2022 MACAN Work Plan and Semi-Annual Progress Report

Reporting Period: January 2022 – December 2022

Work Group Webpage: https://midacan.org/

Work Group Leads: Mary Ford (MARACOOS); Avalon Bristow (MARCO)

Work Group Members: MACAN is guided by a Steering Committee, and has four sub-working groups that are open to government and non-governmental entities operating in the five Mid-Atlantic states and the District of Columbia.

Current Steering Committee Members Include:

Last Name	First Name	Organization
Bokunewicz	Henry	Stonybrook University and NY OA Task Force Chair
Bristow*	Avalon	Mid-Atlantic Regional Council on the Ocean
Erksine	AJ	KCB Oyster Holdings LLC
Ford*	Mary	MARACOOS
Hassell	Kevin	New Jersey Department of Environmental Protection
Kubico	Stephanie	Environmental Protection Agency (Region 3)
Langley	Susan	Maryland State Underwater Archaeologist, MD Department of Planning
Miller	Whitman	Smithsonian Environmental Research Center (SERC)
Ombres	Erica	NOAA Ocean Acidification Program
Phelan	Beth	NOAA Northeast Fisheries Science Center
Rivest	Emily	Virginia Institute of Marine Science (VIMS)
Rowe	Pete	New Jersey Sea Grant

Rutkowski	Megan	New Jersey Department of Environmental Protection
Saba	Grace	Rutgers University / Mid-Atlantic Regional Association Coastal Ocean Observing System
St. Laurent	Kari	Delaware National Estuarine Research Reserve/Department of Natural Resources
Testa	Jeremy	University of Maryland Center for Environmental Science
Wakefield**	Kirstin	MARACOOS
Wark	Kevin	Captain, F/V Dana Christine II
Zacharias	Margaret	EPA Region 23

* Co-Lead

Work Group Goal: Foster collaboration and coordination across sectors and states in the Mid-Atlantic regarding ocean and coastal acidification.

Outcomes:

- Build upon the monitoring gaps paper from 2019 by identifying areas of opportunity for acidification monitoring in the Mid-Atlantic.
- Continue to build understanding among MACAN stakeholders about research and programs related to acidification in the Mid-Atlantic.
- Support and inform the Interagency Work Group on Ocean Acidification's *Coastal Community Vulnerability Assessment*.
- Coordinate with partners such as NOAA Ocean Acidification Program, other Coastal Acidification Networks, the OA Alliance, and other MACAN members.

ACTIVITY 1 - Host annual webinar series addressing topics of interest to stakeholders.

Expected Completion Date: Ongoing

January – June, 2022:
MACAN held its annual webinar series in Spring 2022:

- February 2022: Creating a Coastal Acidification Module for Mid-Atlantic Teachers
- March 2022: Sea Grant OA Fellows Spotlight: Research Across the Mid-Atlantic Region
- May 2022: Linking Biological Monitoring with Chemical Observations to Understand Impacts of OA

The May webinar was held as an East Coast CAN webinar, in partnership with NECAN and SOCAN.

Recordings of the webinars are on the MACAN website here.
MACAN co-coordinators will begin planning the spring 2023 webinar series in August 2022, incorporating suggestions from the Steering Committee and MACAN's membership.

ACTIVITY 2 - Hold quarterly meetings with the Steering Committee to share funding opportunities and discuss areas for potential coordination/collaboration amongst MACAN members.

Expected Completion Date: Ongoing

January – June 2022:
Meetings of the MACAN Steering Committee were held on February 23 and May 25. The 2022 work plan (and in this document) was approved during the February 23 meeting. Also discussed were NOAA"s Coastal Community Vulnerability Assessment and MACAN's role in reviewing the Mid-Atlantic section, MACAN's proposal to NOAA for core CAN funding, and the opportunities for collaboration and challenges associated with monitoring acidification in nearshore habitats. During the May 25 meeting, planning was extended out to five years under the auspices of the MARCO proposal for funds from NOAA under the IIJA grant. MACAN also received updates from NOAA on an upcoming national stakeholder assessment, discussed lessons learned from NOAA's social media workshop for CAN's and how that might apply to a future social media strategy for MACAN, explored how states are approaching the use of certified labs for analysis of carbonate chemistry parameters in routine water quality monitoring, and heard about several new projects from MACAN-affiliated researchers related to linking glider sensor data and biological metrics in surf clam populations, quantifying dissolved alkalinity in DE watersheds, and benthic-pelagic coupling in the Chesapeake Bay plume.

ACTIVITY 3 - Conduct a regional monitoring inventory to characterize sensors currently in use across the region and identify strategic locations to leverage existing, or add new infrastructure for ocean and coastal acidification measurements.

- An Ocean and Coastal Acidification Monitoring Inventory Questionnaire for distribution to stakeholders in the region.
- Synthesize the survey responses to identify existing and potential opportunities for acidification monitoring; cross-reference with gaps identified in the NOAA CCVA effort.
- Update acidification monitoring maps on the Mid-Atlantic Ocean Data Portal and identify opportunities for real- or near-time data products on the MARACOOS OceansMap.

Expected Completion Date: Ongoing

January – June 2022:
The Ocean and Coastal Acidification Monitoring Inventory Questionnaire was distributed to stakeholders in Spring 2022 via the MACAN listserv, the MARCO listserv, the OA Information Exchange, the Ocean Alliance and the MACAN Steering Committee. To date, 22 responses have been received. The questionnaire is still being distributed to allow collection of additional information. Responses will be synthesized in early 2023.

ACTIVITY 4 - Coordinate with partners, including the NOAA Ocean Acidification Program, other CANs, states within the region, and the OA Alliance.

- Engage in the Ocean Acidification Information Exchange
- Work with other CANs and partners to participate in and disseminate information about the annual webinar series
- Participate in all CAN-calls as coordinated by NOAA OAP
- Other activities as they arise.

Expected Completion Date:

Ongoing January – June 2022:

- Semi-monthly reports of events, discussions, and funding opportunities on the OA Information Exchange were reported to the MACAN Team. Notice of the Monitoring Inventory Questionnaire was put out to the Exchange members.
- A collaboration of NECAN, MACAN, and SOCAN produced a biological indicators focused webinar in May 2022 (see above list of webinars).
- An all-CAN call was held in February. The next calls were planned for July 13 and October 4.

- The report from the OA workshop hosted jointly by the OA Alliance and MACAN will be published upon final review.
- States shared information about their OA Action Plans and updates were added to MACAN's website. Maryland has finished their OA action plan. New Jersey plans to draft their plan in 2023.
- Reports of MACAN activities are given at MARCO Management Board meetings and MACO Steering Committee meetings.

ACTIVITY 5 - Support the NOAA Coastal Community Vulnerability Assessment Effort

- MACAN's Science Working Group, Steering Committee, and partners will provide feedback on draft report
- Identify outreach opportunities to disseminate regional report findings to policymakers, industry stakeholders, and the research community

Expected Completion Date: Ongoing

January – June 2022:
A review was conducted on the Mid-Atlantic Chapter of the report by the MACAN Steering Committee and selected partners in the spring. Review of the rest of the report continues.

ACTIVITY 6 - Develop outreach materials for stakeholders, including policymakers, industry, and educators, using lessons-learned from other regions.

- Lessons-learned from other regions (i.e. the West Coast) will be considered to inform how existing materials might be leveraged and/or adapted for a Mid-Atlantic audience.

Expected Completion Date: Ongoing

January – June 2022:
During discussion of an OA career panel webinar for the spring 2022 webinar series, it was decided that the information would have better reach as a video, or series of videos for the K – 12 student and teacher audience. The goal of the video is to highlight the different opportunities for careers that address ocean and coastal acidification - such as federal programs, policy and decision-making, and science and

research. A production company or videographer could be retained. Funding for this project was included in MARCO's five-year plan for ROP IIJA funding.

Activity 7 - Revisit and enhance the MACAN website.

Goal: Update the MACAN website to better reflect the information requested by stakeholders, including events (webinars, workshops), research and educational tools, impacts to cultural resources, and state OA action planning updates.

Outcomes:

- Collaborate with Science Working Group to review and update Species-Specific and Ecosystem Impacts sections
- Develop content and publish new Resource Pages to address emerging areas of research and policy
- Include a hub for OA Action Planning resources and updates, in collaboration with the OA Alliance. This page would include links to existing state plans and key contacts
- Add a scrolling calendar/links to opportunities for stakeholder engagement in upcoming ocean action planning meetings
- Add a Blog feature to the Home Page to drive more traffic to webinars, MACAN's Youtube channel, funding opportunities, and upcoming conferences
- Add an "Interview with a Scientist" (or other stakeholder) feature to help direct Gr 6-12 students and teachers to the website
- Capture website metrics with Google Analytics, including monthly data on number of visitors, pages most frequently visited to better inform content.
- Pursue the creation of a social media presence on Facebook or Twitter. In the meantime, leverage MARCO and MARACOOS social media presence for ocean and coastal acidification communication.

Expected Completion Date: Ongoing

January – June 2022:
The sub-work group leads and the missions of the sub-groups were added to the website. A new outcome was added: making the website format and content accessible to all users.