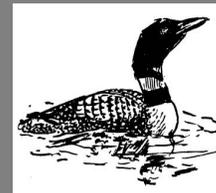


EAST POND NEWS



www.eastpond.org

Spring 2008, Volume XI, No. 1

Perch Removal Continues

By Melissa Evers

East Pond's biomanipulation demonstration project to reduce the impact of the late summer algae bloom continued this spring. This year's netting for the fish removal started at ice out on 4/15 and the nets were pulled on 5/23. Comparing the catch to last year is truly remarkable; only 4,000 White Perch were caught in 2008 compared to 34,000 in 2007. Low numbers of other fish were also captured, but notable is that 5 alewives were also caught and this is a relatively new species to East Pond. The effort to capture the fish was identical to last year, so the big drop probably means that the removal was very effective last year. This is supported by:

- The recapture rate of tagged fish was high both years.
- Very few perch were caught during the winter fishing and netting.

Please see *Perch Removal* on page 5

Colby Research Shows No Lake Stratification in 2007

By Jerry Tipper, Chair Colby Study

On January 15, 2008, Whitney King, Professor of Chemistry at Colby College reported to the East Pond Board the findings of his studies and monitoring of East Pond during the spring, summer and fall of 2007. The most important conclusion presented by Dr. King is that there was no thermocline or lake stratification in 2007.

For the past 2 years Whitney King and his students have been monitoring the temperature, oxygen and phosphorous levels in East Pond. In 2006 the

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Save The Date!!!

East Pond Association Annual Meeting
Saturday, July 19, 10:30 AM
Birchcrest - Brickett Point
Barbeque Lunch

lake began to stratify around July 10 creating a layer of colder water near the bottom of the lake. The thermocline in turn created a barrier that kept the oxygen in the lake from mixing in the water layer below the thermocline. The remaining oxygen in that layer was quickly used up by the organic matter in the bottom of the lake. Within two weeks the layer below the thermocline was anoxic i.e. had no oxygen. This anoxic condition then caused the phosphorous to flux/release from the sediment resulting in very heavy concentrations of phosphorous in the bottom of the lake.

Please see *Colby Research* on page 4

President's Message

Spring is always a wonderful season, full of hope and anticipation. As I write this message, the ice is out, and the spring rains are upon us. All of us who love East Pond are hopeful for a season free of algae blooms, great weather, and lakeside memories to cherish. Your East Pond Board is working hard to improve the water quality of our lake. In this newsletter you will find many articles of interest.

The Roads Task Force has seen dramatic increase over the years in road associations working to bring their roadways up to a standard that is beneficial to our lake. You will read about grant funding and how your own road association can get started. Our partnership with Colby College continues to focus on discovering the causes of the challenges we face. We are grateful for their dedication to East Pond as we continue to look for responsible solutions to our algae issues.

The bio-manipulation project has continued this spring. We are proud of the collaborative relationships of the Department of Environmental Protection, Department of Inland Fisheries and Wildlife, the Department of Conservation, University of Maine - Orono, and Colby College that have pulled together to make this and other East Pond projects a reality. This cooperation is unprecedented in this state.

The Invasive Plant Courtesy Boat Inspection program will once again be actively protecting our lake and educating boaters at the East Pond public boat launch this summer. This project is always in need of volunteer boat inspectors. If you are interested please contact our program coordinator Lee Lenfest at Llenfest@midmaine.com or 362-5018.

As always, our hopes will never be more than just that, unless we all act to do what is in the best interest of our lake. In this newsletter you will find our annual membership appeal. Please consider joining our organization so we can continue to protect this lake we all love. I want you to know how much we appreciate the support of our membership. Without each of you, none of this work is possible.

I hope you will all check out our new website at www.eastpond.org. This, like the wonderful newsletter you are reading, is another example of volunteer support in action. We are grateful to our talented neighbors who have made these possible!

I also want to express my gratitude to one of Maine's most dynamic and active Lake Association Boards and Volunteers. All of our task forces, programs, and projects are headed by people just like yourselves who share their time for the betterment of this lake. If you are interested in volunteering, contact me at fjreese@roadrunner.com.

Please join us at the East Pond Association annual meeting scheduled for Saturday, July 19th. Have a wonderful summer!



Loons on East Pond - Photo by Steve Steinmetz

Courtesy Boat Inspection Program Looking for Volunteers

By Lee Lenfest

Spring is here, and the boating season is upon us. With the launching of boats on East Pond comes the associated risk of the introduction of non-native invasive plants, including Variable-Leaf Milfoil, into our pond. These unwanted invasive plants can cause a great deal of damage to ponds, especially to a shallow pond like East Pond.

The East Pond Association (EPA) has made a commitment to help protect East Pond from invasive plants. The EPA is providing funding to pay for Courtesy Boat Inspectors (CBI) through the Belgrade Regional Conservation Alliance (BRCA). Courtesy Boat Inspectors are stationed at the boat launch area on East Pond and offer to inspect boats prior to launching for any plant material, and remove and report suspicious plants found during the inspection. Their interaction with the public is also intended to educate people about the dangers to the

environment of transporting these plants, and the possible legal penalties of discovery of plants on boats, trailers, and gear by enforcement agencies; this is a benefit to boat owners.

The EPA has committed funding to provide coverage at the boat launch for 12-hour days on weekends and holidays, and 8-hour days during the week. This is very good coverage compared to other lakes and ponds in the area, but the bad news is that we do not have 100% coverage. It is possible to provide better coverage through volunteers. Many of your friends and neighbors on East Pond have already volunteered to cover times outside the hours described above, or to serve as a volunteer CBI when unanticipated openings occur in the "paid" coverage schedule. If you are interested in participating in this important work by becoming a volunteer courtesy boat inspector, please contact Lee Lenfest at 207 362-5018 or by e-mail at llenfest@midmaine.com. Training will be provided through the BRCA.

Matching Grants Available For Camp Road Maintenance

By Ed & Edie Cornwall

Whether your camp road sees year round use or not, it is important to have a spring grading plan to get rid of the potholes. This will ensure that your road drains properly during spring rains and will minimize soil erosion. The grading should result in an "A" shape which sheds water to the sides. A flat surface does not allow proper runoff, and erosion and potholing will develop much quicker. Heavily traveled gravel roads will require multiple gradings throughout the season.

Algae blooms are triggered by too much phosphorous running into the lake. Road

erosion accounts for a lot of "phosphorous loading".

We are most fortunate that matching grants are available for qualifying road improvement projects. Improvements may include drainage such as ditching, culvert installation, and establishing buffer areas. It is important that consideration be given to buffer areas which can filter out the phosphorus from the runoff before the water enters the pond.

This grant program is being administered by John Blais at the Kennebec Soil and Water Conservation District in Augusta. John will help you develop a plan for such projects and can be contacted at: 207-622-7847, ext 3, or by email at john@kcswcd.org.

Colby Study from page 1

By early August, weather conditions changed to allow the lake to become uniform in temperature. The phosphorous was no longer held in place by the thermocline and became free to mix throughout the water column. The phosphorous worked its way to the surface where it caused the algae bloom. The Colby study was able to predict the timing of the algae bloom by observing the temperature dynamics in the lake several weeks earlier.

In 2007 the lake never stratified. In early July the lake water clarity was the best that has been measured in recent years. Clear water enabled the sunlight to penetrate deep into the lake which helped keep the lake at a uniform temperature. The cold weather in July also contributed to this result. The absence of a thermocline resulted in higher oxygen levels at the bottom of the lake – which in turn kept the sediment from fluxing phosphorous into the lake. Even when the lake temperature warmed up in late July the lake never stratified. Dr. King observed that due to the water clarity and the penetration of the sunlight a vegetative mat formed on the lake bottom which had the benefit of acting as a protective barrier to keep the phosphorous from entering the lake.

In August the lake did experience an algae bloom which was much less severe and long lasting than previous years. Dr. King stated that he believed the bloom was not caused by phosphorous from the sediment but was likely caused by phosphorous in the runoff due to the heavy rains in August. With the onset of the algae bloom and resulting reduction in water clarity the vegetative mats on the lake bottom disappeared. The mats started to grow again after the bloom stopped.

Professor King stressed that in order to minimize the severity of algae blooms in the future we need to control both the phosphorous fluxing from the sediment and the runoff of phosphorous entering the lake. All the work of planting buffers and upgrading camp roads is still very important. The release of phosphorous from the sediment will continue to depend upon weather conditions that cause the lake to stratify. Dr. King commented that the removal of the white perch could play an important role in containing the phosphorous in the sediment. The increase in zooplankton resulting from the fish removal could reduce the impact of the green algae that occurs in June thus improving lake clarity and the penetration of sunlight which can reduce the likelihood of a thermocline.

Dr. King also said he and his students have developed a predictive model for East Pond. One remediation strategy being considered for the lake is to put mixers on the bottom in the deepest part to keep the lake from stratifying. When Whitney and his students ran this mixing scenario through their model they determined that the size of the mixers and the power required to have the needed impact was not practical. They will continue to research and develop other remediation strategies.

Lastly, Dr. King discussed plans for 2008. He and his students will continue to closely monitor the lake temperature, oxygen and phosphorous levels. In addition to measuring the temperature in East Pond, they will also place temperature sensors in North Pond. The objective of this effort is to test out the theory that East Pond is deep enough to be subject to thermoclines but North Pond is so shallow it should never stratify. They also will coordinate with the University of Maine team which will be measuring zooplankton concentrations.

Perch Removal from page 1

The fish techs kept anticipating a big surge of fish in the nets that never materialized, but a day of sampling for White Perch on North Pond was very successful. The same methods used on East Pond produced very few fish, which probably indicates a lower population level. By the time the fish techs pulled the nets on East Pond, it seemed like they were catching more turtles than fish. They caught both painted turtles and snappers and never could figure out how a snapper 1 ½ feet across could fit through the 10 inch metal ring that funnels the fish into the trap net. They also observed 4 Sandhill Cranes by the Serpentine on 2 occasions and they talked to some bass anglers who said the bass fishing has been great the past 2 years.

The University of Maine has a new fisheries graduate student working on the project and he was busy tagging fish and taking samples during the

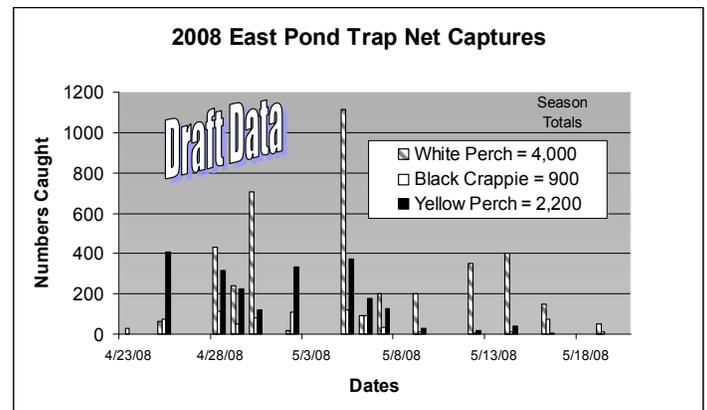
Coffin Dam in Good Shape

By Rob Jones - Dam Committee

The East Pond (Coffin) Dam survived the harsh winter. At the time this article was written, Rob's most recent visit to the dam was on April 13th. There was still knee deep snow on the way in. The water level was about 4 inches above full pond with more snow melt to come. The stream was running freely since none of our wide-tailed buck-toothed friends were up and about just yet.

The water level plan for this year will be the same as last year. The water will be allowed to flow out of the dam until it reaches 6 inches below full pond. This level will accommodate any major rain events without letting the water rise to the high levels it did 2 years ago. At that time we had been trying to keep the lake as full as possible in order to draw water off in the event of an algae bloom. The unforeseen consequence occurred in 2006 when two major rain events that spring caused record water levels.

netting. He is looking at the data we previously collected and his future work should give us some better fish population estimates, along with greater depth on the ecological relationships. What's Next? DEP and UM will review the project status and report on the next steps at the EPA Annual Meeting.- Questions? Call Melissa Evers @ 287-2838 or 692-6004



Matching Grants Available from page 3

... "If the gravel or dirt surface of the road/driveway is continually eroding, consider installing a speed bump type structure called a water bar. Water bars are small earth dams formed in the road to force water off the side of the road and into the woods (or buffer strip area)... " Rubber razors can also be installed on roads which are not plowed to divert runoff in a similar manner.

Excerpt from

Phosphorus Pollution From Camp Roads and Driveways,

Published by the Cumberland County SWCD

Camp Eastwood Plans To Open in June

By Donna Dombrowski

It has been a year since the 97 acre parcel of land adjacent to Camp Manitou began undergoing a strange metamorphosis from dense woods to barren, rocky hillside to frenetic construction. The site, located on East Pond Road immediately above the entrance to the public boat ramp, will be home to a co-ed camp facility named Camp Eastwood, and is slated to open for this year's camping season.

Camp Eastwood is a partner facility to Camp Manitou, a sports camp for boys, and is categorized as a performing arts summer camp. The facility includes an administration building, theatre, outdoor amphitheatre, dining pavilion, rehearsal studios, swimming pool, and 12 residential cabins. The upper campus will also have a large sports field. The campus is entirely self-sufficient.

This year, Camp Eastwood will be a hosting facility for two performing arts camps that have been in operation at other facilities in the past. ACTING MANITOU is a co-ed camp for ages 11 - 17 yrs, and focuses on all aspects of theatre such as

acting and scenery workshops. The ultimate goal is for campers to take part in a production (musical or play). You can find out more about ACTING MANITOU on the web at actingmanitou.com. CAMP MOVE IT is a camp for girls, ages 8 - 17 yrs. The objective of this camp is to use performing, visual, and literary arts as part of a journey of self discovery. MOVE IT means move your body, move your mind, move your emotions, move your life. IT is an acronym for Inspiring Transition. Go to campmoveit.com for more information.

The new Camp Eastwood facility will benefit the local community in several ways. With an expected enrollment of 100+/- campers this summer, and possibly up to 200 campers in the coming years, the facility will offer employment to summer job seekers. This will be a great opportunity for college students, teachers, or anyone else looking for part time work. The camp is a perfect fit for anyone who loves to work with kids and wants to share their knowledge. During off season times, the facility will be open for other uses. The new buildings, dramatic landscaping and great view of the lake will make it very desirable for weddings and company retreats or other large group gatherings.

More Loons on East Pond in 2007

Last summer 20 adults and 3 chicks were counted on East Pond as part of the 2007 Annual Maine Loon Count Project. Good news! The number is higher than in the last 5-10 years.

This year's count will take place on July 19.



East Pond Board Reacts to Storm Runoff

By Jerry Tipper

On April 30 the Central Maine Morning Sentinel reported that during the very heavy rain storm on April 29 a plume of runoff from the Camp Manitou expansion project could be seen pouring into East Pond. Board members immediately contacted Jon Deren, co-owner of Camp Manitou and John Blais, the independent soils expert who was monitoring the site, asking for an explanation as to why this happened and what was being done to prevent a recurrence. Blais and Construction Superintendent Bill Musherros had recently attended an East Pond Association Board meeting at which they stated that controls were in place at the site to fully protect the lake and that they had met all the DEP requirements. Deren and Blais responded that the unique severity of the storm overwhelmed the site protection in place. After the storm a meeting was held with DEP and additional steps were taken to control future runoff, including adding more rock dams and plunge pools.

On May 5 the EPA Board met for an emergency session. The consensus of the board members was that even though some additional site protection had been implemented since the storm, the board was still not comfortable that the site was secure, given the size and slope of the site and the amount of soil disturbed. The board agreed to:

- 1) meet with Pete Kallin, Exec. Director of the BRCA, to develop a list of additional recommendations to improve the site and

- 2) contact Jon Deren to update him on the meeting and to request a follow up meeting with him and John Blais.

Pete Kallin developed a list of recommendations for site improvement and communicated these to John Blais. Deren and Blais agreed to meet with the EPA board.

A follow up meeting was held on May 14 attended by board members, Jon Deren, John Blais, Bob Ellis (Oakland Code Enforcement Officer), and Pete Kallin. Jon Deren stated that he wanted to do whatever he could to protect the lake. Blais said they had already implemented many of Pete Kallin's recommendations, including additional plunge pools, rock dams, more silt fence and increased use of mulch and hay bales. The most important improvements were installing some controls mid-way down the slope to contain and slow down surface water. Pete Kallin toured the site before the meeting with Blais and said he was satisfied a lot of progress had been made in getting the site under control. John Blais stated that additional steps were also planned. It should be noted that the additional work that has been done at the site is above and beyond any of the DEP requirements. The meeting was open and cooperative with a good exchange of ideas from all sides. Jon Deren invited us to visit the site at any time and we all agreed to stay in contact as the project progresses. The next test will come when we have another major storm.

The East Pond Association Has a New Website!

Looking for the latest news about East Pond? You'll find it on our new website, www.eastpond.org Special thanks to East Pond residents Rob Levine and Val Schmidt, our new webmasters, for building us a new site.

Spotlight on Nature

The Osprey – A Conservation Symbol

By Donna Dombrowski

The strident, chirping whistle of an osprey announces that it has arrived back on East Pond once again! Its presence is noted as soon as ice-out occurs. A migratory bird, the osprey and its mate have over-wintered as far as South America, but almost always will return to the same nesting site. Osprey that arrive before ice-out usually stay along the coast until their habitual nesting areas are open for fishing. Some stay in coastal areas for the season. But our osprey have returned! What excitement to know they will again raise a family on our little peninsula. This, for me, is symbolic that all is well in the world of East Pond. I so admire these impressive fish-eating raptors that I would like to share with you what I have learned about them.

The Osprey is unusual insofar as it is a single species that occurs nearly worldwide. The North American osprey is larger than its Eurasian brothers however. In Maine, it lives wherever there are rivers, lakes, or ponds, and also along coastal estuaries. It goes by many names – fish hawk, sea hawk and fish eagle.

The osprey is a medium sized diurnal bird of prey, measuring about 24 inches in length. It has dark brown feathers on its back, upper wings and tail. Its head is white with a dark brown eye stripe, and white feathers cover its breast, belly and under wings. Its long, arched wings with four long, finger-like feathers and a shorter fifth provide a wingspan of five or more feet. Its legs and toes are white with long black talons. It weighs anywhere from 3 to 4.4 pounds. The female is larger than the male. Osprey can live 20 – 25 years.

Osprey usually mate for life and begin breeding when

they are three to four years old. The females are very selective in picking a male that has

demonstrated his ability to choose a good location and construct a quality nest. The nest resembles a large basket built out of sticks and driftwood, always in a tall structure with a clear view all around. The osprey will accept man-made structures but like the tops of dead trees best. In Maine, April ushers in a five-month period of partnership to raise their young. Females lay three to four eggs by late April. The bulky size and deep depression in the center of the nest helps conserve heat this early in the year. The chicken-sized eggs, mottled and cinnamon colored, incubate for about five weeks. During this period of incubation, the female stays close to the nest while the male provides the food.

Osprey eggs hatch over a five day period, so the first born will dominate its siblings. If the food supply is low, the older chick monopolizes the food, leaving the others to starve. After hatching, the 2-ounce chick(s) become fliers within eight weeks. In August, the female leaves the nest first while the male continues to protect and make sure the chicks are becoming self sufficient. Then he leaves the chicks to survive on their own. If they are successful, they will leave in early to mid September to follow along the same migration paths as their parents.

The osprey is a fish-eating specialist. Live fish account for 99% of its diet. Prey is first sighted as the osprey flies overhead, anywhere from 32–100 ft above the water. The bird hovers, dives head first, and then flips its body with lightning speed to plunge feet first into the water. It adjusts its angle of entry according to the

Please see *Osprey* on page 9

The Osprey continued

depth of its prey. Closable nostrils keep out water during dives. Barbed pads on the soles of its feet help it grip slippery fish. Its reversible outer toes allow it to grasp a fish with 2 toes forward and 2 toes back, providing extra stability. Usually the osprey takes a fish weighing 10 – 14 ounces but has been known to capture fish over 2 pounds. As it rises back into flight it turns the fish head-forward to reduce drag.

The osprey has been revered all through human history. You can find references to its majesty and power in Greek mythology and the Roman writings of Pliny the Elder. Shakespeare honors its sovereignty in his play Coriolanus. The Irish poet Yeats uses the osprey as a symbol in his poetry, and the osprey is also depicted as a white eagle in the heraldry of the Middle Ages. More recently, it has become a symbol of positive responses to nature and as such has been featured on more than 50 postage stamps. The number of osprey in Maine and elsewhere declined drastically during the 50's and 60's because of DDT and other pesticides. Good conservation has brought it back. As we watch an osprey soar overhead, or dive to capture a fish, think of this marvelous bird as a symbol of our continuing stewardship of East Pond.

(The author reports that the "her osprey" successfully raised 2 chicks last year. She also observed three other active nests on the lake)



Belgrade Watershed Aquafest

The big Do is AQUAFEST, a family festival celebrating the seven beautiful Belgrades on August 29 and 30, 2008. Consider yourself cordially asked to round up the gang and join your neighbors for summer's fun finale on Labor Day weekend.

AQUAFEST offers something for all ages ... a timed 5K Race for the Lakes, a Kids Corner Challenge (ages 1 to 12), a Fun Run, Walk, Crawl or Creep (in which dogs with securely leashed owners may compete), Kayak Races, GPS and kayak lessons, music, art, a Farmer's Market, a yummy Chicken Barbecue, a Wellness Pavilion, and much, much, more!

Festivities kick off with a cocktail party from 5 to 7 pm on Friday evening at the Village Inn in Belgrade Lakes. You'll be off to the races at 8 am the following morning when the 5K sprints out and back from Camp Runoia on Point Road in Belgrade. Then the Kids Corner Challenge with T-shirt painting, games, prizes and a Lake Event Course runs from 9 to 11 at the Belgrade Center for All Seasons, with the Fun Run following-on close behind. Awards for all events and the Fishing Derby winner take place before the noontime Chicken Barbecue in the Recreation Center picnic grove; then Canoes and Kayaks Race off from the waterfront at 2 pm.

If that isn't enough to occupy family and friends, your gang can take boat and float plane rides, visit the Farmers' Market, snag a Labor Day bargain, find a summer keepsake at village stores or the Art Mart, or munch on AQUAFEST Specials at village food emporia.

There's more to tell, but we've run out of room. *No problem!* All details can be found in the AQUAFEST flyer (at random watershed locations) and on the BRCA website www.belgradelakes.org

The East Pond Association

Officers

President: Cindy Reese

V. President: Rob Jones

**Secretaries: Cindy Eccher,
Christine Burke**

Treasurers: Wayne & Peggy Ham

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Terms Expiring 2008

Christine Burke

Dave Jackson

Rob Jones

Mel Croft

Terms Expiring 2009

Ed & Edie Cornwall

Jon Deren

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Terms Expiring 2010

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Melissa Evers

Robert Joly

Jason Silberman

Jerry Tipper

Join the East Pond Association

Membership is open to all individuals and organizations.

Send your name and address with a check to:

Wayne Ham, Treasurer, EPA,

638 Garland Rd.

Winslow, ME 04901

Individual: \$15

Family: \$30

Supporting: \$50

Sustaining: \$100

The East Pond News is published twice per year to provide residents and friends with all the latest news. It is sent free-of-charge to any interested party as a service of the East Pond Association.

Comments, suggestions for articles, and photos are welcome and can be sent to the editors:

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