



# Belle Isle News

Newsletter of the Friends of Belle Isle Marsh

No. 14 DECEMBER 1986

## SALES CREEK UPDATE

The Final Mitigation Document for the Sales Creek Flood Control Project has finally been submitted by Boston Survey Consultants to the Secretary of Environmental Affairs, James Hoyte. It is a lengthy reconsideration of all the factors that led to the original Sales Creek Project, and a rehashing of the major objections to the project raised by the Belle Isle Subcommittee of the Town of Winthrop, as well as other interested persons and groups, including Friends of Belle Isle Marsh.

At this point there are only a few things that we can summarize from the report:

1. Culverting and dredging of Sales Creek is not recommended because the cost and difficulties of disposal associated with dredging make it unfeasible. Belle Isle Inlet will not be dredged either.
2. Clearing and fencing of waterways is adequate for the flood-control needs of the Beachmont community. Maintenance of the waterways in their cleared state is very important.
3. Two of the upper reaches in the watershed are to be hydraulically connected to each other.
4. No adverse effects to Belle Isle Marsh are anticipated from the use of the Bennington Street Pumping Station.

This report is, as usual for such documents, replete with finely printed charts, tables, graphs, and maps. This means that non-experts can barely hope to wade through this material and come out with solid information with which to form an independent opinion. We invite any readers who have experience in deciphering such documents to lend a helping hand in formulating our response to this document. Please call Soheil Zende (628-8990) or Craig Jackson (321-4382).

## WINTHROP DEVELOPMENTS

The Bonacorso and Zoppo (Neponset Associates) properties adjacent to Belle Isle Marsh remain areas of deep concern. The Bonacorso property on Morton Street is still in a state of obvious non-compliance with the instructions of the Suffolk Superior Court Civil Action which call for:

Cleaning up the parcel itself;

Removing debris from adjacent marshland;

Building a boundary structure -- a revetment -- to prevent further encroachment and pollution of the marsh;

Revegetating damaged areas of the marsh.

The deadline for compliance with this action was October 31, 1986. A few days earlier our Winthrop Subcommittee filed a

statement with the Attorney General's office which listed several obvious deficiencies in compliance. Copies of this statement were also sent to other appropriate officials. We are awaiting further developments in this case.

A second continuing action involves the same site, from which illegally stored and highly flammable material (Methyl Methacrylate) was removed last May by order of the EPA. (See "Another Silent Danger," *Belle Isle News*, June 1986.) The violator, Bonacorso, is expected to pay for the expenses of the special removal procedure. Although FBIM did not testify in this case, we await its outcome too.

Last May we appealed to our members for donations to a contingency fund for legal services in coping with the threat of extensive development on the Zoppo-owned acres behind Revere Street. So far, your contributions have totaled over \$2100. This amount has been set aside while we ponder our next move in this increasingly complex situation. We expect to report on this more extensively in our next issue.

Our Winthrop Subcommittee is extremely busy dealing with these and other conservation issues in Winthrop. We urge you to become involved in our preservation efforts in the Town of Winthrop by calling one of the co-chairmen of the Winthrop Subcommittee: Conal Foley (846-0786), John Kilmartin (846-1480).



Cleaning Zoppo's Marsh

### THE SCRUBBERS

We wish to thank all of you who came out on Saturday, October 25, to help with our Winthrop Clean-up.

This was our fifth annual clean-up, and a particularly satisfying one because we tackled some major problem areas in the marsh successfully. The very bad stretch along Short Beach looks a lot better now. But the best part was the massive effort at cleaning the creek that floods Zoppo's Marsh. This five-acre piece of Belle Isle is in constant jeopardy from the fact that the lone creek that feeds it is susceptible to severe dumping and far away from public scrutiny. That day we pulled a big boat, a huge metal culvert, two refrigerators, lots of shopping carts, and a few tons of rocks out of that creek. As a result it flows better and will help keep Zoppo's Marsh healthy.

Many of you are students of Ms. Corcoran at Winthrop High School. We appreciate the time all of you put in, and special thanks are due Ms. Corcoran for the superb turnout she engineered -- and with her hand in a cast!

Special thanks are also due the MDC crew and the Winthrop DPW workers who helped with manpower and equipment. MDC, in collaboration with Macdonald's, provided hot lunches for all -- an added bonus!

See you at the next clean-up.



Red-breasted Merganser

**BILL NUTTLE WRITES**

*[For the past three years Bill Nuttle studied the hydrology of Belle Isle Marsh while he was a graduate student at MIT.]*

I happen to have a copy of the *Boston Globe* article on the dedication of Belle Isle Park, which I was sorry to miss. In the very last paragraph [a friend of the marsh] is quoted as saying that the inlet needs to be dredged or the marsh will silt up. I was surprised to see this comment . . ., and I cannot think what circumstances would justify such an intrusion into the marsh. As the hydrologist who has worked in Belle Isle Marsh, it is my view that the marsh is in no danger of degradation due to the ability of the inlet . . . to carry an adequate flow of tidal water.

Belle Isle Marsh may very well be collecting sediment, but that is to be expected and is not a cause for alarm. The accumulation of sediment is one mechanism by which marshes expand and keep their heads above water in the face of the currently rising sea level. Indeed, if marshes did not tend to trap sediment there would be no marshes.

An argument that was advanced to me by the owner of the marina in the inlet is that the inlet needs to be dredged so that it will flush out the pollutants better, like a toilet. Well, he has a point only if someone is defecating in the marsh on the scale suggested by his analogy, which is not the case. The major sources of pollutants to Belle Isle are the harbor itself and perhaps the Sales Creek Pump Station. These impacts are better handled at their sources, not by dredging the inlet.

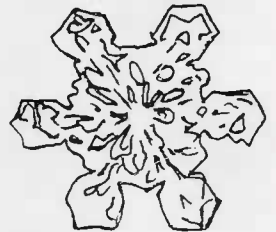
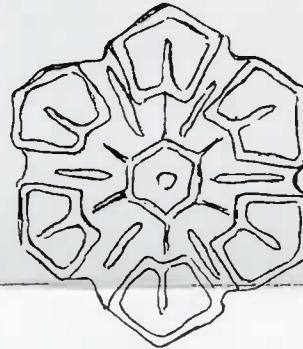
The adverse impacts of dredging in the inlet must be considered. Among the direct dangers is the impact on the extensive mussel beds in the inlet and the waterfowl that feed there. Related issues are what is to be done with the spoil, and the fact that a dredged inlet will be much more attractive for waterfront development.

There are legitimate reasons to be

concerned that the marsh is endangered by human activities in the harbor. Consequently, it is difficult to do nothing, to let nature take its course. In this case, however, I think that nature knows what she is doing and Belle Isle Marsh is not in danger of completely silting in.

Sincerely,  
William K. Nuttle  
University of Virginia  
Charlottesville, Virginia

*[Readers are invited to comment on the views stated in this letter.]*



**A SPECIAL PLACE: Belle Isle Marsh**

Boston Harbor has been picking up all sorts of national attention for its outrageous pollution; meanwhile Belle Isle Marsh has been quietly picking up its share of state-wide publicity -- of the positive kind. Secretary of Environmental Affairs Hoyte has chosen fourteen locations across the state to be representative "special places" in Massachusetts, and Belle Isle is one of them.

At a ceremony on October 22 at Paul's Bridge in Milton's Fowl Meadow Reservation, Hoyte announced the list of fourteen places and presented a special plaque to the caretaker of each place. MDC was presented with the plaque for Belle Isle and will display it on the sign at the reservation entrance.



## BIRDFINDER

Bird sightings at Belle Isle this fall included unusually high counts of some regular fall migrants and lingerers. One of the most noteworthy days was October 4: Kermit Norris counted 17 Great Blue Herons, 3 American Bitterns, and 48 Snowy Egrets, as well as a Pied-billed Grebe and 5 Eastern Meadowlarks.

Fall hawk-watching at Belle Isle is never expected to yield high counts, but you can expect a few surprises every season anyway. On September 28 I spent over three hours in the morning watching the sky and tallied but 2 sharpshins and 2 Ospreys. Then in a half-hour period, around noon, a Merlin, a Cooper's Hawk, and two Caspian Terns flew by! On October 15 there was but a single Osprey in two hours of hawk-watching, but on November 1 a Merlin, two kestrels, and a Bald Eagle came by in a two-hour period, as did a flock of seven Snow Buntings. So it goes.



Snow Bunting

The winter ducks are here now. Jane Cummings had a high count of 70 Green-winged Teal on November 23. (Earlier in the month Jane had also flushed a Clapper Rail from the Revere side of the marsh.) On November 23, on our regularly scheduled field trip, we watched

groups of Buffleheads and Red-breasted Mergansers swimming and diving in the creeks, and a small flock of Greater Scaup flew overhead. Later, a very strangely marked American Bittern flushed out of the marsh: This bird had a tremendous number of white or light feathers in the primaries and secondaries, giving the wings a peculiar appearance. Bitterns are ordinarily brown, grey, and olive.

Many other species of water birds are in the open ocean just beyond Short Beach, or in the waters around the airport and in Winthrop Harbor, but only a few kinds ordinarily spend long stretches in Belle Isle Inlet. As the season advances we'll be looking for loons, cormorants, Brant, goldeneyes, and even possibly coots or other ducks to put in an appearance at Belle Isle.

This is also the season to be watching the salt pans for our visitor from Eurasia: the Black-headed Gull. And we should keep an eye out for wintering Short-eared and Snowy Owls.

Try to come on one of our winter field trips and familiarize yourself with the sights and sounds of this most beautiful of seasons.

Soheil Zende

*[Please send your wildlife observations and birdnotes to us. We'll try to include them in future columns.]*

### T-SHIRTS: \$7

Here's an idea for Christmas presents:

give our very attractive T-shirts, dark brown on tan, 100% cotton, men's sizes XL, L, M, and S. Order yours today. Free

delivery in East Boston, Winthrop, or Revere. Others please add \$1.50 for handling and postage. Write Box 575, East Boston, MA 02128.



## PRIMAL OOZE

Many visitors to Belle Isle Marsh have heard field trip leaders discourse on the glacial origins of the marsh. Their descriptions paint a picture of how the surrounding landscape looked fifteen thousand years ago, when the glaciers began receding from New England. But if you simply walk to a high spot in Belle Isle and overlook the sweep of land toward Boston, you will see small areas in the marsh that actually resemble the way the landscape looked shortly after the first life forms appeared on earth, 3500 million years ago.

These areas may look like another sad example of illegal dumping, but in fact the bare, rusty brown patches amongst the *Spartina* grasses are actually bacterial mats. They look sterile to the untutored eye, sometimes submerged under shallow pools, sometimes dried out and peeling like dead skin; but actually they are complex mats of interlacing, interdependent life forms. Their structure is very much like that of human tissue: long filaments of connected cells winding around each other to form a solid, cohesive whole. Each of the different types of bacteria has a different role: One holds together the mat, another shields from the heat, cold, or excessive dryness, yet another provides some nutrient that the others need.

When our planet was still highly volcanic, the weather was violent, and the sun irradiated the earth's surface with an intensity that would kill most present-day life, from humans to plankton. The first life to evolve is thought to have simply fed on the rich broth of nutrients in which it developed. When that

source of food was exhausted, it became necessary for those primary life-forms to work a little harder. Giving up an easy existence of floating around in the primordial soup and eating, these life-forms evolved so that they could use the sun's energy to produce their own food from raw ingredients. Although nowadays we associate photosynthesis, as this process is called, with plants, these early life-forms were not plants but cyanobacteria (blue-green algae and bacteria).

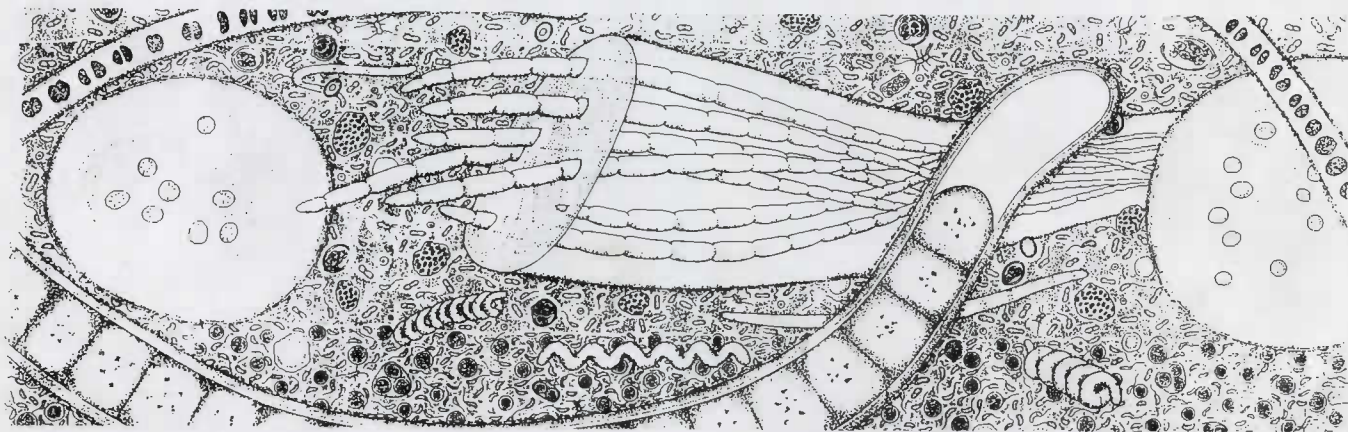
One waste product of photosynthesis is oxygen. As the cyanobacteria went their merry way, producing energy for their own use, over the course of a thousand million years the earth's atmosphere became terribly polluted -- with oxygen. This was probably the first major impact of evolution on our planet, a complete change in the composition of the atmosphere.

Because bacteria do not evolve as rapidly over the eons as other forms of life, the bacteria that live in mats amongst the grasses at Belle Isle are extremely close cousins to those original bacteria that changed the atmosphere of the earth into something that humans can breathe, and that shields us from the harmful rays of the sun. It is interesting to reflect that our existence still depends, today, on the Earth's first "polluters."

Without the photosynthesizing bacteria, the balance in the atmosphere that we depend on will topple, and we will cease to exist, to be replaced by . . . what?

Cymie Payne

Special thanks to Professor Lynn Margulis.



Bacterial mat: up close

**FIELD TRIP SCHEDULE**

The following field trips have been scheduled to start at 1 PM. Please meet in the parking lot of Belle Isle Marsh Reservation off Bennington Street, East Boston (half-way between Suffolk Downs and Beachmont MBTA Stations). Dress warmly and wear waterproof footwear.

- Sunday, January 11
- Saturday, January 31
- Sunday, February 15
- Saturday, February 28
- Saturday, March 21

Field trips are free and open to the public. Please call the following trip leaders for further information.

David Desmond      324-7527  
 Soheil Zendehe    628-8990

Please set aside these dates too:

- Sunday, January 18: BOSTON HARBOR TADL CENSUS (call leaders: Soheil Zendehe 628-8990 or Craig Jackson 321-4382)
- Sunday, March 8: FBIM ANNUAL MEETING

**SHOOT!**

Barbara Bishop, an accomplished photographer, is in charge of the Third Annual Belle Isle Photo Contest.

We encourage you to submit entries so that we can have a large selection to pick from in preparing several displays of marsh photos. Barbara expects to set up these displays at public places like bank lobbies and civic buildings.

The rules for our contest are spelled out in the last issue of the newsletter, or call Barbara at 846-7418. The deadline for entries is January 31, 1987, so hurry!

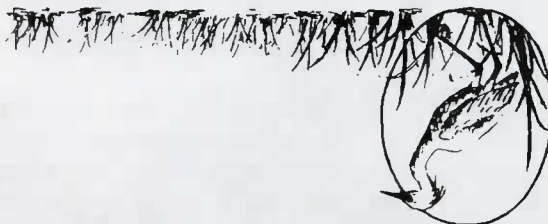
**LAST CHANCE: TAX BREAK**

This is the last year that your contributions to tax-exempt organizations can be deducted from your income even if you don't itemize your deductions on the federal tax forms. So if you haven't already made your contribution to FBIM, won't you do so now?

**DECEMBER 1986**

**No. 14**

**Belle Isle News**



This newsletter is produced by Tim Driscoll, Esther Fich, and Soheil Zendehe. Red-breasted Merganser Linoleum print by Julie Roberts. Snowflakes and Snow Bunting by John Chaltas. Photo by Mary Corcoran.

Please join today. Any amount you can contribute above and beyond membership dues will be highly appreciated.

Individual: \$3  
 Family: \$5  
 Seniors: \$1  
 Under 16: \$1

Printing and mailing this newsletter, as well as all other activities of Friends of Belle Isle Marsh, is financed by membership dues and donations from generous members. Membership dues are as follows:

**MEMBERSHIP INFORMATION**

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