

NOAA OCEAN ACIDIFICATION PROGRAM FY23 ACCOMPLISHMENTS

ADDRESSING OUR CHANGING OCEAN, COASTS & GREAT LAKES

Our program selects, funds, and manages high-quality research, monitoring, and outreach activities to understand how fast the acidification is changing, and impacts these changes have on marine life, people, and economies. Check out some of the highlights for the 2023 fiscal year.



75%
BUOY DATA
RETURNED

92 Investments
\$14,313,253



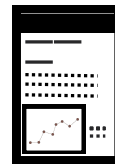
29
PROJECTS



6
VULNERABILITY
ASSESSMENTS

27

PEER-REVIEWED PUBLICATIONS



3

CONGRESSIONAL REPORTS



31

CAPACITY BUILDING
PARTNERS



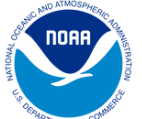
10

R&D PRODUCTS



8

FORECASTS



NOAA OCEAN ACIDIFICATION PROGRAM FY23 ACCOMPLISHMENTS



2023 EDUCATION AND OUTREACH - ADVANCING AWARENESS AND ACTION

- 5 Education Mini-grant Projects
 - 50 Outreach Events
 - 18 Decision Support Tools
 - 22 Outreach Products
 - 80+ Conference Presentations
 - 30 Environmental Action Activities
 - 40+ Ocean Acidification Curricula and Activities
 - 800+ Students Engaged
- New relaunch** of the SOARCE webinar with 280+ participants!



Search Publications

Search for publications from OAP-funded projects, or see all publications



Search Projects

Find OAP-funded projects in our project search.



Search Resources

Search for resources from the community.



Search Posts

Search the latests news at OAP.

CHECK OUT OUR NEW WEBSITE!

Your go-to source for Ocean and Coastal Acidification
<https://oceanacidification.noaa.gov>

- Searchable resources database
- Funding and job opportunities
- Latest updates from the OA research community
- Find data, projects, and publications



2023 RICHARD CRUISE

The Rainier Integrates Charting Hydrography and Reef Demographics {RICHARD} cruise, a first-of-its-kind collaborative mission between NOAA's Coral Reef Conservation Program, NOAA's Office of Coast Survey, and NOAA OAP, mapped the seafloor and surveyed coral reef health and ocean conditions in American Samoa and the Pacific Remote Island Areas in 2023. Scientists collected long-term, high quality data on coral reef communities, fish populations, oceanographic conditions, and ocean chemistry to evaluate potential changes in coral reef health. [Read more.](#) [Learn more about this and other OAP cruises.](#)

NOAA OCEAN ACIDIFICATION PROGRAM FY23 ACCOMPLISHMENTS



GLOBAL OA OBSERVING NETWORK (GOA-ON)

The [Pier2Peer Program](#) supported 5 scholarships and 31 peer mentor partnerships across the globe. A capacity building training at the Pacific Island Ocean Acidification Centre in Fiji for [GOA-ON in a Box Kits](#) brought together 21 trainees from 10 Pacific Islands and Territories. The newest GOA-ON Regional Hub formed in November 2023 - the [OA Caribbean Hub](#) has membership from Dominica, Cuba, Belize Jamaica, Puerto Rico and USVI. Interested ocean professionals can join by contacting secretariat@goa-on.org.

[Visit GOA-ON](#)

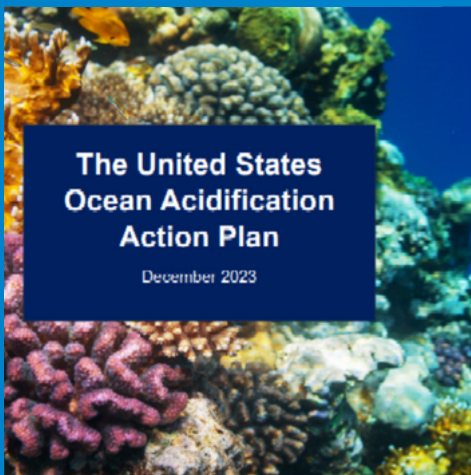
U.S. OCEAN ACIDIFICATION ACTION PLAN

NOAA and the Department of State released the national [U.S. Ocean Acidification Action Plan](#) at COP28, as an [Ocean Climate Action Plan](#) deliverable and as a member of the OA Alliance. The plan gives an overview of U.S. action on OA and charts the path forward on federal priorities for OA research, knowledge applications, and policy integration. The plan focuses on four main themes:

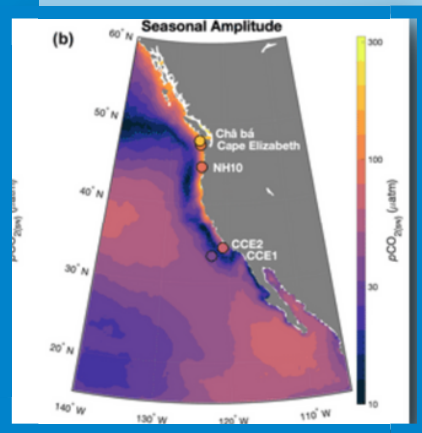
1. Mitigate OA through reducing CO2 emissions
2. Increase monitoring and research
3. Prioritize building resilience and adaptation strategies
4. Collaborate sub-nationally and internationally

PUERTO RICO RVA WORKSHOP

Puerto Rico has significant gaps in our understanding of current ocean conditions. In March, Regional Vulnerability Assessment grant recipient from [The Ocean Foundation](#) held a workshop in Salinas to learn about concerns from local stakeholders in regards to ocean health and ocean acidification. The workshop consisted of presentations and interactive discussions on the latest trends on acidification in the region and the risks of exposure to acidified waters, as well as species and ecosystem sensitivity.

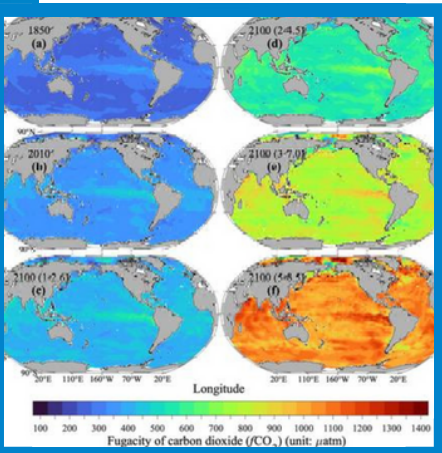


NOAA OCEAN ACIDIFICATION PROGRAM FY23 ACCOMPLISHMENTS



LARGE MARINE ECOSYSTEM INDICATORS

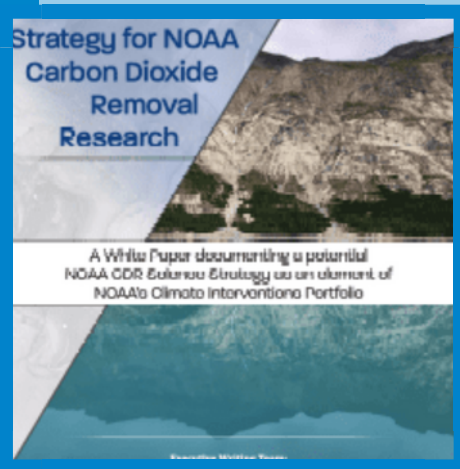
Mapping ocean carbon and creating meaningful indicators is important for management and tracking change. Mapped estimates of surface-ocean pCO_2 in U.S. Large Marine Ecosystems (LME's) based SOCAT observations were paired with other key ocean-carbon variables to calculate surface ocean pH across the U.S. LME's. PMEL's Jonathan Sharp worked with OAP's Lapenta Intern Zach Strasberg to assess uncertainty around the indicators and metrics from this study.



GLOBAL OCEAN ACIDIFICATION INDICATORS

A research team led by Li-Qing Jiang created a new data product to help people adapt to ocean acidification. This product, based on the latest computer simulations and observational data, improved projections of ocean acidification conditions from the start of the Industrial Revolution in 1750 to the end of the 21st century in this publication. The models provide projections for 10 different indicators of ocean acidification.

Read the webstory.



CARBON DIOXIDE REMOVAL

Marine carbon dioxide removal is a potential tool to help mitigate the impacts of fossil fuel emissions. 2023 was a banner year for the NOAA OAP Carbon Dioxide Removal program. On behalf of the National Oceanographic Partnership Program, \$24.3M of funding was allocated to academic researchers, federal scientists and industry members to advance research in marine carbon dioxide removal. Projects represent 47 institutions and 79 investigators.

Check out the 17 projects!

NOAA OCEAN ACIDIFICATION PROGRAM

FY23 ACCOMPLISHMENTS

COASTAL ACIDIFICATION NETWORKS IN 2023

The CANs had a busy year with a new mCDR webinar series launched by AOAN and C-CAN, a stakeholder feedback survey by SOCAN and GCAN, a workforce development fellowship and community workshop by MACAN, and a monitoring priorities webinar series and workshop at NECAN. The CANs also contributed to the 2023 Ocean Chemistry Coastal Community Vulnerability Assessment for the IWGOA to help identify gaps in OA monitoring that should be addressed to better characterize ecological and social vulnerability.



2023 OAR AWARDEES

Congratulations to the OAP funded Principal Investigators and Staff recognized for their excellence and contributions!

Ian Enochs: Daniel L. Albritton Outstanding Science Communicator Award

Emily Osborne: Employee of the Year Award
(Personal and Professional Excellence category)

Courtney Witkowski: Administrative and Technical Support



WORKFORCE DEVELOPMENT

Dr. Kalina Grabb serves as OAP's International Policy Fellow through the [2023 Sea Grant Knauss Fellowship Program](#).

Natalie Lord is OAP's Capacity Building and Stakeholder Engagement Fellow ([Knauss](#)) and serves as the national CAN Coordinator.

Lalah Choice ([2023 EPP Scholar](#)) assisted interagency mCDR collaboration.

Isaac Olson ([2023 Hollings Scholar](#)), produced collaborative education and outreach products.

Zach Strasberg was a [2023 Lapenta](#) intern who mapped and analyzed observing coverage from [SOCAT](#).

