A light bulb with text

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2024

Ocean Acidification – Osteoporosis of the Sea

Coastal Ocean Acidification

Narragansett Bay

A graph showing the time line

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Science Update:

Ocean Acidification in the

Narragansett Bay Region.

Narragansett Bay Estuary Program

NBEP-24-003

July 2024

CITATION

Narragansett Bay Estuary Program (NBEP). 2024. Science Update: Ocean Acidification in the Narragansett Bay Region. NBEP-24-003. DOI: 10.6084/m9.figshare.25970143.

For more information, please contact Courtney Schmidt ([courtney.schmidt@nbep.org](mailto:courtney.schmidt@nbep.org))

# Acknowledgements

This update is based on the ocean acidification section by Dr. Jason Grear, EPA ACESD, in the climate indicators [introduction](https://www.nbep.org/s/Climate-Change-Stressor-Introduction.pdf) in the [State of Narragansett Bay and Its Watershed](https://www.nbep.org/state-of-the-bay). Conversations with him and Dr. Hongjie Wang on how acidification is impacting the region, and what it means to commercially important fisheries sparked this update. NBEP wishes to thank our partners for their foresight to include ocean acidification in the State of Narragansett Bay and Its Watershed, even though we didn’t have the data for a full indicator. Cover photo is a graph depicting surface pH at the Narragansett Bay National Estuarine Research Reserve’s long-term monitoring station T-Wharf, on the southern end of Prudence Island in Narragansett Bay.

# Funding

Development of this document was funded by agreements CE00A00967 awarded by the EPA to Roger Williams University. Although the information in this document has been funded by the EPA, it has not undergone the EPA’s publications review process and therefore, may not reflect the views of EPA and no official endorsement is inferred. The viewpoints expressed do not necessarily represent those of RWU or EPA. Mention of trade names, commercial products, or causes do not constitute endorsement or recommendation for use.

# Authors & Reviewers

Main Author

Courtney Schmidt, NBEP

Narragansett Bay Estuary Program Staff

Mariel Sorlien

Darcy Young

U.S. Environmental Protection Agency

Caitlyn Whittle, Region 1

Jason Grear, ACESD

NBEP Science Advisory Committee Members

Catie Alves, Save The Bay

Sara Grady, Mass Audubon

NBEP Steering Committee Members

Koty Sharp, RWU

NBEP Partners

David Borkman, RIDEM Office of Water Resources

Hongjie Wang, URI

# Narragansett Bay estuary program & its study areas

The Narragansett Bay Estuary Program is part of the National Estuary Program, established in 1987 as an amendment to the federal Clean Water Act administered by the U.S. Environmental Protection Agency (EPA). The NBEP uses a voluntary, community-driven approach to enhance the water quality, wildlife, and quality of life in Narragansett Bay, Little Narragansett Bay, the Coastal Ponds, and their watersheds in Rhode Island, Massachusetts, and Connecticut. The landscape unites 2 million people across 113 communities in 3 states and hosts many diverse habitats that sustain people, vital ecosystems, wildlife, and critical economies.

A map of a city

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Map of Narragansett Bay Estuary Program Study Areas

# Purpose

This science update presents an introduction to ocean acidification and its impacts to the region. NBEP will continue to report on ocean acidification measurements, such as pH, and mechanisms to mitigate the impacts of acidification as they become available. It is our hope this update provides a solid scientific foundation for discussion among our partners, particularly environmental, members of community outreach groups, and the public.

# Methods & Data

Data for the cover image (also included on page 4 of the update) were downloaded through the National Estuarine Research Reserve’s [Central Data Management Office](https://cdmo.baruch.sc.edu/). Monthly average surface water pH data were graphed.

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