

The Three Bays Monitor

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Sea Lettuce - A "Growing" Problem

The rampant growth of sea lettuce in North Bay, Warren's Cove and Prince Cove, and its harmful effects on aquatic biota and shorelines, continues to be a major concern of many of our members. To address this problem, our Board has voted to investigate the feasibility of sea lettuce removal in these areas.



Sea lettuce and dead blue crabs in North Bay August, 2003

The negative impacts of sea lettuce growths are many. These include damage to, or even the killing of, shellfish, crabs, bottom dwelling organisms, eelgrass, and shoreline grasses. Decaying sea lettuce and other undesirable algae deposited on shore are not only unsightly but also create obnoxious odors and breed large quantities of undesirable flying insects.

One scientific study has shown that sea lettuce *"is detrimental to estuarine invertebrates due to the production of toxic exudates and low oxygen tensions which occur in the seaweed beds at night"*. Mortality to blue crabs may occur within minutes after such conditions arise. Many other studies have shown that sea lettuce mats on the bottom layers of an estuary *"likely kill some nonmobile species, such as polychaetes (worms) and sedentary mollusks"*.

Initially, our program will gather relevant information from scientific and conservation organizations around the world that have studied sea lettuce effects on water quality and biota. Of special interest will be those locations that have actually tested or practiced sea lettuce harvesting or removal, including the methods used and the positive and negative impacts observed. As sea lettuce removal could adversely impact some species, our research will also identify the potential of unwanted bycatch resulting from harvesting, as well as loss of habitat or food.

Three Bays welcomes new Board Members

Three Bays Preservation welcomes John Fallon, Jr. to the Board of Directors. We welcome three new members to the Advisory Board: Art Cook, Jr., David Case, Edward "Ned" Crosby

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This exciting new initiative will help us all to understand the effects of sea lettuce and other harmful algae on the Three Bays' flora, fauna, and water quality, and how we might stem their unwanted growth.

Don Schwinn, Chairman of our Technical & Scientific Committee, will lead the effort.

Audubon Update on Dead Neck Island

There were 15 pairs of Piping Plovers nesting on Dead Neck this year, along with 117 pairs of Least Terns and 59 Pairs of Common Terns. Unfortunately, productivity for both plovers and terns was down.

Weather played a role in the poor productivity of the plovers. A very cold, wet May and early June almost certainly affected the plover chicks adversely, with many chicks disappearing during this time. Tern chicks generally don't begin hatching until the third week of June, so avoided much of the bad weather.



*Coyote tracks on Dead Neck
October, 2003*

Predation, primarily by foxes and coyotes, was devastating to the island's tern colonies this year. The Common Terns were hit particularly hard with few if any eggs reaching the hatching stage before being taken by predators. On the day of the official census, June 11 this year, only 59 intact Common Tern nests were counted while 84 empty or recently predated nests were seen. Least Tern nests fared somewhat better, but with beach grass growing in more densely each year, their numbers were at least 50% lower than they had been for the previous three seasons. If we hope to continue the outstanding record of shorebird nesting on the island, both predation and vegetation density are factors with which we will have to deal.

Over the past four years, Dead Neck/Sampson's Island has become an important site for shorebird nesting in Massachusetts. The cooperative efforts between Mass Audubon and Three Bays Preservation to create and maintain this habitat have met with great success. With Fall upon us, we are engaged in fashioning habitat management plans for the next season that will address the predation and vegetation density challenges that have emerged on the island.

2003 Annual Appeal Underway

By now most of you will have received a request to support Three Bays Preservation, Inc. through our Annual Giving Drive.

We ask you to consider the important accomplishments that your previous support has made possible, from the dredging that increases the water flow in our estuaries and has improved bird habitat, to the scientific work that has helped to pinpoint where many of our pollution problems have come from and what the solutions might be.

None of this work could have been done without you — as volunteers who collect water samples, and as generous donors who recognize the need for an organization that is dedicated exclusively to the protection of our beloved estuarine system.

Please consider a significant donation this year, and know that you have directly contributed to this effort. Thank you!