



Fall 2016

Issue No. 180



Photo by Kathy Cain

***Sue Ellis enjoys a colorful paddle***

## **Report on the Annual Meeting 2016**

Over 70 people attended our annual meeting held on August 6th at the Community Center in Oxford. David Van Wie, environmental writer and former member of the Maine House of Representatives, gave a very informative talk on the history of shore land zoning in Maine and its benefits. We are fortunate to be able to visit almost any pond or lake in Maine and see trees surrounding the shores lines. This is not only aesthetically appealing but also crucial in preventing erosion and degradation of the water quality. Just one of the reasons Maine is unique and why we entertain so many visitors, especially now during foliage season.

This was followed by committee reports and elections. Jade Doyle, our Treasurer, reported that the TLEA finances have remained stable. Revenue from membership dues, sales and fund raising are steady; however our future grant revenue is decreasing. There is increasing competition for non-governmental grants to support environmental causes. Both the Youth Conservation Corp (YCC) and the Courtesy Boat Inspection (CBI) programs will have increased overhead costs this coming season. The Milfoil Mitigation program has significant maintenance costs and there is talk of expanding the program. TLEA will continue to solicit for grants and explore fund raising options. However, our finances depend primarily on membership dues and contributions.

Three new directors were elected to the TLEA Board: Steve Arnold, Dean Plaisted and Robin Sayre. Directors Ron Armontrout, Sue Ellis, K C Putnam, Peggy Dorf, Marcia Matuska and Tim Worden renewed their terms to 2019. Scott Bernardy, Anita Delekto, Dan Porter and Dan Pontbriand stepped down from the board.

\$1,467 was raised with merchandise sales, not counting special orders placed that day. Did you get your TLEA shirt or woven throw? It's not too late, contact Kathy Cain at 539-9122 or at [kathryncain@myfairpoint.net](mailto:kathryncain@myfairpoint.net) for purchasing info.

Discussion amongst the members present was robust and focused mostly on the milfoil mitigation program. We have had great success in reducing milfoil in most of the coves in Thompson, but the Pine Point area still has a high level of infestation. This is discussed in more detail in the report from our Milfoil Mitigation program later in this issue. The TLEA Board will be studying this problem in the future and exploring strategies to address this problem. Any effective strategy to rectify this daunting problem will require financial and volunteer commitment from the membership of TLEA.

## **Water Quality Report**

(Submitted by Scott Williams)

Although the season for monitoring lake water quality still has a few weeks to go, and some of the laboratory data are not yet available, it is safe to say that overall conditions in Thompson Lake were very good in 2016, and will likely be ranked “above average”. In fact, many Maine lakes may experience better overall water quality this year, because of the period of extensive (rapidly approaching “severe”) drought conditions throughout much of the State.

Following a nearly snowless winter, dry spring, and extremely dry summer, the water in many Maine lakes is, and has been very clear, and measuring the clarity of lake water (the distance that one can see down into the lake) is a simple, but reliable indicator of water quality and overall lake health. This seems counterintuitive to most people, because healthy lakes rely on a continuous supply of fresh water from streams and groundwater in their watersheds throughout the year, and one might expect that drought would have a negative effect on this natural flushing process.

But runoff from snowmelt and rain provides a “vehicle” for pollutants associated with watershed development to find their way into lakes. Sediment particles from soil erosion and nutrients (primarily phosphorus) from fertilizers are carried into lakes via runoff. The lack of rain during the past several months has minimized runoff, and many lakes have been noticeably clearer this year.

Thompson Lake has been no exception. During the period from early May through much of September, water clarity readings have varied from just under 10 meters (~35 feet) in the spring to more than 11 meters (~36 feet) in August. Thompson Lake is among Maine’s clearest and cleanest, and anyone who spent time on the lake last summer must surely have noticed the exceptional clarity of the water!

However, lakes do not indefinitely benefit from drought, because low water levels occur and pollutants already in the lake tend to concentrate as a result of evaporation. Native aquatic plant communities, which provide many benefits to fish and other wildlife, can be severely damaged when exposed to drying conditions.

Many lakes tend to be clearer during dry years and less clear during wet years. This generalization is less likely to hold true in lakes where minimal watershed development has occurred, or where water quality conservation practices are employed extensively. Climate change is likely to result in an increase in severe weather events in both directions (drought and flood), which may cause lakes to vacillate dramatically in the future. Fortunately for Thompson, the persistent effective efforts of TLEA during the past several decades are likely to protect the lake from many of the destabilizing forces of a changing climate.

## **Milfoil Mitigation**

(Submitted by Scott Bernardy)

It is impressive what our milfoil mitigation crew has achieved over the years. We dramatically reduced variable milfoil in the Coves of Otisfield, Edwards and Hancock from 10 years ago and many of those previously choked out lake areas are back to their native plant ecosystems. Our focus this year is in Pine Point Cove. We conducted a pilot program of burlap tarps at this cove 2 years ago and this was very successful. The biodegradable burlap tarp kills milfoil but is less likely than conventional tarps to billow up and get snagged by boat props. It also doesn't have to be removed as it will biodegrade. This technique allowed TLEA to set up a boating corridor using burlap tarps for the residents of Pine Point Cove North Shore, thereby reducing the amount of milfoil fragments boats would generate. We are hoping this tarp will last 3 years before having to be replaced.

This past season the Courtesy Boat Inspectors (CBI) found 10 boats leaving the lake with milfoil fragments attached to the hulls. This is the highest amount ever discovered by CBI's on boats leaving our lake. Fragmentation is the primary means of infesting new lakes and it doesn't take more than a 1 inch fragment to start a new plant. At this time there is no other area on Thompson Lake that can generate significant milfoil fragments other than Pine Point. This could cause their spread of milfoil in our lake and possibly in neighboring lakes in the region.

TLEA will be reviewing the scope and cost of managing the milfoil in Pine Point area. The Maine DEP estimates the size of the infestation in Pine Point Cove at 10 acres. Since the Maine DEP will not allow us to use herbicides, physical management is the only option we have for milfoil mitigation at this time.



In addition to removing milfoil the Thompson Lake Dive Team does a complete underwater survey of Thompson Lake each year where there are ideal growing conditions: water levels less than 10 feet and a soft bottom. Thus far there was only one area near the dam that had a new area of infestation larger than several isolated plants.

If you have an interest in assisting the TLEA with its milfoil management Program please call TLEA co- presidents Kathy Cain or Marcia Matuska.

## **Courtesy Boat Inspection**

(Submitted by Marcia Matuska)

CBI, Courtesy Boat Inspection, has been very busy this season. We added in extra hours on Fridays and staffed Robinson's Marina a few weekends to determine the amount of activity there.

A total of 659 boats were inspected entering the lake and 501 were inspected leaving the lake. The Marina in Casco was the busiest ramp with 582 boat and trailer inspections; there were 344 at the Landing and 227 at Pismo. The Marina was minimally staffed and only 7 boats were inspected.

8 plants were removed from boats leaving the lake at the Landing. All of these were the invasive plant variable leaf milfoil. One milfoil plant was removed from a boat entering the lake, although it probably originated from Thompson Lake.

Variable leaf milfoil was removed from 2 boats leaving Pismo. The native plants of little floating heart and pipewort were also removed from boats at Pismo.

Maine has relatively few invasive aquatic plants. It is important that we inspect our boats before and after launching to keep all of our lakes as free from invasive plants as possible. Thanks for your cooperation!

*Editor's note:* Marcia has taken over this program from Dan Porter, who stepped down this year after 5 years of directing the CBI program. During that time Dan attended many state milfoil conferences and trained our inspectors. His diligent efforts improved the program and prevented many potential infestations of Thompson and other area lakes. The TLEA board extends our thanks to Dan for his dedicated work.

# Youth Conservation Corp

Our YCC program was very active this past season with a total of 13 erosion control projects performed on the watershed, 6 in Oxford, 3 in both Poland and Otisfield and 1 in Casco. New board member Steve Arnold led this effort; Drew McLaren served as Crew Chief and Ryan Curtis as Crew Chief in Training. Our YCC is one of our most important efforts to protect the water quality of the lake. Unfettered runoff from exposed land, launches, roads and drive ways is the largest contributor to phosphorous levels in the lake and resultant algae growth. This program is funded through our membership dues and the 319 Grant; although that grant expired at the end of 2016. We will rely more on membership dues and contributions in 2017. All the more reason to encourage membership amongst your neighbors and contribute!

If you have an erosion problem area on your property that you think would benefit from drainage barriers and shore land stabilization contact Steve at [sa03842@yahoo.com](mailto:sa03842@yahoo.com) or contact our TLEA presidents at [mmtlea@gmail.com](mailto:mmtlea@gmail.com).

*Check out our last page of the Observer for a photo depicting what the YCC can do.*

## **Watershed Protection (319 Grant)**

(Submitted by Heather True)

*The Thompson Lake NPS Watershed Protection Project, Phase IV (Casco and Poland)* was awarded to the Cumberland County Soil and Water Conservation District in partnership with TLEA through a competitive grant process. Funding for this project has been provided in part by the US Environmental Protection Agency under Section 319 of the Clean Water Act and administered by the Maine Department of Environmental Project. The focus of this project was to target water quality impact sites in Casco and Poland following the action plan listed in the 2013 Thompson Lake Watershed Protection Plan. The next steps of this plan is to pursue a Phase V grant project to target sites in the northeastern section of the watershed

The present 319 Grant will be coming to an end this year. This two-year project to protect and improve the water quality of Thompson Lake began in March 2014 and was extended through December 2016 to allow for an additional construction season to address water quality impact sites. To date over 25 sites have received technical services that have included site visits, site specific recommendations,

engineered designs/oversight, and permitting assistance. Twelve high priority water quality impact sites have been addressed and a few additional sites are being pursued to be addressed this fall.

In addition to addressing significant water quality impact sites, this project also helped support TLEA's Youth Conservation Corps (YCC) program in providing four weeks of financial assistance. We also coordinated a survey conducted by TLEA to review previously installed water quality protection practices (completed through Phase I-III projects) and notify property owners of necessary maintenance.

For more information or assistance regarding a known water quality impact site please contact **Heather True of CCSWCD at [207-892-4700](tel:207-892-4700) or [htrue@cumberlandswcd.org](mailto:htrue@cumberlandswcd.org)**. CCSWCD is a non-regulatory, non-profit organization whose mission is to assist and educate the public to promote stewardships of soil and water resources.

## **Membership 2016**

(Submitted by Rosemary Nicklaus)

To date only 45% of property owners are TLEA members. With fewer paid memberships and generous donations, current and future TLEA environmental and educational projects face decreased funding and Thompson Lake, the lake we are so fond of suffers. We thank you for your generous contributions but we need the support of the entire Thompson Lake community to fulfill our mission. Our Mission is dedicated to preserving the natural beauty, water quality and biological diversity of the lake. Only through the financial support of members like you can TLEA continue to promote conservation practices through education, monitoring and management of the lake.

If you are not a member yet, please join. If you are a member, make sure you renew when the notices are sent out this November. Also, please consider adding a financial contribution for our water quality projects. ***Help us protect Thompson Lake through consistent annual financial support and by working together!***

## **What is the Economic Value of Water Quality?**

If you are wondering if a membership in TLEA is worth it to you as a property or business owner on Thompson Lake, consider this research done recently by the University of Vermont:

## **News release July 21, 2016: Algae blooms, cloudy water can hurt home prices, tourism and jobs.**

*Grand Isle, VT* – New University of Vermont and Lake Champlain Basin Program research puts a hefty price tag on Lake Champlain's natural beauty.

According to the study, Vermont lakeside communities would lose \$16.8 million in economic activity and 200 full-time jobs – in July and August alone – for every one-meter (three-foot) decrease in water clarity.

The study is the first to investigate the relationship between home values, tourism and Lake Champlain's visual appearance, which is regularly impacted by algae blooms, nutrient runoff, sewage and other pollutants.

Crunching five years of data, the scientists found that lake-related tourism – including restaurants, hotels and recreation services – faces a \$12.6 million drop in direct summer expenditures for every meter decline in water clarity.

The team also estimated how lake amenities impact home prices in lakeside counties. Using Vermont tax data, they found a one-meter drop in water clarity yielded a 37 percent depreciation for seasonal homes, and a three percent loss for year-round single family homes.

For a \$300,000 property near the lake, that's a \$9,000 loss for year-round homes, and a \$111,000 loss for seasonal homes.

Source:LCBP Website: <http://www.lcbp.org/>

## **Who Has the Oldest Camp on the Lake ?**

In our last issue one of our readers, Lois Whitham, asked if their family had the oldest camp on Thompson Lake. Their camp was built in 1891 and is off Rick's Camp road. Jean Hankins, a former TLEA Board member and a member of the Otisfield Historical Society responded. Jean felt that if the Farris camp was most likely the first camp built on Thompson Lake. At that time the camps that were used primarily for hunting and fishing. Jean reviewed an 1896 topographical map of Thompson Lake at the historical society and it showed only a few structures on the lake around the eastern shore (Oxford) and north of Haines point. There was one structure on Meguirer island.

Jean sent along this 1899 photo of her family's camp in Otisfield Cove, known as the "Kemp Camp". Jean said the names of the gentlemen hunters and the boat are



known but not the dog. Do you have a photo or story about your family camp? If so, let me know at [paulcain@myfairpoint.net](mailto:paulcain@myfairpoint.net).



## **Farewell to Scott Bernardy**

Anyone that enjoys the clean waters and scenic coves of Thompson Lake should feel indebted to TLEA Board member Scott Bernardy, who is stepping down as the director of our Milfoil Mitigation program. Scott lives in Otisfield Cove and has been a member of the TLEA Board since 2006. Scott recognized the growing problem of invasive plant species in the lake and spearheaded the development of our milfoil mitigation program. In 2006 milfoil was well established in the coves of Otisfield, Edwards, Hancock and Serenity. Each cove at one time had between 1-2 acres of milfoil and there was the eminent threat of spread to other parts of the lake and to other bodies of waters by fragments attached to boats leaving the lake.

Scott got to work and created the first, all volunteer, milfoil extraction crew. They started by hand pulling milfoil in the coves and progressed to the use benthic barriers (tarps) in Edwards and Otisfield coves. Two years later he established a crew of contract divers and also converted a donated pontoon boat to the “Hippobotamus”, which allows the crew to perform diver assisted suction

harvesting (DASH) of the plants. Scott and his crew also have surveyed the entire lake so we can track the threat of milfoil and other invasive species threats. Ten years later, after a lot of hard work and dedication, we are proud to say the milfoil is minimal at all of the above coves except for the Pine Point area. Strategies to deal with this area are currently being considered.

Scott's son, Alex, will be taking over as director of the Milfoil Mitigation program. Fortunately, Scott will stay on as an adviser to this program and help develop our strategy for the Pine Point area. We are fortunate to have such a good neighbor and board member as Scott. If you see him out on the lake with his Hobie Cat, you may want to give him a wave and even yell out a "Thank you!"



### **Briefly Noted**

**Loon Count:** Peggy Dorf and her loon counting crew saw 13 adult loons on Thompson this past July. Six chicks were also spotted.

**Clynk Program:** Don't forget to support TLEA by donating your used bottles to our Clynk program. The Clynk bags can be picked up at the TLEA office or at 37 Black Island Rd. For more info call the TLEA office at 539-4535



**Get the Lead Out:** The sale of bare lead fishing jigs that are less than 1 oz. or under 2.5 inches in length is illegal as of September, 2016. The use of these jigs will be illegal in September 2017.

**Greely Brook EcoWarrior:** Todd Eachus of Otisfield was recently highlighted in the Lewiston Sun Journal for his efforts to clean up the Greeley brook, which is one the feeder streams for Thompson Lake. When it comes to environment, Todd is a man of action. Greeley brook was once scenic and was stocked with trout. Years of illegal dumping fouled the water and created an eye sore. Todd saw this and decided to do something about it. He went to work cleaning up the brook. He has been removing cast offs from the brook such as tires, bags of garbage, cans of oil based paint, computers, furniture and deer carcasses since 2003. Todd is working hard to bring the brook back to its natural state and reduce pollution in Thompson Lake. Pulling this detritus out of the muck is hard work and shows true dedication to the environment. Todd is an ecowarrior of the highest order. Thanks, Todd, for all you have done.

**This is an erosion control project done by the YCC last season.** The YCC leveled off this right-of-way in Casco which had severe runoff. They slowed the run off with gravel and erosion control mulch. They then installed two water bars to divert water into the old channel. **Good work!**



(Photo by Drew McLaren)

Visit our website:

[www.thompsonlake.org](http://www.thompsonlake.org)

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