



## Climate Change Observatory in Action

by DON GRIGGS

**N**ow in its second year of activity, KLWA's Climate Change Observatory (CCO) has been very busy, even in the winter and spring months. We are trying to provide information and guidance to the local authorities and the public: how is our climate changing and what is the impact on quality of life for people and wildlife? We are building trend line charts showing how many of the parameters (such as water clarity and phosphorus loading) are changing over time and what is likely to happen in the future. Two examples of recent activity are the taking of sediment core samples in the lake and making arrangements for a graduate intern to work on CCO tasks this summer.

### Sampling Kezar Lake Sediments

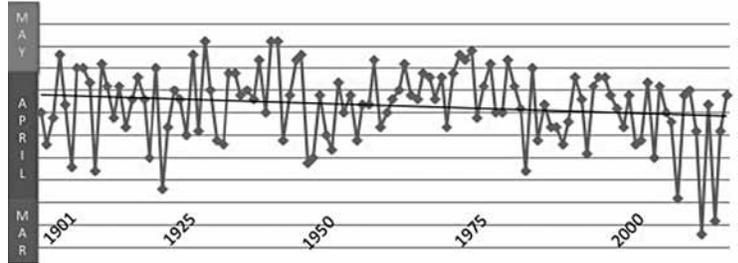
On February 28, CCO collaborated with Plymouth State University in New Hampshire, to organize a sampling of Kezar sediments. Dr. Lisa Doner, a paleo-limnologist with Plymouth State's Center for the Environment, and five of her students directed the project with the logistical and moral support of 26 resident volunteers from the Kezar Lake area.

Although the day dawned with sub-zero temperatures, it warmed to the mid-20s with cloudless skies, brilliant sunshine, and barely a breeze—perfect conditions for a day on the ice. Gathering at Kezar Lake's north end, dozens of enthusiastic volunteers and sleds full of equipment were shuttled on six snowmobiles to the lake's deepest waters, about one mile to the south. Drilling a hole through the 18-inch thick ice, the depth-finder read 153 feet. With the theory that most sediment will settle in the lake's deepest holes, this location was perfect.

The goal of the sediment core sampling project is to determine the source and composition of the sediments in the lake; how quickly sediment is accumulating; and how Kezar and its tributaries have been affected over time by environmental impacts, natural and otherwise. The core samples collected should produce at least 200 years of sediment history, which we hope will shed light on the impacts on Kezar from colonial days including sheep farming, major weather events, historic timber harvests, lakeside development and dredging.

### Analyzing Trends

Along with FBE environmental contractors, CCO volunteers are demonstrating the effects of climate change by analyzing years of data and observations of phenomena such as "ice out" and water clarity. Creating a trend line enables us to see the major direction of change that is difficult to discern from year to year. The trend chart demonstrates ice-out dates from 1901 to the present. It shows that ice out occurs about six days earlier per century. This is the type



Kezar Lake ice out dates

of chart that soon will be presented in our annual report and on the KLWA Web site for many parameters (e.g. water clarity, phosphorus, pH, oxygen, temperature) for the lake and ponds. We are also working with FBE on a comprehensive temperature and flow study of several of the streams in the watershed.

### Informing the Public and Promoting Action

The winter months have also been a time for CCO to add data and analysis to the KLWA Web site, to plan educational events, and to coordinate our activities with local officials.

CCO's goal goes beyond presenting information and raising awareness of climate change. The group aims to provide analysis that is of direct practical value to local citizens and decision-makers. Mitigating the potential destruction of severe rainstorms is a case in point. Climate change has been widely recognized as a factor in the frequent intense rainstorms of recent years—storms that overwhelm drainage infrastructure, damage roadways and properties, and contaminate adjacent waters. The CCO is planning to assess culvert capacity required to prevent damaging run-off.

### Finding Volunteers for Future Projects

Here's just a sample of CCO's planned monitoring actions. For those of you who love the outdoors, you may enjoy being part of a team to do field-based monitoring, such as the following:

- Measuring water clarity in lake or ponds
- Surveying plants, fish or loons to detect problems relative to water quality or climate change
- Recording individual observations of particular species (harbingers of change such as robins, loons, ruby-throated hummingbirds, red maples, sugar maples, mountain ash, forsythia, spring peepers, American toads, lake trout, etc.) in a specific area

For those of you who prefer to support CCO's efforts on-line, there are many tasks that involve tracking a Web site or reading a report on relevant environmental information, and extracting the significant facts or recommendations. The Climate Smart Network, the eBird Web site, an EPA report on "Stream Connectivity," or the "Study on Climate Change and Diversity in Maine," are a few examples.

*continued on page 5*

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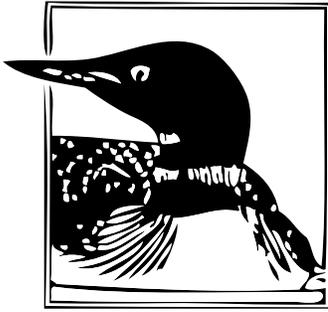


LUCY LACASSE

Dr. Doner and Don Griggs prepare the core sampling device for lowering to the lake bed.

# PRESIDENT'S MESSAGE

RAY SENECAI



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**W**hy? We all recall a youngster or we, ourselves, asking, "Why?" or "Why not?" "Because" was not a good answer.

As I review the past eight years of KLWA board meetings, programs and decisions, I find that the why/why-not consideration has become a frequent and important part of our meetings while we plan for the near and long-term future. Our on-going work, the breadth of areas of interest, and scientific technology get more complex every day. Resources, both human and financial, are always a significant part of why/why-not decisions.

An example of an easy "No" to the why-not question was considering measuring/monitoring mercury in the lake. We rejected this because much data already existed and there is little that KLWA can do to influence it. The more difficult why/why-not decisions arise when we assess programs for new technology, water quality testing and erosion monitoring, expand fish/wildlife protection, plan education programs, take actions to insure boating safety, or monitor legislative actions in Maine, to name a few.

I am proud of the substantive work the trustees and officers have accomplished in the past year. As you'll see below, we asked why/why-not in many areas:

**Water Quality** Continue to upgrade our water programs. Why? This is the #1 priority of our organization and needed to prevent degradation of our waters. Active monitoring enables us to detect contamination leading to algal growth and

safeguard the overall health of our lakes, ponds and streams. Installing an automated GLEON buoy like LEA/Highland and Sunapee Lakes' buoy, which transmits data every fifteen minutes, was evaluated. Why not? Cost is \$20-50,000 and we rejected this as we have on-going sample testing programs in place and are vigilant in observing changes.

Our water quality team is working diligently on a ten-year strategic plan with on-going focus on what we should do with available resources. (see water quality review on page 3). Resources such as the Lakes Environmental Association in Bridgton, and their recently established science center, along with many other organizations, can provide opportunities for KLWA to receive consulting and possibly collaborate on further programs.

**Climate Change** Expand the Observatory. Why? We must provide increased value to the local community. Significant work has been accomplished in the past year, with new programs initiated such as sediment-core-drilling to assess 200-year-history of Kezar Lake (see article on page 1). We also expect to add a summer intern.

In addition, we assessed adding weather and climate station equipment. Why not? With very-local weather stations and the US Forest Service Experimental station at Bartlett, NH, available, plus the exorbitant cost of equipment, this was rejected. We have aggressively pursued outreach to universities, environmental organizations and the local community

and are pleased with the response.

**Financial** Maintain better records. Why? Efficiency, ties to membership communications and funding appeals, and easier expense/revenue tracking, were needed. Our treasurer upgraded all our Microsoft Excel-based records to QuickBooks, which accomplished most of these objectives. We now have a much-improved financial system.

**Legal** Perform an update and audit. Why? Maine requires new filings and has constantly changing laws. We initiated and completed an audit of our legal processes and By-laws. (See notes on page 7). In addition, our insurance coverage was reviewed and updated to cover all aspects of our association and the changes in administration of the lake safety patrol. We are also addressing sound practices and coverage for KLWA functions.

**Lake Patrol** KLWA has supported a lake safety patrol for several decades and in last year's member survey, the patrol was ranked #2 in importance of fifteen activities. Jerry Littlefield, patrol officer for the past two years, recently announced his retirement. The board is now assessing options and reaching out to the community and KLWA members for candidates to fill this important job. Please advise if you have ideas.

**Web site** Create a new Web site. Why? Our decades-old software and dated site required updating. We now have vastly improved ways to communicate and track activity. Functions such as PayPal and several Google Web-tools and ad-

ditional Web capacity have been added. A fresh face for KLWA is now presented to the public. Please visit us at [www.klwa.us](http://www.klwa.us).

**Fish and Wildlife** Increase our work. Why? Loons, salmon and smallmouth bass are all on the decline. We are making solid efforts to provide loon nesting platforms and continue fish monitoring in the lake and streams of the watershed. Kezar is a Maine IF&W salmon-priority lake

and monitoring the spawning populations is important. Bass fishing is an historic part of local values and we will continue to assess why smallmouth fish are less abundant.

**Land Use and Regulations** Continue monitoring. Why? The lands that surround and encompass our watershed must have good stewards. For timber harvesting projects such as Albany South, we continue to actively communi-

cate and collaborate with the US Forest Service and with you, our constituents. We strongly pursue the best outcomes to protect the lake and our wildlife/fish populations.

Private land timbering is a priority and we will monitor closely? Why? Regulations are less stringent for private-cuts than US Forest Service and those not following Maine best-practice requirements can threaten our water

quality and environment.

In summary, we ask for your help and very important perspective on what, where and how we spend valuable resources. We expect you to challenge us on all fronts, asking WHY and WHY NOT? And we seek your financial support.

I look forward to seeing you around the watershed and at our **annual meeting on July 11, 2015**, at the United Church of Christ in Lovell. ♣

## Water Quality

by HEINRICH WURM

One of the best times to appreciate the connectivity of a watershed must be the day after a 2.5-inch rainstorm. It's still early spring and not all the frost has gone from the ground; ice still covers most of the lakes and ponds. Water is running everywhere: across meadows, through woods, along roadside ditches, through and around culverts, underneath barns, through gardens and lawns and eventually into the lake or pond. This serves as a great reminder not to focus too narrowly on the water's edge, but to look at the meadows, fields, forests, roads and driveways that a rainfall floods, soaks and scours before it enters a body of water. What will it pick up on its way? Will natural filtration do its job or will there be unchecked run-off?

I have been studying water quality for just a year now and realize that the KLWA has shown terrific foresight for many years through its leadership, starting with Joan Irish all the way to Ray Senecal and the guidance of Forrest Bell and his troops, our environmental consultants. The focus has widened and we have learned to appreciate the potential threats that surround us. Whether it is unchecked run-off, exposure to chemicals, road salt or a bad culvert, we are involved. The fruit of this on-going effort—to monitor, record and respond—is continued good water all around us. Not without worry, mind you.

2014 was a relatively dry year and water quality data are overall excellent. A full 2014 Kezar Lake Watershed Water Quality report can be found on our Web site at [www.klwa.us](http://www.klwa.us). Every year there are some results that worry us, be it total phosphorus levels in the Upper Bay, Boulder Brook and Farrington Pond, chlorophyll peaks and low oxygen levels in late summer in many ponds and the Upper Bay, or low alkalinity and pH values in Horseshoe and Bradley Pond. Our own data storage history helps us assess these concerns and put them in the right perspective.

Not infrequently, though, the idea of more data over a longer time span each season that could unlock some of the mysteries we encounter with our current measurement strategy comes to mind. Indeed, KLWA's

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*Water quality is our ticket to a healthy future.*

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HEINRICH WURM

Climate Change Observatory has now seven electronic data loggers deployed in tributary streams. Likely to be the way of the future in water quality monitoring, they track water level and temperature for us and, combined with precipitation records, provide us with valuable data not only for climate tracking but fish and aquatic health as well.

Water quality is our ticket to a healthy future. The Clean-Water Act has gone far to improve our rain water. But much can be done locally—and not just by lake dwellers—to enhance rain-water filtration through healthy soil and to minimize threats to water quality in our watershed.

### **Here are three things you can do to enhance water quality and help reduce phosphorus levels in our lakes and streams**

- Check the phosphate content of your household detergents
- Avoid phosphate in fertilizer
- Maintain your septic system

Why worry about phosphorus? It's the most important aquatic nutrient that determines biologic productivity, such as algal and plant growth in our lakes. And that plant growth includes invasive species. We are fortunate to have a team of stewards scouring our lakes and ponds for invasives throughout the season. Keeping extrinsic phosphorous levels low supports their work and helps keep our waters healthy. ♣

# Loons and Fishing Line

## Don't Mix

by ED POLIQUIN

Last year marked the start of our nesting platform program. Not unexpectedly, none of our loons adopted a platform but we observed several breeding pairs and at least two chicks were raised successfully. Unfortunately, one loon died in Fox Cove after it became ensnared in fishing line. This was a previously healthy female with chicks and it is doubtful they survived.

In another instance, two loon nests on Lower Bay were abandoned with two eggs left in each. It is not clear to us whether flooding had something to do with it or whether people scared the birds off their nests. To this end, we plan to post signs and hope that people will respect them.

And at the north end of Kezar Lake, last October a male loon was observed with a large fishing plug imbedded in its beak. It is not known if this loon survived. Folks from Inland Fisheries and Wildlife were unsuccessful in their attempt to capture the loon and remove the plug.

If that loon died and with the definite loss of the one in Fox Cove, that could mean the loss of four loons last year.

As I fished around Kezar Lake last summer, I found a lot of inadequate strength fishing line and tackle dangling from trees and broken off on lily pads in the vegetated areas like Fox Cove. These lines appeared to be box-store type fishing reels that are pre-spooled with six-pound test line—totally inadequate for fishing among trees and heavy vegetation.

When fishing line breaks, every effort should be made to recover it and the attached tackle. Abandoned line can be life



*When fishing line breaks, every effort should be made to recover it and the attached tackle.*

threatening to many types of birds and is dangerous to people swimming in the lake.

To that point, we express our thanks to lake stewards from LIPPC who have taken on the task of retrieving abandoned fishing line during their monthly invasive plant patrols.

And more good news: our loon nesting program is receiving attention. Last fall, I was visited by residents from Kimball and Keeywadin Lakes who wanted to learn more about the loon platforms we built. With some guidance from me, they constructed their platforms and will place them in the water this spring.

Finally, the Fryeburg Recreation Department's ice fishing tournament went well this year, with targeted species being perch and pickerel. Many thanks to the organizers of the tournament for their care in this important event. FYI: Notably, six eagles were observed cleaning up trash perch after the tournament. It sounds like we have a robust eagle population.

Please take every precaution to ensure that our loons and other birds (or people) don't get mixed up in your fishing line. ♠

## Loon News 2015

by HEINRICH WURM

The first loon of the season was observed on April 17th, just north of the outlet on Lower Bay. With 90% of the lake still under ice, it was exquisite timing for this long time resident—most likely the male partner of a pair of loons who have been nesting and trying, unsuccessfully, to raise chicks near the Outlet River for several years now.

Whether parental inexperience, flooding, boat traffic, predation or other environmental factors contributed to these nest failures, we will never know. But scientists tell us that two or three such threats can be alleviated by using nesting platforms. This year we will place them in close proximity of last year's nest sites and hope for the best. To alert boaters, we will use floating signs and hope they will keep folks away rather than attract them. As always, there are well-recognized pros and cons when humans tangle with nature, but science points toward a distinct benefit to our loons, particularly in light of more frequent severe weather events in recent years.

Not unexpectedly, our lonesome loon's presumed partner arrived in the early morning two days later, sounding a permission-to-land tremolo. While loon pairs are monogamous, they do not mate for life. Their allegiance is to the lake, pond or cove they were born in and to which they will return after spending 2-3

years growing up at the coast. A pair will breed and raise offspring together for years, but once the chicks are able to feed themselves and fly, the parents go off on their

own. And not all couples have as quiet and peaceful a relationship as the pair that hangs around our cove.

In fact, social interactions among loons can be quite complicated, acrimonious and occasionally fatal, particularly when younger birds try to establish themselves by either "cutting in" or waiting in the wings until one partner shows signs of weakness or injury. Or a late arriving loon may find his or her territory and partner usurped by a squatter whom he/she may or may not choose to battle. Adult males can be observed strutting their stuff, posturing and wing rowing noisily to attract attention to their health and vigor. Fights can cause serious injuries or death.

On a brighter note, loons have been observed to take over abandoned chicks, even adopt a rare triplet to lighten the load of the parents. Adoption may have saved the lonely chick that survived on Kezar Lake last year after a parent's wing got ensnared in fishing line. This chick was seen late in the fall fishing in Lower Bay long after the adults left.

As indicated in our last issue, we are eager to find out more about the fate of our loons in the years to come. To achieve this goal, we will attempt to monitor territorial pairs closely throughout the watershed, particularly during the months of May, June and July. Volunteers will cover Kezar Lake and I am confident that residents of each of the six ponds will also give us feedback. We are particularly interested in nesting behavior, number of eggs laid and the number and fate of chicks raised. While most of our loons are used to people and don't usually feel threatened by a moving watercraft, observers must not stalk a nesting loon but rely on good optics and keep their boat moving. Loons are most vulnerable during the early period of egg incubation, a time that frequently coincides with black-fly activity as an added stressor.

We are working with Maine Audubon to alert fishermen to fish lead-free and will provide flyers to be picked up with fishing and boat licenses as a reminder. Although Maine has banned the use and sale of lead sinkers of one ounce or less, lead poisoning will continue as the leading cause of death among loons for years to come.

Anyone interested in loon observation and monitoring, please get in touch with us via our Web site or directly by e-mail. ♠



## NEWS FROM LIPPC

DIANE CARACCHIOLA, *LIPPC President*

**A**fter a beautiful, snow-packed winter, spring has finally come to the Kezar Lake Watershed. Lovell Invasive Plant Prevention Committee (LIPPC) looks forward to another busy summer and plans to increase its effort to keep the watershed free of invasive plants.



BRIDIE MCGREAVY

The Courtesy Boat Inspection (CBI) program is set to begin on May 1. This year, thanks to the continued support from the Town of Lovell and donations from many of you, coverage will be expanded at the north ramp and our ponds. Weekend hours will also be extended at the Narrows. Several groups, including KLWA, GLLT, Westways and Stearns Road Associations, have volunteered to cover a day at the ramp. We would love to put more group names on the board. If your association would like to volunteer, please contact Marty Prox at [prox@fairpoint.net](mailto:prox@fairpoint.net).

The LIPPC Education Committee is continuing with its outreach to increase awareness of invasive plants. The committee plans to host a new type of plant paddle in August, where paddlers will bring aquatic plants from anywhere in the Watershed to the library for identification. The group is also organizing some really great activities, including a plant scavenger hunt and antique boat show at Lovell Old Home Days on July 18th. Please look for our table and join us. Early registrants for the scavenger hunt will receive a special prize, while everyone who completes the hunt will be entered in a raffle for the grand prize.

We will also host a Plant Identification Workshop conducted by the VLMP for anyone interested in learning more about the plants in our watershed. The date and location are yet to be determined but will be posted on our Web site: [www.klwa.us](http://www.klwa.us).

The Education and Stewards Committees have joined forces for Operation Dock Drop. The Education Committee is compiling packets of information about invasive aquatic plants and the stewards will distribute them to docks along their shoreline patrol areas.

Our shoreline stewards program now covers the shoreline of the entire watershed. We are always looking for more volunteers, and absolutely no experience is necessary. If you would like to become a shoreline steward, please e-mail Wes Huntress at [whuntress@carnegiescience.edu](mailto:whuntress@carnegiescience.edu) or if you would like to join LIPPC to help out with another committee, please e-mail me at [caracciolo.diane@gmail.com](mailto:caracciolo.diane@gmail.com).

## KEZAR LAKE WATERSHED LOON COUNT

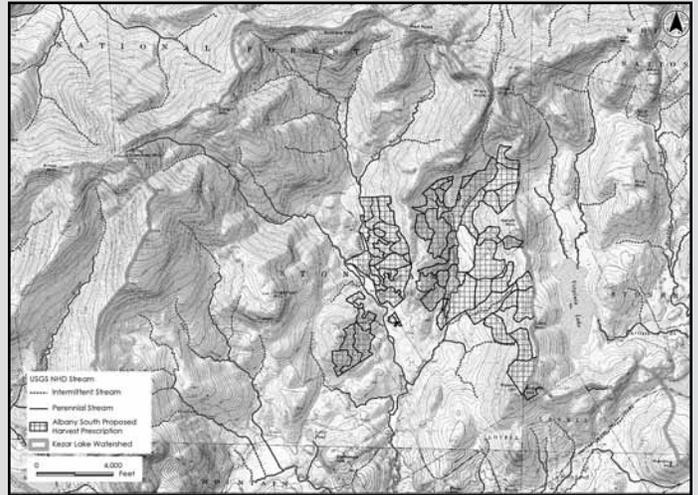
by BONNY BOATMAN

**T**he summer of 2015 will be the third summer that the entire Kezar Lake watershed will participate in the annual Maine Audubon loon count. Prior to 2013, the count focused only on Kezar Lake. Now, we will have loon population statistics from our watershed, which includes the following: Bradley, Cushman, Heald, Trout, Horseshoe and Farrington Ponds.

Our data, we hope, will give us a heads up on important trends. Loons can be indicators of the health of our watershed's eco-system. Our participation will help Maine Audubon promote legislation that protects loons and their environment.

The 2015 loon count will take place from 7:30-8:00 a.m. on Saturday, July 18. If you are interested in becoming a stand-by loon counter, please e-mail me at [bboatman@rcn.com](mailto:bboatman@rcn.com). Join the KLWA in hoping for a very loony summer!

## COME EXPLORE SOME ALBANY SOUTH HARVEST UNITS



**I**n anticipation of Albany South's upcoming "30-Day Comment Report," KLWA is offering walks around some of the proposed logging sites within our watershed. There are currently 56 timber harvest units, totaling 1,212 acres, proposed in the northern part of our watershed in the area of Great Brook.

These walks will be informal—basically walks in the woods—and our goal is to explore headwater streams and other water features within some of the proposed harvest units. We will be bushwhacking, so walking poles are recommended.

For each walk, we will meet at 154 Hut Road, at the corner of Hut Rd & Shirley Valley Lane. The walks will last 2 - 2.5 hours.

**Saturday, May 9, 9:30 a.m.**

**Sunday, May 24, 1:30 p.m.**

**Saturday, June 13, 9:30 a.m.**

**Saturday, July 11, 1:30 p.m.**

For more information, contact Lucy LaCasse: [wnder@aol.com](mailto:wnder@aol.com); 207.928.3637; 207.883.3637.



LUCY LACASSE

*continued from page 1*

History buffs may be interested in another activity—culling old farmers' diaries in the Lovell Historical Society's archives for information about growing seasons, bird migration and the like.

The Steering Committee is also looking for local organizations interested in scheduling a presentation for their members about climate change in Maine, and specifically, in our watershed.

To learn more and see how you personally can participate in the Climate Change Observatory activities, contact Don Griggs ([griggds@aol.com](mailto:griggds@aol.com)), Ray Senecal ([ray.senecal@comcast.net](mailto:ray.senecal@comcast.net)), Lucy LaCasse ([wnder@aol.com](mailto:wnder@aol.com)) or Heinrich Wurm, ([whwurm@gmail.com](mailto:whwurm@gmail.com)).



## Summer 2015 Educational Highlights

**A**s has been our custom, this summer we'll again collaborate with the Greater Lovell Land Trust and co-sponsor several talks at the Charlotte Hobbs Memorial Library.

On Friday, July 10 at 1 p.m., Bonny Boatman will talk about *The Bald Eagle: Our Come-Back Bird*. The bald eagle is one of nature's most fascinating creatures, as well as our country's beloved emblem. Though they were close to extinction, bald eagles currently reside in almost every state and we often see them here in Lovell. Bonny will present a lively learning experience that will include both pictures and film of this amazing bird.

We'll meet again at 7:30 p.m. on Tuesday, July 14, at Dr. Bridie McGreavy, incoming director of LEA's new Maine Lake Science Center

in Bridgton, will share the vision and mission of the center, introduce the sustainability science approach that the center uses, and describe several current projects researchers are already undertaking. This presentation will also include time for discussing possible collaborations in the region and state.

Finally, at 1 p.m. on Friday, July 31, Bonny Boatman will give a presentation on *The Uncommon Common Loon*. The call of the common loon, *Gavia immer*, is the quintessential sound of the our lakes and ponds. While loons are graceful and adept in water, they are mostly incapable of walking on land, earning them their common name derived from the word "lummox." With a mix of science and creativity, Bonny will explain the life history of this iconic bird. ♣

### KLWA TO SPONSOR A SUMMER CAMPER AT TIN MOUNTAIN CONSERVATION CENTER

KLWA is very excited to collaborate with the Tin Mountain Conservation Center in Albany, NH, by providing a camp scholarship to a local youngster from our watershed. Tin Mountain's August 3-7, "Peaks and Paddles Expedition," is for ages 10-11 and will have a focus on our area.

For more information, or to recommend a perspective scholarship candidate, please contact Lori Kinsey at Tin Mountain. [www.tinmountain.org](http://www.tinmountain.org)

## NEWS FROM GLLT

TOM HENDERSON, *Executive Director*

**S**ave the dates! The 30th Annual Educational Meeting of the Greater Lovell Land Trust will be held on Friday evening, July 31, followed by a Family Fun Day on Saturday, August 1. This format change was well received last year so we will continue it in 2015. Our goal is to increase participation and attract entire families. Both events will include presentations and activities under the theme Celebration of People, Place and Nature.

The GLLT's long-standing tradition of bringing a renowned speaker who can inform and inspire people with interesting and compelling conversation continues with the 2015 Annual Educational meeting. I'm pleased to announce that this year's guest presenter is Geri Vistein, a conservation biologist. Ms. Vistein's work in Maine focuses on carnivores and our relationship to them. She uses her Web site, [www.coyotelivesinmaine.com](http://www.coyotelivesinmaine.com), as one way to operate an educational network on the Science and Citizenry of Maine carnivores. Her evening presentation, entitled "Why Do We Need Coyotes Anyway?" will be held at 7 p.m. on Friday, July 31st, at the Brick Church. A social hour featuring light fare and beverages will follow.

The Celebration of People, Place and Nature continues with a Family Fun Day on August 1st, beginning at 11 a.m. at a GLLT reserve to be announced later. Bring your friends and family to join us for food, fun and festivities. A light, picnic-style luncheon will be served. Following the luncheon, all are invited to choose from a variety of outdoor activities being offered on the reserve, as led by our superb docents, GLLT staff and others. I look forward to seeing you there.

Have you considered preserving your special place for future generations? The GLLT specializes in helping individuals and families limit development or prevent future uses of their land that would be detrimental to the land, water, wildlife and other valued resources. The GLLT's preferred method is to use a conservation easement, which is an agreement between the owners and the land trust that restricts certain uses while the owner retains the land. I am prepared to meet confidentially with anyone interested in exploring options that may make sense for you and your land. Please contact me at 207.925.1056 or [tom@gllt.org](mailto:tom@gllt.org). ♣

## MEMBERSHIP COMMITTEE NEWS JAMES STONE

**I**am happy to report that membership and contributions continued on an upward trend in 2014. Total membership increased to 281 and contributions exceeded \$38,000. Your support is gratifying to the Board and has enabled us to expand our efforts to protect Kezar Lake and its watershed. Since the KLWA does not have an endowment, we are entirely dependent on your contributions to fund our annual expenditures for water quality monitoring, operating the Lake Patrol boat, placing loon platforms in the watershed, researching fisheries and tracking development and forestry plans in our area.

As you can surmise by reading this newsletter, we are excited by the range of projects underway, but there is more that we could and should be doing. If you are a member, thank you for your past support and please consider renewing now. We would be most grateful if you could increase your contribution. Please encourage your friends and neighbors to do the same. If you are not a member, please consider joining us in this important mission to preserve this beautiful place for our own enjoyment and for future generations. ♣

# The Wild Salmon of Kezar Lake

by LUCY LACASSE

Originally thought to be “glacio-marine relics” isolated from the ocean 10,000 years ago by rising lands and receding waters, people now believe that some Atlantic salmon simply stopped going to sea.

In Maine, landlocked salmon (the same species as Atlantic salmon) were historically prevalent in four lake systems: Sebago, Sebec, West Grand and Green Lakes. By 1900, however, these prized game fish had been stocked widely across the state, including in Kezar Lake. In waters with suitable habitat, some of those introduced salmon spawned, creating populations of wild salmon.

Around Kezar, locals always spoke of impressive salmon runs up Great Brook. But, for the last several decades those voices have been quiet and the salmon runs absent, with most fingers point-

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*The eggs hatch in the late winter, with the young emerging from the gravel about six weeks later. The salmon like a cobbly bottom with well-oxygenated, clear, cold waters for spawning and Great Brook meets all their criteria. The young fish generally spend two to three years in the stream before returning to the lake.*

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HANK CROUTEAU

ing to the dredging for the Great Brook Marina in the 1970s.

Then, in the fall of recent years, ice fishing is no longer allowed in Great Brook, people started noticing a return of these magnificent fish. Wanting to learn more, the Kezar Lake Watershed Association contracted fisheries biologists from Stantec Consulting Services to conduct spawner surveys.

In November of 2012, the biologists, along with KLWA volunteers, counted the number of redds, or salmon spawning beds, in the brook. This is a better indicator of productivity than counting actual fish, which may be hit or miss. Redds are fairly large, oval-shaped scoured areas in the streambed where the salmon lay their eggs. The eggs hatch in the late winter, with the young emerging from the gravel about six weeks later. The salmon like a cobbly bottom with well-oxygenated, clear, cold waters for spawning and Great Brook meets all their criteria. The young fish generally spend two to three years in the stream before returning to the lake. You can see the adults, with their average size of 18-22 inches, in the stream for only about two weeks—a remarkable sight.

Great Brook’s waters were high in 2012, and salmon were observed far upstream, but not beyond the six-foot Dwyers Falls. Twenty redds were documented, along with 25 adult salmon.

When the salmon returned in November of 2013, KLWA again hired Stantec to document their spawning. This time, they also checked Boulder and Cold Brooks for spawning salmon. Habitat was unsuitable in Cold Brook, but 17 redds were counted in Boulder Brook between Kezar and Route 5. In Great Brook, 36 redds were counted, a big increase from 2012. That fall, the waters were lower so no fish or redds were documented above what has been dubbed “the first impediment”: a 3-4-foot fall near the first of the S-curves on Hut Road.

Anxious to see if the upward trend of redds was a pattern, Stantec biologists returned to the watershed in November of 2014. Twelve redds were documented in Boulder Brook, but Great Brook showed another significant increase in salmon productivity with 51 redds and thirty fish counted, all below the “first impediment.”

Of additional interest is the fact that of the thirty fish seen in 2014, ten had an adipose fin—the vestigial fin that is often clipped for stocked fish. This suggests that one third of “our” spawning salmon are wild fish, having hatched in our waters. It’s been very exciting to witness the recovery of the wild salmon fishery in Great Brook’s clear, cold waters, especially as it coincides with Inland Fisheries & Wildlife’s designation of Kezar as part of their Classic Landlocked Salmon Initiative—all bonuses to our watershed.

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## Notice of Proposed Changes to KLWA By-Laws

by JAMES STONE

At this year’s Annual Meeting on July 11, the membership will be asked to approve a number of changes to our by-laws. These changes are meant to bring the document up to current practices, provide the Board with some additional flexibility, and clarify certain procedures. The proposed changes have been unanimously approved by your Board of Trustees.

A red-lined copy of the changes have been posted to the Web site for your review, but the substantive ones are as follows:

1. The definition of a ‘Quorum’ for an Annual Meeting is proposed to change from 1/3 of the membership to 25. This change is being proposed because we have become increasingly concerned that our growth in membership has not been matched by a similar growth in attendance at the Meeting and that, given people’s busy schedules,

we may one day find ourselves without a quorum as currently defined.

2. The election of Trustees is proposed to change from being elected at the Annual Meeting by the membership to being elected by the Trustees and ratified by the membership at the Annual Meeting. This will enable us to put interested individuals to work for the KLWA as soon as possible.
3. Finally, it is proposed that a majority of the Trustees may make changes to the By-Laws unless such a change would pertain to the rights and privileges of the membership, in which case, those changes would require ratification by the membership at the Annual Meeting.

## Corporate Sponsors

The KLWA has enjoyed a long tradition of partnership with local business. Each of these Corporate Sponsors has made a much-valued contribution to the financial stability of our organization and to the programs that we support. We are most grateful for their continued commitment and for their recognition of the many benefits that a vibrant and sustainable watershed brings to our community.

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