

# McWain Pond News

PO BOX 58 WATERFORD ME 04088

MARCH 2012



*The Gray Fox is not seen as often as its red cousin. It is unusual because it climbs trees.*

*The Pink Lady Slipper and the Showy Lady Slipper were used by Indians as medicine.*



*These photos were taken by Peg Nation near her home at McWain Shores.*

## “McWain’s Glacial Legacy and our Sticky Bottom”

Whoever has participated in our annual meetings, our plant survey or erosion control projects, or followed goings on around McWain Pond knows Earl Morse.



Earl is a highly trained scientist and experienced educator. At annual meetings he has made presentations and

answered myriad questions on the phenomena in our watershed and in the pond. Earl is a voice for thorough and science-based discussions.

He is the author of several scientific papers on the dynamics of our environs. His latest work, is now posted on our website, [www.mcwainpond.org](http://www.mcwainpond.org)

It is entitled “A Bit of McWain’s Glacial Legacy and our Sticky Bottom.” It contains an explanation of how the glaciers came and went, how they created our beautiful locale and what problems they left behind for us. One is clay that carries phosphorus into the pond via erosion. Phosphorus is plant food

and too much can lead to ugly algae blooms.

**ANNUAL MEETING  
BIRCH ROCK CAMP  
10AM - JULY 14, 2012  
REFRESHMENTS  
BRING FRIENDS & FAMILY**

While Earl’s erudite paper is summarized in this newsletter, the summary does not do this fascinating paper justice. It is our hope that it will spur our members to go to our website and download and read the complete paper.

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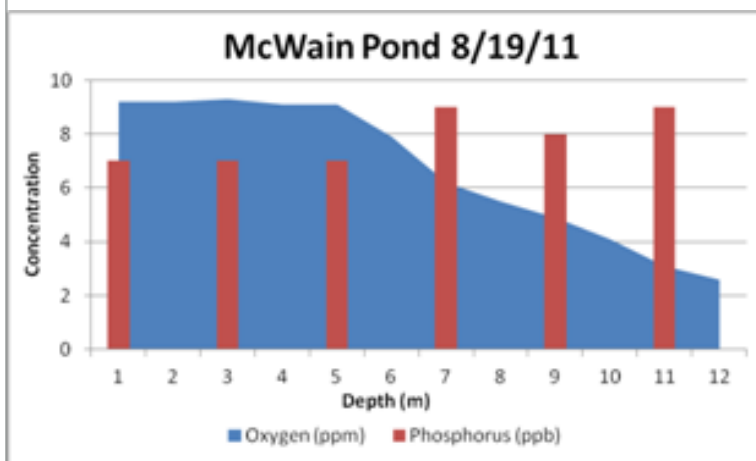
## TREASURER'S REPORT

We started the year with:	\$4,665
Contributions and Dues	\$2,405
Watershed Grant/State	\$4,251
Mini Grants Disbursed	\$1,350
Charitable Contributions	\$ 700
General Expenses	\$2,250
We ended the year with:	\$7,021

*Shad Bush blooms in the early spring*



# HOW IS OUR WATER QUALITY DOING ?



## WE ARE HOLDING OUR OWN, JUST BARELY

Colin Holme of the Lakes Environmental Association (LEA) reports as follows.

The 2011 Secchi disk average of 5.9 meters was slightly less deep than the long-term average of 6.0 meters for the pond.

Dissolved oxygen depletion was first observed in the bottom waters in late July. Depletion continued and expanded up the water column for the rest of the summer.

Phosphorus concentrations in the surface waters averaged 6.8 ppb, which is less than the long term average of 7.5 ppb.

Below the thermocline, phosphorus concentrations were again 8.7 ppb.

Alkalinity was 8 ppm, which is above the long term average of 6 ppm and pH was the same as the long term average of 6.7.

Chlorophyll concentrations were moderate at 2.6 ppb, which is lower than the long-term average of 3.1 ppb.

Conductivity was 22  $\mu$ S, which is under the long term average of 28  $\mu$ S and color was the same as the long term average of 17 SPU.

**Because of dissolved oxygen depletion in the bottom waters, McWain Pond remains in the MODERATE/ HIGH degree of concern category.**

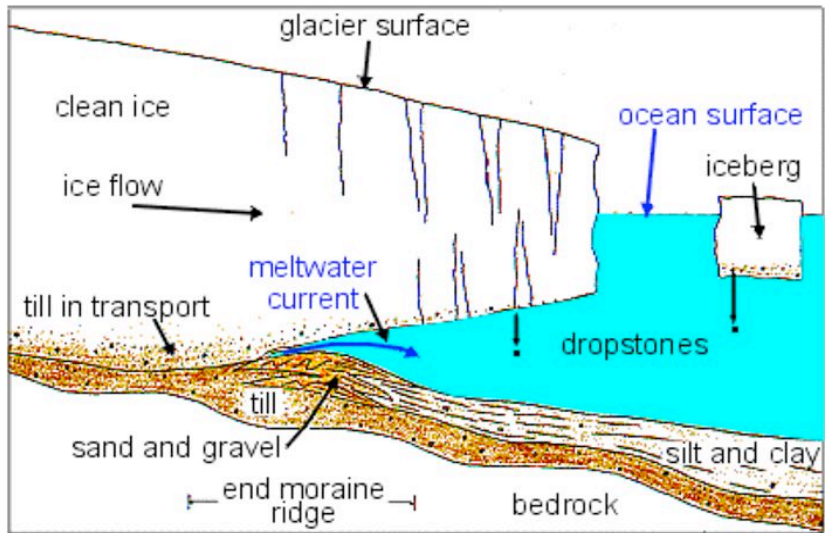


# McWain's Glacial Legacy and Our Sticky Bottom.....

Editor's summary of a paper by Earl Morse

16,000 years ago glaciers covered McWain Pond to a depth of 1.5 miles. As they ground their way south they abraded the hills and valleys with tremendous force. When glaciers began to melt they receded and left behind everything from boulders to clay. Clay is composed of the finest particles of the glacial grinding process.

This glacial clay is readily found in our land and water. Clay can remain suspended in water except during winter when it settles as ice prevents wind from stirring the waters. Clay is a carrier of



food (phosphorus) for plants and bacteria, especially one found suspended in our water as small brown colonies in late July and early August. The scientific name is for this bacterium is *Gloeotrichia echinulata* (think Glow Tricky Enchilada.) You can see them with the naked eye as tiny colonies float near the surface. They can cause swimmer's itch in people with sensitive skin. If there are a lot of them they create an algae bloom that makes swimming no fun and stifles other creatures.

When they are in the mud their slimy protective coating make the mud feel sticky, oozy and yucky.

A lot of what your pond association accomplished with our erosion control project a few years ago was to try to stop the phosphorus from reaching the lake. This is a never ending struggle.

The complete paper is available by email request to Earl Morse: [E\\_J\\_Morse@roadrunner.com](mailto:E_J_Morse@roadrunner.com). Earl welcomes inquiries from students of any age who might be looking for a project with a connection to McWain Pond.

For more information on geocells and geotextiles see [www.prestogeo.com](http://www.prestogeo.com)



## Here are a few things that we can all do

- Encourage plant growth - eliminate bare ground
- Avoid raking driveways and paths - leaves and twigs slow erosion
- Use geocells and geotextiles to stabilize erosion sites (see photo)
- Build little dams in runoff areas to trap the larger particles... dams don't work for clay
- Divert runoff into the woods
- Trim vegetation sparingly



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## *Waganaki Properties*

Mary Kate McTeigue

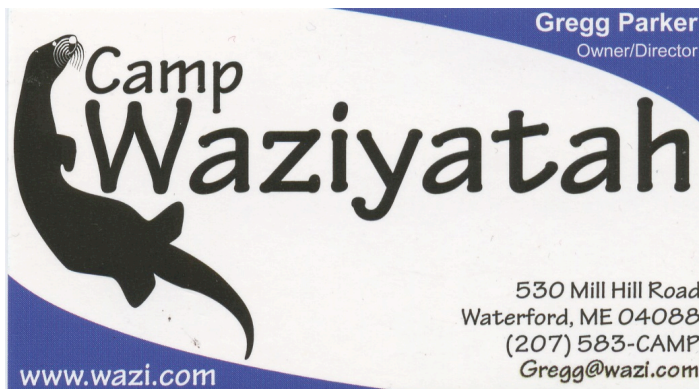
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