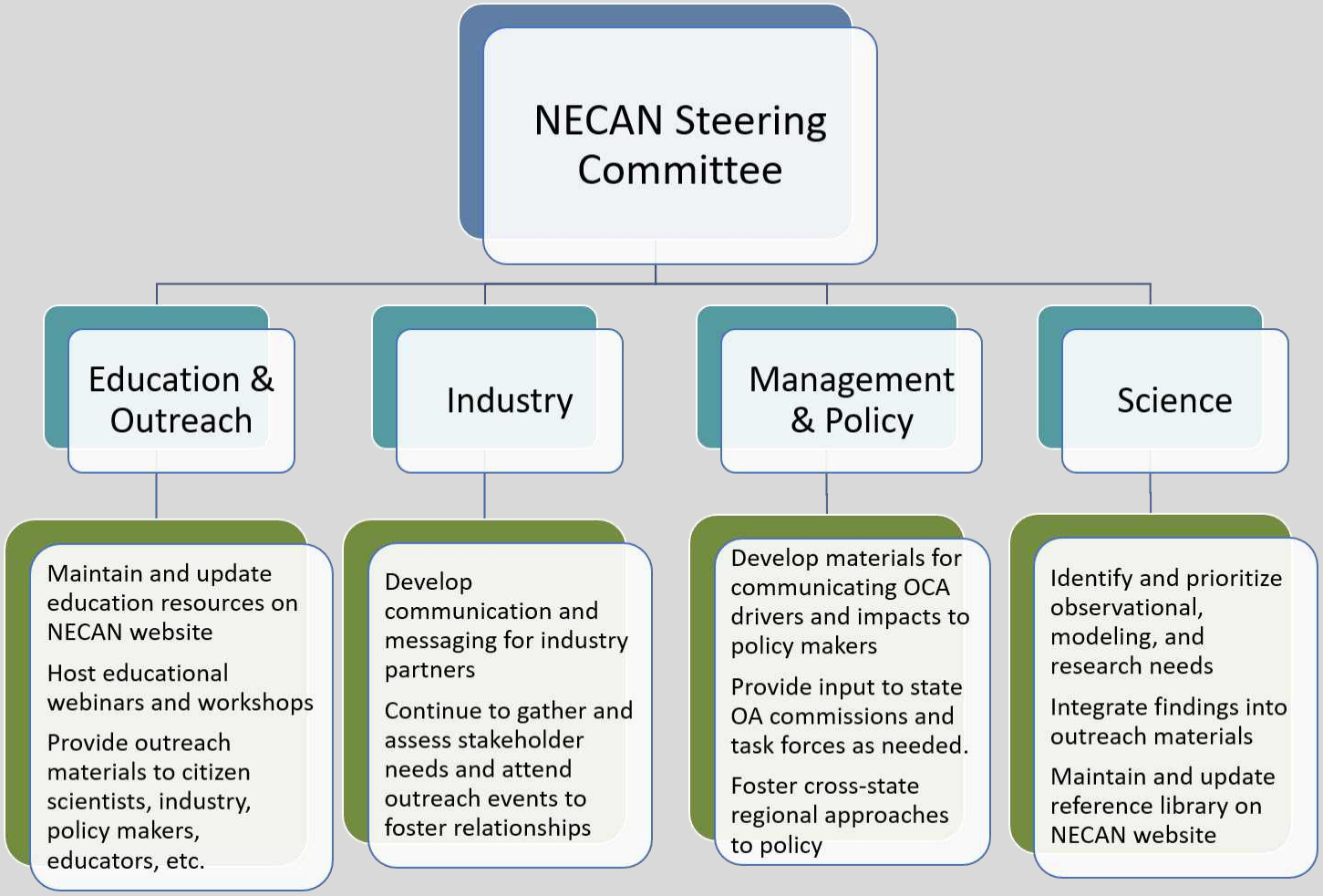
Emily Silva, NECAN and NERACOOS

MACAN Coastal and Ocean Acidification Workshop

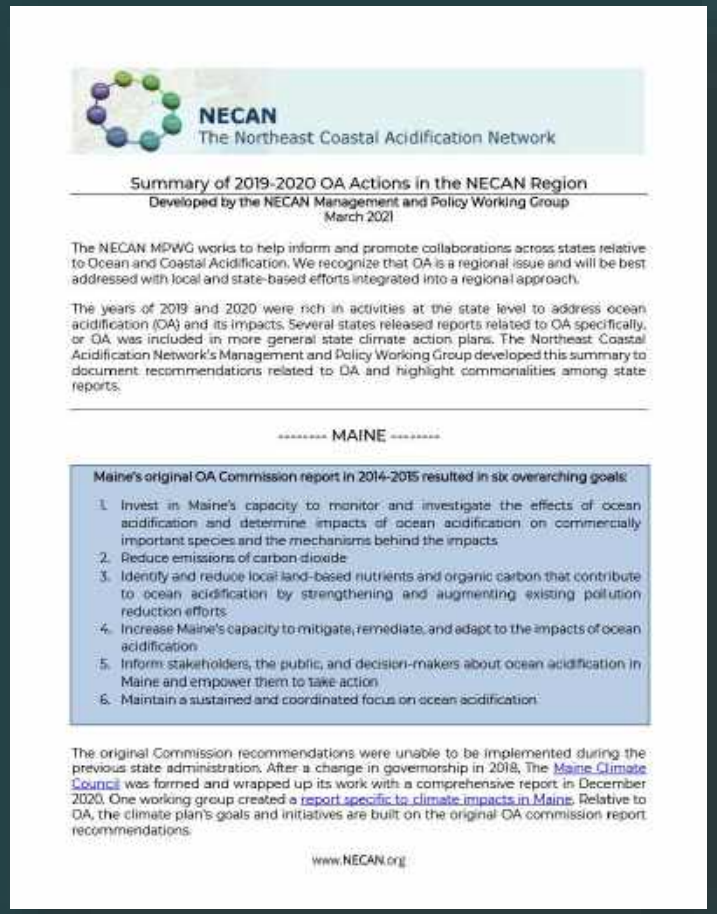
September 11 – 12, 2023

Who is NECAN?

- State and federal employees
- Researchers
- Academics
- Industry Members
- NGO's
- Regional Partnerships



Summary of OA Actions in the NECAN Region



NECAN
The Northeast Coastal Acidification Network

Summary of 2019-2020 OA Actions in the NECAN Region

Developed by the NECAN Management and Policy Working Group
March 2021

The NECAN MPWG works to help inform and promote collaborations across states relative to Ocean and Coastal Acidification. We recognize that OA is a regional issue and will be best addressed with local and state-based efforts integrated into a regional approach.

The years of 2019 and 2020 were rich in activities at the state level to address ocean acidification (OA) and its impacts. Several states released reports related to OA specifically, or OA was included in more general state climate action plans. The Northeast Coastal Acidification Network's Management and Policy Working Group developed this summary to document recommendations related to OA and highlight commonalities among state reports.

-------- MAINE --------

Maine's original OA Commission report in 2014-2015 resulted in six overarching goals:

1. Invest in Maine's capacity to monitor and investigate the effects of ocean acidification and determine impacts of ocean acidification on commercially important species and the mechanisms behind the impacts
2. Reduce emissions of carbon dioxide
3. Identify and reduce local land-based nutrients and organic carbon that contribute to ocean acidification by strengthening and augmenting existing pollution reduction efforts
4. Increase Maine's capacity to mitigate, remediate, and adapt to the impacts of ocean acidification
5. Inform stakeholders, the public, and decision-makers about ocean acidification in Maine and empower them to take action
6. Maintain a sustained and coordinated focus on ocean acidification

The original Commission recommendations were unable to be implemented during the previous state administration. After a change in governorship in 2018, The Maine Climate Council was formed and wrapped up its work with a comprehensive report in December 2020. One working group created a report specific to climate impacts in Maine. Relative to OA, the climate plan's goals and initiatives are built on the original OA commission report recommendations.

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- Several states in the NECAN region released reports related to OA specifically, or OA was included in more general state climate action plans.
- The M&PWG developed a summary to document recommendations related to OA and highlight commonalities among state reports.

Commonalities:

Monitoring is necessary, both to understand current conditions and evaluate trends over time

Interest in Blue Carbon initiatives to sequester carbon.

Interactions of OA with other variables such as nutrient management, freshwater runoff, and habitat restoration

Increased research on impacts of OA on commercially important species

Continued engagement and outreach around OA and climate impacts in general

Missing Context and Next Steps:

- What kind of monitoring?
- When, where, how often?
- Methods, technology?

- How can NECAN address these questions?

Webinar Series → Workshop → Regional Monitoring Plan

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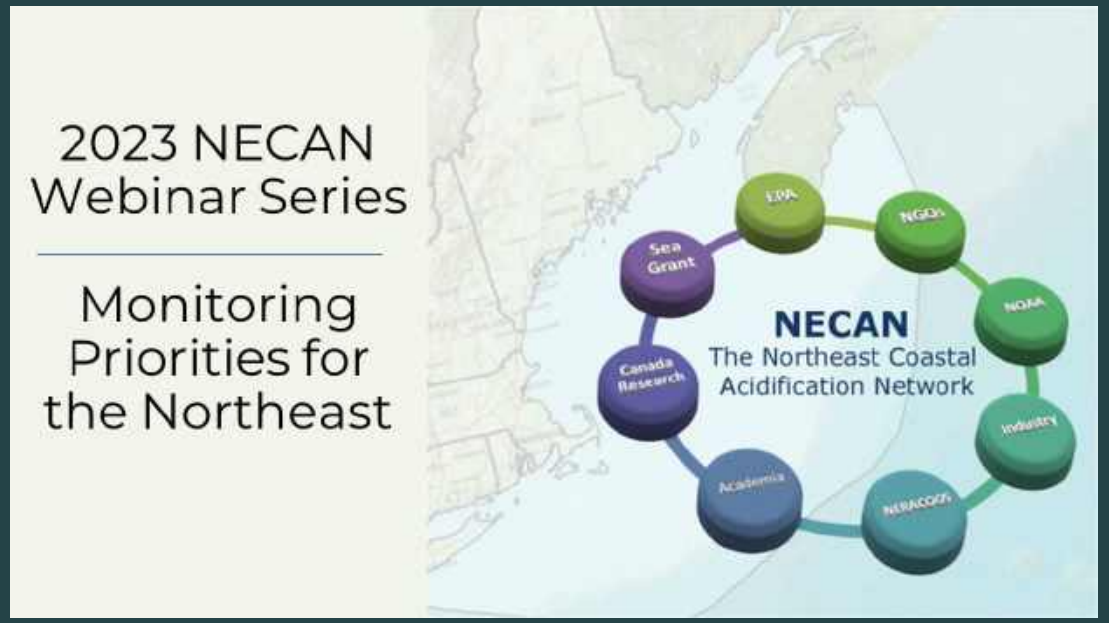
2023 Webinar Series – Community Outreach



- What is the theme of this series?
  - Priorities in our region.
- Who is the audience?
  - The NECAN Steering Committee

2023 Webinar Series: Topics and Voices

Theme Areas

- Current Assessments
- OA and Climate
- Modeling
- Biological Impacts
- Current and New Technology, Sensors, and Methods
- User Needs and Products
- Indigenous Interests, Concerns, and Perspectives
- Rapid Response

Presenters

- Federal Agencies
- State Agencies
- Indigenous Groups
- Universities
- Research Institutes
- Non-Profits
- NGO's
- Canadian Federal Agency
- Industry

2023 Webinar Series: Topics and Voices

- What is the most important decision / use/ application for monitoring within each theme?
- What needs to be monitored to support this theme?
    - Does this approach require additional coupled monitoring?
- Where is the most important area / region / habitat / water mass to monitor to support each theme?
- How often does each theme require observations / monitoring?
    - Are there seasons that are critical?
    - What is the minimum useful frequency of observations?
    - What level of uncertainty is tolerated?
- Can each theme augment existing monitoring efforts or is new monitoring needed?
    - What implications and problems are inherited by augmenting existing monitoring?
- Does the theme require new methods / approaches to be developed or do we have the right capabilities now?

2023 Webinar Series: Overview

- 12 webinars from March to September
- 8 theme areas
- 31 presenters
- Webinar synthesis papers

Fisheries and Oceans Canada

Pêches et Océans Canada

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

HOULTON BAND OF MALISEET INDIANS

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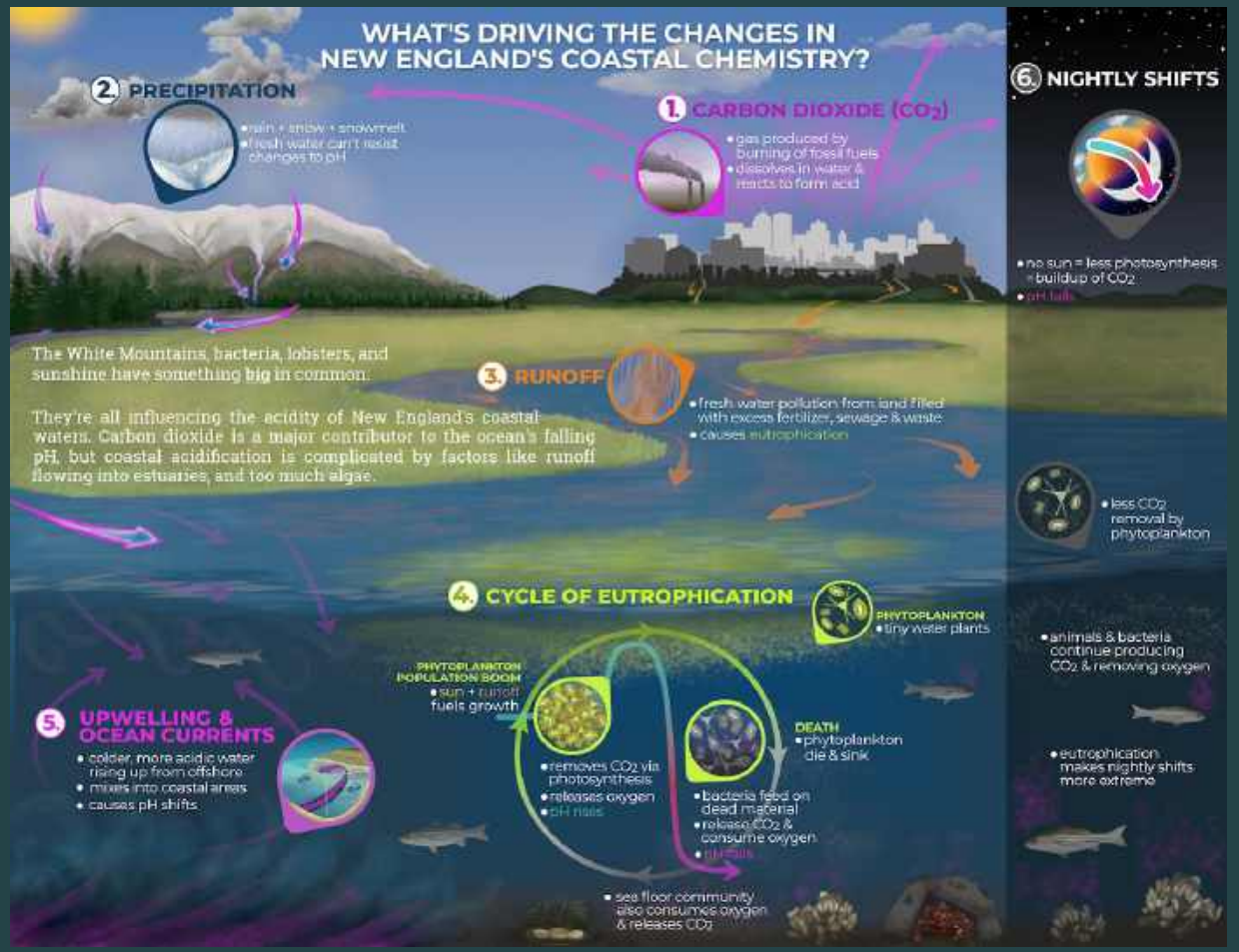
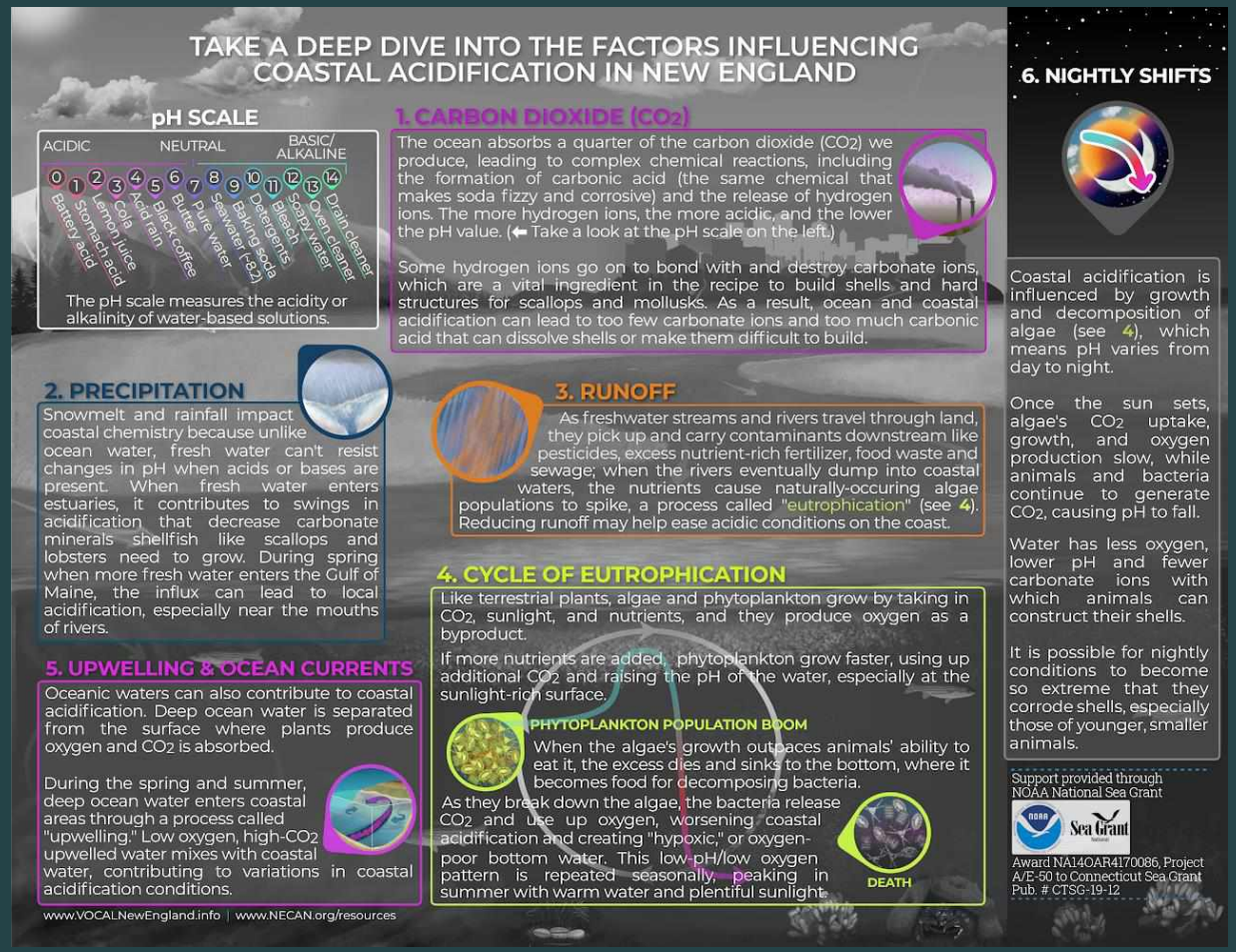
OA Monitoring Priorities Workshop

- Workshop Goals:
  - Identify OA monitoring needs and uses of OA data
  - Explore new ways of monitoring or additions to existing monitoring to help meet those needs.
  - Foster collaboration across the region.
- Workshop Outcomes:
  - Workshop report
  - OA Monitoring Plan for the NECAN region

Outreach and Engagement: VOCAL

Visualizing Ocean and Coastal Acidification Locally: New England





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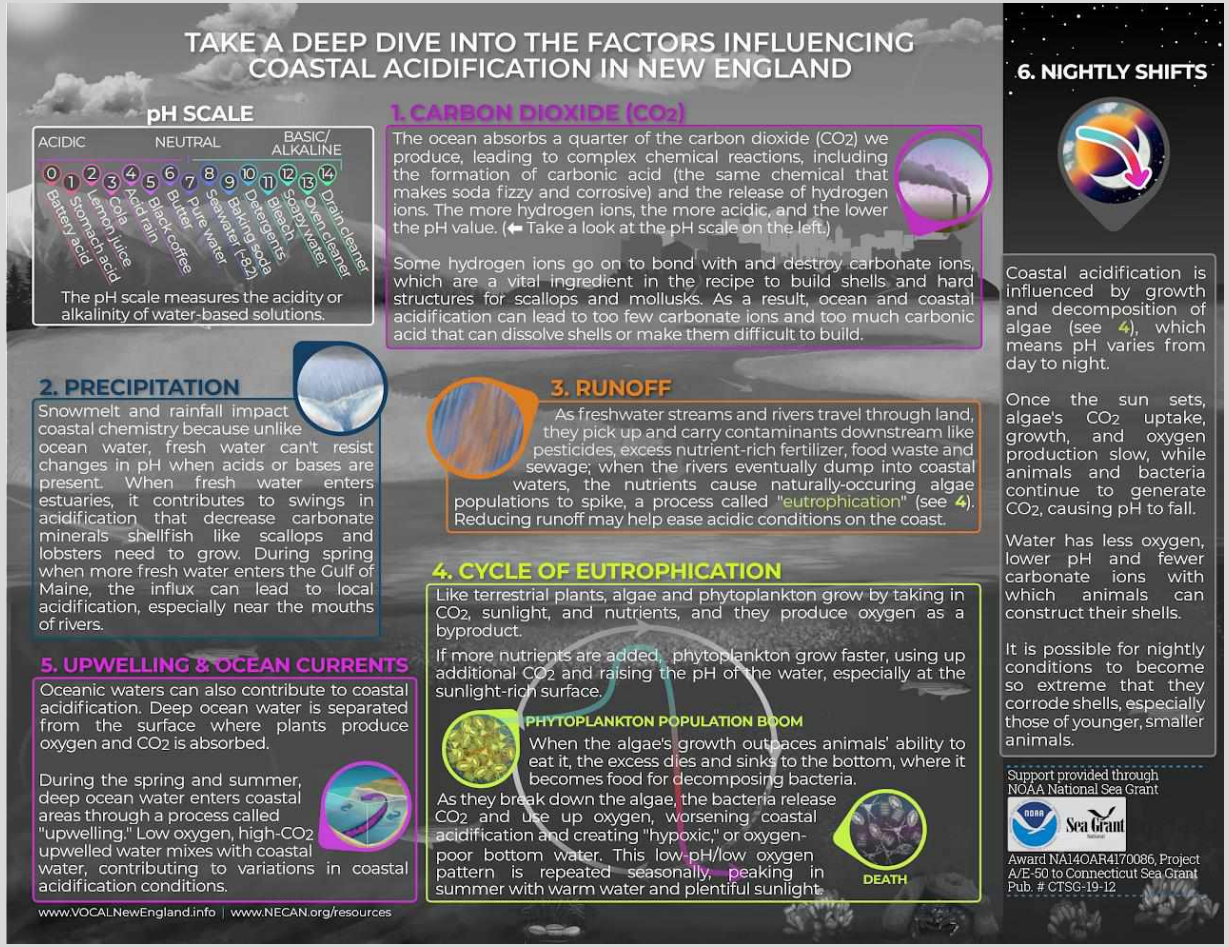
Outreach and Engagement: VOCAL

Visualizing Ocean and Coastal Acidification Locally: Mid-Atlantic



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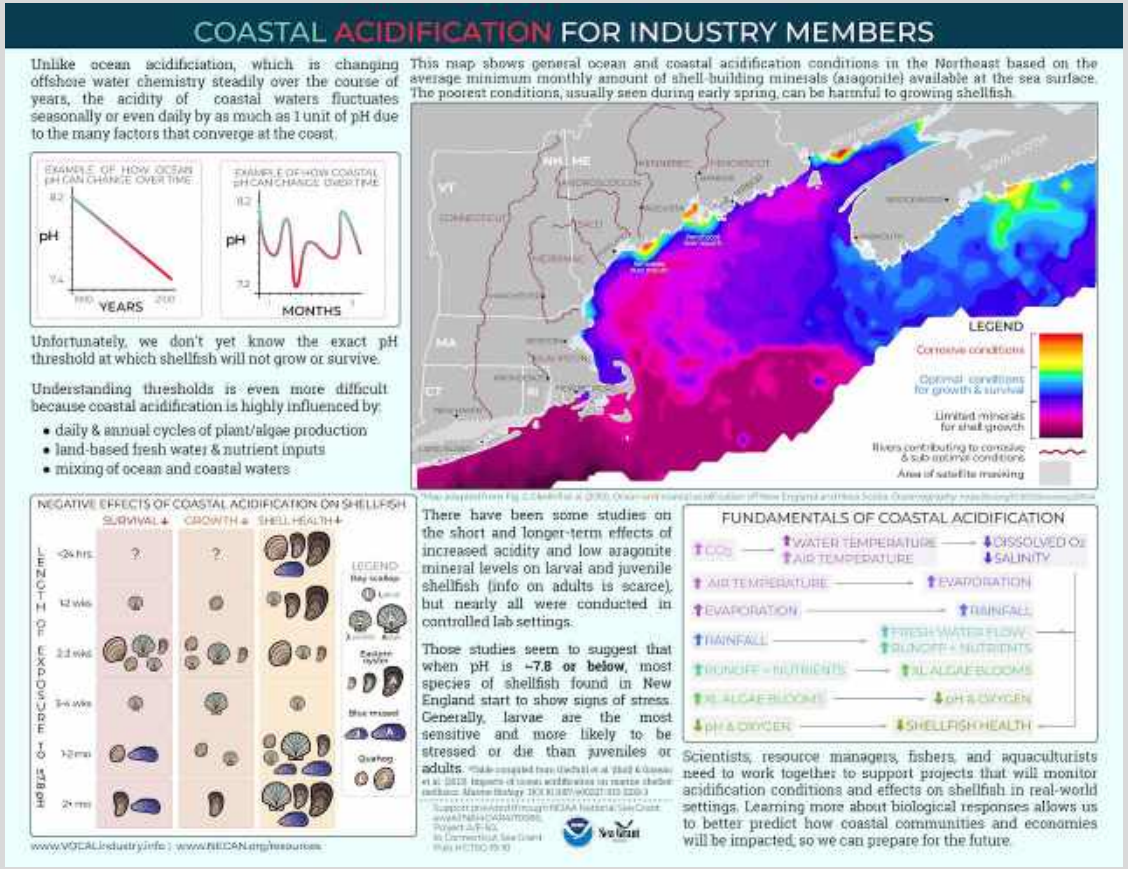
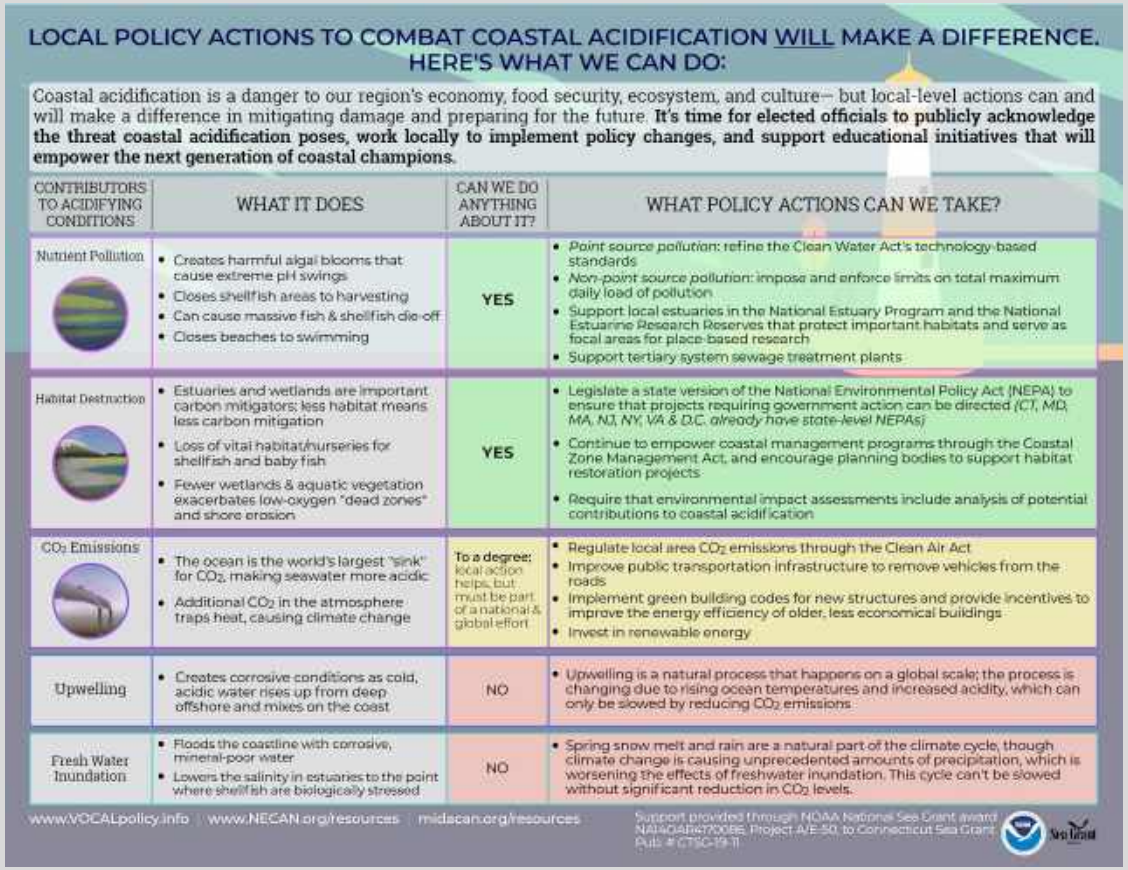
Outreach and Engagement: VOCAL



Coastal acidification for industry members.



Local policy actions to combat coastal acidification.

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Outreach and Engagement: OA Impacts

Impacts of Ocean Acidification on Economically and Ecologically Valuable Marine Species in the Gulf of Maine

Species
Value
Studies
Role in Ecosystem
Effects of OA on Species

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Thank you!

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