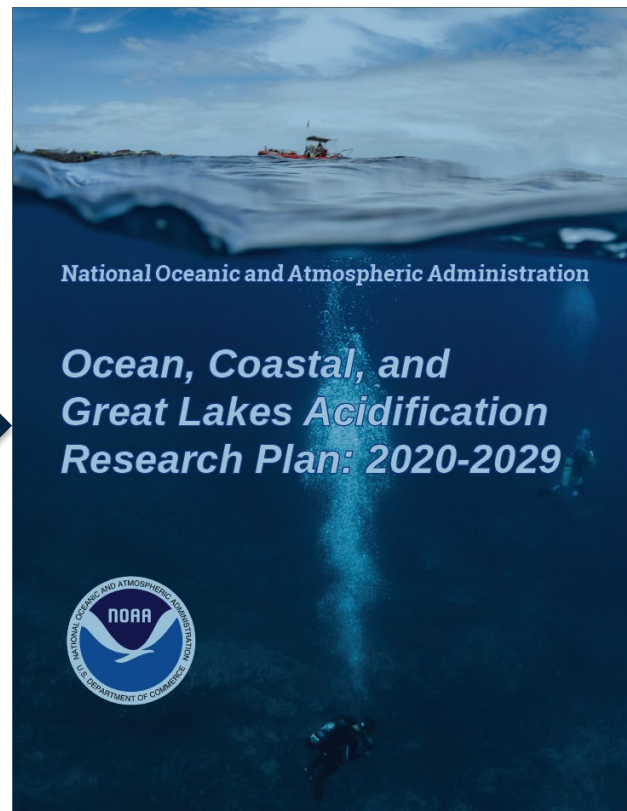
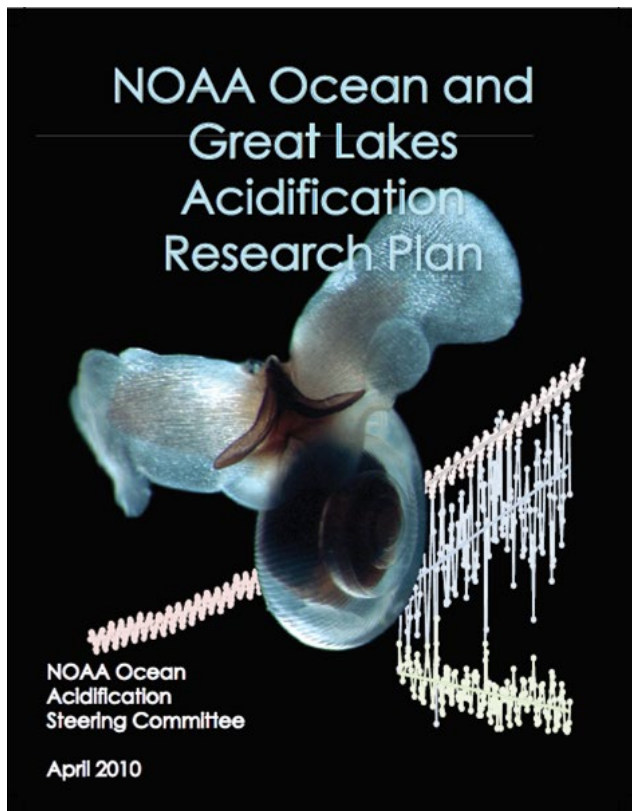


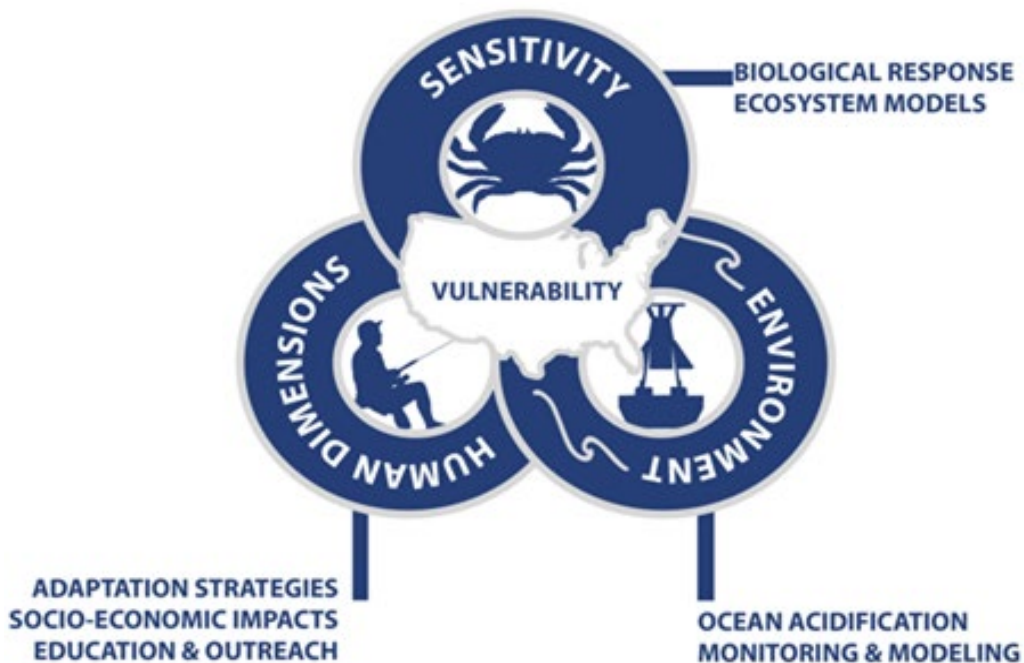
NOAA Ocean, Coastal, and
Great Lakes Acidification
Research Plan: 2020-2029

Libby Jewett
Ocean Acidification Program

NOAA's Ocean and Great Lakes Acidification Research Plans



Guided by FOARAM Act



Chapters

- National
- Open Ocean
- Alaska
- Arctic
- West Coast
- U.S. Pacific Islands
- SE Atlantic & Gulf of Mexico
- Caribbean and the FL Keys
- Mid-Atlantic Bight
- New England
- Great Lakes



Observing and Predicting Acidification and Environmental Change

Expand and advance acidification observing systems and technologies

Enhance foundational understanding and the ability to predict acidification

Support data management and synthesis efforts to ensure data are transitioned to useful products



Understanding Biological Sensitivity and Ecosystem Response

Understand and predict species, community, and ecosystem response

Determine the adaptive capacity of ecologically and economically important species

Evaluate acidification impacts in combination with other environmental stressors



Supporting Management, Adaptation, and Resilience

Integrate scientific knowledge into social, cultural, and economic frameworks

Create products and tools to directly address adaptation and management needs

Assess the vulnerability of communities to acidification in combination with other environmental changes



Response to the Recommendations of the Climate Working Group Review

- NOAA-wide Integrated Modeling
- Interactions between Onshore, Nearshore and Offshore Processes
- Data Management and Products
- Metrics of Success

NOAA-wide Integrated Modeling

Recommendation 1. Formally commit to an integrated modeling approach across NOAA

NOAA modelers working on OA have participated in NOAA's larger efforts on cross-line office model integration.

NOAA-wide Integrated Modeling

Recommendation 2. Prioritize the linking of regional ecosystem models and biogeochemical frameworks so that OA observations can be utilized to their full potential

Prioritized in national chapter in “Action 1.1.6: Develop and expand coverage of regionally linked biogeochemical-ecosystem models, with a focus on timescales of days to decades, capable of resolving conditions most relevant to local living marine and Great Lakes resources and dependent communities.

Interactions between Onshore, Nearshore and Offshore Processes

Recommendation 3: Increase sampling of nearshore waters in sensitive and economically important areas

New national chapter action elevates importance of nearshore observing and connectivity with offshore processes within the research plan. Related actions also in regional chapters.

Interactions between Onshore, Nearshore and Offshore Processes

Recommendation 4: The co-varying and possibly exacerbating effects of eutrophication and acidification on each other should be studied

New national chapter action clarifies importance of examining multi-stressor environments. Chapters on regions that are subject to eutrophication specifically describe this interaction and articulate corollary research actions.

Data Management and Products

Recommendation 5: Highlight centralized access to NOAA's existing data syntheses and products.

Recommendation 6: Highlight and or initiate planned communications with stakeholders on the desired data products and syntheses that would be most useful to those communities.

NOAA OA efforts follow best practices related to access and engagement. In the national chapter, added 2 new actions related to Rec. 5 and modified 7 actions related to Rec. 6.

Metrics of Success

Recommendation 7: Include metrics by which NOAA can quantify the success of its OA research and outreach.

We suggest that NOAA's efforts related to tracking metrics of success related to OA research are best folded into the obligations of Interagency Working Group on OA. This Federal-wide approach acknowledges the cross-agency synergies in OA research that the Interagency Working Group on OA has spent a decade building.

Metrics of Success

Recommendation 8: Quantify the economic benefit of NOAA's OA research and products to the Blue Economy.

NOAA OA Program is currently funding a study to understand the economic benefit of the OA Program's investments





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