

## Casco Bay Regional Shellfish Working Group DRAFT Meeting Summary

**Date:** December 17, 2020

**Location:** Webinar

**Time:** 4:00-5:30 PM



**Attendees:** Kevin Oliver (Harvester and Yarmouth/North Yarmouth Shellfish Committee), Bridie McGreavy (U Maine, Faculty Fellow at Mitchell Center for Sustainability Solutions), Ari Conterato (U California Davis, Anthropologist), Mary Ann Nahf (Harpwell Marine Resource Committee), Carissa Aoki (Bates Professor, Ecologist), Nate Orff (Chair, Scarborough Shellfish Conservation Commission), Representative Jay McCreight (Maine House of Representatives - Brunswick, Harpswell, and West Bath), Ruth Indrick (Kennebec Estuary Land Trust), Randy Hamilton (Harvester and Oyster Grower), Ari Leach (Maine Department of Marine Resources), Lisa Margonelli (Chair, Arrowsic Shellfish Committee), Ben Tupper (Yarmouth Shellfish Committee), Judy Colby-George (Yarmouth Shellfish Committee), Marissa McMahan (Georgetown and Manomet Senior Fisheries Scientist), John Kraeuter (University of New England, Biologist), Dan Devereaux (Brunswick Coastal Resource Manager), Susan Olcott (Brunswick Marine Resource Committee), Madeline Tripp (Greater Portland Council of Governments, AmeriCorps), Jessica Joyce (Tidal Bay Consulting), and Anne Hayden (Manomet).

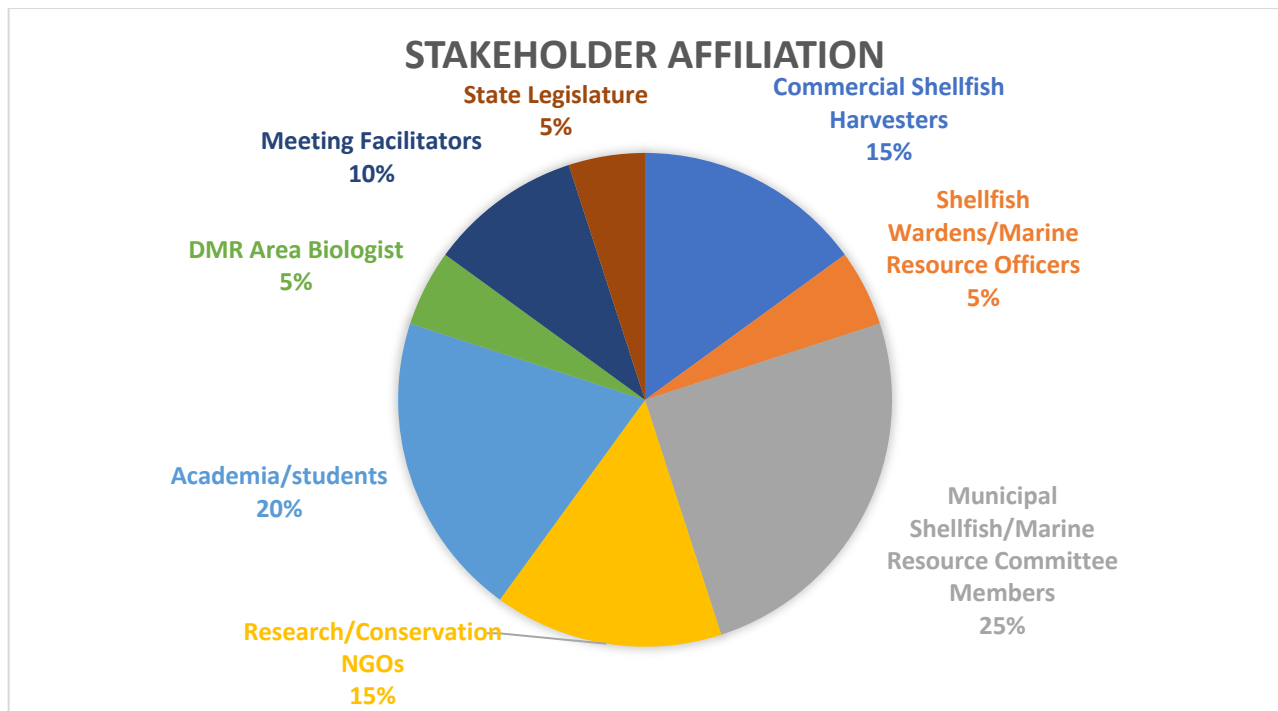


Figure 1 – Stakeholder Affiliation (n=20)

## Welcome and Introductions

After brief introductions, the meeting started with an acknowledgement that these are hard times for the fishing community, with too many virtual meetings. The facilitators expressed their appreciation for the participants who showed up to the meeting despite these challenges. Jessica reviewed the purpose of the Casco Bay Regional Shellfish Working Group (WG), the agenda, and logistical details for the Zoom meeting.

## Working Group Accomplishments in 2019 and 2020

Anne provided an overview of the WG meetings and engagement:

- We held four Steering Committee (SC) meetings, and recognize our SC members: Paul Plummer (Harpwell), Kevin Oliver (Yarmouth), Nate Orff (Scarborough), Bob Earnest (Chebeague), and Terry Watson (Phippsburg).
- We held three WG meetings: November (Brunswick), January (Yarmouth), and April (online). The March meeting planned in Bath was cancelled due to COVID.
  - 77 attendees, with some individuals attended multiple meetings.
  - 7.5 hours offered for conservation points.
- We launched a webpage, and started communicating about projects and announcements with an e-newsletter.

Jessica and other WG members introduced project deliverables and initiatives. The first four projects were primarily authored by students from Bates College.

**1. Multispecies management:** In April, we released a guidance document for municipalities on managing multiple species of shellfish, looking at case studies in four other states: MA, RI, MD, and WA. This resource addresses the changing composition of species in the intertidal, and requests from municipalities for more information.

**2. Quahog management and restoration:** In August, we released a guidance document that highlights several local case studies of municipal conservation and aquaculture projects to restore quahog populations. It includes best practices, costs, and other information for towns looking to pursue similar projects.

- Ben Tupper provided an update on Yarmouth's efforts to diversify landings. They used DMR landings data to compare landings value to harvesters for different species of shellfish in Yarmouth, Brunswick, and Freeport. Yarmouth's harvest is all soft-shell clam, while Brunswick has a mix of soft shell, quahogs, and razor clams (see Figure 2). The Yarmouth Shellfish Committee is now working to diversify shellfish populations and harvesting. One project Yarmouth is considering entails buying quahog seed and potentially working with a local aquaculture grower to share their upweller.

data source: [https://mainedmr.shinyapps.io/Landings\\_Portal](https://mainedmr.shinyapps.io/Landings_Portal)



**Figure 2 – Shellfish Landings in Brunswick, Freeport, and Yarmouth (2008-2018).** Value to harvester is calculated by dividing the landings value by the number of licenses.

**3. Milky ribbon worm predation and mitigation:** In July we released a literature review that summarizes existing research around milky ribbon worm predation and mitigation. Unfortunately, we discovered that any large-scale or effective mitigation measures have yet to be developed.

- Carissa Aoki gave an update milky ribbon worm research. Not much is known about milky ribbon worm life history or how to mitigate the damage they are causing to clam populations. Building on work done by Bates students this summer, Carissa has a student who conducted interviews of harvesters for her thesis to find out what they are seeing on the flats. In October, Carissa, Jessica, and Kevin Oliver went out to trial survey methods for milky ribbon worms and collect intertidal sediment samples for testing. Right now, students are working on refining the lab techniques for milky ribbon worm research. There is also potential for marine aquarium experiments to grow our knowledge of the worm’s ecology and possible mitigation strategies.

**4. Informational resources for town councils/boards:** In December, we released outreach resources, including a presentation and handout, for shellfish committees to deliver to their town council/board of selectmen to inform their knowledge of the fishery and decision-making.

- Kevin Oliver shared how the idea for this project came about. There is a need to share town and regional information about the shellfish industry to make better decisions, to help elected officials realize the value of the industry, and to figure out best practices. Yarmouth's Shellfish Committee is going to utilize the template to share this information with their Town Council, and is hoping to get other municipalities to utilize these resources.

**5. Casco Bay Community Shellfish Database:** We started this project through conducting a needs assessment, by identifying existing sources of data and any data gaps. We are in the process of finalizing a survey to determine what data municipal shellfish committees, harvesters, and others would like to have access to in order to facilitate conservation and management. We expect to launch the survey in late January, and it will be available online or can be conducted over the phone or during an online meeting.

- Working with the Greater Portland Council of Governments (GPCOG), the WG was placed with an AmeriCorps fellow, Madeline Tripp, who will be working with us and Casco Bay Estuary Partnership on the shellfish database and other WG projects.
- Nate Orff shared how the idea for this project was raised. He realized there was a need to share municipal shellfish data as well as other data relevant to the industry, such as water quality information, and put in a central location for all municipalities in the region. The database project will be a way for towns to access information, learn from each other, and preserve information for future stakeholders.

### **Town Sharing**

One representative from each municipal shellfish/marine resource committee was asked to share the following information: 1) What is the current focus of your committee, 2) What are the obstacles to addressing the shellfish community's needs, and 3) What is one *shared* topic or issue you would like the WG to consider focusing on in 2021 that meet the criteria?

The criteria include: 1) Would benefit multiple communities, 2) Would occur within the span of one year, 3) Is feasible with a largely volunteer effort, 4) Has a reasonable equipment budget, and 5) Does not require additional funding.

Scarborough: Issues: Due to COVID-19, it has been difficult for the shellfish committee to meet this year. The Committee had to cancel their new shellfish survey program for this year due to COVID-19 concerns. They also waived the ordinance requirement for conservation hours, including 4 of the 12 conservation hours that are required to participate in shellfish survey activities.

Shared topic/project: Research best practices for effective conservation projects. What's worth the effort (e.g., is green crab trapping effective)? – Nate Orff

Yarmouth: Issues: Yarmouth's Shellfish Committee also had a difficult time holding meetings due to COVID-19.

Focus: Diversification of Yarmouth's shellfish resources. Important to document what shellfish resources we have and where. If anyone has any standard methods for surveys, that would help with this.

Shared topic: Research best practices for surveying shellfish resources (location, populations, etc.). - Kevin Oliver

- Anne Hayden shared that Manomet is starting a project to develop standard shellfish surveys that take the entire ecosystem into consideration.

Brunswick: Issue: Access to landings data by shellfish growing area. Currently, even though information on the location of harvest is collected on harvester tags, this information is not captured in dealer or state databases. Therefore, the town-level landings information available from DMR reflects where shellfish are landed/sold, but does not necessarily represent the area where shellfish are harvested. For example, when landings data indicate product is from Brunswick, it could have been harvested in another town, and product harvested in Brunswick could be sold to dealers in other towns. Landings data by shellfish growing area would allow towns to manage their resource more effectively.

Focus: How can we utilize this information that is already provided from harvesters, such as where they harvested shellfish, without putting a burden on them to divulge their trade secrets or financial information. The Brunswick MRC has been working on a letter to send to DMR to request they start recording harvest area data, which is already collected on harvester tags, but is only requested from shellfish dealers when there is a recall of product for sanitation issues. Increasing the data reported by dealers to the state could better track shellfish resources.

Shared topic: Brunswick is also interested in best practices for conservation. – Susan Olcott

Brunswick received a grant from the Maine Shellfish Restoration and Resilience Project, and used the funding to buy quahog seed from the Downeast Institute. They kept the 1-2mm quahogs in floating bags over the summer. They are overwintering half of the seed on bottom and the other half at the Downeast Institute. – Dan Devereaux

Freeport: Issue: Freeport still continues to lack any volume of quahog stock, and harvest for quahogs was lower than recent years. Conservation projects are on hold due to COVID-19, and hopefully will be able to continue in spring of 2021.

Focus: During summer and fall, harvesters have been pleased with landings, both in volume and price. Due to COVID-19 and large amounts of rainfall this November/December, harvest has slowed down. Different areas throughout Freeport had set come in to market size that had not been harvested in recent years. – Charlie Tetreau (sent to Jessica in advance)

Georgetown: Issue: Diversification from only soft-shell clams. Activity of Shellfish Committee has been slower due to COVID-19 as well.

Focus: Georgetown transplanted 50,000 quahogs and closed areas to harvesting to allow quahogs to grow and hopefully reproduce. Currently, the Shellfish Committee is monitoring the population at this site.

Shared topic: Exploring environmental DNA (e-DNA) and the benefits it could bring to shellfish management. – Marissa McMahan

Harpowell: Issue: COVID-19 has prevented harvesters from meeting their conservation time, so the town waived that requirement, revised residency requirements, and extended license renewal times.

Focus: Harpswell recently secured a grant through the Maine Shellfish Restoration and Resilience Project to build a tidal upweller to help in diversification efforts. The construction is not done yet, so the quahog seed will be overwintered in Maquoit Bay until the upweller is complete next spring. – Mary Ann Nahf

Arrowsic: Issues: Struggled to complete surveying because the town only has three commercial harvesters (all non-resident). There has not been much digging this year because Arrowsic's soft-shell clams are fragile and do not travel well to out-of-state markets, so they are better for local markets.

Focus: Annual green crab survey and children's clam camp. The town also recently approved expanding the shellfish ordinance to include quahogs, which is a first step in diversifying landings. The Shellfish Committee is concerned about clambers being able to make a living and is trying to be proactive in protecting its shellfish resources.

Shared topic: They are also interested in standard survey techniques. – Lisa Margonelli

### **Group Discussion: Planning for 2021**

Participants were asked to share ideas on the following topics: 1) Potential projects for 2021, 2) Speakers, training topics or field demos, and 3) Shared equipment.

- Equipment idea – Purchase a shared upweller to allow towns to purchase smaller, less expensive seed and grow it out on their own.
  - Cost and planning (applying for a Limited Purpose Aquaculture Lease [LPA]) may be prohibitive; instead, maybe pursue a partnership with local oyster growers to 'rent' space in their upwellers.
  - Tidal upwellers, like what Harpswell is building, help reduce labor costs because the tide does the work. Some towns do not have deepwater access, and would

not have space for tidal upwellers, so private-public partnerships could address this.

- Covering all three topics - Information, speakers, and equipment to help with water quality testing, to identify pollution sources. Are there portable tests or equipment to assess water quality (and identify potential point source pollution) and help identify areas that may need more sampling and lab testing?
  - The state is not aware of any portable water quality tests that harvesters could utilize that would replace the water testing the state offers. However, the Area Biologist will inquire with the DMR's water quality department. Quality control may be an issue.
  - YSI is a company that makes many different kinds of water quality sensors/probes in one handheld, portable device.
- Equipment idea - From a GPS standpoint, there are tools that could help pinpoint locations when you are collecting samples or surveying. A USB GPS can connect to a phone or iPad. With surveys, you could create the survey on the phone, so all the data is entered on the phone, and the USB drive would enhance the accuracy of GPS already built into phones.
- Equipment idea - Portable pH monitors could also be useful to collect acidification data.
- The Maine Healthy Beaches Program is a good resource on identifying pollution sources (ex: fecal coliform). Microbial Source Tracking can also be used, where water samples are sent to a lab for testing to identify the source of the pollution.
- Equipment - Some towns have used fluorometers to test for optical brighteners, which are used in laundry detergents, in order to detect leaks in septic systems.
- Equipment - Drones could also be useful for monitoring pollution and its sources from above, especially if they have infrared photography.
- Information - Interested in identifying areas in real time that are high in nitrogen, which increases algae growth, and can be compiled to consider the long-term effects on flats.

## Announcements

1. Funding opportunities – The Maine Shellfish Restoration and Resilience Fund is open for proposals. The Fund supports projects that will improve the management and conservation of clam flats and mussel beds. Harvester involvement is a priority. Proposals are due January 19, 2021. If anyone would like assistance preparing a proposal, please send Jessica or Anne an email: [Jessica@tidalbayconsulting.com](mailto:Jessica@tidalbayconsulting.com) or [Ahayden@manomet.org](mailto:Ahayden@manomet.org).
2. Maine Climate Council update – Approved their 4- Year Climate Action Plan in November, which was released to the public on December 1. Next, the Governor's office will work with Maine's Congressional delegation to advance the goals of the Plan. The Plan includes strategies with direct relevance to the shellfish community, including these examples:
  - Maine Seafood Business Council – assist with marketing
  - Assess vulnerability of infrastructure, provide design guidance, and create an infrastructure adaption fund (e.g., public docks, piers/wharfs).

- Coastal and Marine Information Exchange – share data, research, and tools for planning and adaptation in fisheries.
  - Provide technical assistance and funding to communities to support local and regional climate-resilience initiatives.
3. U Maine (Bridie McGreavy, PhD) – U Maine launched a new website, The Mudflat ([mudflat.org](http://mudflat.org)) that is a collaborative website that grew from the ‘Clam Cam’ website, which showcases videos from clambers wearing GoPro cameras to document what it takes to get clams from mud to market to plate. The Mudflat website connects clamming with co-management, compiling the scientific, management, and cultural information in one place. Dr. McGreavy requested participants to share any projects to highlight from along the coast of Maine.
- She also announced the upcoming Maine Sustainability and Water Conference on March 31 – April 1:  
<https://umaine.edu/mitchellcenter/event/2021-maine-sustainability-water-conference/>
4. Rep. Jay McCreight (Maine House of Representatives) – Meetings of the Legislature’s Marine Resources Committee, which covers shellfish policy, will begin in January. Link for the Marine Resources Committee:  
<http://legislature.maine.gov/committee/#Committees/MAR>.
- Link to subscribe to updates from the Marine Resources Committee:  
<https://lists.legislature.maine.gov/sympa/info/mar-ip>. Visit [Maine.gov](http://Maine.gov), and ‘interested parties’ to get notices of public hearing and work sessions for any other committee you’re interested in.

### Next Steps

- Presentations to town council/board of selectmen – Anne and Jessica are available to assist towns in delivering the presentation.
- Outreach to municipalities for database needs assessment survey – online survey, telephone survey or we can attend shellfish committee meetings to get feedback as a focus group – later in January.
- Meeting summary a recording of the webinar will be emailed and posted on the webpage ([www.tidalbayconsulting.com/cbrswg](http://www.tidalbayconsulting.com/cbrswg)).
- Next meeting in 2021 – TBA