

## **Eelgrass Committee Meeting Minutes**

Location: MDI Bio Lab Directors Conference Room near the Main Office

Time and Date: Monday January 13<sup>th</sup>, 2014 3-5 pm

### **Attendees:**

Jenn Fortier, DMR, liaison for city of Ellsworth

Jane Disney, MDIBL, FBP president

Chris Petersen, COA

Carol Korty, Lamoine Conservation Commission

Terry Towne, MCHT

George Kidder, MDIBL

John Bennett, Trenton Harbormaster, formerly marine patrol

Duncan Bailey, MDIBL, Eel grass in Maine

Bridie McGreavy, New England Sustainability Consortium, phone, minutes

### **1. Updates**

#### **Results of eelgrassinmaine.org** (Duncan Bailey)

Duncan provided an update on the project, which is a crowd-sourcing map of current eel grass locations in Maine. He noted that eel grass has disappeared from 12 out of 59 reported locations.

#### **Status of Eelgrass in Frenchman Bay** (review map by Rick Martens)

Jane described the survey efforts to try to determine the cause of eelgrass die-back. There were several variables the group were interested in but eventually determined that the a primary contributor to eelgrass loss is damage by green crabs. 1996 fly-over data revealed 3,174 acres of eel grass. In 2008, this density had been reduced to 1,128 acres. As of 2010, 75 acres remained; a near 90% loss of eel grass since 1996.

Based on an experiment by MDIBL in summer 2013, it was found that transplanted eel grass did better in fenced areas than outside the fenced areas, however from the trapping data gathered during the course of the experiment, it appeared that numbers of crabs were the same inside and outside of fences. The next question the group needs to address is whether there is real difference in the density of green crabs in and outside the fences or whether the fences are serving some other purpose than just keeping the number of crabs down inside the fences.

#### **Green Crab Summit on Dec. 16<sup>th</sup>, 2013 at UMaine**

Jane summarized some of the insights from the Green Crab Summit, how there are researchers working across New England and into Canada on this issue. Researchers in Nova Scotia were able to eliminate green crabs through an extensive trapping effort, though their Bay was well contained, with a narrow opening to the ocean which allowed greater control. The group discussed possible uses for green crabs, including for fertilizer and food products, however the need for markets is pressing. An extensive set of materials from this summit are available on the website:

<http://www.seagrant.umaine.edu/green-crab-summit>

## 2. Funding

**a) 5-star Habitat Restoration Grant (project in progress)**

*to do restoration in Berry Cove and at Thomas Island*

**b) Army Corps Habitat Restoration Grant (recently funded)**

*to do restoration in Goose Cove, Jordan River, Berry Cove, Thomas Island*

**c) Walker Foundation (project in progress)**

*for support of Frenchman Bay Partners to engage additional stakeholders*

**d) Private Foundation (submitted)**

*for eelgrass mapping capability using side scanning sonar*

**e) NSF Rapid Response Grant (in preparation)**

*for research on eelgrass loss and implications for restoration*

Jane noted that these grants are supporting on-going restoration work and stakeholder engagement. The NSF Rapid Response grant will be in collaboration with Hilary Neckles from USGS and Kristin Wilson from Wells Estuarine Research Center.

## 3. 2014 Plans:

### Who, What, Where, When

- a) Winter: Build 750 biodegradable grids with volunteers
- b) Spring: Initiate eelgrass research, mapping, crab census work, crab eradication
- c) Summer: Eelgrass restoration, research, mapping, on-going crab eradication
- d) Spring-Fall: Water quality monitoring, pre-post restoration habitat monitoring

MDIBL received an Army Corps of Engineers grant to conduct large scale restoration in 2014. This project involves harvesting eelgrass from Stave Island and transplanting it on biodegradable grids into Berry Cove, around Thomas Island, in Jordan River, and in Goose Cove. The group discussed and made plans for this large scale eel grass restoration effort. Anna Farrell, the Americorps volunteer working with Jane, starts next week and her immediate focus will be to get a volunteer program started for making the eel grass grids. Wendy Norden from University of Maine at Machias will be consulting on the project, helping with pre- and post-monitoring of invertebrates and fishes in the restoration areas. There was an extended discussion of the logistics of building, assembling, and installing the grids and the need to fence in some of the transplanted eelgrass to protect it from green crab damage. Maine Coast Heritage Trust can participate with their boat, adding to the capacity for transporting folks out to Stave Island, and transporting large numbers of harvested plants. As part of this effort, Jane and her crew of interns, volunteers and community partners are also conducting an eelgrass density study at Stave Island to better understand the impact of harvesting from this site. The group made progress towards coordinating boats and working out some logistics, including how to accomplish eelgrass restoration in Goose Cove, which is complicated by being on the other side of the Trenton Bridge. A group may assemble on Alley Island to tie eelgrass to grids and launch the restoration effort from there.

The island is owned by The Nature Conservancy; Terry will get Jane information about who to contact regarding using the island. Jane shared a calendar with the specific dates that each restoration effort will occur which are all coordinated with the height of tides: [This calendar can be found here.](#)

The group discussed different types of survey approaches for studying the success of eelgrass success in restoration areas, focusing on videography. They also discussed ways in which one can do biomass estimates. They also talked about the possibility of trapping crabs and the need to have a systematic sampling design if one wants to understand the relative intensity of predation of green crabs on eel grass.

George provided an update on his effort to secure funding for a sonar system for detecting the location and possible density of eel grass. He would start with a high speed scan of the entire periphery looking for eel grass. With a cost of about \$7,000 to \$8,000, it would be beneficial for the Bay to have access to this technology, as there are many possible applications.

#### **4. Next Steps: Do we need eelgrass subcommittees for each municipality?**

The group decided to link with existing committees, like municipal conservation commissions, to be more efficient and avoid duplicating effort.

#### **5. Announcement: Don't forget the FBP Annual Meeting is Saturday Feb. 1<sup>st</sup> at the Maren Auditorium at the MDI Biological Laboratory!**