



Crystal Whitecaps

The Newsletter of the Crystal Lake & Watershed Association
Vol. 4, No. 2, SPRING/SUMMER 2008

PRESIDENT'S REPORT

CLWA Committees met during the winter and are moving forward on projects outlined in the enclosed reports. We expect to have a very productive summer. The new Swimmer's Itch / Invasive Species Committee conducted a successful Garlic Mustard harvest in June, and is focused on Phragmites and other invasive species. **BOAT LAUNCH UPDATE: As we went to press, we received Judge Mack's decision approving the MDNR/MDEQ permit to proceed. The CLWA Board is reviewing the Judge's opinion and considering alternatives for future action. We will continue to work for a much needed boat launch that is designed to protect the water quality of Crystal Lake.**

"INVASIVE" OR "NATIVE" SPECIES?

An invasive species is non-native (non-indigenous, exotic, alien, foreign) to an ecosystem. It can be a nuisance at the least, and a threat at the most, potentially causing harm to environment or human health. An "invasive" differs from a native species in that it originates from "somewhere else". Since the 1800s, more than 140 exotic plants, fish, algae, and mollusks, have entered the Great Lakes. Invasives include: emerald ash borer, chestnut blight, house sparrow, sea lamprey, Zebra mussel, quagga mussel, alewife, round goby, spiny water flea, purple loosestrife, baby's breath, garlic mustard, Eurasian water milfoil, viral hemorrhagic septicemia (VHS, a fish disease), and bloody red shrimp. Natives include: milkweed, white pine, lake trout, whitefish, and lake sturgeon. Some "invasives" are commercially important: Atlantic smelt, rainbow & brown trout, Coho & Chinook salmon; others are used selectively in landscaping. Some natives, like swimmer's itch, poison ivy, and the common reed (/Phragmites/), are nuisance species.

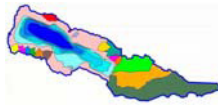
The Atlantic smelt was planted in Crystal Lake in 1912 and later spread throughout all of the Great Lakes! The Lake Sturgeon is a "glacial relic" that has inhabited Crystal Lake since the last ice age.



Atlantic Smelt (6-8") and Lake Sturgeon (3-5 ft) (<http://fish.dnr.cornell.edu/>) (Not to scale.)

Fortunately, most recognized invasive species are not found in Crystal Lake. The **CLWA** is concerned, however, about future prevention and control. Once present, invasives are very difficult to eradicate in a large body of water like Crystal Lake, since chemical and biological controls are not feasible. Sea lamprey (recently sighted downstream from the Outlet dam), however, are already subject to control by the U.S. Fish & Wildlife Service. Nuisance plants, such as baby's breath and garlic mustard (following article), have been targeted for removal for several years in local programs.

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



GARLIC MUSTARD

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. 1st-year plants form attractive clumps of round shaped, slightly wrinkled leaves, that when crushed smell like garlic. 2nd-year plants flower in spring, producing cross-shaped white flowers in dense clusters, blooming on an elongated spiked stem. Dispersed seeds can lie dormant in the ground for several years.

On June 16, **CLWA** had its first annual GM harvest. It was very successful-volunteers collected more than 70 large garbage bags of GM. We look forward to seeing the difference in the cleared sites next spring.

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 disposal at approved collection sites (not in regular garbage). Call the **CLWA** for further information.

1st- and 2nd-year GM plants, and seed heads http://www.ipaw.org/invasers/garlic_mustard/gm.htm

SHORELINE STEWARDSHIP

The Shoreline Stewardship Committee will be encouraging good stewardship practices by highlighting at least two sites along the Crystal Lake Shore this summer. Criteria for selection include: presence of a diversity of native plants, low maintenance, and an appealing appearance. Crystal Lake water clarity and quality are tied inextricably to the health of the shoreline ecosystem. The shoreline can be adversely affected by non-native plantings and lawns too close to the Lake, and the excessive uses of inorganic fertilizer, manure, compost, mulch), and the indiscriminant uses of pesticides and herbicides. The committee seeks to demonstrate that native plants can be beautiful and nearly maintenance-free buffer zone, while attracting a variety of birds, butterflies and other wildlife. The Committee is available to offer guidance on these issues.

MISCELLANEOUS CREDITS

Sue and Tom Teteak for donating the kayak for the member drawing.

Lisa Christian for her efforts in creating the 2008 **CLWA** Directory.

Kyle Axtell of the Benzie Conservation District for continued water quality monitoring services.

The Benzie County Marine Patrol for assisting in monitoring water clarity.

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

Carolyn Thayer (Plant it Wild) and Kyle Axtell (BCD) for their expertise in shoreline stewardship.



THE BENZIE CORRIDOR

The Benzie Corridor (BC) was proposed in 1970 as an 8-mi “parkway” from M-22 to US-31 along the high ridge between the Crystal Lake and Platte Lake Watersheds as part of the Sleeping Bear Dunes National Lakeshore (SBDNL). Land acquisition by SBDNL would allow coordinated “protection” vs. piecemeal development following the Crystal Lake Watershed Overlay District (CLWOD). Four alternatives for the BC in the General Management Plan / Wilderness Study / Environmental Impact Statement (GMP/WS/EIS) proposed by the NPS range from removal of the Corridor from any future consideration to continued purchase of lands for development of a scenic road and/or a hike/bike trail.

The Benzie Corridor is of vital concern to the **CLWA** for the following reasons:

(1) the BC running along the Crystal Lake Moraine, which forms the northern boundary of the Crystal Lake Watershed, is important to maintaining lake water quality; (2) the morainal highlands are among prominent features of the region’s glacial geology, and are therefore an important scientific resource; (3) the BC offers impressive views of Crystal Lake to the south, and the National Lakeshore and Manitou Islands to the north; and (4) the wooded moraine enhances the experience of Lakeshore visitors and Crystal Lake residents by providing a natural boundary to the viewshed from within the SBDNL and from viewpoints on Crystal Lake.

CLWA supports development of a scenic road and/or bike/hike trail within the BC to provide access to scientific and scenic resources on the moraine, while protecting natural views of the highlands from within the SBDNL and from Crystal Lake. At the June 3rd public hearing and a letter to SBDNL, **CLWA** supported the Preferred Alternative (*), with suggested changes to insure the SBDNL has adequate flexibility in meeting those goals.

CLWA recommended the following addition:

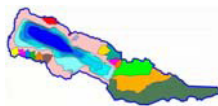
“The National Park Service also would consider purchase/donation of easements as appropriate to protect scenic or natural resources and /or provide right-of-way for a road or trail. Partnerships with state or local government, land conservancies, or non-profit agencies would be considered as a way to advance goals within the Benzie Corridor and protect scenic or natural resources. This could include partnerships to provide public access, prior to development of a full trail, to scenic overlooks or other property acquired by the NPS”

Also deletion of the sentence: “The road/trail would not be expected to be built within the life of this plan.

(*) The “preferred alternative” values the SBDNL primarily for preservation of natural resources, and for opportunities for visitor enjoyment of natural, cultural, and recreational resources in a scenic outdoor setting. Lands designated “wilderness” (32,200 A) would have no developed county roads.

Alternative	Action (paraphrased from www.nps.gov/slbe/parkmgmt/gmphome.htm)
No Action	Purchase lands on willing-seller basis for scenic road and bike lane/trail; current conditions (nothing built).
Preferred	Purchase lands on willing-seller basis for scenic road and/or a hike/bike trail (nothing built within life of plan).
A	Removal of Benzie Corridor from Lakeshore boundary (nothing built).
B	Purchase lands on willing-seller basis for scenic road and bike lane/trail (built within life of plan).
C	Purchase lands on willing-seller basis for development of nonmotorized hike/bike trail (built within life of plan).

Previous articles and maps see Crystal Whitecaps: Vols. 3(1), 4(1) at www.clwa.us/newsletters.htm



LAKE LEVEL

As a result of ample winter precipitation, the level of Crystal Lake has rebounded from its 37-year low reached late last fall (See Crystal Whitecaps Vol. 4, No. 1), i.e. from over 12" below winter level to about 6" above summer level. Conditions have reversed from having too little water to float boats to having so much water that docks are floating! The latter is considered a temporary condition. The Lake is now well above its summer level and water is being carefully spilled in anticipation of drier conditions in late summer.

The **CLWA** contracted with Corey Hughes, PS, to re-establish four important survey benchmarks at the Outlet Dam, the Beulah Boat Launch, and the inlet and outlet of the Sediment Basin. These marks will be used to assess future lake water management. A current meter, recently donated to the **CLWA** by Fred Tanis, will be used to monitor water flows in Cold Creek and Outlet Creek.



"Lo! the level lake, and the long glories of the winter moon!" -Tennyson, *Morte d'Arthur*

SUMMER INTERNS

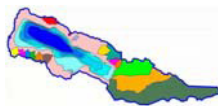
The **CLWA** is pleased to have the services of two Summer Interns for the 2008 season.

Emily Baker received her BA from Grand Valley State University in May 2008 in a program emphasizing Earth, the Environment, and Human Culture. She will be expanding her recent work on garlic mustard control at the CSA with current interests of the **CLWA** and assisting in water quality studies, including a survey of aquatic plants.

Molly Walton received her BA in International Relations, with a minor in Communications, from Wheaton College (IL) in May 2008. She is planning on continuing graduate studies in international relations and environmental policy at Boston University this fall. She will be coordinating the educational outreach activities of the CLWA at various summer events and developing permanent educational displays depicting watershed history and current issues, including a "hands-on" interactive model of the Crystal Lake Watershed.

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.



CRYSTAL LAKE “WALKABOUT” - SPRING 2008.

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 on water quality, ecology, land use, zoning, septic tanks, green belts, sustainable development, and watershed management. www.clwa.us/educ_comm.htm#EDUCATION.

The Spring **“Walkabout”** was held on Wednesday, May 28, 2008, for 180 students from the 6th grade classes of Benzie Central and Frankfort-Elberta Schools. The Sites visited: Crystal Lake at Beulah Beach, The Benzie Area Historical Museum, The Trapp Farm Nature Preserve, and The Outlet. We sincerely appreciate the dedicated teachers who support the **“Walkabout”** and most importantly their students. Special thanks also to the Site Interpreters.

A Summer **“Walkabout”** open to the public is being planned for late July. Learn about the Crystal Lake Watershed - water quality, dune ecology, and the Great Lakes. “Walkabout” T-shirts are \$15 and a 48-pp Interpretive Manual is \$10. Family rates available. To register, call the **CLWA**.

GREEN EXPLORERS CLUB

All elementary aged children older than six in Benzie County are invited to join the Green Explorers Club. A rain garden has been planted along the Betsie Valley Trail Depot in Beulah. It is designed to cleanup runoff water before entering Crystal Lake. Six classes filled with hands-on activities and experiments gives children real experience with how water moves about in watersheds. Learn about meandering, confluence, topographic maps, water flow, watersheds, wetlands, testing water turbidity, investigating benthic invertebrates, and identifying invasive species. A special field trip will visit a local wetland to learn about dragonflies and other denizens of this special environment. A team of Benzie Central Middle School students arranged the garden outlay and a high school student is writing and designing the garden pamphlet. Karen Dahman, a retired elementary teacher, developed the course. For more information and registration, call the **CLWA**.

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, community members, 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.



P.O. Box 89
Beulah, MI 49617



CRYSTAL LAKE & WATERSHED ASSOCIATION

CLWA ANNUAL MEETING

9:30 AM - 11:30 AM, Saturday, July 19, 2008, at the CSA Meeting Hall, 2128 Pilgrim Highway (M-22). A short business meeting will be followed by the featured speaker: Craig Seger, P.E., Benzie County Zoning Administrator and Deputy Drain Commissioner, a professional civil engineer, "Crystal View: Unique Opportunities for a Unique Lake" - Zoning and Stormwater Requirements as Applied to the Crystal Lake Watershed Overlay District (CLWOD).

WIN THE CRYSTAL KAYAK !!!

Here's a chance to "paddle your own kayak". The Sting Ray 10 (by Heritage Kayaks) (10' length, 30" beam, and 46 lb) - perfect for smaller paddlers and tight spaces, self-bailing and "sit-on-top, padded seat, bow hatch, and stern well. It is made available locally by Crystal Lake Adventure Sports, Beulah, MI. A drawing for all **CLWA** members will be held later in the summer.



STING RAY

SUMMER 2008 EVENTS

- June 21 12th Spring Craft Fair – Frankfort
- July 3 **CLWA** Board Meeting
- July 4 Parades/Fireworks – Beulah/Frankfort
- July 4 Firecracker 5K Race - Beulah
- July 5 Beulah Art Fair
- July 12..... CSA Family Ecology Day
- July 19..... Elberta Art & Crafts Fair
- July 19..... Port City Run
- July 19..... **CLWA** Annual Meeting 9:30 AM – CSA
- July 23 CSA Arts & Crafts Fair
- July 27..... Summer Crystal Lake **"Walkabout"**
- Aug 4..... Fun & Flotilla Pt. Betsie Lighthouse
- Aug 9 Crystal Lake Team Marathon
- Aug 16 Benzonia Sesquicentennial Picnic
- Aug 16 32nd Frankfort Art Fair
- Aug 17 **"Protecting Michigan Water"**
Elberta Life Saving Station
- Oct 8..... Fall Crystal Lake **"Walkabout"**
- Oct 20 Pt. Betsie 150th Birthday