MPWG meeting 10/9/18

Present: Lindsey Williams, Beth Turner, Todd Capson, Todd Callaghan, Emily Silva, Matt Liebmann, Presside Vella, Esperanza Stancioff, Steve Couture, Ivy Frignoca

In absentia: Sarah Cooley, Aaron Strong, Conor McManus

Update from NECAN: At the NECAN Steering Committee meeting, Beth proposed changing our name to the *Management and* Policy Working Group (MPWG). This will make more explicit our linkages to management as well as policy. All in attendance were in favor. Emily will change the name on the NECAN website.

State Commissions

NY: The NY commission has been named but we have heard no reports of an initial meeting. Aaron has moved to Hamilton College in NY state and reports that Larry Swanson at Stony Brook seems to be one of the key nodes in the core group planning the NY State Task Force. Stony Brook seems really key to the way the task force is functioning.

MA, Todd Callaghan: MA Commission passed with a list of prescribed positions, but no one has been nominated to the slots yet. Tasks are outlined and include

i. identify the actual and potential effects of coastal and ocean acidification on commercially-valuable marine species;
ii. identify the scientific data and knowledge gaps that may hinder the commonwealth's ability to craft policy and other responses to coastal and ocean acidification; and
iii. prioritize the strategies for filling those gaps to provide policies and tools to respond to the adverse effects of coastal and ocean acidification on commercially-important fisheries and the commonwealth's shellfish aquaculture industry.

The report is supposed to be provided by the end of the year, but that deadline is likely to slip. Bruce and/or Todd will be going to meetings. The bill is numbered House 4835 section 97.

RI: Conor sent a message that he had not heard of any progress on the RI commission.

ME, Ivy/Esperanza: Nov 29 MOCA meeting at ME state house. Sharpen efforts by creating 5 year action plan, include policymakers from other states. Sen David Watters (NH), Jay Edwards (MA), Fernandez (MA), Joe Salisbury (UNH) will give an update on the science. Goal is to coordinate and be informed about other state efforts and have a facilitated conversation for action plan. Ultimately, MOCA wants to sustain their voluntary efforts (and find $$)

NH, Steve C: The NH coastal commission reported out on OA, and has been focusing on nutrients for past year, compiling info and recommendations into report (scheduled for Nov).

Key points related to OCA: impacts of nutrients on nearshore OCA, need for more monitoring and assessment. The commission will turn to Blue Carbon next after nutrients, kickoff with a seminar at UNH on Oct 24.

Federal, Sarah update via email:

In Congress, the Coastal Communities Ocean Act of 2017 that we have been supporting for the past several Congressional sessions has 4 (3D, 2R) cosponsors in the Senate and 25 (20D, 5R) in the House.

The Senate recommends $11M for the NOAA OA program in the federal FY19 Appropriations cycle, while the House recommends $13M. Wherever the two chambers settle in the final budget, we expect it will provide either flat or slightly increased funding for this program. We will be circulating a letter soon for citizens with expert knowledge (like the people on this call) to sign on to, encouraging the Commerce-Justice-State House/Senate Approps Committees to adopt the $13M number in the final omnibus. Let Sarah know if you would like to sign on and you have not already gotten an email from her or Ryan Ono on Federal Appropriations (usually first quarter of every calendar year).

The National Estuaries and Acidification Act (NEAR Act, HR 6270) was introduced, cosponsored by co-chairs of the National Estuary Caucus in the House. It directs the National Academies of Science to convene experts that will evaluate what we know about acidification in estuaries and coasts, how other processes intensify it, and how we can close knowledge gaps with targeted scientific research in the coming years so communities can better prepare for acidification. It also has bipartisan support (4D, 3R). The idea would be to synthesize where our last 10y of OA funding has gotten us, in terms of understanding OA and layered stressors in the coastal zone, see what gaps remain, and set the course for closing gaps using the next 10y of OA funding.

Other updates:
Sarah is also working on convening Ocean Visions Summit:
A follow-on to the #OceanOptimism summit that happened last year, the Ocean Visions Summit in April 2019 will bring together ocean scientists, engineers, and managers/communicators/policy advocates to talk about concrete solutions and successes (of all types) for ocean issues. Sarah is convening a session focused on OA and hypoxia, and registration closes on October 31. Registration is FREE and some travel support is available. Please consider submitting an abstract and/or joining us!
http://oceanvisions.org/oceanvisions19

Esperanza – results of citizen science project funded through NOAA OAP. The project included a survey of monitoring groups, webinars, and state workshops to demonstrate equipment, bring people together with science advisors and local advisors. Results: Shell Day monitoring blitz being planned to look at TA, pH, Salinity, Temp with many monitoring groups sampling simultaneously. Hope to get this funded in 2019. The project also has led to data management

efforts and a GIS story map to describe and display all monitoring efforts. Several presentations covering the project are on tap at upcoming conferences.

Matt – EPA work in conjunction with this through internal funding from EPA. Targeting Mass Bays program and Salem Sound Watch, buying pH meters (DuraFets) and sampling for TA. Matt is working out the logistics of this effort. This has benefits both for monitoring and for greater outreach and engagement.

Beth mentioned a Hauke Kite-Powell project for OAP re. economic impacts of OCA. Beth will follow up and get some info on this from Hauke.

Todd Capson – Todd, Esperanza and Kathleen Meil (Maine's Acadia Center) worked with the NECAN steering committee on an editorial (outside of MPWG, written as individuals not as NECAN to keep the NECAN policy-neutral stance). This links OCA to RGGI and calls out auto emissions as the greatest source of atmospheric CO2. They anticipate that this will be published shortly in the Bangor Daily News. Maybe extend to MA? Todd will forward the link when it is published.

Conceptual Model project: Supported by the national Sea Grant office to bring together NECAN and MACAN and develop conceptual models that describe the drivers and impacts of OCA in the 2 regions. Target audiences = legislators and industry members. A workshop was held in April, some key messages and audiences defined. Sylvain DeGuise (CT SG) is leading this effort and will take it up again after a summer hiatus. We hope to engage some expertise in graphic design and display of scientific information to help develop the conceptual model. Not sure what form this will take – cartoon, story map, interactive website? Beth and Esperanza are involved and will keep the MPWG informed. The MPWG should be involved in reviewing materials and evaluating their utility to policymakers.

<u>New regional projects funded:</u>

Todd mentioned MIT SG grants to researchers, some of which have implications for monitoring and modeling. Lindsey provided this list:

Feb 2016 – Jan 2018

- 'Quantification of the contribution of wastewater effluent to coastal ocean acidification'; Scott Doney, WHOI
- 'Multiple stressors on American Lobster, Homarus americanus: synergistic effects of ocean acidification, temperature increase, and epizootic shell disease'; Robyn Hannigan, UMass Boston
- 'Investigation of the Effects of Ocean Acidification and Warming on the Calcification Rate & Shell Properties of Commercially Important Early Stage New England Mollusks'; Justin Ries, NEU

Feb 2017 – Jan 2019

- Towards a Cost-Effective Monitoring System of Coastal Ocean Acidification in the US North East; T. Sapsis of MIT
- Developing a Miniaturized In-Situ Sensor Technology for Simultaneous Measurements of Seawater Dissolved Inorganic Carbon and pCO2; Z. 'Aleck' Wang of WHOI
- Sensors for Measuring Carbon Dioxide, Bicarbonate, and pH in the Ocean; T. Manning Swager of MIT

Feb 2018 – Jan 2020

- Making Sense of the Variability of Coastal Ocean Acidification: Potential Long-Term Impacts on the Oyster Aquaculture Industry; Robert Chen, University of Massachusetts Boston
- Measuring Acid/Base Chemistry in the Extrapallial Fluids of New England's Commercially Important Mollusks to Explore their Differential Responses to Ocean Acidification; Justin Ries, Northeastern University
- Quantifying Coastal Ocean Acidification Impacts on Estuarine Nitrogen Removal; Robinson W. Fulweiler, Boston University

More detailed information available here: http://seagrant.mit.edu/projects.php. In addition there was a project update webinar over the summer (http://seagrant.mit.edu/press_releases.php?nwsID=670) that is available on the MIT Sea Grant You Tube Channel (https://www.youtube.com/watch?v=LFeLnJRbHJQ for the updates on current projects, https://www.youtube.com/watch?v=JU_sIxbFnRs for the updates on the completed projects).

Another regional modeling effort has just been awarded to NERACOOS through the NOAA OAP and Beth's National Center for Coastal Ocean Science (Sept 2018 – August 2021). It will expand the Northeast Coastal Ocean Forecast System (NECOFS) to include carbonate parameters. They are initially targeting three key decision areas of water quality management and monitoring, estuarine oyster aquaculture, and wild harvest shellfisheries.

Project Title: A generic predictive model for ocean and coastal acidification thresholds from Long Island Sound to the Nova Scotian Shelf

Investigators & Affiliations: J. Ruairidh Morrison (NERACOOS), Changsheng Chen (UMassD), Joseph Salisbury (UNH), Jennifer Brewer (UNH), Aaron Strong (UMaine), Jason Goldstein (Wells National Estuarine Research Reserve, NERR), Erik Chapman (NH Sea Grant), Meredith White (Mook Sea Farm), and Riley Young-Morse (Gulf of Maine Research Institute, GMRI)

MPWG Actions for 2019:

Discussion turned to possible actions for MPWG to undertake in 2019. Beth had provided a list gleaned from the NECAN spreadsheet developed last year and invited comments on those actions, as well as ideas for other actions.

Draft 2019 Actions: (with lead POC in red)

1. Continue to pursue Citizen Science Project outcomes (Esperanza and Matt, plus NECAN Science and Communications WGs)
2. Pursue how to provide input to NY and MA commissions. (NECAN is specifically mentioned in MA legislation.)
    a. Todd Callaghan will be the voice for NECAN in MA commission. Most will not be scientists, but politicians, industry, NGOs. Todd will provide the linkage and offer any assistance that NECAN might provide.
    b. Aaron was volunteered (in absentia) to explore the NY commission and how NECAN might link in and provide assistance to that effort.
3. Completing conceptual model project and reviewing materials that come out of it (Beth and Esperanza)
4. Revisit Jan 2017 workshop recommendations on monitoring to develop recommendations. (shared between Science WG and MPWG, Steve and Beth, plus NECAN Science WG)
5. Todd Capson will work with the NECAN SC, Acadia, and other partners to explore opportunities to publish editorials in other states in the NECAN region.

Next Meeting:

The next meeting will be in Dec. Beth will send a doodle poll. We will finalize our action items for submission into the larger NECAN Implementation Plan.