

Photo Credit: Russ Soyring, City of Traverse City



MICHIGAN COASTAL NEWS

A Publication of the Michigan Coastal Management Program Volume 2, Issue 1: Spring 2008

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Michigan Coastal News is issued quarterly by the Michigan Coastal Management Program, Environmental Science and Services Division, Department of Environmental Quality. To suggest an idea for an article or submit a volunteer opportunity, contact Matt Smar at (517) 335-3459 or smarm@michigan.gov.

New 2008 Coastal Projects Launch, 2009 Project Proposals Sought

Every year, the Michigan Coastal Management Program awards grants for projects aligned with our mission to protect, restore, and promote appropriate, sustainable use of Great Lakes coastal resources. Local and tribal governments, nonprofit groups, universities, and state agencies are eligible to compete for the grant funds, passed through from the National Oceanic and Atmospheric Administration.

In 2008, Michigan's coastal communities and environment will benefit from 41 new projects addressing a broad range of priorities. For example, three projects will further efforts to implement alternative energy technologies in environmentally appropriate ways. Notably, a team from the University of Michigan and Institute for Fisheries Research, Department of Natural Resources, will develop the first comprehensive GIS database of important fish and wildlife habitats on Michigan's Great Lakes bottomlands. Knowing the location of these critical lakebed habitats will allow regulatory agencies to make better-informed decisions on permitting offshore wind farms and other energy infrastructure in the Great Lakes.

Three projects advance the broad objectives of Michigan's new Coastal and Estuarine Land Conservation Plan. Regional efforts include coastal habitat mapping in the northeast Lower Peninsula, and development of a three-county Green Infrastructure plan in southwest Michigan. Additionally, Ducks Unlimited will work on coastal information layers for the statewide Conservation and Recreation Lands (CARL) GIS database, developed in collaboration with The Nature Conservancy. The CARL database shows considerable promise as a conservation planning resource.

On the tourism enhancement front, kayakers and canoeists will be able to explore a new Lake Huron blueway trail planned by the Northeast Michigan Council of Governments. Coastal communities interested in hosting Great Lakes cruise ships can look forward to a web-based "how-to" guide, under development by the Department of History, Arts and Libraries and City of East Tawas. Community land use plans and zoning ordinances, public access improvements, historic restoration, natural resource studies, and outreach and education programs round out the list of 2008 CZM projects.

The Coastal Management Program is now accepting proposals for projects beginning January 1, 2009. Applications must be postmarked no later than May 1, 2008. The application form and supporting information is linked to our main webpage at www.michigan.gov/degcoastal, under "2008/2009 Michigan Coastal Management Program Grant RFP and Application." Please contact us for information on any of the 2008 projects or the 2009 request for proposals.





Photo Credit: ISEA

Project Spotlight:
**Shipboard Water Quality Education
 for Community Leaders**

Thanks to a select group of organizations that provide shipboard environmental education, thousands of schoolchildren board sailing ships and research vessels every year, and head out onto Michigan's Great Lakes for the type of learning that can't be had in a classroom setting. Analyzing water samples, collecting and observing aquatic life, and absorbing the Great Lakes through their senses help the kids grasp the complexity, wonder, and vulnerability of the ecosystem in a tangible, immediate way. These types of hands-on lessons are worth learning at any age, and one could ask how management of our Great Lakes might differ if policymakers and opinion leaders were given the educational opportunity offered these children.

An organization in the Grand Traverse Bay area is using 2006 and 2007 CZM grants to take the first steps toward answering that question.

Last September, the Inland Seas Education Association (ISEA) treated more than 100 local community leaders to a program billed as "A Day on the Bay," a day-long, Great Lakes water quality and environmental management refresher course. Organized in collaboration with several agencies and environmental organizations serving the northwest Lower Peninsula, the workshops featured morning sessions at the Inland Seas Education Center and wetland demonstration site in Sutton's Bay. Participants then boarded the 77-foot schooner, *Inland Seas*, for lunch followed by an afternoon of lessons in limnology, water chemistry, aquatic life, and other topics in the living laboratory of Grand Traverse Bay. ISEA educators facilitated the morning and afternoon sessions with the help of presenters from the Northwest Michigan Council of Governments, Michigan Sea Grant, The Watershed Center, and other groups.

Participants were not required to take a quiz at the end of the cruise. Instead, the real test began once the class returned to their roles as local government officials, civic leaders, natural resource managers, and environmental advocates. ISEA staff provided each participant with a toolkit of materials on diverse aspects of Great Lakes resource management, from proper septic system maintenance and landscaping for water quality, to invasive species control and crafting local environmental laws. Inspired by their experience on the *Inland Seas* and equipped with the information in their toolkits, graduates of the "Day on the Bay" will determine the true success of the program by promoting an ethic of Great Lakes stewardship through their work, participation in their communities, and by personal example.

The Inland Seas Education Association is accepting nominations for the September, 2008, "Day on the Bay" program, offered at no cost to participants. Coastal community leaders from Manistee to Mackinaw City are welcome to participate. Contact Kim Biocchi for additional information: **(231) 271-3077**, or kbiocchi@schoolship.org. Information is also available on the ISEA website at www.schoolship.org.

Michigan Ports of Call in Upcoming *Earth Voyager* Tour

The *Earth Voyager* will visit five Michigan coastal communities this summer as part of the "Healthy Lakes, Healthy Lives Tour." The sixty-foot trimaran, reputed to be the fastest sailing vessel on the Great Lakes, will make stops at a dozen port cities on Lakes Ontario, Erie, Huron, and Michigan between early June and early September. Grand Haven, Bay City, Detroit, and Port Huron – *Earth Voyager's* home port – will be ports of call. The fifth Michigan venue will be either Petoskey or Traverse City. The vessel will also be on hand for the Bayview Yacht Club's 84th Annual Port Huron to Mackinac Race, July 12-14, and the Chicago Yacht Club's 100th Annual Race to Mackinac, July 19-21.

"Healthy Lakes, Healthy Lives" aims to mobilize support for federal funding of the Great Lakes Restoration Strategy, crafted in response to a 2004 presidential executive order. More than 1,500 representatives from state and federal agencies, local and tribal governments, nonprofit organizations, and industry groups collaborated on this blueprint for protecting and restoring Great Lakes habitat and water quality, which was released on December 12, 2005, following public comment. Local committees at each port of call will organize concerts, receptions, flotillas, press conferences, and other events to showcase the enthusiasm for Great Lakes protection, and encourage funding for the Strategy commensurate with its strong public support. Tour dates, locations, and other items of interest are available on the Tour website at www.healthylakestour.org.

Volunteer Birders Needed at Pivotal Moment in Piping Plover Recovery

This spring and summer, beach-loving birders are invited to add the piping plover (*Charadrius melodus*) to their life lists while assisting state and federal conservation efforts focused on the small, sand-colored shorebird. Volunteer birdwatchers and nest monitors have a chance to help tip the balance in the plovers' favor, at a time when there is cause for cautious optimism about their future.

Never an abundant species, the Great Lakes population of the piping plover is limited by the availability of suitable nesting habitat. The birds breed on broad, open sandy beaches along the shoreline, an ecological community that was at a premium even before beachfront living and recreation became popular. Biologists estimate that several hundred pairs nested throughout the Great Lakes Basin prior to European settlement.

Unrestricted hunting took a toll on the plovers in the late 19th and early 20th centuries, when the feathers and stuffed bodies of virtually every bird species adorned fashionable women's hats. The passage of the federal Migratory Bird Treaty Act in 1918 halted both the hunting and the fashion trend, and the plovers' numbers began to rally. But beachfront development, increasing recreational use of the nesting beaches, and nest predation triggered a second decline starting in the 1950s. A period of high Great Lakes water levels in the late 1970s to the mid 1980s reduced nesting habitat and put additional strain on the species. When the federal government listed the piping plover as an Endangered Species in 1986, the entire Great Lakes population totaled 17 breeding pairs.



Alice Van Zoeren

Heroic conservation efforts have helped the birds stage a hard-fought comeback. Last year, after two decades of coastal surveys, nest monitoring, and active nesting beach protection, the Great Lakes population climbed to 63 breeding pairs. Michigan is the species' stronghold in the region, with 56 pairs nesting in 2007. The plovers return from the Gulf of Mexico beginning in mid-April, and are regularly observed near Ludington, Tawas, Oscoda, Alpena, Empire, Cross Village, and Wilderness State Park in the Lower Peninsula, and Grand Marais, Escanaba, and the Straits area in the Upper Peninsula.

The U.S. Fish and Wildlife Service urges anyone observing a piping plover in the Great Lakes to promptly report the date, location, and other details of the sighting to Jack Dingledine at **(517) 351-6320**, or jack_dingledine@fws.gov. Volunteer nest beach monitors are also needed at several locations in the Upper and Lower Peninsulas during the May-August breeding season. Monitors observe plover pairs on their nesting territories and collect data on nesting and hatchling activity. They may also serve as on-site "plover conservation ambassadors" to the public. Information on volunteering to monitor nest sites is provided in the volunteer opportunities section on Page 4.

Just Released:

Comprehensive Reference on Michigan's Natural Communities

Land use planners, natural resource managers, environmental consultants, and others can now take advantage of the first-ever, on-line reference addressing all 76 of Michigan's recognized natural communities. The Michigan Natural Features Inventory (MNFI), a program of MSU Extension, recently completed the encyclopedic report "Natural Communities of Michigan: Classification and Description" containing illustrated profiles of both wetland and upland communities, including coastal communities such as Great Lakes marsh, wooded dune and swale complex, alvars, and sand and gravel beach. The reference is available as an indexed website and a PDF document for downloading.

MNFI botanists, zoologists, and ecologists developed information for the report through decades of extensive field surveys and other research. Consequently, the natural community profiles provide details on characteristic plants and animals, including rare and protected species, as well as the major natural processes, such as fire or wave action, required to maintain the communities. A pair of codes accompanying each profile indicates the rarity of the natural community on a statewide and global basis, according to the number of examples in existence in Michigan and worldwide. Importantly, the profiles highlight the main threats to the communities that government officials and land managers may address to protect biodiversity. The Michigan Natural Communities reference and link to the PDF document is accessed at: <http://web4.msue.msu.edu/mnfi/communities/index.cfm>.

Report: Some LID-Based Stormwater Systems are Solid Performers in Cold Climates

NOAA-supported research indicates that certain Low Impact Development (LID) stormwater management approaches, such as surface sand filters, subsurface gravel wetlands, and tree box filters provide consistent, four-season water quality treatment and water quantity control. The findings call into question widely-held assumptions that runoff management measures employing filtration, vegetation, and natural chemical and microbial processes are ineffective during sub-freezing winter weather. The University of New Hampshire Stormwater Center (UNHSC) presents these and other research results in its 2007 Annual Report. UNHSC is a component of the Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET). A partnership of NOAA and the University of New Hampshire, CICEET is dedicated to providing tools and knowledge for clean water and healthy coastal environments nationwide.

The Center's field site is uniquely designed to allow researchers to evaluate the performance of a range of stormwater treatment systems, from LID approaches to manufactured devices, in parallel settings under strictly controlled conditions. Data generated by these ongoing comparisons provide a foundation for the type of independent, science-based information coastal community officials and developers need to inform stormwater management decisions.

Tests showed that vegetated swales provide little or no runoff quality improvement following the onset of winter. Manufactured devices demonstrated fair to poor water quality treatment, findings that support the move of some states to limit their use to pretreatment of stormwater. Interestingly, tests of a porous asphalt parking lot designed and constructed in 2004 show the increasing promise of pervious pavement as an all-weather stormwater management approach. The lot, which incorporates a subsurface infiltration reservoir to filter and temporarily store runoff, exhibited some of the highest infiltration rates in winter – averaging more than 1,000 inches per hour. Compared to an adjacent control lot paved with an impervious asphalt mix, the porous asphalt lot required the application of one-quarter or less of the amount of salt to achieve equivalent or better deicing and tire traction. In some winter storm events, no salt was needed.

The report contains details on catchment area and other specifications, costs, maintenance considerations, and other information associated with each system tested. To view the report on-line or order a free hardcopy from CICEET, visit: http://ciceet.unh.edu/unh_stormwater_report_2007/index.php.



Photo Credit: Charlie Eshbach, MNA

Volunteer for Michigan's Coast!

From broad, sandy beaches to rocky, windswept heights, inland sea to *terra firma*, Spring ushers in the opportunity to lend a hand at a veritable variety of coastal volunteer venues.

- Grinnell Memorial Nature Sanctuary Workdays.** Help the Michigan Nature Association (MNA) improve its popular trail to the top of Bare Bluff, where you can enjoy one of Keweenaw County's most spectacular vistas. The May 2-3 volunteer event will involve trail work both days and "no trace," overnight camping. For more information and to register, contact Charlie Eshbach, MNA Western Upper Peninsula Representative, at **(906) 281-3500**.
- Inland Seas Education Association.** Volunteer Instructors are needed to teach aboard ISEA's Schoolships (see Page 2). On-the-job training is available any time after May 1. Call (231) 271-3077 or visit www.schoolship.org for details.
- Piping Plover Nest Monitors.** Volunteers are needed to monitor piping plover nests (see Page 3). A minimum commitment of a week or a couple of weekends is desired. Information on nest monitoring opportunities at several locations is available from the following contacts: Ludington, Wilderness, and Tawas State Parks, Lisa Gamero, (517) 241-4789, gamerol@michigan.gov; Sleeping Bear Dunes National Lakeshore, Ken Hyde, (231) 326-5134, ken_hyde@nps.gov; Hiawatha National Forest (East Unit), Steve Sjogren, (906) 643-7900 x 134, ssjogren@fs.fed.us; Hiawatha National Forest (West Unit), Janet Ekstrum, (906) 474-6442 x 140, jekstrum@fs.fed.us; Grand Marais, Escanaba, and other U.P. locations, Christie Deloria, (906) 226-1240, christie_deloria@fws.gov.
- State Park Stewardship Workdays.** The DNR Parks and Recreation Division needs weekend volunteers to help plant native seedlings and pull out invasive weeds at Algonac State Park in St. Clair County. Workdays are April 6, May 31, and June 22. Contact Laurel Malvitz for information: (248) 359-9057, malvitzl@michigan.gov.