



Friends of Ellisville Marsh Newsletter: Spring has Sprung!

April, 2015

This newsletter is produced on a periodic basis to keep members of the Friends of Ellisville Marsh, Inc., apprised of developments and opportunities to become involved.

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President's Corner: Support from the State House and the Scientific Community

by Jack Scambos

Ellisville Friends member Greg Lano and I were pleased to receive an invitation to visit with outgoing Massachusetts Senate President Therese Murray at the end of her 20+ year tenure as a Senator and first female Senate President.



President Murray has been an effective supporter of The Friends, championing our cause and assisting in navigating the torturous regulatory path to get our permits issued. President Murray considered our cause seriously and with the help of her local Plymouth Coordinator, Monica Mullin, has been an extremely successful advocate for our effort to maintain the Ellisville Harbor channel and keeping Ellisville harbor as a functioning salt marsh.

In a recent article in The Cape Cod Times, it was noted that over the period from 1984 to 2013 five of six salt marshes studied lost between 24-48% of their



coverage of the high marsh grass that characterizes a healthy salt marsh. The study goes on to say that these losses are primarily due to sea level rise which was estimated to be 6.3 inches over the same period. The sixth site lost 92% - much of it due to physical changes.

The most intriguing part of the article was the degree of emphasis experts in the field placed on the value of salt marsh habitat for Cape Cod:

“They aren’t just dying – they are disappearing, according to a new study by Cape Cod National Seashore plant ecologist Stephen Smith, which demonstrates that sea level rise is outpacing the natural capacity of sea marshes to adjust.

The endgame could be extensive mudflats, home to snails, or, if the water quality is good enough, sea grass. Although snails, worms and mollusks use mudflats and fish and shellfish species inhabit sea grass ecosystems, there is nowhere near the variety and abundance of life exhibited in salt marshes, Smith said.”



The experts quoted in this article also include a well-known salt marsh expert from Brown University, Mark Bertness. Professor Bertness goes on to say:

“The problem I see is that, at this point we also have salt marsh dieback going on out on the Cape and the two of them (dieback and submergence) are really wreaking havoc and accelerating the impacts of sea level rise. Because of water filtration, storm buffering, erosion control, carbon sequestration, removing nutrients from groundwater, salt marshes are, on an acre-by-acre basis, **probably the most monetarily valuable ecosystem on the planet.**”



One of the specific methods to slow this loss of salt marsh habitat cited in the article is to increase the connection of the salt marsh with the adjacent ocean by increasing culvert size or number. This is functionally identical to our channel maintenance activities, though culverts are very different from our inlet. Ellisville’s salt marsh is subject to similar sea level rise, and a complex set of conditions need to be maintained in the face of sea level rise and storm threats. We are currently reviewing all possible options and trying to think outside the box for long-term sustainability of the salt marsh.

The bottom line is: the experts seem to echo The Friends of Ellisville Marsh theme song -- that preserving the functioning salt marsh habitat we have is well worth the time and effort! It’s no wonder we have received such resounding support from both the State House and the locals that are so keenly aware of the benefits the salt marsh has provided over its 100+ years of existence.



After reading this article I feel re-energized that our efforts have received so clear and resounding an endorsement from the scientific community.

Please review your membership status with The Friends and even consider an additional tax-deductible donation. Thank you!



January 2015

The Post-snow Channel Maintenance of 2015

Channel maintenance went smoothly this year, just a bit later than usual because of the snow and frozen ground. Thanks to our foresight in negotiating a later end to this year's inlet maintenance window (which was moved from January 31st to March 31st) we were able to avoid having our work wiped out by the Blizzard of 2015. Many thanks to the Board members and stalwart members who volunteered their time to oversee the maintenance process!



Channel Maintenance in March 2015

photo courtesy of Diane Fletcher

Save the Date!
Annual Meeting set for
Saturday, July 25th, 10:00 am

Interesting Winter Birds

A very unusual visitor to these parts, a Greater White-fronted Goose, showed up at Ellisville Marsh this February-March, and was first spotted by our very own Board member, Paula Marcoux. From Cornell's Allaboutbirds.org: This species breeds across the tundra, from Nunavut to Siberia, across Russia, and in Greenland. It has one of the largest ranges of any species of goose in the world. In North America, however, it is common only west of the Mississippi River, where it is found in large flocks in wetlands and croplands.

Clearly, Massachusetts resembled the tundra this winter, so the bird likely felt right at home!



Greater White-fronted Goose, March 21, 2015. Photos courtesy of Marie Pelletier and Diane Fletcher



Bald Eagle soaring over Ellisville Beach, February, 2015. photo courtesy of Heidi Sanders

Piping Plovers Return

Piping Plovers are back! The Winter storms will likely delay their nesting a bit, but they are already active on the beach. One of our plovers (Waldo, a banded bird) was reported on a beach in North Carolina a few weeks ago and has subsequently been seen on Sagamore Beach.

As we've had recent troubles with vandalism, please report any vandalism of symbolic fencing and/or the gate and lock to board@ellisvillemarsh.org. We will pass any information on the Wildlands Trust and environmental police, if applicable.



photo courtesy of Heidi Sanders

Savery Pond Update

by Peter Schwartzman and Paula Marcoux

Savery Pond forms the headwaters of a creek informally known as Herring Brook, one of two fresh surface-water inputs to the Ellisville Marsh Estuary. The pond is spring-fed by local groundwater, with surrounding land uses including residential, forest, cranberry bogs and a commercial campground (primarily used by RVs). Savery Pond has experienced increasing levels of toxic cyanobacteria over recent years, with closures to swimming and pet exposures issued by MA Department of Public Health over the past four years (2011-2014). Last summer was the worst algal bloom on record, with a closure issued between July 16th and September 12th. The algal blooms are largely attributed to high concentrations of nutrients (particularly phosphorus). FEM commissioned a [study](#) to assess pond conditions (algae, nutrients, temperature, turbidity, pH/alkalinity and dissolved oxygen) in 2012. This study and supplemental technical assessment identified the following potential causes of algal blooms:

- **Nutrient effluents from cranberry bog operations, particularly concentrated in pond sediments;**
- **Sub-surface discharge from improperly constructed septic systems;**
- **Runoff from fertilizer applications;**
- **Reduced “flushing” of spring inflow to the pond, due to increased nearby municipal groundwater pumping**
- **Variations in temperature and annual precipitation.**

FEM has performed limited sampling on Savery Pond in 2013 and 2014, recently with the support of the [Plymouth Ponds and Lakes Stewardship Project](#). We are in the process of formulating a sampling plan that will increase monitoring efforts to help identify the most critical factors for the observed algal blooms and formulate solutions to reduce/eliminate closures. The sampling plan will include input from stakeholders, researchers/scientists and government agency staff.

Improving water-quality from upstream inflows, such as Savery Pond, is expected to benefit the marsh. Visit ellisvillemarsh.org to keep up with the latest on our watershed.

Beach Clean-up last Saturday a Success

How do you measure winter in Ellisville? By counting tires and broken lobster pots! Thanks to all who came out to clean up the marsh and beach, especially Paula Marcoux for coordinating trash pick-up with the DPW. (Photo below)



Photo courtesy of Kelley O'Neel