Filling Gaps and Identifying Decision Points: MACAN Workshop 2019 Agenda

Sheraton Inner Harbor Hotel  
300 South Charles Street, Baltimore, MD 21201  
May 13, 2019

# Objectives

* Identify stakeholder decision points and associated information needs
* Prioritize a plan for working through gaps identified in each white paper
* Provide an update on the Industry Stakeholder Outreach Survey
* Map out various areas currently being worked by members to identify potential collaborations and opportunities to fill knowledge gaps

# Agenda

## 9:30-10:00AM Registration and Networking

## 10:00-10:30AM Workshop Overview and Networking Activity Introduction

*(Grace Saba, Rutgers University/MARACOOS and Kari St.Laurent, Delaware NERR/Delaware DNREC)*

## 10:30-10:45AM Break and Transition to Networking Tables

## 10:45-11:45AM Networking Activity

* Three rounds of networking (20 min each) based on topics related to Concerns about Acidification, Monitoring, and Information Gaps.

## 11:45-12:15PM Overview of MACAN Stakeholder Survey and Preliminary Findings

*(Kirstin Wakefield, MARACOOS)*

## 12:15-1:15PM Lunch and Flash Talks

* *Fei Da, Virginia Institute of Marine Science, College of William & Mary*: “Chesapeake Bay acidification: from daily forecasts to half-century projections”
* *Caroline Schwaner, Stony Brook University*: “Resilience to Ocean Acidification in Clams and Oysters”
* *Teresa Schwemmer, Stony Brook University*: “Physiology-based modeling of estuarine fishes and ecosystems under ocean acidification”
* *Amanda Zahorik, University of Delaware*: “Ocean Acidification and Microbially-Mediated Shell Calcification in the Eastern Oyster, *Crassostrea virginica”*

## 1:15PM Transition to Breakout Groups

## 1:15-2:00PM Breakout Groups (1st round – choose 1)

|  |  |  |
| --- | --- | --- |
| Group A: Filling Research Priorities | Group B: Optimizing Existing Monitoring | Group C: Stakeholder Decision Points and Associated Information Needs |

* Goals:
  + Research Priorities and Optimizing Existing Monitoring: Prioritize gaps to work through and identify any potential individuals/groups best suited to complete the work needed
  + Stakeholder Decision Points: Determine what decision points could include acidification considerations and what information is needed on what time scale in order to do so. Determine best way to provide necessary information to stakeholders.

## 2:00-2:15PM Break

## 2:15-3:00PM Breakout Groups (2nd round – choose 1)

|  |  |  |
| --- | --- | --- |
| Group A: Filling Research Priorities | Group B: Optimizing Existing Monitoring | Group C: Stakeholder Decision Points and Associated Information Needs |

## 3:00-3:45PM Plenary Discussion

* Summary and Discussion – Breakout Group A: Filling Research Priorities
* Summary and Discussion – Breakout Group B: Optimizing Existing Monitoring
* Summary and Discussion – Breakout Group C: Stakeholder Decision Points
* Discuss desired outcomes from workshop and strategy for moving forward

## 3:45-4:15PM Next steps and closing remarks

*(Grace Saba, Rutgers University/MARACOOS and Kari St.Laurent, Delaware NERR/Delaware DNREC)*

# Speaker Bios

**Fei Da**

(B.S., Oceanographic Science, Nanjing University, China; M.S., Marine Science, Virginia Institute of Marine Science, College of William & Mary)

Fei Da is a Ph.D. student in the Department of Biological Sciences at Virginia Institute of Marine Science. He is currently a Mid-Atlantic Sea Grant / NOAA Ocean Acidification Program Graduate Research Fellow (in Ocean, Coastal, and Estuarine Acidification). He uses coupled physical-biogeochemical models to study how physical and biological processes impact the carbonate system, and how local human activities and global climate change impact acidification in the Chesapeake Bay.

**Grace Saba**

(B.S., Aquatic Biology, University of California, Santa Barbara; Ph.D., Marine Science, Virginia Institute of Marine Science, College of William & Mary)

Grace Saba is an Assistant Professor in the Department of Marine and Coastal Sciences at Rutgers University. As one of the faculty in the Rutgers University Center for Ocean Observing Leadership (RU COOL), she also serves as the Ocean Acidification Innovation Lead for the Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS). In this role, she is a co-coordinator of the Mid-Atlantic Coastal Acidification Network (MACAN). Her broad research interests are in the fields of coastal marine organismal ecology and physiology, with emphasis on how organisms interact with their environment and other organisms, how physiological processes impact biogeochemistry), and how climate change impacts these processes.

**Caroline Schwaner**

(B.S., Environmental Science, Emory University; M.E.M, Coastal Environmental Management, Duke University)

Caroline Schwaner is a a PhD student at Stony Brook University's School of Marine and Atmospheric Sciences and a Mid-Atlantic Ocean, Coastal, and Estuarine Acidification Graduate Research Fellow. Her research focuses on identifying molecular markers associated with resilience to ocean acidification in the eastern oyster and the northern quahog.

**Teresa Schwemmer**

(B.S., Marine Biology, University of Rhode Island)

Teresa Schwemmer is a Ph.D. student at the Stony Brook University School of Marine and Atmospheric Sciences. As a Sea Grant Mid-Atlantic Ocean Acidification Fellow, Teresa is developing a model to predict population-level effects of ocean acidification on the Atlantic silverside, *Menidia menidia*. She is broadly interested in the impacts humans have on marine systems and how marine animals cope with anthropogenic stressors. She is also interested in communicating marine science to the public, particularly with regard to climate change and ocean acidification.

**Kari St.Laurent**

(B.S., Environmental Science, B.A. Environmental Chemistry, Roger Williams University; Ph.D., Oceanography, Graduate School of Oceanography, University of Rhode Island)

Kari St.Laurent is an environmental scientist for the Delaware Department of Natural Resources and Environmental Control and the Research Coordinator for the Delaware National Estuarine Research Reserve. She is a member of the Mid-Atlantic Coastal Acidification Network (MACAN) steering committee and currently acting as co-lead for MACAN. Her broad research interests are on the topics of environmental organic chemistry, black carbon, emerging and legacy contaminants, blue carbon, biochar, and understanding climate change impacts to marine ecosystems and processes.

**Kirstin Wakefield**

(B.A. Biology, with Distinction, M.S. Marine Biology and Biochemistry, University of Delaware Graduate College of Marine Studies)

Kirstin Wakefield is the stakeholder liaison for the Mid-Atlantic Regional Association Coastal Ocean Observing System MARACOOS). She is currently helping to coordinate MACAN’s stakeholder outreach and engagement plan. Her interests lie in scientific communication, ocean literacy, climate change, fisheries management, and stakeholder outreach.

**Amanda Zahorik**

(B.S. Biotechnology/Biochemistry, Rutgers University)

Amanda is a graduate student at the University of Delaware and NOAA Ocean Acidification Program/Delaware Sea Grant fellow. She is a member of VEIL (Viral Ecology and Informatics Lab) under the direction of Drs. Shawn Polson and Eric Wommack. VEIL is a microbial ecology group which studies viral and bacterial communities in a variety of environments, from marine to soil. Its various research projects are all united by two broad questions about the microbial communities it studies: who's there, and what are they doing? Amanda's environment of interest is the Eastern Oyster: specifically, the microbial community which is associated with the oyster's extrapallial fluid, and what role they may play in oyster health, disease resistance, and shell calcification.