



From Shore to Shore

For Minnesota citizens promoting the health of our rivers & lakes

May-June 2006

#73

Calendar of Events

→ In-Depth Shoreland Landscaping (2-day workshop)

May 5 & 20, 2006: 8:30 a.m.-4 p.m. – Fifty Lakes, MN
Contact: Nancy Brooks, Fifty Lakes Foundation, 218-763-3622, reb1@emily.net

→ Introduction to Shoreland Landscaping

May 13, 2006: 8:30 a.m.-4 p.m. – Park Rapids, MN
Contact: Mimi Long, Big Sand Lake, 218-467-3561, voyageur@paulbunyan.net

→ Shoreland Planting

May 19, 2006: 9 a.m.-4 p.m. – Bass Lake, MN
Contact: Kathy Loucks, Itasca SWCD, 218-326-0017, kathy.loucks@mn.nacdnet.net

→ Shoreland Planting

May 31, 2006: 9 a.m.-4 p.m. – Sauk Centre, MN
Contact: Sauk River Watershed District, 320-352-2231, info@srwdmn.org

→ Shoreland Planting

June 2-3, 2006: 9 a.m.-4 p.m. – Snake River, MN
Contact: Sam Martin, Pine SWCD, 320-384-7431, sam.martin@mn.nacdnet.net

→ Shoreland Planting

June 17, 2006: 9 a.m.-4 p.m. – Emily, MN
Contact: Nancy Brooks, Fifty Lakes Foundation, 218-763-3622, reb1@emily.net

→ Invasive Species/Algae Workshop

June 23, 2006: 12:30-4:30 p.m. – Ideal Corners, MN
Contact: Gerry Leinfelder, White Fish Area Property Owners Association, 218-543-4882, llodge@uslink.net

Coming Soon: A Statewide Invasive Species Management Plan

Doug Jensen, MISAC, communications, outreach and education committee chair, and Minnesota Sea Grant Program, 218-726-8712, djensen1@umn.edu

Minnesota will soon have a comprehensive state plan to address aquatic and terrestrial invasive species. Several members of the Minnesota Invasive Species Advisory Council (MISAC, or mee-sack) including staff from the Minnesota Department of Natural Resources (DNR), Minnesota Department of Agriculture (MDA), and Minnesota Sea Grant met in 2005 to begin developing a draft plan.

In October, Minnesota reached a milestone. For the first time, 70 representatives from various businesses, government, and non-governmental entities, including the University of Minnesota Extension Service, gathered at a workshop to address terrestrial and aquatic invasive species.

cont. on page 3

→ Shoreland Maintenance

July 8, 2006: 9 a.m.-4 p.m. – Onamia, MN
Contact: Mille Lacs SWCD, 320-983-2154

→ Rain Garden Workshop

July 15, 2006: 9 a.m.-12 p.m. – Northland Arboretum, Brainerd, MN – Contact: Jackie Froeming, 218-824-1068, froem022@umn.edu

For information on these and other workshops, please visit: www.extension.umn.edu/shoreland <<http://www.extension.umn.edu/shoreland>>. The website provides the most current details about where and when workshops will be offered, and announces any changes to the above schedule and locations."



Swimmers' Itch - Summer's Torment

Barb Liukkonen, Water Resources Center, 612-625-9256, liukk001@umn.edu

[This article is adapted from the new Extension "Lake Home and Cabin Kit"]

What is Swimmer's Itch?

Swimmer's itch, technically known as *Schistosoma dermatitis*, is a common malady around Minnesota's lakes during midsummer. It appears as red, itchy, bite-like welts within several hours of leaving the water. The irritation may last from a few days to several weeks, depending on an individual's sensitivity. About 30-40 percent of people who come in contact with the parasite are sensitive and experience irritation. There are no reported long-term effects from swimmer's itch and the parasite that causes it will not survive in humans.

Where Does it Come From?

Swimmer's itch comes from a microscopic flatworm parasite *Schistosoma cercariae* that lives as an adult in aquatic birds or mammals, usually waterfowl. The adult worm sheds its eggs into the feces of the host, and the eggs are released into the water where they hatch into free-swimming *miracidia*. The miracidia swim in search of an intermediate host, one of four species of snail that inhabit shallow waters in Minnesota. The host snails live in all sorts of areas including weedy, rocky, and sandy bottoms. After 3-4 weeks in the snail, a second free-swimming stage, called a *cercaria*, emerges, in search of a primary host (another bird or mammal) to complete its life cycle. The cercariae are about 2 mm long and barely visible.

The release of cercariae typically occurs in late June or early July, when lakes are nearly at their warmest summer temperatures. If the spring has been very warm, problems with swimmer's itch may begin earlier in the summer. Most cercariae are released around midday, and will swim to the surface to increase their chances of finding a host. Wind and currents have been shown to carry cercariae as much as four miles from the area they were released.

In some areas snail populations may be as high as 400 per square meter, and one infected snail may release up to 4,000 cercariae per day. Even if not all the snails are infected, that can mean millions of cercariae on a typical beach each midsummer day.

When a swimmer leaves the water and the water drops on their skin begin to evaporate, the tiny cercariae burrow into the skin in an effort to survive. The swimmer may feel tingling on exposed parts of the body. Where water is held near the skin (at waistbands and leg openings) the cercariae have more time to burrow in. The cercariae are killed by the body's natural defense mechanisms, but they cause a welt, or red itchy spot like a mosquito bite. People cannot become a host for the parasite, either through skin penetration or by swallowing lake water.

Is there any treatment?

Some sunscreens and lotions may reduce the infections, although nothing is known to be completely effective. If you get swimmers' itch, lotions or ointments may relieve the itching. In severe cases, you may need antihistamines or steroid creams that can be prescribed by a physician.

People often want to control the snail hosts or the free-swimming cercariae, but neither option is practical because the cercariae can swim or be carried long distances. To control severe infestations of snails, the application of copper sulfate in the lake is a possibility, but it requires application over a large area and copper sulfate can also kill small fish. Waters treated with copper sulfate should not be used for 48 hours after application. **ANY** chemical treatment in the water requires a permit from the Department of Natural Resources, Section of Fisheries. Contact your regional DNR fisheries office for assistance and permit information.

How Can I Avoid Swimmer's Itch?

You can reduce the likelihood of suffering swimmer's itch by following these simple guidelines. Although even careful adherence to the recommendations may not be 100 percent successful in preventing an outbreak, you can minimize the extent of irritation and itching.

- *Dry off as soon as you leave the water. Rub your skin briskly to remove water drops before they begin to evaporate. Be sure to dry underneath waistbands and around leg openings of swimming suits. Encourage children to dry off thoroughly each time they leave the water.*
- *Shower with soap and fresh water or change into dry clothes as soon as possible after swimming.*
- *Don't wade or play in shallow water, especially in weedy areas. Swimming off of a raft or pontoon minimizes your exposure.*
- *Clean beaches of weeds or other debris that have washed up on shore. They can harbor the snails.*
- *Don't swim when there has been an onshore breeze that may have carried parasites to your beach.*
- *Don't feed geese and ducks or allow them to congregate near your beach. Waterfowl are an important adult host for the parasites. ■*

Statewide Invasive Species Management Plan *cont. from page 1*

Why a state plan? Both DNR and the MDA are mandated to administer invasive species response plans, and other organizations, including Sea Grant, were interested in creating a plan. Merging efforts into one plan provides a common structure for coordinating and guiding invasive species detection and response efforts, encourages input from partners, and improves access to funding.

Workshop attendees participated in breakout sessions according to their interests and indicated how their organizations would address invasive species prevention, early detection, management, and coordination efforts. This information will be used as input for the comprehensive state plan. Participant interest and contributions during the workshop demonstrated the relevance for the need to address invasive species issues through a comprehensive approach.

The workshop was sponsored by Minnesota Sea Grant through a grant from the Great Lakes Commission in collaboration with MISAC, the DNR, and MDA. According to workshop evaluations, the workshop was very successful:

- 89 percent of attendees felt the workshop was useful to address their organization's invasive species-related mission, goals, and objectives
- 71 percent thought that the draft plan is on track to become a viable approach
- 79 percent felt it brought together diverse stakeholders
- 78 percent were more than likely to implement aspects of the plan

Comments received on the draft will be considered during revision by MISAC. Once a revised plan is ready, it will be distributed to the public for comment. The plan is expected to be finalized by mid-2006. A synthesis of the workshop outcomes will be presented at a Great Lakes Regional Summit hosted by the Great Lakes Commission in 2006.

To learn more about MISAC, please visit: <http://www.mda.state.mn.us/misac/>. ■



Photo credit: Douglas Jensen

Shoreland Plant Selection for Non-Botanists, Part 3 – Upland Plants *cont. from page 4*

flowers will provide additional structure (see Rapid Colonizers column). If you're looking for a showy planting and erosion isn't an issue, flowers can provide color throughout the summer (see Accent Flowers column). For shade and additional wildlife habitat, select trees and shrubs (see Woody Plants column).

For flowers and grasses plan to sow seed at the rate of 8 oz. and 2 oz., respectively, for each 1,000 square feet of planting area. Small containerized plants (plugs) spaced 1-2 feet apart also work well, or use a combination of seeds and plants. For shrubs and trees use bare-root or larger containerized plants spaced 3-20 feet apart, as recommended.

*Shoreland specialists who contributed to the "short list":
Gregg Thompson – Asso. of Metropolitan Soil and Water Conservation Districts
Bonnie Hiniker – Sunshine Gardens
Mary Blickenderfer, Eleanor Burkett – U of MN Extension

References:

- Ownbey, G. and T. Morley. 1991. *Vascular Plants of Minnesota – A Checklist and Atlas*. Minneapolis: University of Minnesota Press. 306 pp.
- Gleason, H. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeast United States and Adjacent Canada*, 2nd edition. NY: The New York Botanical Garden. 910 pp. ■



Black-eyed Susan

Photo credit: Gregg Thompson

Shoreland Plant Selection for Non-Botanists, Part 3 - Upland Plants

Mary Blickenderfer, University of Minnesota Extension Service, 888-241-0885, blick002@umn.edu

Just in time for the planting season, shoreland specialists share their “short list” of native species for the upland area of your shoreland – plants that have performed the best in restorations statewide.

Before selecting plants for the upland area of your shoreline property, you will need to determine the general type of soil(s) you have: coarse, medium, or fine. For best plant survival it is recommended that you choose species that were part of the pre-disturbance native plant community. You can do this by identifying the plants growing on an undisturbed piece of shoreline with soil and sun exposure

similar to your site (called a reference site). This may require assistance of a botanist.

You also need to consider your objectives for this portion of your shoreland: erosion control, showy garden, shade, wildlife habitat, etc. Use the table below to assist you in selecting plants that meet your objectives. Select the row in the table that corresponds to your soil type and use the groupings to help further narrow your species list. For erosion control, choose grasses that have a deep, fibrous network of roots (see Grasses column of the table). If on a slope, rapidly spreading shrubs and cont. on page 3

Short List of Upland Plant Species (for sites with full sun to partial sun)*

Upland soil type	Grasses	Rapid Colonizers (flowers and shrubs)	Accent Flowers	Woody Plants (trees and shrubs)
Coarse: sand to loamy sand	Little bluestem <i>Schizachyrium scoparium</i> Blue gramma <i>Bouteloua gracilis</i> Sideoats gramma <i>Bouteloua curtipendula</i> Big bluestem <i>Andropogon gerardii</i> Canada wildrye <i>Elymus canadensis</i>	Wild bergamot <i>Monarda fistulosa</i> Asters <i>Aster laevis</i> , <i>A. ericoides</i> Maximilian sunflower <i>Helianthus maximiliani</i> Common yarrow <i>Achillea millefolium</i> Pin cherry <i>Prunus pensyloanica</i> Smooth sumac <i>Rhus glabra</i>	Goldenrods <i>Solidago nemoralis</i> , <i>S. rigida</i> Black-eyed susan <i>Rudbeckia hirta</i> Rough blazing star <i>Liatris aspera</i> Butterfly weed <i>Asclepias tuberosa</i> Purple prairie clover <i>Dalea purpurea</i>	Bur oak <i>Quercus macrocarpa</i> Jack pine <i>Pinus banksiana</i> Red pine <i>Pinus resinosa</i> Smooth Juneberry <i>Amelanchier laevis</i> Bush honeysuckle <i>Diervilla lonicera</i>
Medium: sandy loam, loam, silty loam	Big bluestem <i>Andropogon gerardii</i> Indiangrass <i>Sorghastrum nutans</i> Switchgrass <i>Panicum virgatum</i> Little bluestem <i>Schizachyrium scoparium</i> Canada wildrye <i>Elymus canadensis</i>	Wild bergamot <i>Monarda fistulosa</i> Asters <i>Aster lateriflorus</i> , <i>A. laevis</i> , <i>A. ericoides</i> Goldenrods <i>Solidago speciosa</i> , <i>S. missouriensis</i> Stiff sunflower <i>Helianthus rigidus</i>	Black-eyed susan <i>Rudbeckia hirta</i> Giant hyssop <i>Agastache foeniculum</i> Tall blazing star <i>Liatris pycnostachya</i> Golden alexander <i>Zizia aurea</i> Common ox-eye <i>Heliopsis helianthoides</i>	Sugar maple <i>Acer saccharum</i> White spruce <i>Picea glauca</i> White pine <i>Pinus strobus</i> Smooth juneberry <i>Amelanchier laevis</i> Common elderberry <i>Sambucus canadensis</i>
Fine: silt, clay	Canada bluejoint <i>Calamagrostis canadensis</i> Cord grass <i>Spartina pectinata</i> Canada wild rye <i>Elymus canadensis</i>	Common yarrow <i>Achillea millefolium</i> Wild bergamot <i>Monarda fistulosa</i> Canada anemone <i>Anemone canadensis</i> Red-osier dogwood <i>Cornus stolonifera</i> Smooth sumac <i>Rhus glabra</i>	Ox-eye <i>Heliopsis helianthoides</i> Swamp milkweed <i>Asclepias incarnata</i> Boneset <i>Eupatorium perfoliatum</i> Prairie blazing star <i>Liatris pycnostachya</i> Culiver's root <i>Veronicastrum virginicum</i>	Red maple <i>Acer rubrum</i> Paper birch <i>Betula papyrifera</i> Tamarack <i>Larix laricina</i> Highbush-cranberry <i>Viburnum trilobum</i> Meadowsweet <i>Spiraea alba</i>

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www.seagrant.umn.edu

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www.shorelandmanagement.org



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