



Crystal Whitecaps

The Newsletter of the Crystal Lake & Watershed Association
Vol. 5, No. 2, SPRING/SUMMER 2009

PRESIDENT'S LETTER

The air and water haven't yet warmed as much as we'd like, but as the first weeks of June breeze past we are finally in a season that LOOKS like summer. We anticipate a highly productive year, in monitoring and protecting the outstanding natural resources of Crystal Lake. The Invasive Species crew has been "harvesting" garlic mustard throughout the watershed. Summer Intern, Hadley Boehm, is hard at work studying snails as one phase of our battle against Swimmer's Itch. The Water Quality Committee is gearing up to monitor the deepwater and address the runoff of Cold Creek. The Education and Communication Committee is planning exhibits at summer art fairs and a special celebration at the Annual Meeting recognizing 40 years of water quality studies of Crystal Lakes.

We believe we have reached resolution to control erosion along the rebuilt section of M-22. MDOT has agreed to repair two sites and monitor others. We are also cautiously optimistic that the proposed MDNR boat launch issue may be nearing a resolution. Our proposal would allow the launch to be built, while protecting water quality and wetlands, and taking action to address invasive species. The case is on hold in Benzie County Circuit Court, while all sides work toward a negotiated settlement.

I would encourage everyone, as you enjoy the lake and the surrounding countryside, to remember that preserving this wonderful piece of the Earth is a permanent job, for which we are all responsible. I've enclosed a donation envelope for those who are able to contribute financially to this great task. The envelope also has a box you can check to be added to our volunteer list – whether or not you are able to make a financial contribution. Have a safe summer.

- Ed Hoogterp, *President*

2009 CLWA SUMMER INTERN

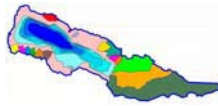
We welcome Hadley Boehm, who will be working with the Swimmers' Itch and Invasive Species Committee monitoring snail populations, gathering water level and water quality data, controlling invasive species, developing presentations on aquatic and terrestrial nuisance species, and helping to coordinate public displays. Hadley became interested in the environment while in 4-H and through outdoor activities with her family at Crystal Lake, and her grandparents in Beulah. She received her B.S. in Biology from Alma College in 2008. After receiving a Fulbright Scholarship in 2008-9, she studied water management policy, invasive aquatic species, human and environmental interactions, science communication, and wetland protection at the University of Waterloo, Ontario, Canada. In the fall, she will enroll in a M.S. program in Environment & Resources at the University of Wisconsin-Madison to study restoration ecology and plants, and continuing for a doctorate with plans to teach at a university or work at a research institution.



Searching for snail beds with an underwater camera.

Call the **CLWA** hot line (231/352-5328) to report snail populations or Swimmer's itch infestations.

"Protecting the integrity of Crystal Lake, Benzie County, now and for the future."



NORTHWEST MICHIGAN WORKS!

The **CLWA** has submitted proposals for consideration by Northwest Michigan WORKS!, the workforce development arm of the Northwest Michigan Council of Governments. Advisors work with schools and local employers to provide services for community-based projects directed at educational achievement, employment success, citizenship and leaders, and work experience. Pending approval, two projects of one-week duration each will be done by 8-person crews of 18-24 year-old young adults from Benzie-Manistee Counties with adult supervisors and **CLWA** volunteers.

Crystal Lake Watershed Invasive Species Project - Mapping by GPS and physical removal of invasive terrestrial plants in the Crystal Lake Watershed will focus on Garlic Mustard, but will also map ragweed, tent caterpillars, phragmites (reeds) cottonwoods, locust, and other nuisances. Areas of infestations will be marked, measured, and mapped to establish baselines for future monitoring. The crew will use various techniques to remove and mitigate areas of invasion. Garlic mustard (GM) is an invasive plant that degrades wildlife habitat, displaces rare plants, and causes long-term degradation of forests by shading out tree and shrub seedlings. This project will be the responsibility of the **CLWA** Invasive Species / Swimmer's Itch Committee.

Crystal Lake Shoreline Condition Survey Project - Assessment and mapping of vegetation and other conditions will focus on shoreline and inland buffer zones of Crystal Lake and its tributaries. The crew with **CLWA** volunteers will traverse the 21-mile perimeter of the Lake by car/boat and record vegetative types, erosion areas, seawall conditions, and other shoreline features. Areas of concern will be documented by digital cameras and data entered into a computer database for assessment. Native plants in shoreline "green belts" help to control runoff of sediments and nutrients into Crystal Lake thereby preserving water clarity and quality adversely affected by non-native plants, proximity of lawns/gardens, and indiscriminate uses of fertilizers, pesticides, and herbicides.

WATER QUALITY

Water quality monitoring of Crystal Lake includes several aspects. We subscribe to the Cooperative Lake Monitoring Program (CLMP), a long-running partnership between the Michigan Lake & Streams Associations (ML&SA) and the Inland Lakes and Streams Program of the Michigan Department of Environmental Quality (MDEQ). **CLWA** Volunteers monitor water quality (Secchi depth) and collect samples for total phosphorus and chlorophyll a for analyses by MDEQ. Data are reported in an annual report for all participating MI lakes by MDEQ by MICorps. Any changes that may occur over time are noted to assist lake, river, and watershed organizations in the management of waterfront property. The CLMP is also a cost-effective way for the MDEQ to compile baseline data on lake water quality, determine trends, and compare lakes.

CLWA is contracting this summer with Rob Karner, of the Leelanau School, and biologist for the Glen Lake Association, to train and assist our volunteers in conducting deepwater profiles of temperature, dissolved oxygen, pH, conductivity, redox potential, and turbidity, using our own Hydrolab® H20 multiprobe and data logger. These profile data, collected since 1994, provide additional information of the chemical-physical conditions of Crystal Lake. As reported in the last newsletter (Crystal Whitecaps Vol. 5, No. 1), the **CLWA** also conducted a survey of aquatic macrophytes in 2008. Locations of these plants were found to be similar to an earlier survey done in 1996. It is anticipated that the proposed project in 2009 to assess shoreline conditions will result in additional information.



GARLIC MUSTARD - A CONTINUING NUISANCE

Garlic Mustard (GM) continues its invasion of the Crystal Lake Watershed. This nuisance plant proliferates rapidly if uncontrolled. It degrades wildlife habitat, displaces rare plants, and causes long-term degradation of forests by shading out tree and shrub seedlings. As reported previously (Crystal Whitecaps Vol. 4, No. 2, Spring/Summer 2008), the **CLWA** recommends all property owners remove GM wherever possible before it spreads uncontrollably. We support the efforts by other local organizations to pull plants with roots intact in spring and early summer and place in black bags for land disposal at approved collection sites (not regular garbage!).

GM, a biennial plant, produces many seeds that survive from year-to-year in the ground. There is some hope that this invasive and destructive plant can be managed with repeated pulling of second-year plants that bloom and form seed pods. Mowing of one-year plants seems to reduce the crop of second-year plants. It is very important to identify and harvest scattered infestations before they spread widely. The following guidelines (adapted from CBCA) are effective until about July 1st:

1. Call the **CLWA** hotline (231/352-5328) to report infestations or for assistance in identifying GM.
2. Pull all second-year plants (those with white flowers forming seedpods).
3. Grasp plants near the ground and pull gently to remove as much root as possible.
4. Place pulled plants into large (30-33 gallon) black plastic trash bags.
5. Drop off bags at Benzie County Road Commission in Honor (Sign on fence marks dropoff)
6. Remember, Garlic Mustard IS edible!

SWIMMER'S ITCH - A PREVENTATIVE ?

In response to the concerns of members and the public, CLWA has searched the scientific literature for a creme or lotion to protect against swimmer's itch. One product that appears promising is Safe Sea®, which is sold over the Internet and through some oceanfront scuba diving shops as a sunscreen and a protectant against jellyfish stings. Researchers in Germany reported that Safe Sea was also effective against the freshwater cercaria that cause swimmer's itch, though the product is not labeled for that use. Safe Sea has not been evaluated for safety or effectiveness by the US Food and Drug Administration. The product literature says it is safe for use by children aged 6 months or older. The product is available through the following website, though supplies may be limited: <http://www.buysafesea.com>.

Another substance that protected against swimmer's itch in the German study was niclosamide, which has been used as a tapeworm medicine, and as a control agent for sea lamprey. Research indicates that red cedarwood oil also may be effective. Those substances are not available in the United States in a topical form for use against swimmer's itch, however.

MISCELLANEOUS CREDITS

Sue and Tom Teteak for partial funding of the 2009 Summer Intern.

BookWear® by Field Crafts, Inc., for yeoman duty in printing our "Walkabout" shirts.

BaySide Printing, Inc., for continued publication of the Directory & Crystal Whitecaps.

Elizabeth Hill, for her years of service on the **CLWA** Board.

Jim Hooker and Terry Herban, for transporting SI/IS Committee members around the Lake.

The Benzie County Road Commission, Crystal Down County Club, and CBCA for GM controls.

The Benzie County Drain Commission, for maintaining the Outlet Dam and measuring Lake level.

All of the volunteer Site Interpreters, for their services on the "Walkabout".

CLWA members, for their continued interest and support.



THE AMERICAN CHESTNUT TREE - A RESURRECTION

The American Chestnut tree (*Castanea dentata*) is related to other sweet chestnuts, but unrelated to horse chestnut (Buckeye). Groves of majestic trees growing 100–150 feet in height and 10 feet in diameter, once covered two million Acres with four billion trees ranging across the eastern U.S. and reaching SE Lower MI. Beginning in the early 1900's, vast chestnut forests were devastated by the chestnut blight (a bark fungus causing cankers, wilted foliage, and clogged vessels). The American Chestnut was one of the best-loved native American trees - a fast-growing hardwood with beautiful and stately form, pleasing rich wood grain, bright foliage, attractively-shaped leaves, odorous, cream-colored blossoms, and toothsome nuts for landscaping, and many commercial uses, including: natural ecological sustainability and urban landscaping; food for wildlife, livestock, and humans; fine wood for furniture and musical instruments, structural wood for fencing, boxes, barrels, railroad ties, telegraph poles, and mine timbers; charcoal for blacksmiths, and tannin for leather tanning.



Although not native to NW Lower Michigan, the American Chestnut tree was planted by early settlers. A large grove was planted ~ 1910 within an apple orchard on the old Rogers farm at Chimney Corners on the glacial ridge flanking the north shore of Crystal Lake. There have been successes in restoring the American chestnut tree to its native range within the woodlands of the eastern U.S. due to concerted scientific research and genetic breeding. There are now nut growers in Michigan producing, harvesting, and processing sweet chestnuts for market. Like other cultured trees it is susceptible to other pests such as the bark boring beetle if not controlled. Blight-resistant seedlings obtained by the Benzie Conservation District were recently planted at the Benzie County Government Center, the Beulah Information Center, the Mills Community House, and downtown Frankfort (with future plantings at other locations) as a scheduled activity during the recent Spring "Walkabout".

CRYSTAL LAKE "WALKABOUT" - SPRING 2009.

The Crystal Lake "Walkabout" is an educational program to teach students, property owners, and visitors about the Crystal Lake Watershed using a "hands-on" approach of observational monitoring and environmental exploring. Participants "walk about" Interpretive Sites representing different parts of the Crystal Lake Watershed. The program focuses on hydrology – how water moves about the watershed - and impacts water quality, ecology, land use, zoning, septic tanks, green belts, sustainable development, and watershed management. Now in its 17th year, the Spring "Walkabout" was held on Wednesday, May 30, 2009, for 180 students from the 6th grade classes of Benzie Central and Frankfort/Elberta Schools. Sites visited included: Crystal Lake at Beulah Beach, the Benzie Area Historical Museum, and the Trapp Farm Nature Preserve. Planting of American Chestnut seedlings was a special activity. We sincerely appreciate the dedicated teachers who support the "Walkabout" and their attentive students. Special thanks also to the Site Interpreters. A Summer "Walkabout" for the public is being considered for late July. Learn about the Crystal Lake Watershed - water quality, dune ecology, and the Great Lakes. "Walkabout" T-shirts are \$15 and the 48-pp Interpretive Manual is \$10. Family rates available. To register, call **CLWA** (231/882-4001).



WATER LEVEL

The 2009 spring level of Crystal Lake is at 600.27 feet as of early June. The level has fluctuated from its 37-year low of over 12" below winter level (set at 599.75 ft) in late 2007 to about 6" above summer level (set at 600.25 ft) in early 2008. Normal conditions have returned. Water is being carefully spilled anticipating drier conditions in late summer.

www.CLWA.us

The **CLWA** Website contains history of the Crystal Lake Watershed, many maps, facts and figures, descriptions of the **CLWA**, activities by our Water Quality, Education & Communications, Zoning & Land Use, and Financial Development Committees, photographs, a calendar of events, publications and references, links to other websites, and summaries of current events.

CLWA MEMBERSHIP

Membership in the Crystal Lake & Watershed Association (*) includes:

- Crystal Whitecaps, The **CLWA** Newsletter.
- The Annual **CLWA** Membership Directory.
- Progress reports on Crystal Lake Watershed activities and issues.
- The Michigan Riparian magazine (optional).
- An active voice in the protection of the Crystal Lake Watershed.

(*) The **CLWA** is a nonprofit 501(c)(3) organization with over 1,000 members that support a comprehensive program of activities affecting students, riparian owners, and visitors in the Crystal Lake Watershed, Benzie Co., MI. **CLWA** memberships are \$35 per year. Gifts to the 2020 Vision Fund are for stewardship projects, scientific studies, and educational programs; and those to the Endowment Fund are for future needs. Please contact the **CLWA** with your concerns and comments.

CRYSTAL LAKE SAILING SCHOOL

The Crystal Lake Yacht Club ("CLYC") has formed Crystal Lake Sailing School, Inc. ("CLSS"), a new 501(c)(3) organization offering a comprehensive sailing instructional program to teach children how to sail, while instilling virtues of good sportsmanship, working together as a crew with responsibility and resourcefulness. Three levels of Learn to Sail lessons will be offered. Completion of each level is a prerequisite for enrollment in the next level. After completion of three levels of instruction, a Learn to Race lesson will be offered. Four, two-week sessions of all four lessons will be offered. Classes will be held at the CLYC Monday through Friday, 9:00 AM - 11:30 AM beginning June 15, 2009. This is a great way to introduce children of all ages and backgrounds to the joys of sailing. All instructors have been certified by U.S. Sailing and all of them have successfully competed in CLYC scheduled races as well as multi-Club regattas held at Crystal Lake and other lakes with sailing clubs that are members of the Western Michigan Yacht Association. The Program Director is Charlie Yole, who has developed a strong background in teaching children to sail at CLYC, and teaching children to ski at Crystal Mountain Resort. The CLSS solicits tax-deductible donations to partially finance the program. To learn more about the CLSS, and to enroll, visit www.clyc.net or P.O. Box 262, Frankfort, MI 49635.



CRYSTAL LAKE & WATERSHED ASSOCIATION

CLWA ANNUAL MEETING

9:30-11:30 AM, Saturday, July 18, 2009, at the CSA Meeting Hall, 2128 Pilgrim Highway (M-22).

A short business meeting will be followed by a very special program:

“A Celebration of 40 Years of Water Quality Monitoring of Crystal Lake”, with remarks by Dr. John J. Gannon, Professor Emeritus, School of Public Health, The University of Michigan, and Dr. Alfred M. Beeton, former Chief Scientist, NOAA, and others, who coauthored significant reports on the water quality of Crystal Lake from 1969 to the present !

CLWA 2009 SUMMER EVENTS

- June 27 **CLWA** Board Meeting
- July 18..... **CLWA** Annual Meeting
- July 25..... **CLWA** Summer “Walkabout”
- August 6..... **CLWA** Board Meeting
- Sept 12 **CLWA** Board Meeting
- Oct 7 **CLWA** Fall “Walkabout”

2009 COMMUNITY EVENTS

- June 20 Spring Craft Fair - Frankfort
- June 23 Planet It Wild - Grasses
- July 4 Parades/Fireworks - Beulah/Frankfort
- July 4 Firecracker 5K Race - Beulah
- July 11 Beulah Art Fair
- July 19..... Elberta Art & Crafts Fair
- July 18..... Port City Run
- July 18..... Art & Crafts Fair - Elberta
- July 18..... Plant It Wild - Our Lakes & Rivers - Yours to Protect
- July 22..... CSA Arts & Crafts Fair
- July 26-28 Michigan Energy Fair - Onekama
- August 1 Ecology Day - CSA
- August 2..... Plant It Wild - Native Plant Walk
- August 8..... Crystal Lake Team Marathon
- August 14-5 Frankfort Art Fair
- Sept 22 Plant It Wild - Landscaping with Native Plants

Visit
www.CLWA.us
www.frankfort-elberta.com
www.benzie.org
and www.visitbenzie.com
for a complete listing of events,
times and locations.