

Important: Annual Meeting March 11 (details p. 4)



Belle Isle News

Newsletter of the Friends of Belle Isle Marsh

MARCH 1984

Soft grey winter
marsh
rose clouds shade
frozen grasses
hovering hawks
hushing wings
the stillness
sound.

THE PLANTS OF BELLE ISLE

Massachusetts has a Wetlands Protection Act, Chapter 131, Sec. 40, of the Massachusetts General Laws. Its purpose is to protect fresh and salt water wetlands against dredging, filling or alteration. A few of the ecological values of a salt marsh as expressed in this act are:

- *Salt marshes are significant to protection of marine fisheries, to protection of land containing shellfish, and prevention of pollution and are likely to be significant to storm damage prevention and ground water supply.

Salt marsh plants and substrate remove pollutants from surrounding waters. The network of salt marsh vegetation roots and rhizomes binds sediments together.

Salt marsh cord grass and underlying peat are resistant to erosion and dissipate wave energy thereby providing a buffer that reduces wave damage.

Evidence of certain plants indicates the presence of a wetland, as well as its type and boundaries. Plants

are also indicators of the health of the wetland; a marsh which has a substantial diversity of salt-tolerant species exemplifies a healthy, functioning salt marsh.

The Inventory

In the summer of 1983, eight people (Craig Jackson, Katie Durham, Esther Fich, Soheil Zendehe, David Baldwin, Jim Wang, Edwin Stegman and Barbara Gard) inventoried some 200 plots of Belle Isle Marsh for one full day (July 23) and two evenings (July 25 and 27) to see what kinds of plants were there.

Using a random numbers table we paced off half-meter squares on both sides of a 100-meter transect. We did this twice which gave us 200 unit samples. Each quad was broken up by percentages into muck or water, debris or dead vegetation, or actual growing plants. A trace meant that there might have been only one plant or one stalk of a grass in the quad. This data was put into a computer, and using the SPSS program (Statistical Package for the Social Sciences) the percentages of each plant were then averaged.

The Findings

The Chapter 131, Sec. 40 regulations define a salt marsh as follows:

Paragraph 10.32 (2) Saltmarsh means a coastal wetland that extends landward up to the highest spring tide of the year, and is characterized by plants (emphasis added) that are well adapted

to or prefer living in, saline soils. Dominant plants within salt marshes are salt meadow cord grass or sometimes called salt marsh hay (Spartina patens) and/or salt marsh cord grass (Spartina alterniflora).

The findings of our inventory are as follows:

<u>Spartina alterniflora</u> - salt marsh cord grass	34.18%
<u>Spartina patens</u> - salt marsh hay	33.13%
<u>Distichlis spicata</u> - spike grass	6.61%
<u>Salicornia europaea</u> - jointed glasswort	1.54%
<u>Atriplex patula</u> - orach or spearscale	.04%
<u>Salicornia bigelovii</u> - dwarf glasswort	trace
<u>Phragmites communis</u> - giant reed	trace
Dead space or muck -	8.40%
Debris -	1.09%
Surface water -	.086%

This data summary indicates that the two main salt marsh plants Spartina alterniflora and S. patens are evident and abundant (34% and 33%). So, clearly, Belle Isle Marsh is an identifiable salt marsh according to Massachusetts law. The marsh is also diverse in the number of species present and consequently quite a healthy system despite its long history of being located close to a booming, active city.

Barbara Gard

"THE ISLANDS"

Friends of Boston Harbor Islands will sponsor a series of four Thursday evening symposia on Boston Harbor in April.

APRIL 5: BOSTON HARBOR ISLANDS HISTORY
APRIL 12: GEOLOGY OF THE ISLANDS
APRIL 19: BIRDS AND PLANTS
APRIL 26: WATER QUALITY

These events will take place at the UMass/Boston Harbor Campus, and are offered without charge. In addition, there will be a Lovell's Island cruise on Saturday, April 28, all day. For more information call Suzanne Gall, 523-6799, or write Friends of the Boston Harbor Islands, 20 Parmenter Street, Boston 02113.

PHOTO CONTEST

Friends of Belle Isle Marsh will sponsor the first Belle Isle Marsh Photo Contest, so start taking pictures now. Categories to enter in: People; scenic; plants; animals. Full details of the competition in the next issue of this newsletter.

WE NEED YOUR SUPPORT!

Join Friends of Belle Isle Marsh
Annual membership fees: Individual \$3;
Family \$5; Seniors & Youth \$1.

This newsletter has been produced by Pat Hickey, Gail Miller and Soheil Zende. Artwork by Denise Braunhardt, Barbara Gard and Marian Merullo.



OF VOLES AND VICTORS

Winter field trips at Belle Isle Marsh are not always popular. This makes sense to me, seated as I am in a warm house; the marsh, after all, is a cold and windy place in winter, the snow often drifting to several feet.

And yet there was something intimate and intriguing about winter at Belle Isle which drew four of us out on January 14 to see what there was to see. A light snow was falling and the marsh looked hushed and empty. Only a few cross-country ski tracks marred the snow we tromped through. It was not long before we spotted two Short-eared Owls not far off performing their graceful aerial hunting dance, sailing, swooping and lifting off again. We watched as one flew up from behind a piling clutching a vole in its talons. It settled on the snow-covered channel and looked cautiously around before beginning its feast. From the distance a crow approached cawing loudly; the owl was instantly on guard. The crow landed not five feet from the owl and cawed again. Whatever was said or insinuated, although unclear to us, was quite clear to the owl which readily abandoned its catch to the intruder and flew off. Not long afterwards we watched the other owl, now further off, give up an enviable perch to another crow.

We walked on wondering at the history behind the curiously well-defined relationship between the Short-eared Owls and crows of Belle Isle. While we mused a Great Blue Heron passed silently overhead, its long neck folded in as if against the cold. In the Phragmites to our right a few Horned Larks were tit-ttering.

It takes some bundling up to head into the marsh this time of year, but a

glimpse into the inter-relationships that abound there in this most intimate of seasons can make it well worth the effort.

Pat Hickey

SALICORNIA



It's such a little plant,
Just inches tall in height,
And in the ebb and flow
Is often hid from sight.

It's hidden, too, from air,
When covered by the tide,
With pores kept tightly closed
Lest salt water get inside.

And in this state it can't
Use air and sun to grow,
Photosynthesis must wait
Until the sea is low.

How then between the tides
Does it ever do enough
To make the starch and things
That comprise its very stuff?

'Tis a secret worth to know
Since it may provide a hint
Of how crops could be induced
To increase their growing stint.

And world hunger then might be
Thereby dealt a hefty blow,
When scientists learn how
Salicornia doth grow.

Esther Fich



FIELD TRIP SCHEDULE

The following field trips have been scheduled to start at 2 p.m. Please meet at the entrance to Belle Isle Marsh Reservation on Bennington Street, East Boston

Saturday, March 17, 1984

Sunday, March 25, 1984

Saturday, April 7, 1984

Sunday, April 15, 1984

SPECIAL: FISH

Saturday, April 28, 1984

Sunday, May 6, 1984

Saturday, May 12, 1984

SPECIAL: INVERTEBRATES

Sunday, May 20, 1984

Saturday, June 2, 1984

Sunday, June 10, 1984

SPECIAL: VEGETATION

Trip Leaders:

David Desmond	324-7527
Kermit Norris	567-2339
Soheil Zende	628-8990

Field trips are free and open to the public.

COMMUNITY LIAISON NETWORK

Friends of Belle Isle Marsh is forming liaison committees for each of the three communities that border the Marsh. If you are interested in participating in these or would like to find out more about them please call Craig Jackson (321-4382-evenings) or speak to him at the Annual Meeting.

Come to our Annual Meeting

TIME : Sunday, March 11, 2 PM

PLACE : Our Lady of Lourdes Church Hall, 2 Endicott Ave., Beachmont (Revere); a short walk from Beachmont MBTA Station

SPEAKERS : Gary Clayton, Coastal Zone Management
Edith DeAngelis, Boston Conservation Commission

ALSO : First Annual Marshmuckers Fashion Show
Special interest corners
Refreshments

This gathering is free and open to the public.

Annual Elections

The Nominating Committee recommends the following nominations for the Board of Directors:

President:	Kermit Norris
Vice President:	Gail Miller
Secretary:	Soheil Zende
Treasurer:	Barbara Gard
At-large Members:	George Cumming, Esther Fich, John Kilmartin, and Ann Lindsey

The election will be held at the Annual Meeting, and other nominations will be accepted from the floor.

Friends of Belle Isle Marsh
20 Palermo Street
East Boston, MA 02128

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