

# LAKE TIDES

The newsletter for people interested in Wisconsin lakes

# The Itch Cometh!

# SWIMMER'S ITCH: A COMMON SUMMERTIME PEST

Ahh! Nothing better than a cool swim on a sweltering summer day. A few hours later as I bask in the afterglow of my swim I scratch a little itch on my leg... then another, then one on my arm... more itching on my legs and back. Next thing I know, dime-sized red welts start popping up all over. A sudden insight is creeping in—I have the urge to claw my skin off! The itching becomes insufferable. I don't believe it! DANG! I've got swimmer's itch!

An annual nuisance known as "swimmer's itch" is again making its appearance in Wisconsin lakes. Technically known as **schistosome dermatitis**, swimmer's itch appears as red itching, bite-like welts within several hours of leaving the water. The irritation can last from two days to several weeks, depending on the individual's susceptibility. Preventive measures can be taken, and there are no permanent effects from swimmer's itch.

Swimmer's itch is a widespread occurrence in Wisconsin and has been reported in many other states, in Europe, and elsewhere in the world. There seem to be no special characteristics of lakes having the problem. Some of the finest recreational waters in the state, including Lake Superior, experience swimmer's itch annually, whereas other lakes may have an occasional outbreak or none at all. An outbreak may be severe, but last for only a few days, or can be minor and last much of the season.

The irritation is caused during a life stage of a flatworm parasite (Schistosome) which lives as an adult in suitable mammals and birds, such as mice and ducks. The adult worm sheds its eggs via the host's excretory tract into the water. Here they hatch into a free-swimming stage called a "**miracidium**." The miracidium swim in search of a proper second host animal, a particular type of snail. If a proper snail is found, the miracidium will penetrate into the snail's tissue and undergo further development. After a three- or four-week development period, another free-swimming stage called a "**cercaria**" emerges from the snail in search of the proper primary bird or mammal host.

The cercariae release normally occurs when the water temperatures reach their nearmaximum summer temperature. This usually occurs in late June or early July in northern Wisconsin, coinciding with peak water recreational activities. It is at this time that the organism can accidentally contact bathers and cause swimmer's itch. In years of warm spring weather, swimmer's itch has occurred as early as May in northwestern Wisconsin.

Wisconsin Lakes Partnership A swimmer's itch problem may develop with as few as 2% of the snails infected. However, snail populations may be as high as 400 per square meter. One infected snail may release up to 4,000 cercariae per day. At the 2% infection rate, this would mean up to

Volume 24, No. 3 Summer 1999 32,000 cercariae would be produced per square meter per day. On a typical 100' x 100' beach area, this translates into a potential 30 million cercariae released each day.



Life cycle of swimmer's itch cercariae: (A) blood fluke carried by water bird; (B) egg; (C) miracidia; (D) snail host; (E) cercariae seeking host.

Most cercariae are released during the mid-day hours from noon to 2:00 p.m. With little free-swimming abilities, the cercariae will swim to the surface to optimize their chance of contacting a suitable animal host. Concentrated near the surface, wind and currents may carry the cercariae up to four miles from the release area.

The cercariae may not penetrate the skin until after the bather leaves the water, at which time the person may feel a slight tingling sensation. The cercariae are soon killed by the body's natural defense mechanism, but will continue to cause irritation. Studies have shown that 30-40% of individuals contacting the parasites are sensitive and experience irritation. Small children playing in shallow water are most susceptible because of the alternate wetting and drying with the arms, legs and waist area most prone to infection.

#### Preventive measures to reduce exposure or to prevent penetration:

Swim rather than play or wade in shallow water to reduce exposure.
If swimmer's itch is present, avoid swimming when winds are likely to carry cercariae into the beach.

• Swim offshore if possible.

• Towel vigorously immediately after leaving the water to crush the cercariae before they can penetrate the skin.

• Some sunscreens and lotions may reduce the infections, however, nothing is known to be completely effective.

• Once the irritation has developed, various soothing lotions or ointments may be applied to relieve the itching.

• For severe cases, prescription antihistamines and topical steroid creams may be prescribed by a physician.

There is no effective way for people to eliminate swimmer's itch on their beach. Any attempts to control swimmer's itch by treatment to kill either the cercariae or their snail hosts are ineffective because cercariae are capable of swimming or drifting long distances from non-treated areas. It makes no difference if your beach area is sandy, rocky or weedy. Host snails will live on all sites and one species which commonly harbors swimmer's itch actually prefers sandybottom areas.

Feeding of ducks should be discouraged if swimmer's itch is known to be a problem on the lake, since waterfowl are an important adult host to the parasite. New occurrences of swimmer's itch seem to be strongly associated with people feeding and attracting ducks. In recent years, there have been experimental attempts at treating the host birds with veterinary medicines. The theory is to rid the birds of the adult parasite before they can infect the snail population with miracidia. Depending on the different kinds and numbers of adult hosts, success at this method will be limited to very specific

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situations. Thus far, the procedure is considered impractical on a lakewide scale in Wisconsin.

Modern pesticide laws prohibit treatments as they were historically attempted. Treatments to kill snails are very harsh and kill many non-target plants and animals and may also lead to contaminated sediments. Some high-use public beaches on specific sites where incoming drift of cercariae is unlikely have been issued permits for a highly reduced treatment, but the result is very temporary and questionable. Anyone proposing any kind of pesticide or chemical treatment for any purpose must obtain a permit from the Department of Natural Resources.

Although swimmer's itch can be a major nuisance, we are fortunate in the U.S. that

Waterfowl are a common occurrence on lakes, streams and wetlands throughout Wisconsin. Their presence adds to the beauty and charm of our region's water resources. A family of mallards or Canada geese is enjoyable to watch—at a distance. But when they show up in your backyard with several dozen of their "friends," the appreciation quickly turns to frustration. Not only can the resultant droppings reduce the usefulness of your yard or dock, they also increase the nutrients running into your lake.

Because geese graze primarily on grass, well maintained lawns provide a great food source. Planting trees, shrubs, and groundcovers along the shore line is the best long-term way to discourage geese from coming on your property. This type of greenbelt may take a year or more to establish, so in the meantime, here are some helpful suggestions:

Do not feed the ducks or geese. This only keeps them interested in your property and may ultimately result in water it causes no lasting health problems. In some parts of Africa and China, a similar organism actually infects humans as part of its life cycle and causes a debilitating disease known as schistosomiasis.

Here in Wisconsin, it's best to regard swimmer's itch in the same manner as mosquitos, woodticks and deer flies; there really is nothing that can be done to eliminate them, and our best action is to learn how to reduce exposure. Often these creatures we consider pests are signs of a healthy and diverse outdoor environment. Overall they shouldn't discourage us from enjoying the many outdoor activities we can experience when we venture into their outdoor habitat.

For more information contact Frank Koshere, WDNR Superior Service Center, 715-392-0807 [koshef@dnr.state.wi.us].

quality problems.

■ In areas where geese are walking into your yard, border your prperty boundaries with two strands of string fencing—at five and 14 inches off the ground.

Place bright orange flags, 1/2-3 feet in size on your lawn.

Place owl or snake decoys on your lawn. They must be moved frequently to be effective.

Apply a natural goose repellant made from grape extract (diluted with water) to your lawn.

"Managing Canada Geese in Urban Environments" is a new 42-page guide to legal ways of persuading problem goose flocks to go elsewhere. Copies can be ordered for \$10, publication #1471B243 from Cornell University Media and Technology Services Resource Center, 7 Cornell Business and Technology Park, Ithaca, NY 14850 or call (607) 255-2090. A companion video, "Suburban Goose Management: Searching for a Balance" is also available for \$24.95.

Adapted from *Current Reflections*, a publication of the Tip of the Mitt Watershed Council, 1998. Also check Wisconsin Natural Resources Magazine, December 1998 for an article on goose control by David L. Sperling. Making Peace with Geese



### Margin of Error: Human Influence on Wisconsin Shores

The talk on lakes these days always comes around to shoreland development. The spiraling pace of development has many folks looking for answers.



A new educational tool is now available if you want assistance speaking on this issue. A scripted slide program or CD rom called "Margin of Error: Human Impact on Wisconsin Shores" is available to use. The program can also be found on the DNR's Web site at: <u>http://www.dnr.state.wi.us/org/water/fhp/</u> <u>papers/p2/index.htm</u> or go to the DNR site and search for "Margin of Error."

The program is divided into seven sections that cn be customtailored to meet your needs and time constraints. It can assist speakers discussing shoreland zoning, the history of development, lake classification or the impacts of humans on our shores. For more information on where to obtain a copy or

potential speakers in your area, contact Robert Korth at <u>bkorth@uwsp.edu</u> or call 715/ 346-2192 at the Wisconsin Lakes Partnership UWEX offices. Copies are also available through your UWEX Basin Educators, DNR Lake Coordinators, or the Wisconsin Association of Lakes at 1-800-542-5253.



# WAL Names Executive Director

**Donna F. Sefton**, a senior leader in Community-Based Environmental Protection for the Environmental Protection Agency in Kansas City has been named Executive Director and Lake Classification Specialist for the Wisconsin Association of Lakes, a statewide organization representing over 77,000 Wisconsin lake property owners according to Jim Burgess, president of the association.

Welcome home Donna Sefton! "We are delighted Donna will return to her home state to lead our efforts in preserving Wisconsin's wonderful lake environment," Burgess said. "She is so very qualified and so loves Wisconsin."

Sefton was raised in Wisconsin and holds a Bachelor's degree in Biology Education from UW-Whitewater and a Masters in Aquatic Ecology from UW-La Crosse. Her family still enjoys a log cabin near Phelps.

In 1980, she was a founding leader in creating the North American Lake Management Society and later the Illinois Lake Management Association. Sefton has served in a variety of program management, coordination, and leadership positions at all levels of government, including Illinois' Lakes Program Manager; regional Clean Lakes, Water Quality Planning, and Volunteer Monitoring Coordinators; and National Lake/Watershed Ecosystem Team Leader. Her current work includes functioning as a management and program analyst and providing technical and financial assistance to state and local water resource and watershed projects.

Her new job includes directing the lake classification county support across 72 counties, developing programs and publications on lake issues, directing the WAL staff from a new Madison office and inspiring environmental education and initiatives as WAL's part of its partnership with the Department of Natural Resources and UW-Extension. WAL will also be hiring a Lake Classification Technical Assistant to help with this work.

# One Bath in the Lake... The Soap Opera

#### **Purely a Personal Philosophy**

A while back we received a an e-mail inquiring about the effects of bathing soaps on our lakes. It spawned a lively debate on the subject. We all remember bathing in a lake or stream; but if we really care about our lakes, should we be doing that? After all... it is not the one isolated event but the cumulative impact...right? Is this a feel good action, a real problem or purely a personal philosophy?

An engineer friend has always wondered about the physical/chemical impact of a bath or shampoo on a lake. Setting aside biological and aesthetic impacts, he calculated the effect on the dissolved oxygen (d.o.) level. Dissolved oxygen in the water column is necessary for the survival of fish, other organisms and the overall health of the aquatic system.

Lake organisms, like the human body, use oxygen to consume plant and animal matter. Most of this oxygen demand comes from naturally-occurring aquatic plants, fish and the like. Other oxygen demanding matter enters a lake system through runoff, fuel, sewage and other polluting sources, like soap or shampoo.

So, how much oxygen is available for the decomposition of wastes in a lake? Part of the answer is related to water temperature. In general, lake and river water needs to maintain about 5 milligrams per liter [mg/l, often called parts per million] of dissolved oxygen to support aquatic life. Dissolved oxygen levels that drop to less than 5 mg/l may cause fish to become stressed. Fish and other critters will die of asphyxia if the d.o. drops to zero mg/l. The good news is that in open water, in an unpolluted lake or stream, the dissolved oxygen will naturally be from 8 mg/l at 80 degrees Fahrenheit [water temperature] to over 14 mg/l near freezing. So, if you must bathe, cooler is better from a lake health standpoint.

*Now for trophic status...* Trophic status reflects a lake's nutrient levels and degree of

clarity. A eutrophic lake, one that's loaded with nutrients, has so much biologic activity going on that at 80 degrees water temperature, the dissolved oxygen may already be below 5 mg/l. Adding soap or shampoo to this mix is only going to make matters worse. At the other extreme, those nice clear lakes and streams can probably take a small dose of biodegradable soap or shampoo and maintain adequate levels of dissolved oxygen. Question: Do you really want to add organic matter to nice clear waters?

A numbers game... Assume your lake isn't already loaded with nutrients, you have a small 50-foot lot, and the water is 4 feet deep 25 feet out from shore. If you're careful with the soap or shampoo and use about 0.2 ounces per cleansing [50 uses per bar of soap, 100 uses per bottle of shampoo], you will exert an oxygen demand of about 0.1 mg/l per bath on the water in your shore zone. And remember, 80-degree water has, at best, 8 mg/l of dissolved oxygen, or 3 mg/l above the 5 mg/l we're trying to maintain for aquatic health. You could use up this buffer with 30 baths per day.



We all choose to do things that, whether we know it or not, impact our waters. A shampoo in the lake after burning 20 gallons of gas zooming around the lake hardly seems like a problem. One person said "If I paddle all day in my canoe I don't feel guilty about taking a shampoo." Another said, "I would never use soap or shampoo in the lake, not even in Lake Superior." The Sylvania Wilderness Area in the Ottawa National Forest in Michigan asks that you refrain from the practice. Is this performing personal service to our lake environment or radically going over the top? What do you think?

Inspired by a philosophical discussion among Bob Korth, Ken Wiesner and Frank Koshere after a posting on the Lakes-L BBS.



# Giving the Night a Voice

### Blanchard's Cricket Frog

One-third of North America's 86 species of frogs and toads appear to be in trouble. Frogs are special monitors of our environment because their ability to live and reproduce depends on clean earth, air, and water. All elements, not just one or the other, are necessary for their survival. The permeability of frogs' skin seems to make them especially vulnerable to toxins. If frogs are such good indicators of the health of an ecosystem, what does it mean for our future when roughly one-third of North America's 86 species of frogs and toads appear to be in trouble?

There is just one frog on Wisconsin's threatened and endangered species list, the Blanchard's cricket frog (*Acris crepitans blanchardi*), but it is the most endangered amphibian in the state. Although it has been listed as endangered in Wisconsin since 1982, it is not on the nationwide threatened or endangered species list. Wisconsin is at the northern edge of its range, which may partly explain its low numbers. However, these numbers have been declining for decades now. Their range formerly included 31 counties in the southern half of Wisconsin. Now small colonies of Blanchard's cricket frog populations exist primarily in the three southwestern counties of Grant, Iowa, and LaFayette.

We often hear about the effects that the products of our society are having on species worldwide. It is not surprising to report that pesticides, fertilizers, highway salts, water pollution, and habitat destruction are all suspected contributors to the apparent declining amphibian population. Recent studies also suggest that increased exposure to ultraviolet radiation, which we associate with thinning of the ozone layer, is increasing the mortality rate of frog eggs and may be contributing to the increase in amphibian deformities. Climatic fluctuations, vegetational succession, and competition with other frog species have also been suggested as natural contributors to decline. Grazing is one activity that you might expect to show up on a list of contributors when species decline. However, light to moderate grazing may actually benefit the Blanchard's cricket

frog by creating an appropriate microhabitat along the shoreline.

Cricket frogs, in general, can be identified by a dark triangle between the eyes and a dark stripe along the back of the thigh. The webbing on their hind feet is extensive with all but the tip of the longest toe being webbed together. Their toe discs are barely larger than the toes, unlike the climbing treefrogs, which have large adhesive toe discs that help them cling to trees.

The Blanchard's cricket frog is a small treefrog just 5/8" to 1.25" long (*the illustration is* 4 *times life size*). Its skin is moist and warty. They are usually light brown, olive, or gray and have a white belly. Its back may have specks of red, green or black. Dark bars encircle their upper legs and a broad, light stripe may be present down the center of its back. A dark vocal sac and smaller body size distinguishes the males. The tadpoles are a similar color as the adults and are the only Wisconsin tadpole whose tail tip is black.

The jumping ability of the Blanchard's cricket frog surpasses all other frogs. Although they are bulkier and heavier than other cricket frogs, the hind limbs of the Blanchard's cricket frog are long in proportion to the rest of their body, enabling them to spring more than three feet per leap. If we humans had this same ability, we could cover about one mile of distance in just 30 leaps or jump nearly 200 feet in a single jump!

This bar

Cricket frogs live in or near permanent bodies of water, especially where there is low or sparse emergent or shoreline vegetation that receives sunlight most of the day. They will often sit on floating plants and mats of algae. They prefer shallow gradient shorelines consisting of sand or mud along both standing and flowing water. During winter, cricket frogs bury themselves under shoreline debris or soil.

Males call both day and night from water's edge. If you hear something that sounds like two steel marbles being clicked together, slow at first but with increasing speed, you are probably listening to a cricket frog. *Glick...Glick...Glick...* The call may continue for over 30 seconds. Wisconsin populations of Blanchard's cricket frogs breed from late May to late July. Between 200 to 400 eggs are laid singly or in clusters and hatch within a few days. The tadpoles metamorphose into frogs in five to ten weeks.



is the actual size.

Blanchard's cricket frogs feed in and out of the water, both day and night, primarily on tiny insects. They may have a significant effect on controlling pests. It has been speculated that a population of 1,000 cricket frogs consumes 4.8 million insects and other small vertebrates in a year. Predators of cricket frogs include birds, snakes, and other frogs. Cricket frogs will hop erratically in an attempt to evade predators. They may also jump into the water and find available cover. The average life span of an adult Blanchard's cricket frog in the wild is only about four months.

It was 47 years ago when Dr. Albert Schweitzer noted that we do not live in a world all alone. Have we learned anything during this time? Of course we have but there is disagreement over the urgency of attending to our vanishing frog populations. Getting a true count of frogs is difficult. Natural population fluctuation and sampling error can give a false impression of urgency. Some scien-

tists argue that the sensitivity of frogs and other amphibians to toxins remains to be proven. Until we can say with certainty what is the fate of

the frogs, we should preserve the habitat where frogs do exist and could exist by maintaining shoreline vegetation and preserving wetlands. We will learn more about frogs by continuing to monitor the populations that do remain so keep your eyes and ears open... *Glick...Glick...* 

> Frogs do for the night what birds do for the day: they give it a voice. And the voice is a varied and stirring one that ought to be better known. — Archie Carr, 1973, The Everglades

This is the third in a series on Wisconsin's threatened and endangered species by Marilyn Leffler, UWEX/WDNR, and Bob Hay of the WDNR, illustrated by Chris Whalen, UWEX.

If you have information about the Blanchard's cricket frog or would like information on the Wisconsin Frog and Toad Survey volunteer program, please contact the DNR's Bureau of Endangered Resources, PO Box 7921, Madison, WI 53707-7921, 608-266-7012 (phone), 608-266-2925 (fax). Or visit the Wisconsin Frog and Toad Survey website at: <u>http://www.mbr-pwrc.usgs.gov/wifrog/frog.htm</u>

It has been speculated that 1,000 cricket frogs consume 4.8 million insects and other small vertebrates in a year.



### Monitoring Reservoirs and Flowages: Sampling in the Zone

# When a dam is built across a river or stream, is the water behind that dam truly a "lake," or is it something else? The answer is "yes,"

Let me elaborate. When I first moved to Wisconsin from the west coast 5 1/2 years ago, I kept hearing my new fishing buddies referring to "flowages." I had no idea what they were talking about until someone pointed one out to me on a map.

"Ah," I said, "you mean a reservoir." Fact is, where I come from, most of the large lakes are due to damming up rivers. Out west, these large systems are called reservoirs, and the body of water formed by the dams are called lakes.

Actually, the term "flowage" is probably more accurate. When a river or stream is dammed, the resulting body of water is partly a lake, but it is also something more. That something more is due to the flow of water through the system. That flow makes the reservoir unlike a natural lake, with characteristics of both lakes and rivers.

A body of water impounded by a dam can be divided into three distinct sections, or zones. The **riverine** zone is that portion of the reservoir where the system characteristics are dominated by the inflow. This is the upper part of the lake, where the water is acting more like a river than a natural lake.

The **transition** zone is where the lake begins to act less like a river, and more like a lake. In technical terms, one could say that the transition zone is where the lake is gradually changing from riverine to a limnetic (open-water) dominance. This zone of the lake is highly variable and can move up or down the lake, depending on such things as inflow amount, lake level, and the shape of the lake.

Finally, the **lacustrine** zone is the region of the lake that actually acts most like a natural lake. It is usually the deepest part of the lake, and is located from the dam upsteam to the transition zone.

In the Self-Help Lake Monitoring Program, as with most monitoring programs, the primary sampling spot on a lake is the deep hole, or deepest spot on the lake. In most reservoirs, the deep hole is near the dam in the lacustrine zone. This is a good spot for monitoring lake processes that occur due to materials that are already present in the system (such as oxygen and carbon). These are called **autochthonous materials**.

Reservoirs, even more than natural lakes, receive a lot of material (such as phosphorus) from external sources, usually through the inflow. To measure these **allochthonous** materials, it is usually better to monitor the riverine zone.

While monitoring of the transition zone can help to understand the interaction between the inflow and open water processes of a reservoir, the transition zone presents some serious obstacles to monitoring, due to the difficulty of locating it, and its transitory nature. For instance, a storm upstream of the reservoir could move the transition zone of a large reservoir miles downstream in a very short time. In addition, for the Self-Help Lake Monitoring Program, the sheer number of computer fields called storet locations required to keep track of the transition zone makes it virtually impossible to monitor accurately.

The bottom line is that if you are only going to monitor one site on a reservoir, the deep hole is still the best location. Being in the lacustrine zone of the lake, the deep hole represents the best site to monitor the "lake" section of the reservoir, and provides the best information about the long-term health of the system. But to better understand the entire reservoir, don't ignore the riverine and transition zones. They are the parts of the reservoir that make it more than just a lake, but a true flowage.

#### Frank Fetter, WDNR Self-Help Lake Monitoring Program, Madison

# Adopt-A-Lake is making Waves!

With over 15,00 lakes statewide, Wisconsin's unique and abundant lake resources are a natural subject matter to teach youth about the environment in their community. There are over 600 organized lake organizations that support inland lake protection and renewal. Over the past three years, Adopt-A-Lake and the Department of Natural Resources' Self-Help Lake Monitoring Program have provided lake leaders, adult youth leaders and youth opportunities to monitor the water quality in their community and share their findings with others. Nevertheless, the demand for training and monitoring equipment greatly exceeds the financial resources and limited staff in the Advanced Self-Help program. As additional interested lake associations inquire about water monitoring, several new programs have been initiated. Testing, Testing...1,2,3 is sponsored by a grant from the Wisconsin Environmental Education Board. This grant provides at no cost, equipment and training for adult-youth partnership to begin working together on a common mission, to monitor lake quality. Currently, 20 new partnerships have been formed in 19 different counties. The funding of this program had ceased for 1999, BUT there are two more opportunities for partnerships to begin. Please read the following program descriptions and find out how you can still begin monitoring your lake and help foster youth stewardship on your lake!

#### Leap into Lakes Workshop

#### September 24-25<sup>th</sup>, 1999 Upham Woods, 4-H EE Center Visconsin Dells

Youth and adult teams will learn about lakes, receive water testing equipment and training to begin building an Adopt-A-Lake program in your neighborhood. The cost is \$30.00 for the "team" which is composed of one adult and no more than 2 students. The fee will cover registration, meals, lodging, educational materials and water monitoring equipment. Space is limited. Call Laura Felda, Adopt-A-Lake coordinator at 715-346-3366 for more information and availabil-

ity! This workshop has been funded by WEEB (Wisconsin Environmental Education Board) encouraging Lake Organizations to build partnerships with Wisconsin's youths!

### Water Monitoring Equipment... It's in the MAIL!

The UW-Extension Lakes Partnership is now equipped to help you begin water monitoring in your lake with just a phone call and mail service. The Adopt-A-Lake program currently houses aquatic nets, sampler bottles, dissolved oxygen kits, thermometers, pH kits, total phosphate and nitrate kits, secchi disks and a multitude of water resource materials. This state-wide program provides equipment for short-term periods. You pay the postage and Lakes Partnership will supply the equipment for your use. If you would like to begin building a partnership with



youth groups, host a lake fair or demonstrate the value of "life near Wisconsin lakes" to elected officials, contact Adopt-A-Lake, Laura Felda 715-346-3366. *Water monitoring is just a call and postage away!* 

# INVESTING IN YOUR FUTURE

A common concern of the lakes community has been the need to continuously support the development of people willing to assume leadership roles on and around Wisconsin's waters. In 1998 the Wisconsin Lakes Partnership inaugurated a new program to try to fill that need... the **Wisconsin Lake Leaders Institute**. The mission of the Institute is to enhance the capacity of participants to provide leadership to others involved in the management of lakes and lake watersheds. Participants, grouped together as crews, develop a group memory and a better understanding of the *why*, *what* and *how* of lake management issues in Wisconsin.

If you believe that future leadership is a good investment for your lake community, think about sponsoring a potential leader. Costs for participation in the Institute (meals, lodging, instruction materials) come to about \$500 per person. A special account has been set up to assist participants in financing the cost. Two hundred fifty dollars would help to defray one half the cost of participation, leaving the balance to be paid by the individual. Any donation, no matter the size, would assist in supporting these motivated lake leaders.

Lori Regni, along with 29 other community leaders that participated in Crew I of the Lake Leaders Institute, hopes that lake organizations, local businesses and service organizations, lake districts, and lake associations will protect their investment in their lakes by providing financial support for participation in this special experience.

Your tax-deductible contribution will be noted in the brochure that is developed for each crew. It will support the participation of a local leader who is willing to devote six days and travel expenses to prepare for a broader leadership role. Send your check to: **UWEX-Lake Leaders Institute**, College of Natural Resources, University of Wisconsin, Stevens Point, WI 54481.

If your community has no candidates for the Institute, you can support a lake leader from a community that has more than one candidate or a lake leader from a community that, for whatever reason, can't support anyone. Since the graduates of the Institute provide leadership for lakes, the broader lake community will benefit from the development of these leaders.

# JOIN CREW III

Attend three two-day, hands-on seminars, working with professionals and veteran lake leaders. The seminars focus on three basic questions and are held in locations conducive to collaboration and teamwork:

Why Society and Environment: Philosophy and Ethics of Lake ManagementWhat Aquatic Ecology & Watershed Management: Impact of Development on LakesHow Organizations, People, Politics

CREW I did a lot of sharing as well as learning from presenters. Most importantly, they reinforced their sense of purpose. CREW I left the final seminar with strong bonds, a communication network, and a commitment to provide leadership. They have become an important support group for each other in those endeavors.

CREW II began their voyage in May with the same high caliber of participants and high expectations. **Recruitment is now underway for CREW III.** The 2000 group will also meet in May, September, and November. To request a brochure and application, contact:

Barb Borski, UWEX, College of Natural Resources, UW-Stevens Point, WI 54481 [715/346-3783] bborski@uwsp.edu

Ask any member of CREW I—Being part of a Wisconsin Lake Leaders Institute CREW is a special experience.

### Words of Wisdom

We all turn to those we know and trust for advice. Our neighbors, friends and relatives help us pick everything from attorneys to restaurants. The following letter was written by a person whose property didn't fit his conception of the perfect waterfront property. This individual decided it needed to be changed. Advice was solicited from well-intentioned neighbors and it turned out to be bad counsel. We hope this letter is educational and provides some words of wisdom.

I am writing this letter to inform your readers and help them avoid the type of serious problem that I caused myself last year. I bought a home on the lake a year back. The place was built four years ago and hadn't been finished. There was still landscaping to do, with piles of dirt on the lawn. I wanted my home to look nice like my neighbors and I also wanted a place to swim. To do that I reasoned that I needed to get rid of some of the weeds in front of my house. In April 1998 I saw an ad in a magazine for a product called Aquicide. The ad showed a weedy lake before and a clear lake with fish after... just what I was looking for. The ad said it was safe for use in recreational areas and wouldn't harm fish or humans; it was also EPA approved. I ordered the chemical through the mail and sprayed the plants. I didn't notice the fine print that said a permit might be needed.

Well, the chemical worked. A DNR warden noticed some of the aquatic plants dying and asked me about it. I did not know at that time that I was breaking the law. I was cited for treating the lake with a chemical herbicide without a permit. The DNR was concerned that I was eliminating the bulrush that they were trying to maintain in the lake. I was told that bulrush support the Northern fish population.

It took more than 15 months from the initial incident until the matter was finally settled. The settlement included a very large fine and restrictions, along with replanting 120 feet of the bulrush. I was allowed to keep an 80-foot area open for my boat and for swimming. I just wish I had contacted the DNR before I used the product. My strong recommendation to anyone is that if

there is any doubt about the consequences of anything you feel like doing near the water, contact the DNR before you start. It may help prevent serious legal problems later. When I learned the reasons behind keeping the bulrushes intact, it all made sense. If I had known the reasons earlier, I would have approached everything differently.

We live in a society that encourages individualism and honors a collection of essential rights. One of those rights consists of the freedom to do what we please on our land. At the water's edge our personal freedoms rub

> up against public rights. Should the wishes of the many come before the desires of the individual? As more and more of us move to the water's edge and to rural areas, our society is being faced with hard land use questions that some believe go to the heart of our inalienable rights.

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Reflections

The conservation movement has not fully accepted that the root problem spawning its crusade is not loss of species, or decreasing air and water quality, or dwindling wilderness, or even relentless sprawl. These are the symptoms. The root problem is how we humans live each day, and from where we draw our values. Until conservation offers positive alternatives to people about how they might lead their daily lives, a land ethic will elude us.

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Peter Forbes, from the Introduction to *Our Land, Ourselves, Readings on People and Places,* The Trust for Public Land, 1999