



# From Shore to Shore

For Minnesota citizens promoting the health of our rivers & lakes

#80

July-August 2007

## Calendar of Events

For the most current listing of Shoreland Education workshops, visit [www.extension.umn.edu/shoreland](http://www.extension.umn.edu/shoreland).

### → Rain Gardens

July 26, 2007 – Morris, MN

Contact: U of MN West Central Research and Outreach Center, 320-589-1711, [spohrjm@morris.umn.edu](mailto:spohrjm@morris.umn.edu) or [poppesr@umn.edu](mailto:poppesr@umn.edu)

### → Stream Ecology: A Stream Model Demonstration

July 26, 2007 – Morris, MN

Contact: U of MN West Central Research and Outreach Center, 320-589-1711, [spohrjm@morris.umn.edu](mailto:spohrjm@morris.umn.edu) or [poppesr@umn.edu](mailto:poppesr@umn.edu)

### → Shoreland Buffers

August 11, 2007 – Breezy Point, MN

Contact: Jodi Eberhardt, Pelican Lake Property Owners Association, 218-562-5335, [plpoa@inbox.com](mailto:plpoa@inbox.com), <http://mnlakes.org/PLPOA>



Lake Miltona, MN

Photo credit: Dwight Droen

## Ice Ridge Photo Contest

Karen L. Terry, University of Minnesota Extension, 218-998-3927, [kterry@umn.edu](mailto:kterry@umn.edu)

Congratulations to Dwight Droen for being the winner in our ice ridge photo contest, and to Nichole Sternquist for being runner up. Dwight's photo is from Lake Miltona, Douglas County, this past winter and shows an ice ridge nearly 10 feet high. He reports that there was a second ice ridge more than 5 feet high about 30 yards out into the lake.

Nichole's photo was taken on Lake Minneswawa, Aitkin County, in 2004 and she wrote: "It is actually a picture of a failed rock riprap protection project. The grey material is a geotextile fabric under the rock riprap. The rock was not properly keyed into the lake bottom to withstand the ice push."

Thanks to all who sent in photos! ■



Lake Minneswawa, MN

Photo credit: Nichole Sternquist

## Shoreland Education Team's Workshops and On-Site Plantings: Getting the Work Done!

Three rain gardens were created near the newly constructed Judicial Center in Brainerd in May 2007. Many different departments (Crow Wing Parks Department, Crow Wing SWCD, and UMN Extension) assisted during the one-day planting session. Fifteen Crow Wing County Master Gardeners and interns volunteered.



Photo credit: Jackie Froemming

Another of the three rain gardens planted at the Judicial Center in Brainerd. Islands in parking lots can make great rain gardens, even as retrofits, by breaking the curb and directing the runoff into the low area.



Photo credit: Jackie Froemming

Crow Wing County Master Gardeners Sharon Bodie and Kris Olson help plant the demonstration rain garden at the Northland Arboretum, Brainerd.



Photo credit: Eleanor Burkett

A shoreline revegetation planting on Big Cormorant Lake, Becker County, in June 2007. This site, which was part of the Minnesota DNR's Shoreland Habitat grant program, consists of 4,800 square feet of shoreline revegetation plus a large rain garden.



Photo credit: Karen Terry

# Help Your Lake: Join *Stop Aquatic Hitchhikers!*<sup>TM</sup>

Doug Jensen, Minnesota Sea Grant, 218-726-8712, djensen1@umn.edu

Our organization does not have the resources to adequately prevent the spread of aquatic invasive species in our area." Have you said or heard this before? What can you do? Answer: *Join Stop Aquatic Hitchhikers!*<sup>TM</sup> It is a campaign that can help you protect your lake or river from aquatic hitchhikers such as zebra mussels and Eurasian watermilfoil. What are you waiting for? It's free and there are no obligations. Nearly 450 entities across the U.S. have joined. How about you?



*Stop Aquatic Hitchhikers!*<sup>TM</sup> is in its second year of a special initiative working with a broad spectrum of partners from businesses, industries, media, agencies, and NGOs in

a collective effort to combat the spread of aquatic invasive species across Minnesota, Wisconsin, and Iowa. In 2006, Wildlife Forever estimated that the campaign reached over 126 million people across the region! In 2007, prevention messages are again being extended via billboards, media ads, news releases, highway radio messages, signs at water accesses, stickers, windshield flyers, display panels at rest areas, kiosks at retail outlets, ads outside of convenience stores, regulation booklets, watercraft inspectors, signs along roadways, panels at airports, and lawn banners. These resources may be adapted or adopted for use in your area. Governor Pawlenty designated the last week in June as *Stop Aquatic Hitchhikers!*<sup>TM</sup> Week. Now is the time to join us. Learn how your organization can be part of the solution. Contact Doug Jensen or visit [www.protect-yourwaters.net](http://www.protect-yourwaters.net). ■

## Night-Time Shoreline Lighting

Adapted from a *From Shore to Shore* article written by Karen Sherper Rohs, April 2003

### What is Light Pollution?

Light pollution is light that goes beyond where it is meant to be going or light used when it is not needed. Three of the most serious problems in shoreland lighting include glare, sky glow, and light trespass. *Glare* is the light going beyond what the fixture is meant to illuminate, typically caused by poor design or poor installation. *Sky glow* refers to the washing out of the night sky due to exterior lighting shining upward and making cities "glow" at night. Examples include billboard lights that shine upward, street or parking lighting that bounces off pavement, and commercial or residential lighting open to the sky. *Light Trespass* is usually caused by glare; it's the illumination of adjacent property not meant to be lit by the fixture. On the waterfront, water reflects glare from shoreland lights onto distant properties. The reflective nature of water is one of the most challenging aspects of sensible shoreland lighting!

### What Can You Do?

- \* Provide adequate light for an evening activity, but don't over-light. Choose lights that meet your needs without lighting beyond what is required for the task.
- \* Choose lights that do not emit light upward or retrofit existing fixtures with shields to reduce glare.
- \* Use high-efficiency lamps.

- \* Avoid dusk-to-dawn security lights; consider motion detectors.
- \* Position lights above and in front of signs, keeping the light aimed at the sign surface.
- \* Check with your neighbors to find out if any of your lighting bothers them.
- \* Learn more about light pollution and recommendations for exterior lighting guidelines designed for local planning authorities.

### Make a Change

Why not look closely at the lighting at your place and see what you can do to minimize your impact on the night sky? It'll take only a few minutes, maybe some simple adjustments to re-align fixtures, or a few dollars to install motion detectors. Choosing new energy-efficient bulbs and turning off all-night lights will save electricity, reduce your electric bill, and darken the night sky. Your eyes, your neighbors, your imagination, and the nighttime creatures will all thank you – quietly, of course, so as not to disturb the evening's solitude.

For more information, visit the International Dark-Sky Association at [www.darksky.org](http://www.darksky.org) or "Sensible Shoreland Lighting by University of Wisconsin Extension: <http://cleanwater.uwex.edu/pubs/pdf/shore.lighting.pdf>. ■

# Shorebirds and Clean Water

Karen L. Terry, University of Minnesota Extension, 218-998-3927, kterry@umn.edu

When we think about birds making tremendously long migrations, we often think of hummingbirds. While the ruby-throated hummingbird common to Minnesota does migrate long distances, the award for the longest migration may go to the American golden plover, which travels upwards of 10,000 miles twice a year. Some populations of these shorebirds pass through Minnesota on their trip north in the spring – to the extreme northern arctic tundra – and on their trip south in late summer – to southern South America. Minnesota has a rich diversity of shorebirds, many which only pass through the state during migration, while others stay and breed. Shorebird migration begins early in the fall: most shorebirds start south again as early as July or August.



*American Golden Plover*

Minnesota's shorebirds fall within three distinct groups: plovers; avocets and stilts; and sandpipers. Many are strongly associated with watery habitats (lakes, rivers, and wetlands), but not all. The killdeer, probably our most easily identifiable shorebird, is more likely found in pastures, farm fields, or mowed lawns than near water. The other six plovers we might see in Minnesota are more strongly associated with lakes and mudflats, as are the American avocet, black-necked stilt, and the 33 species of sandpipers that at least occasionally pass within the state's borders.

Many of these species feed in exposed mudflats adjacent to lakes and wetlands and in flooded fields. Through the ages, many have evolved different bill shapes and feeding

strategies to avoid competition for the available food. Phalarope, for instance, stir up prey by spinning around in tight circles like tops, creating an upwelling of water which carries with it the small invertebrates on which the phalarope feeds. Other groups of species, such as the dowitchers, have long straight bills they use to probe deeply into the earth to find invertebrates; dowitchers are easily identified by the motion of their heads: they bob up and down quickly while feeding, resembling the motion of a sewing machine. A few others, such as the whimbrel and long-billed curlew, have long and downward-curved bills, which they use to probe into invertebrate burrows to extract long, soft-bodied prey.

Because these shorebirds depend on aquatic habitats for the invertebrates they eat and because many invertebrates are sensitive to changes in water quality, shorebirds are also dependent on clean water for their survival. To protect the diverse groups of sandpipers, plovers, and other shorebirds that we have in Minnesota, it is imperative that we maintain our clean waters and improve our degraded waters.

For more information:

*Stokes Beginner's Guide to Shorebirds*. 2001. Donald and Lillian Stokes.

Distribution maps of shorebirds species in Minnesota:  
<http://www.moumn.org/moureports/birdref.html#shorebirds> ■



*American Avocet*

wrc.coafes.umn.edu

www.seagrant.umn.edu

www.extension.umn.edu

www.shorelandmanagement.org



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