

From Shore to Shore

"For Minnesota citizens promoting the health of our rivers and lakes"

Newsletter 48
June 2003

Calendar of Events

Presentation Skills For Shoreland Volunteers

July 1 ~ 7:00pm

Warner Lake Nature Center,
Clearwater

Featuring Barb Liukkonen,
Water Resource Center and University
of Minnesota Extension Service
Contact Karen Sherper Rohs at
800-433-5236 or 763-241-2720

Control of Algae

July 29 ~ 7:00pm

Warner Lake Nature Center,
Clearwater

Featuring Julie Klocker, Sauk River
Watershed District
Contact Karen Sherper Rohs at
800-433-5236 or 763-241-2720

Shoreland Revegetation Workshops

Crosslake Community Center

Design II - Thurs, June 19, 8:30-4pm

Planting - Friday, June 13, Cass Lake

Planting - Friday, June 27, location TBA

Contact Eleanor Burkett at
218-587-8280

Out and About ~ Getting To Know Raymond Rau



Raymond lives on Granite Lake in Wright County, has been a Shoreland Volunteer for 3 1/2 years and serves on the Shoreland Volunteer Program advisory committee. Granite Lake is developing a watershed management plan and soon will be holding a "visioning" session as a first step in the process. Meanwhile, Granite Lake's monitoring program is gearing up for another season.

What is your favorite experience with the Shoreland Volunteer Program?

My favorite project was aquatic plant identification on Sugar Lake. My second best was the restoration project on Warner Lake.

What is the most important thing you have done with the program?

Several programs; the restoration project on Warner Lake, aquatic plant identification project on Sugar Lake, serving as a member of the advisory committee and organizing the Granite Lake Association to do a watershed management plan.

What is the best book you have ever read?

I read mostly technical and scientific magazines. This gives me the latest advances that are being made.

What is one thing you would like others to know about you?

I like doing the right thing, rather than just looking at the bottom line.

What question would you like to have asked of you?

Q: Why my deep concern about nature?

A: Living in a rural area puts one in close touch with nature. As I age, it becomes apparent that many changes are occurring that are not good and sustainable.



From Shore to Shore Soon Available Online!

Many changes are happening in programs around the state and the University of Minnesota Extension Service is no exception. We are finding ways to reduce costs while maintaining quality programs and services. With that in mind, we will be publishing *From Shore to Shore* on the Minnesota Shoreland Management Resource Guide

Website (www.shorelandmanagement.org) in an easy to print form (Acrobat Reader format available free from the Internet). We will continue to send paper copies to people who prefer them in that format.

Please complete and return the enclosed survey as soon as possible. Let us know if you want to receive *From Shore to Shore* electronically (receiving Email notices when issues are posted), if you would like to continue to receive the newsletter via US Postal Service, or if you prefer to be taken off the mailing list.

We look forward to hearing from you!
The Shoreland Education Team

(Several counties have recently done a telephone survey and we are duplicating some of those efforts, but need to get this information from all on our mailing list – thanks!)



Back by popular demand: Aquatic Plant Identification Workshops

Three aquatic plant workshops are scheduled across the state this summer: Rush Lake (July 11-12), Crosslake (July 17-18), and Ortonville (July 19). Geared for shoreland property owners, Shoreland Volunteers, and natural resource staff with no or limited botany background, these workshops will include both classroom and hands-on field experience. The workshops will be of value to those monitoring for exotic species or doing lake mapping and management plans. For more information contact: Valerie Malmquist at 1-800-621-7973 (Rush Lake), Eleanor Burkett at 218-587-8280 (Crosslake), or Amy Rager at 320-669-4471 (Ortonville).

Extension Service Restructures in Response to Financial Challenges

Why the change?

On May 14, the University of Minnesota Extension Service announced structural changes in response to declining state, county, and federal budgets.

Extension currently is funded from three main sources: the State of Minnesota (42%), the state's 87 counties (26%), and the federal government (17%). Counties, facing their tightest budgets in decades, are finding their 26% share of Extension's support is more than they can afford. They have asked for, and Extension has provided, a new organizational structure that provides counties flexibility in selecting the programs and positions they most want and can afford.

What will the new structure be?

As of January 1, 2004, there will be 18 to 22 new Regional Centers for Extension. These centers will be funded by state and federal dollars. A Regional Director, 5-10 Regional Educators, and 2-3 support staff will be housed at the Centers. The locations of the Regional Centers will be announced in July.

Regional Educators will still provide programming in the five capacity areas:

- Youth Development & 4-H
- Family Development
- Agriculture, Food, & Environment
- Natural Resources & Environment
- Community Vitality

What happens to local county offices?

Counties and other local agencies, including non-profits, may choose to contract with Extension for additional positions, programs, and services to augment the regional programming. Options include contracting for local Extension Educators or

Technical Advisors within a capacity area, Program Coordinators for 4-H or volunteer programs like the Master Gardeners, or an Education Assistant such as the Nutrition Education Assistant position. Counties would be responsible for providing local support staff and funding for local operations.

Now is the time for input!

To meet county budget deadlines, decisions on county funded Extensions positions need to be made during July. We encourage you to provide input to your local County Extension Committee on how your county should invest in Extension programs.

"Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land."

- Luna Leopold

The Dirty Truth About Phosphorus

By Joey Robison, Cannon River Watershed Partnership

Who would have thought that having clean dishes would mean having green lakes?

Phosphorus was once widely used in household detergents. It was a useful ingredient: phosphates reduce water hardness, suspend certain types of particulate matter, prevent them from being redeposited, and aid in killing germs. But over time it became clear that this seemingly beneficial cleaning product additive could have very detrimental effects on our environment.

Phosphorus is a fertilizer, and automatic dishwashing detergents can contain as much phosphorus as all-purpose houseplant fertilizer. In aquatic systems, excessive phosphorus results in algae blooms. Overabundance of algae and the resulting microorganisms can be very detrimental to fish populations and other aquatic life.

Removing phosphorus from wastewater is difficult and costly. On average, wastewater treatment plants in the watershed remove about 40-60% of the total phosphorus that comes in with wastewater. That means that approximately half of the dissolved, immediately usable form of phosphorus is not removed and is deposited into our waterways.

In the 1960's it was estimated that about 50% of the phosphorus found in wastewater came from laundry detergents. In 1976, Minnesota passed legislation limiting the phosphorus content in laundry detergent (and all household cleaning agents intended for home use) to 0.5% phosphorus by weight. Automatic dishwashing detergents, however, were exempt from this rule. Because a dishwasher can have as many as five wash cycles (unlike a washing machine which only has one wash cycle), it needs something that will soften the water in each cycle. It was assumed that there was no other alternative to phosphorus for this task.



Thirty years ago, few homes had automatic dishwashers, so it wasn't thought to be a large source of phosphorus. Today, almost everyone has one - a Montana survey found that over 75% of the households surveyed had an automatic dishwasher. Now it is estimated that 8-15% or more of the phosphorus leaving a wastewater treatment plant is from automatic dishwashing detergent.

Recent state legislative efforts have supported a bill that would set limits on or remove phosphorus completely from automatic dishwashing detergent. This small step would cost the state nothing but would save significant time and money by taking care of the problem at the source instead of treating it after the fact.

You can start today by purchasing phosphate free automatic dishwashing detergent. If your store doesn't carry it, ask them to. It may cost a few cents more per load, but our lakes are worth it. Visit Cannon River Watershed Partnership's website at www.crowp.net for a list of phosphorus-free dishwasher detergents.

P.S. The state legislature chose not to ban phosphorus in dishwasher detergent during their past session, but rather to set up a study to identify and quantify all the sources of phosphorus

West Nile Virus ... should you worry?

By Barb Liukkonen, Water Resources Extension Coordinator

I recently attended a workshop on West Nile Virus to learn how big a problem this mosquito-borne disease is in Minnesota and to find out what individuals can do to minimize their risk. While the focus was on West Nile Virus (WNV), I also learned about LaCrosse Encephalitis, and Eastern and Western Equine Encephalitis, which are mosquito-borne diseases that have been around Minnesota for many years.

Only a handful of Minnesota's 50 mosquito species transmit disease. All of the four main mosquito-transmitted viruses here in Minnesota also have other animal hosts. Some of these hosts serve as reservoirs to further transmit the disease and some are "dead end" hosts.

The West Nile Virus (WNV) was detected in the US in 1999, and was first seen in Minnesota last summer (2002). Forty-eight human cases and 992 equine cases of WNV were reported in Minnesota in 2002. There were no human fatalities, but 40% of the infected horses died. There is an effective vaccine for horses, but none yet available for humans. Humans and horses are dead-end hosts; birds serve as the main reservoirs for WNV.

You may be bitten by a mosquito infected with WNV and not catch the virus. About 80% of the people bitten by infected mosquitoes will not be affected, 20% will develop West Nile Fever; and about 1% will become seriously ill. Out of that 1%, fewer than 10% of the cases will be fatal, which means an overall fatality rate of <0.1% of people bitten by infected mosquitoes.

The incubation period from bite to first symptoms is typically 3-6 days. West Nile fever is characterized by a sudden onset of high fever and a horrible headache. The fever typically runs its course in about two weeks and the individual recovers. Severe WNV can result in meningitis, coma, loss of mental acuity, and paralysis. WNV typically affects older people. The median age of the 284 people who died in the U.S. in 2002 from WNV was 88 years.

There are many species of mosquitoes that have been shown to carry WNV. Here in Minnesota a primary vector seems to be *Culex tarsalis* which breeds in sunny, semi-permanent marshes and ditches.

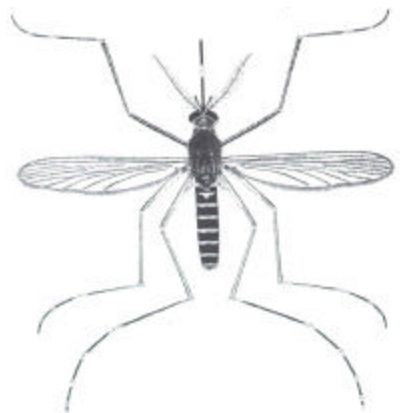
So what can you do to reduce your risk of contracting WNV? Use common sense - avoid outdoor activity at dawn and dusk (peak mosquito times). Wear long sleeves and long pants and use a bug repellent containing DEET.

Empty water holding containers - old tires, buckets or other containers, even the black plastic covering the area you are preparing for your shoreline restoration. The mosquitoes go from eggs to larvae to adults in 5-7 days, so make sure there is no standing water on your property. You (and the birds) can still enjoy a birdbath - just make sure to change the water at least twice a week. If you have a rain barrel or other water storage container, either drain and replace it at least weekly, or consider adding b.t. to control mosquito larvae.

For more information and links to other helpful web sites, check out the Metropolitan Mosquito Control District at www.mmcd.org.



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Culex tarsalis

Of Minnesota's 50 mosquito species, *Culex tarsalis* appears to be the primary carrier of West Nile Virus. *Culex tarsalis* has a distinct white ring around its proboscis (snout).