Spring 2011

TRICKEY POND NEWS

IT DOES MAKE A DIFFERENCE

"With only three full-time employees at Maine DEP to tackle invasive species problems statewide, the success of our program depends on volunteers like you. You and Trickey Pond Environmental Protection Ass'n. express the best of citizen-government collaboration. Thank you!"

The above paragraph concludes a letter we received in January on DEP letterhead and personally signed by each of the three employees: John McPhedran, biologist, Karen Hahnel, environmental specialist, and Paul Gregory, environmental specialist. It is very gratifying to know that our efforts are appreciated at the state level, and all who have given of their time, treasure, or both in this endeavor share in this tribute. Thanks to all of you.

As your lake association, we also depend heavily on volunteers. Imagine the satisfaction you could get from finding an invasive plant attached to a boat before it enters our lake and knowing that, but for you, it could have been the beginning of an infestation. We do pay inspectors to be at the launch site for as many hours as possible, but we can't cover all the days and hours we would like to. Volunteer inspectors can help fill in the gaps. We supply the training and all the necessary materials, so please think about joining our courtesy boat inspection team and help make a difference for Trickey Pond. Call or email Daphne Meyer to volunteer or to receive more information – tpdaphne137@roadrunner.com or 207-693-6488.

MILFOIL SUMMIT 2011

After two postponements due to winter storms, the 12th annual Milfoil Summit finally took place in Lewiston on April 15. Organized by our good friends at LEA, this annual event brings together representatives from lake associations across the state, Maine Departments of Environmental Protection and Inland Fisheries and Wildlife (which includes the Maine Warden Service), the Volunteer Lake Monitoring Association, Cobbossee Watershed, Portland Water District, LEA (of course), and other parties concerned about water quality issues in the state.

This year's opening speaker was Darryl Brown, the new DEP Commissioner. Tacitly acknowledging that some have questioned his dedication to the environment, he began by declaring that we are all "united" in wanting to protect our lakes and the environment. He expressed pride in the fact that of 6000 lakes in Maine, only 33 are known to be infested and noted that while we need to work toward having no infested lakes, these figures are much better than in other states.

DEP tackles the problem in several ways: 1) Because the threat from invasives affects the state's overall economy, business, tourism, and related wildlife, DEP collaborates with other state agencies to address it. 2) Prevention being the first line of defense, grants to lake associations (such as TPEPA) support efforts to inspect boats entering and leaving Maine waters. 3) Educational programs which aim to encourage boaters to do their

own boat inspections and to increase awareness of the issue. Brown concluded by saying that defeating the invasive threat will require all of us working in partnership.

Lest we lull ourselves into thinking that non-native plants are the only invasive problem we face, the summit's second speaker was Joe Dembek, invasive fish coordinator for the Inland Fisheries and Wildlife Department. He stated that since 2006, there have been 71 known illegal introductions of non-native fish in Maine. These include small- and largemouth bass, northern pike, and black crappie. He cited several reasons behind these introductions and listed some of the problems they cause, the most serious of which is transmission of disease. He stressed the importance of education in preventing these introductions.

Using a federal grant, the Maine Milfoil Initiative is studying 7 selected lakes in Maine to determine the best practices for preventing and/or treating variable leaf milfoil in all Maine lakes. This year will be the second year of the program which began in 2010 and will conclude in 2012. Elizabeth Schran of St. Joseph's College reported on the work accomplished last season and set the following goals for 2011: continue the work of 2010, expand the internship program, try to include two more lakes in the program, work on a citizen management guide, and try to hold a regional or national workshop to exchange ideas with other states. If you are interested in learning more about this program, go to milfoil@sjcme.edu.

Finally, prompted by LEA's recent attempt to have the state close the Songo Lock to boat traffic, Peter Lowell moderated a panel discussion on closing infested waterways which included representatives from IFW, DEP, and the Department of Conservation. We learned that in the 2001 milfoil legislation, a procedure was established to allow for "surface use restriction" of infected waterways which requires approval of both DEP and IFW and stipulates it be of limited duration. It has been used twice in the last ten years. Peter reminded the audience that there is a need to balance short term and long term issues. In the case of the Songo, a consortium of concerned parties will be working together to clear the offending plants for the short term, but it is seen as being a multi-year issue.

The day ended with a question and answer session and a reminder that milfoil is only one of many water quality issues and that laws in place today need to stay in place to protect this important resource.

By Daphne Meyer

Lake or Pond???

One of the most frequently asked questions posed of biologists in the Lake Assessment Section of Maine DEP, is "what is the difference between a lake and a pond? About half of Maine's 6,000 lakes and ponds that have been assigned a state identification number have been named, many having two or three names. At least thirty have one name with the word lake in it and the other with the word pond. For example, Bryant Pond is also known as Lake Christopher and Dexter Pond sports the name Wassookeag Lake! It is often these dual names that make folks wonder exactly where to we draw the line in Maine.

One classic distinction is that sunlight penetrates to the bottom of all areas of a pond in contrast to lakes, which have deep waters that receive no sunlight at all. Another is that ponds generally have small surfaces areas and lakes have large surfaces. In Maine the latter distinction totally breaks down when one considers that one of the three Great Ponds is over 8,800 acres and one of the thirty-six Long Ponds is 2,500 acres! So a combination of surface area and depth are considered from a technical perspective. Some of Maine's large and deep bodies of water are indisputably lakes. Others are ponds – small and shallow. But there is a transition between the two where the definition becomes fuzzy. If we held to the depth distinction, some ponds would become lakes mid-summer when algal populations limit light penetration to the bottom. The surface area distinction makes no sense for seven-acre waters that are 50 feet deep (like Maine's kettle ponds that result from glacier melt)*, or for 400-acre waters that have emergent vegetation across their entire surface.

So to answer the question above: no definitive line exists between lakes and ponds. The one distinction that has any legal application is the designation of a body of water as a Great Pond. Maine state statues define lakes and ponds greater than ten acres in size as Great Ponds. If an impounded waterbody is greater than thirty acres in size it is also legally considered a Great Pond, impounded water less than thirty acres that were greater than ten acres before being dammed are also Great Ponds

Thus there is no exact technical distinction between lakes and ponds. All lakes and ponds provide critical habitat for other living creatures – aquatic macroinvertebrates, plankton, fish, wildlife, and vegetation – and all need protection, so that clean fresh water continues to be one of Maine's premier natural resources.

By Linda Bacon, DEP technical advisor, Reprinted from VLMP Fall 2010 "Water Column"

Understanding Our Lake

Winter is the quiet time on Trickey Pond. Ice blocks out the sunlight and prevents oxygen from being replenished in the water under the ice as there is no wind mixing. With little light below the ice and gradually diminishing oxygen levels, plants stop growing. Most animal life greatly slows its metabolism or goes into hibernation.

Spring is a period of rejuvenation for the pond. After the ice melts, all of the water approaches the same temperature from top to bottom. During this period, the strong spring winds can thoroughly mix the water column allowing the oxygen to be replenished throughout the entire lake. This period is called the spring turnover. Heavy rains , combined with the snow melt and saturated soils are a big concern in the spring. Water-logged soils are very prone to erosion and can contribute a significant amount of phosphorus to the lake. Every soil particle that reaches Trickey Pond has phosphorus attached to it.

Summer arrives and Trickey Pond will gradually stratify into a warm top layer and a cold bottom layer separated by a thermocline zone where temperature and oxygen levels change rapidly. The upper warm layers are constantly mixed by winds which oxygenate the water. The cold bottom layers are essentially cut off from oxygen at the onset of stratification. Cold water fish, such as trout and landlocked salmon, need this thermal layering to survive the warm summer months. In addition, they need a healthy supply of oxygen in these deep waters to grow and reproduce.

Fall comes and so do the cooler winds that chill the warm upper waters of Trickey Pond until the temperature differential weakens and stratification breaks down. As in the spring, the strong winds cause the lake to turn over which replenishes oxygen throughout the water column.

Lakes such as Trickey Pond which turnover twice a year, in the spring and the fall, are known as dimictic lakes. This turnover is crucial to maintain the dissolved oxygen level in the lake that is needed to maintain our ecosystem. Without it, this would be a very different body of water.

Adapted from Lakes Environmental Association 2010 Water Testing Report