

Meeting Summary Casco Bay Regional Shellfish Working Group

Date: November 18, 2019

Location: Curtis Memorial Library, Brunswick, Maine

Time: 4:30-7:30 PM



Attendees: Bill Good, Caitlin Cleaver, Terry Twomey, Ed O'Bar, Paul Plummer, Dick Pevoski, Judy Colby-George, Marissa McMahan, Ari Leach, Charles Tetreau, Dan Deveraux, Will Owen, Kevin Oliver, Nate Orff, Victoria Boundy, Susan Olcott, Mary Anne Nahf, Mike Brown, Isaac Burtis, Tony Yuodsnukis, Dan Sylvain, Anne Hayden, and Jessica Joyce. The primary affiliation of stakeholders is included in Figure 1. While some attendees had multiple affiliations, for example, recreational/commercial harvesters who are municipal committee members, or shellfish harvesters who are also shellfish dealers, only the primary affiliation is listed.

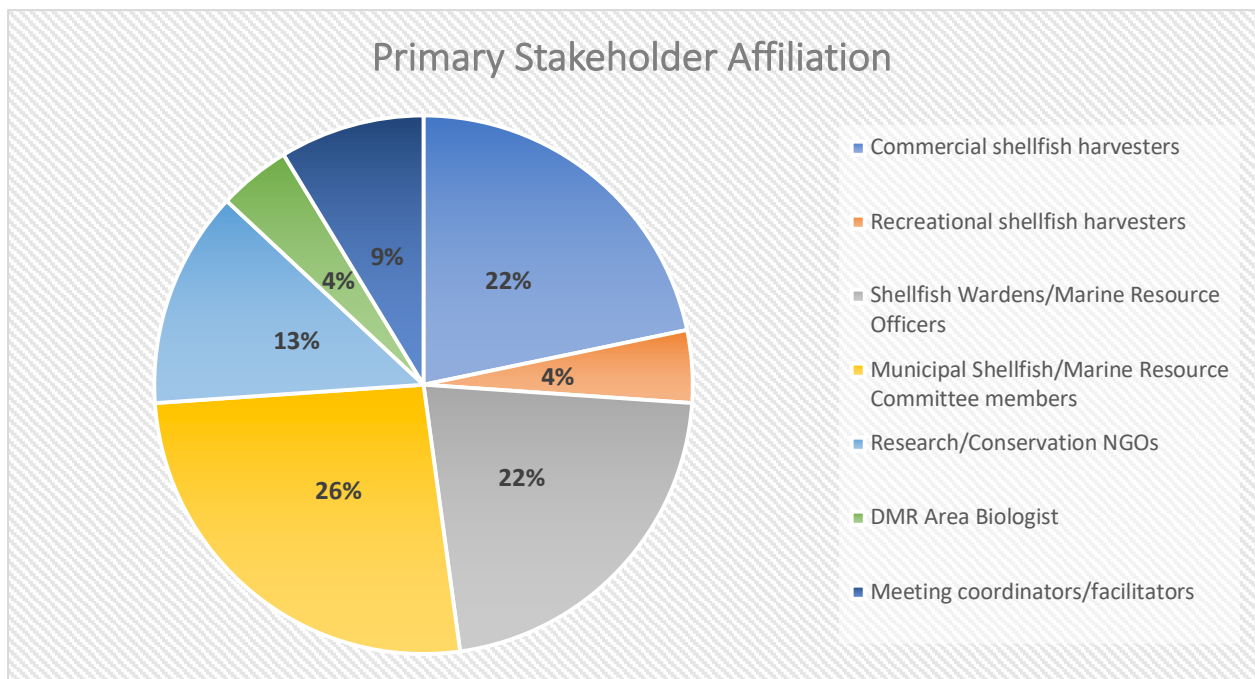


Figure 1. Stakeholder Affiliation (as identified during introductions, n=23) – November 18, 2019.

Introductions and Background

The meeting commenced with introductions and a review of the agenda. Jessica Joyce also reviewed the purpose, goals, and objectives for the Casco Bay Regional Shellfish Working Group (CBRSWG). The purpose is to Collaboratively address pressing issues facing the shellfish community, sharing expertise and best practices for management, conservation, research, and monitoring across towns and stakeholders in Casco Bay.

- The short-term goal is to equip municipalities with the knowledge and experience to manage their wild intertidal shellfish resources in the changing Casco Bay ecosystem, through providing a forum for sharing information, resources, and tools.
- The long-term goal is for the Working Group to help protect the health of intertidal ecosystems, sustaining shellfish resources and the jobs that depend on these fisheries.

Town Sharing

During this agenda item, one representative from each town shared the current focus of their committee, what the obstacles are to addressing their community's needs, and what topics they recommend the CBRSWG address.¹ For brevity, this summary provides key highlights from the town responses (recommendations are noted with an arrow):

- Brunswick – Working on reseeded quahogs and soft-shell clams, as they haven't seen as much seed in recent surveys, and they are looking for partners to grow out seed before broadcasting.
 - Potential for towns to work together on research projects (e.g., reseeded across towns and developing monitoring protocols to determine whether it's successful); student licensing; partnerships to grow out shell stock (perhaps with aquaculture growers); and how to manage and monitor soft-shell clams and quahogs separately.
- Cumberland – Observed a large seed set in 2019; however, their soft-shell clam resource has been plummeting over the years, after finally being able to open up closed flats year-round. They expanded their ordinance to include all species allowed by DMR; however, they are looking for guidance on how to best to manage mixed species.
 - Town Council awareness of shellfish status and initiatives in other towns; including what works and what doesn't; how municipalities can manage the increase in aquaculture applications and leases – what is the role of the shellfish committees in this process?
- Freeport – Deep-water access is an issue as all boat ramps are tidal aside from the Town Dock. Harvesters are increasingly utilizing air boats.
 - Getting the public involved in access, and spreading awareness that harvesters need to access to flats to work; identifying conservation activities that harvesters find meaningful and are interested in; effectiveness and siting of reseeded efforts.
- Harpwell – Identifying declining soft-shell clam population and quahog habitat. They purchased and transplanted 30,000 quahog seeds, and are monitoring the success rate. The committee has recently dedicated more funding and resources to quahogs.
 - Discussing potential funding sources for a municipal upweller to grow out seed; monitoring success of transplanted quahog seed; methods for growing out seed in oyster cages; and how to manage (and budget for) multiple shellfish species.

¹ Criteria for topics the CBRSWG will address include: 1) benefit to multiple communities, 2) would occur within the span of one year, 3) has a reasonable equipment budget, and 4) does not require additional funding.

- Georgetown – Conducted a comprehensive planning process, and identified marine priorities: 1) overboard discharge, 2) land access to mud flats, and 3) diversifying shellfish resources. They transplanted over 40,000 adult quahogs in two years, in an effort to create a population. With reseeding efforts, only 1 mm seed is available from hatcheries, so they are trying to grow them larger in oyster bags before transplanting.
 - How to diversify shellfish resources (especially with transplanted quahogs); best practices for quahog aquaculture (including where to source seed bigger than 1 mm); and access to mud flats and spatial mapping (GIS) to identify access points (with U Maine Darling Center).
- Scarborough – Increased survey effort in 11 areas in the intertidal, and they are assessing growth, recruitment, and productivity of these areas. Scarborough requires 12 conservation hours, and 4 hours must be clam survey work. They also trap green crabs to gain conservation hours, but are unsure whether it's having an impact.
 - Identify effective activities for conservation work; helping Town Council members better understand how to allocate licenses, in particular, by using survey data; develop shellfish survey protocols; and creating a database of municipal shellfish committees, to share contact information as well as share information and best practices on conservation initiatives and ordinance revisions.
- Yarmouth – Their shellfish resource is declining, and with no full-time harvesters, it is difficult to be able to survey/monitor large areas of the mud flats.
 - Student licensing; how to address the aging of harvesters and limited resources to survey flats and participate in conservation activities; and the disconnect between municipalities identifying pollution sources and the state Code Enforcement Officers fixing issues and communicating information back to the town and DMR.

In summary, the following recommendations for the CBRSWG were identified during the town sharing:

1. Conduct a multi-town seeding activity, and monitor to determine if the outcomes are improved over single-town seeding activities.
2. Create a guide or template on how to develop a student license program in shellfish ordinances.
3. Create a GIS map for towns to identify access areas to the intertidal, with a focus on private land that towns or land trusts may wish to purchase or maintain public right-of-way to preserve access.
4. Compile municipal shellfish program GIS layers to build a Casco Bay shellfish/management map of the intertidal resources and activities.
5. Develop a list of conservation activities that have a direct, positive impact on the resource, thus incentivizing harvester participation.
6. Develop monitoring protocols to determine the effectiveness of municipal conservation activities, like seeding and transplanting.

7. Improve coordination and communication with municipal code enforcement officers (CEOs), Maine DEP and DMR regarding water quality issues and mitigation.
8. Develop a database of municipal committee members and conservation activities.
 - The shared obstacles include: identifying sources of funding, access to seed and growing out seed to size, gaining town council support, and not having consistent protocols to monitor the effectiveness of conservation activities.

There were no representatives from West Bath, Chebeague, Biddeford, or Phippsburg at this meeting. However, through participation of representatives from Chebeague and Phippsburg on the Steering Committee and Ms. Joyce's attendance at shellfish committee meetings this summer, it is understood that these towns are working on a number of conservation projects. These include, but are not limited to: seeding and predator netting, using recruitment boxes and re-seeding; using data from river flow gauges and water/meat samples to reduce the duration of water quality closures, and mitigating pollution sources to open flats.

Brainstorm – Topics of Interest

Anne Hayden moderated a discussion around other potential topics the Working Group should consider building on in future meetings. Recommended topics include the following:

- 1) Online GIS mapping portal: developing a regional map with multiple data layers, showing water quality (P90) scores, shellfish survey efforts/data, license allocations, historical shellfish habitat/resource data, aquaculture leases, conservation closures, research/monitoring efforts, etc. This will help towns gain a better understanding of conditions in surrounding areas that may be influencing their resource, and better address requests from DMR on aquaculture lease applications.
 - This initiative would build on the [DMR Shellfish Water Classifications and Aquaculture Leases Map](#) – but focus only on intertidal and subtidal areas within municipalities in the Casco Bay Region.
 - A harvester expressed concern about making shellfish resource data public, for fear of poaching and potential increase in harvesting effort.
- 2) Multispecies management of soft-shell clams and quahogs: how do you manage both species at sustainable levels?
 - For example, the quahog population is doing well in some towns and soft-shell clam populations are not, but towns are issuing one license for both. How do you allocate licenses when you add new species to an ordinance? Is it possible/desirable to have species-specific licenses?²
 - Are municipalities conducting surveys for these additional species (e.g., quahogs, razor clams, oysters, etc.)?
 - How can municipalities and the DMR area biologist coordinate to address these questions?

² These topics are also being discussed by the Maine DMR Shellfish Advisory Council.

- How do you better understand and analyze the market impacts on each fishery? For example, currently quahog prices far exceed those for soft-shell and are driving more effort in the quahog fishery.
- 3) Advanced notification of high P90 scores: how can the DMR notify municipalities on a near-real time basis when a single high P90 score is identified, so they may proactively address the source of the contamination before it may ultimately result in an area being reclassified (downgraded due to high P90 scores)? Or how can municipalities proactively work to address these situations?
- Subsequent to the meeting, Ms. Joyce followed up with Kohl Kanwit, Public Health Bureau Director, Shellfish Sanitation and Management. Ms. Kanwit clarified that P90 scores are calculated on a 5-year average (using the most recent 30 samples), and scores are updated on an annual basis and posted on the DMR's interactive web map using a "stoplight" approach. Most water quality monitoring sites are sampled six times a year. DMR does not presently have the capacity to report to towns on a more frequent basis.
 - A Shellfish Warden indicated that towns have more control over this than they may realize, in that they can conduct their own sampling, and the town Codes Enforcement Officer (CEO) can act as the inspector until the issue is resolved. Whereas, if DMR identifies consistently high P90 scores that affect the 5-year average and could downgrade a growing area, they will close the area, and unless they notify the Department of Environmental Protection (DEP), the source may not be mitigated until after the flats are closed. Whereas towns can more proactively manage individual high scores by conducting their own sampling and addressing issues real-time as they arise, and before they affect the 5-yr average.
 - One tool available to identify the source of pollution is [Microbial Source Tracking](#). Municipalities can send water samples to labs (for example, University of New Hampshire) to identify the source. FMI contact: Stephen.Jones@unh.edu.
- 4) Town council member education: how can the CBRSWG educate town council members around the shellfish resource, fishery, and license allocation process so they better understand the needs of this community, including requests for funding? How can shellfish committees gain confidence in harvester-collected data, and how can town councils better utilize this data?
- 5) Allocation of licenses based on the resources available/better data collection to more effectively manage the resources in general: how do municipalities work with DMR on methodology to allocate licenses more dynamically based on the status of the resources available; including ratcheting up or down, if there are significant increases or decreases in the populations?
- What are mechanisms to reduce licenses when the resources are declining? Could there be collaboration between communities?

- Brunswick is requiring that student commercial harvesters report catch data.
- How can towns utilize dealer reports when confidentiality rules prevent sharing these data back to towns with less than two dealers and/or landings data from less than three harvesters?

Brainstorm Training Topics/Speakers

At each of the subsequent CBRSWG meetings, there is availability on the agenda to invite a speaker or trainer to present on a topic of for a deeper understanding. The following topics were recommended by attendees:

- Better understand biological, ecological and economical interactions between quahogs and clams.
- Impact of ocean acidification on the mud flats and shellfish resources, including opportunities for mitigation.
- DMR P90 score information sharing, including advanced notice of a particular site that exceeds the threshold.
- Shell recycling pilot project in Portland
- Green crabs
 - Research on the effectiveness of trapping or other mitigation efforts.
 - Size of green crabs and the relationship to soft-shell clam predation, to better target mitigation efforts.
 - Predator exclusion boxes (aka recruitment boxes), and how to scale this effort?
 - Population estimates/survey of green crabs in deep waters.
 - Use of green crabs for products, including fertilizers (U Maine Orono), lobster bait, culinary uses (including soft-shell crabs), and liquid extract for human supplements and aquaculture additives (salmon).
- Information on how to mitigate predation from milky ribbon worms
- Future meetings may include a training session for Town Council members, to provide information on the status of the fishery, synthesize ongoing work of the CBRSWG (in a PPT or report format) and municipal committees to help educate Town Council members, especially those serving as the liaison to shellfish/marine resource Committees.
- Training session for harvesters in public speaking, especially at town council meetings, when license allocation and budgets are being proposed. How do you provide incentives for harvesters to attend town council meetings?
- Updates from the projects funded by the Maine Shellfish Restoration and Resilience Fund (and the Maine Shellfish Learning Network), which will also be provided at Shellfish Focus Day (March 5, 2020) during the [Maine Fishermen's Forum](#).

Announcements

The facilitators made several announcements about other resources and initiatives, including:

- [Maine Shellfish Restoration and Resilience Program](https://umaine.edu/shellfish-restoration/) 2020 funding opportunity (proposals are due January 16, 2020): <https://umaine.edu/shellfish-restoration/>
- Maine Shellfish Learning Network technical brief handouts: bucket drifters and microbial source tracking
- Shellfish convening in eastern Maine (Hancock and Washington counties) – Maine Center for Coastal Fisheries
- Shellfish Focus Day at the [Maine Fishermen's Forum](#) – March 5, 2010
- Friends of Casco Bay [Water Reporter](#) app

Next Steps

The Steering Committee held a meeting on December 16th to discuss outcomes from this meeting and plan the agenda for the next CBRSWG meeting on January 30th. Outreach for this meeting is ongoing, including an email announcement, online, social media, and one-on-one outreach. Meeting summaries will be prepared and shared with all attendees, and will also be available in printed format at the next meeting.