Wisconsin natural resources. Vol. 26, No. 3 June 2002

[Madison, Wisconsin]: Wisconsin Department of Natural Resources, June 2002

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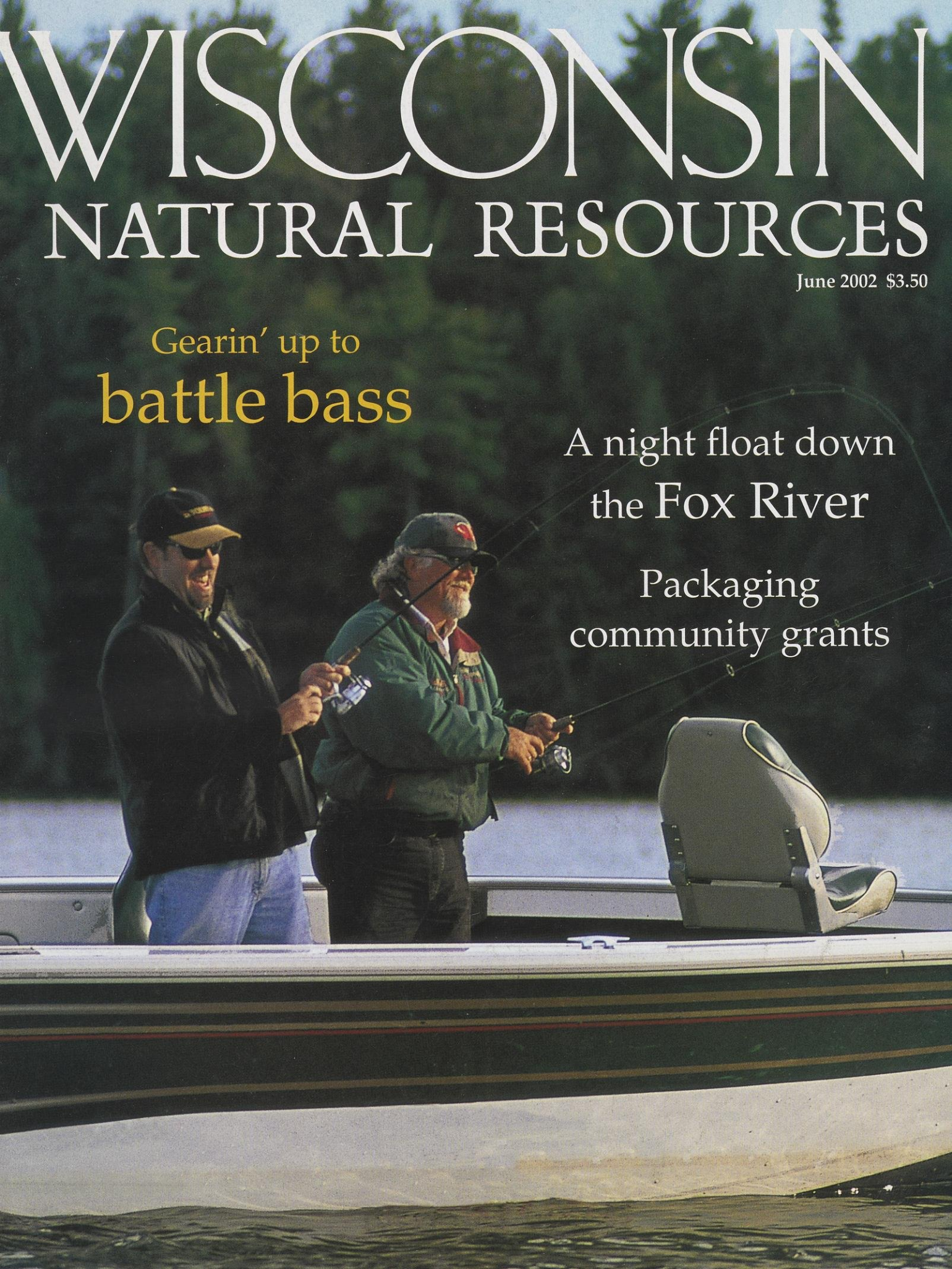
WISCONSIN NATURAL RESOURCES

June 2002 $3.50

Gearin' up to
battle bass

A night float down
the Fox River

Packaging
community grants



Some nectar, the right shape, and there's no escape.

Anita Carpenter

Pitcher in the bog

How could a hungry insect resist? The sweet aroma permeates the northern Wisconsin air. Attracted to the alluring source, the insect discovers nectar drops clinging to the hooded margins of a boldly-patterned plant. The insect lands, drinks, and walks around and down inside the hood. The nectar meal is rich, nourishing and filling. The insect turns around to climb up and out but its path is blocked by a wall of downward-pointing hairs. The insect is now hopelessly trapped. Unaware of its fate, the insect turns around and walks farther into the plant. It reaches a smooth, waxy area where it can't maintain a foothold, slips and falls into the water-filled abyss and drowns. The pitcher plant has snared another meal.

Pitcher plants live in wet, acidic, nutrient-poor environments. They survive by luring and trapping insects that become their source for nitrogen. Nine of the ten pitcher plant species found in the United States grow in the south. Only *Sarracenia purpurea*, the northern or purple pitcher plant, thrives on sphagnum moss mats of northern bogs.

Northern pitcher plants are perennials, each with a rosette of eight-inch leaves that grow together modified into tubular water-holding traps about one to two inches in diameter. The green trap leaves, striated with burgundy veins, flare out prominently near the mouth and collect rainwater. A vertical lid or hood rises from the top. Each trap leaf has four zones. The upper zone, the hood, has all the accouterments (smell, nectar, bold pattern) to entice insects. It is also covered with downward-pointing hairs that encourage the insect's descent and block its ascent. The second zone, the upper third to half of the leaf, lacks hairs but is coated with smooth plant wax that impedes an insect's footing. The diameter of the opening narrows, restricting room for flight as an alternate means of escape. In the third plant zone, the waxy cuticle is absent and the unwaxed surface absorbs nutrients. Deep within the trap, the fourth zone has a mesh of more downward-pointing hairs that also prevent the insect's exit if it hasn't already drowned.

continued on page 29

WISCONSIN NATURAL RESOURCES

June 2002
Volume 26, Number 3

©DOUG STAMM

VILLAGE OF TIGERTON

STEVE ELLIS

FRONT COVER: What a pleasure when the right lure is pitched and well fished in the right place at the right time. Enjoy our bass fishing tips p. 4–10.
ROBERT QUEEN, Wis. DNR photographer

BACK COVER: Indian paintbrush *(Castilleja coccinea)* brightens a walk through Rush Creek State Natural Area, Crawford Co. For a map or more information, contact the State Natural Areas Program, Bureau of Endangered Resources, DNR, P.O. Box 7921, Madison, WI 53707.
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PUBL-IE-012
ISSN-0736-2277

Wisconsin Natural Resources magazine (USPS #34625000) is published bimonthly in February, April, June, August, October and December by the Wisconsin Department of Natural Resources, 101 S. Webster St., Madison, WI 53702. The magazine is sustained through paid subscriptions. No tax money or license fees are used. Preferred Periodicals postage paid at Madison, WI. POSTMASTER and readers: subscription questions and address changes should be sent to Wisconsin Natural Resources magazine, P.O. Box 7191, Madison, WI 53707. **Subscription rates are: $8.97 for one year, $15.97 for two years, $21.97 for three years. Toll-free subscription inquiries will be answered at 1-800-678-9472.**

Printed in the U.S.A. on recycled paper using soy-based inks in the interest of our readers and our philosophy to foster stronger recycling markets in Wisconsin.

Bassin' basics

How to gear up and hook up for the greatest fight on water.

Brian Brecka and Ken Snow

It starts with a cast, a rod-throttling strike, and a hook set that bends your rod like never before. A battle ensues with eye-widening jumps. Finally, the fish is in hand and respectfully subdued. After a quick snapshot, you release it back into the water. Your day is filled with more fish catching and continuous smiles. Before you know it, you're downright obsessed. The whippoorwills sound their evening song, you call out "last cast," hoping for just one last bit of excitement. You retire your rod and reel, but just for the day. As you travel homeward, you're already planning your next outing. What could cause such newfound passion? Bass fishing in Wisconsin!

Wisconsin boasts largemouth and smallmouth bass angling that is second only to walleye fishing in popularity. Bucketmouths and smallies together are the most widely distributed recreational fish in the state — found in lakes, cool and warmwater streams, and large rivers. No matter where you live in Wisconsin, you're within a short drive of quality bass fishing.

If you're thinking you can't fish bass without a fancy boat and a dozen rods, think again. Given minimal tackle, bass can be caught from shore, by wading, or by canoe, float tube or your grandfather's 14-foot flat bottom boat. No matter how you plan to fish, our bass fishing basics should provide enough information to get you on the water this summer catching bass.

We know some readers enjoy dunking worms for panfish or leeches for walleyes, but we're leaving the live bait at home. Those baits are effective bass catchers, but we're concentrating on artificial lures. As you become more accomplished, much of the fun is seeing how many different lures can fool bass into biting.

Let us introduce you to five basic categories of bass fishing lures: surface lures, spinnerbaits, soft plastics, jigs and crankbaits. For each category, we'll describe the bait; share techniques and tips for using them effectively; recommend locations and best fishing times; and match the lures to appropriate rod, reel and line weights.

Surface lures

DESCRIPTION: Surface lures, also called "topwaters," float on the surface and cause a disturbance that bass can see or hear. The fish also sense the lures' vibrations through their lateral line. Lure types in this category include poppers, frogs and buzzbaits.

TECHNIQUES AND TIPS: A popper is the perfect lure to cause surface commotion that stimulates strikes. The front has a concave cupped face that "spits" water when moved, sending sounds and vibrations of struggling prey. The popper's color and size is often matched to imitate baitfish. A short jerk of the rod moves the lure from a few inches to a foot or more. Don't continually reel-in during the retrieve, but pause between jerks. Reel up the slack line, then attain a rhythm on your retrieve to stimulate strikes. *Jerk-jerk-pause, jerk-jerk-pause* is a good rhythm to start your fishing day. We find most strikes occur during the pause phase. Vary the duration from less than one second to five seconds or more. Experiment with the rhythm, and the bass will tell you if you're providing what they want.

Strikes can be aggressive, and for many anglers there's nothing better than watching their lure being attacked. If a fish has your lure, it soon provides pressure to your rod. When you feel it, set the hook. Poppers have treble hooks that provide a good hook-up percentage.

Another surface lure that's worth trying is a rubber or plastic frog. Frog imitations are fished across lily pads or in a canopy of duckweed. They are designed to skirt and hop across thick overhead cover without hanging up in the vegetation. Bass rely on their lateral lines to detect the lure's vibration. A slow and steady retrieve works well, but an erratic presentation may also produce fish. If your frog lure comes to an opening, stop and give it a few tantalizing twitches.

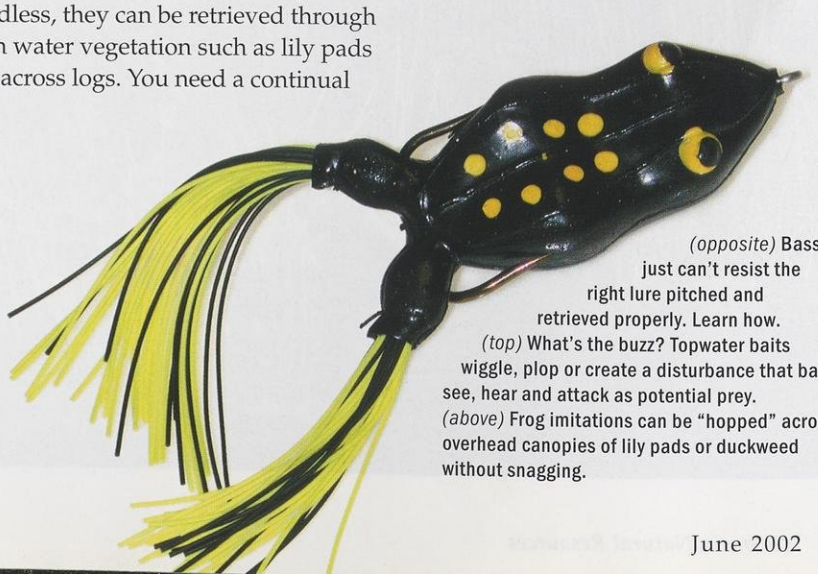
When bass strike a frog, there is no doubt you've been bit — the fish explodes through the canopy. Less experienced anglers (and even experienced ones) may be startled by the force of that strike, and they instinctively jerk the lure away from the fish. We've seen this many times when fishing with first-time froggers. To ensure the bass inhales the lure, wait one or two seconds. Tighten your slack line, *then* set the hook. Don't be surprised if the bass strikes at the frog but misses it. Just cast back to that same spot. Many times, the bass will strike again.

Buzzbaits are surface lures that have at least one rotating blade that provides continual turbulence when retrieved. The lures have silicone skirts and one upright hook at the rear. Although not weedless, they can be retrieved through open water vegetation such as lily pads and across logs. You need a continual retrieve to keep the blade rotating. Vary your retrieve speed to find what stimulates bass strikes. Buzzbait size, color and style may also influence your success. Landing percentage for buzzbait bass is usually high. Set the hook shortly after seeing the strike.

LOCATIONS: Surface lures are most productive in shallow water six feet and less. In general, as water clarity increases, so does the depth where surface lures are effective. Cover such as stumps, logs, vegetation or boat docks are likely areas to concentrate your efforts. When fishing rivers, shallow waters where the current breaks can also hold fish.

BEST FISHING TIMES: Dawn and dusk are both excellent times to fish surface lures. However, other times can be productive as well. Cloudy days can produce popper or buzzbait bass anytime. Frogs are often most effective during midday on sunny days.

ROD, REEL AND LINE: In open water areas with minimal cover, try a spinning or baitcasting reel matched with a medium action rod. Monofilament line in the 8- to 12-pound range will be adequate. When fishing heavier cover, a baitcasting reel and medium-heavy to heavy action rod will land more fish. Heavier monofilament (14- to 20-pound) or braided line (30- to 50-pound) may be essential when fishing areas with dense overhead cover.



(opposite) Bass just can't resist the right lure pitched and retrieved properly. Learn how. *(top)* What's the buzz? Topwater baits wiggle, plop or create a disturbance that bass see, hear and attack as potential prey. *(above)* Frog imitations can be "hopped" across overhead canopies of lily pads or duckweed without snagging.

Inline spinner baits are less popular so, ironically, bass may not be as wary of these old favorites. Cast one out and retrieve it fast.

Spinnerbaits

DESCRIPTION: Spinnerbaits are easy to use and they find fish quickly. The two traditional types are the inline spinnerbait and the safety pin style spinnerbait. The inline has a spinner blade in direct line with a weighted body and a treble hook that is usually tied with hair. Examples include the Panther Martin and the Rooster Tail. Safety pin style spinnerbaits have a blade or blades directly over a single hook and are usually dressed with a silicone or rubber skirt.

TECHNIQUES AND TIPS: Spinnerbaits find fish quickly. Retrieve inline spinnerbaits fast and don't allow the lure to sink more than a few inches below the surface. Try this "burning" fast retrieve around fallen logs, brush or rock that are often favorite smallmouth bass hangouts in northern Wisconsin lakes. Though inlines still have their following, they're not used as much today as years ago. Ironically, given their limited use, try tying one on because bass may not be wary of this bait.

The safety pin style spinnerbait can be fished just about anywhere. It can be retrieved through vegetation, brush and fallen logs. To trigger strikes, let the lure make contact with the cover, then give it a small jerk and a fast retrieve, a so-called "bump and run" presentation.

LOCATIONS: Although we've seen fish come from depths of 20 feet or more to smash a burned spinnerbait, most cover that holds these fish will be less than six feet deep. You can quickly cover long shoreline stretches or island perimeters with these baits.

BEST FISHING TIMES: Spinnerbaits are a great choice during the early morning hours, on cloudy days or after dark. However, don't be afraid to try them at other times as well.

ROD, REEL AND LINE: For inline spinnerbaits, try a spinning reel matched with a medium action rod. Monofilament line in the 6- to 10-pound range will be adequate. The safety pin style spinnerbait works best with a baitcasting reel paired up with a medium-heavy action rod. Choose a monofilament line in the 12- to 17-pound range. You need the heavier line to pull a spinnerbait through heavier cover.

ROBERT QUEEN

(left) Bass like to hide in cover and attack bait on the edges of openings. Cast around openings at the edge of woody cover and emergent grass.
(above) When fished fast, the blades of a safety pin style spinnerbait will flash above the weighted lure and trigger a strike.

Soft plastics

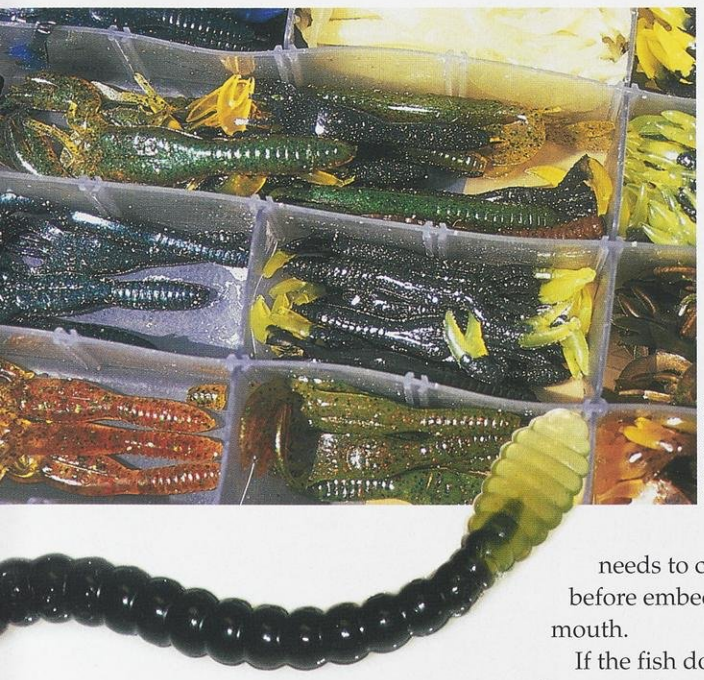
DESCRIPTION: It doesn't matter if you're in Wisconsin, Florida or points between, more bass are caught on soft plastic lures than on any other bait. Why? First, a lot of anglers throw them. Second, they're fished for good reason — bass find soft plastics irresistible.

As the name implies, these molded lures are flexible and produce life-like movements when fished. Soft plastic choices are available in hundreds of shapes, sizes and colors. Traditional soft plastic bass lures include worms, crayfish, lizards and tubes. Each resembles a naturally occurring food. Other forms look nothing like animals seen in the wild. These soft plastics with strangely placed appendages and wings are called "creature" baits.

TECHNIQUES AND TIPS: Because there's such a wide offering of soft plastics, we recommend starting basic with a plastic worm. Your arsenal can expand to crayfish, lizards, tubes and creature baits after you've had success pitching and retrieving worms. Start with a black or purple worm that's six or seven inches long. Dark colored worms work well under varying conditions, and are good bets. Plastic worms are rigged on a "worm" hook that is shaped for weedless rigging. We recommend a size 2/0 or 3/0 worm hook for a six- or seven-inch worm. To minimize line twist, align the worm straight on the hook so it won't spin when retrieved. Standard worm rigging requires a free sliding bullet weight ahead of the hook. Weight size is dependent upon the depth and cover. A quarter-ounce bullet weight can be used for most situations, but deeper water and heavier cover demand greater weight.

When fishing shallow, target specific pieces of cover such as vegetation patches, logs, stumps or boat docks. After casting near the target, allow the lure to fall on slack line. Most bites will occur as your worm falls to the bottom. A bass inhaling a worm will not throttle your rod or be explosive on the surface. The subtle bites feel like a light "tick." You may see your line jump or feel a slight rod vibration. Once you see or feel it, wait 1–3 seconds, lower your rod toward the water, take up the slack line, and set the hook. We recommend a powerful hook set, as your hook typically needs to come through plastic before embedding in a fish's mouth.

If the fish doesn't bite as the lure drops, employ a lift-and-drop retrieve, just like jig-fishing for walleye. On tight line, lift your rod from the nine o'clock position to the eleven o'clock position. Drop your rod slowly back to the nine o'clock position, reel the slack line and repeat. By using this retrieve, the worm rises off the bottom, moves a few feet and then returns to the bottom. Again, fish usually bite as the lure falls. The lift-and-drop retrieve is also effective in deeper water along submerged edges and points that hold bass in summer and fall.



ROBERT QUEEN

First, master the techniques to rig and retrieve a plastic worm. Thereafter, experiment with the wide variety of bait shapes, tails and colors.

Crayfish baits can imitate natural food and bass can't resist them. Most bass bite as the bait drops toward the bottom. Feel for light ticks and vibrations on a lift-and-drop retrieve.

LOCATIONS: Soft plastics are versatile lures. They can be fished deep or shallow in varying types of cover. Vegetation beds, logs, stumps and boat docks provide bass safe havens — cooler water without direct sunlight where bass can ambush prey. Deep weedlines may extend 10–12 feet in depth, while stumps, logs and boat docks will be found in shallower water.

BEST FISHING TIMES: Soft plastics can prove successful from dawn 'til dusk.

ROD, REEL AND LINE: When fishing areas with light cover, use a spinning reel with 6- to 10-pound test line matched with a light to medium action rod. When fishing around thick vegetation, logs or stumps, a baitcasting reel with 12- to 20-pound line and a medium or medium-heavy rod will do the job.

Jigs

DESCRIPTION: There's no doubt that a jig is one of the best and most consistent artificial lures to catch fish. A jig consists of a lead head molded to a single hook. Most bass fishing jigs come with a plastic bristle weed guard over the hook that helps minimize snags. Jigs come in many designs and colors, with or without rubbery skirts. Some come ready to fish, while others are sold as components that allow the angler to rig his own jig head with separate soft plastic lures such as a grub, crayfish or shad body.

Two jig types are most commonly used — one with a bullet-shaped head where the line is tied on near its nose, and the other with a round or flat face where the line is tied from an eye that protrudes off the jig head. A bullet-shaped jig is easier to fish through vegetation, while a round or flat-faced jig is a better choice for fishing around wood, rocks and docks.

TECHNIQUES AND TIPS: If you haven't tried fishing lead heads, now's the time. One of our favorites is a rubber-skirted jig. This jig presents a bulky profile and is excellent to fish in the thickest cover. This lure is great for pitching into a small area of cover that may hold bass. Your target may be submerged wood under overhanging trees, emergent vegetation, docks or rock piles. Try bouncing the lure through the cover or dragging it across the bottom to elicit strikes. We use a variety of jig sizes and colors and often tip them with a plastic crayfish or pork rind trailer.

We occasionally throw a darter-head jig tipped with a four-inch plastic worm or grub. This jig is fished with an exposed hook and is deadly for catching weedline largemouth or open water smallmouth bass. Present the darter-head jig with a slow and steady retrieve. The lure imitates a baitfish, and if a bass is near, you'd better hold on!

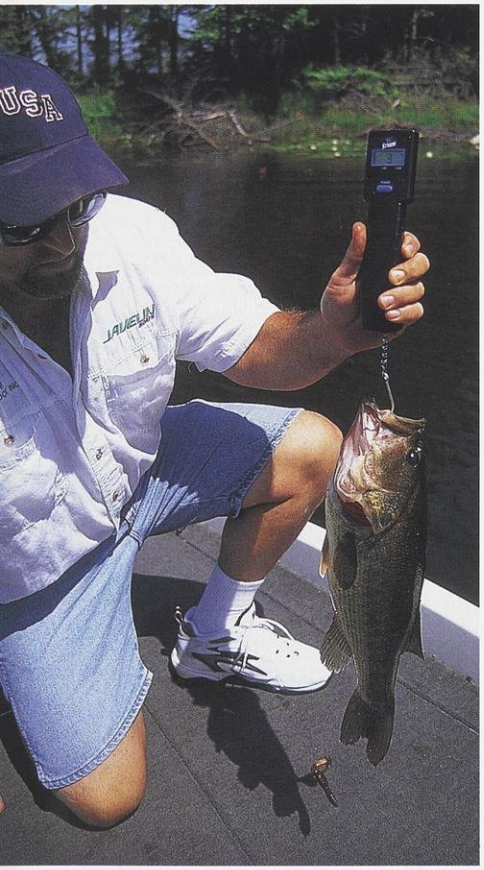
LOCATIONS: Anywhere you can find structure with cover is a good place to fish with a jig. Bass will often bury themselves within the cover and ambush prey as it swims or crawls by. A jig will work from the shoreline all the way out to the outside weedline edge. Factors such as weather, water clarity and available cover will determine where the fish are. If you aren't getting bites on the outside weedline, try within the vegetation or on the inside weedline. It's our opinion that if you can find the fish, you can always catch bass with a jig.

BEST FISHING TIMES: Anytime is a good time to fish jigs. Even during hot afternoons, jigs that imitate crayfish draw strikes when minnow imitations don't get a second look. It's tough for a bass to pass up a tasty high protein meal like a crayfish. Crayfish are found across Wisconsin and are very abundant in many bass fisheries.

ROD, REEL AND LINE: In open water weedline areas, try a spinning or baitcasting reel paired with a medium heavy action rod. Monofilament line about 10- to 15-pound test will work. As you progress deeper into the cover, use slightly heavier line. You may also find you need to try heavier braided line of the 30- to 50-pound test in thicker vegetation and woody cover.

(above left) **Bass jigs are often skirted which adds movement and have stiff guards to resist snags.**
(below) **A largemouth lurks in the water below this lily pad, ready to battle the bait. Note the worm hook rigging, all set for the tussle that will surely follow.**

Crankbaits



ROBERT QUEEN

DESCRIPTION: If there was ever an artificial lure meant to fool bass into believing it's real forage, a crankbait would be it. First, crankbaits have true three-dimensional design to imitate food no matter which direction or angle they're seen by the bass. There are crankbaits that closely match almost every type and size of natural food.

The most obvious difference among crankbaits reflect the depth they are intended to dive. You'll find long-billed crankbaits dive deeper than short-billed ones. Most crankbaits are made of plastic or balsa wood and carry up to three treble hooks. Balsa crankbaits tend to be more buoyant and generate less noise than plastic cranks.

TECHNIQUES AND TIPS: Crankbaits are universal lures that catch fish in and around various cover, given the right conditions. Determine the depth of the structure or cover you are fishing. Next, choose a lure that makes contact with the structure or cover during the retrieve. For example, if you're fishing a rock hump in 10 feet of water, choose a crankbait capable of diving 12 feet deep. When contacting the structure, use a stop-and-go retrieve to minimize hang-ups and draw strikes.

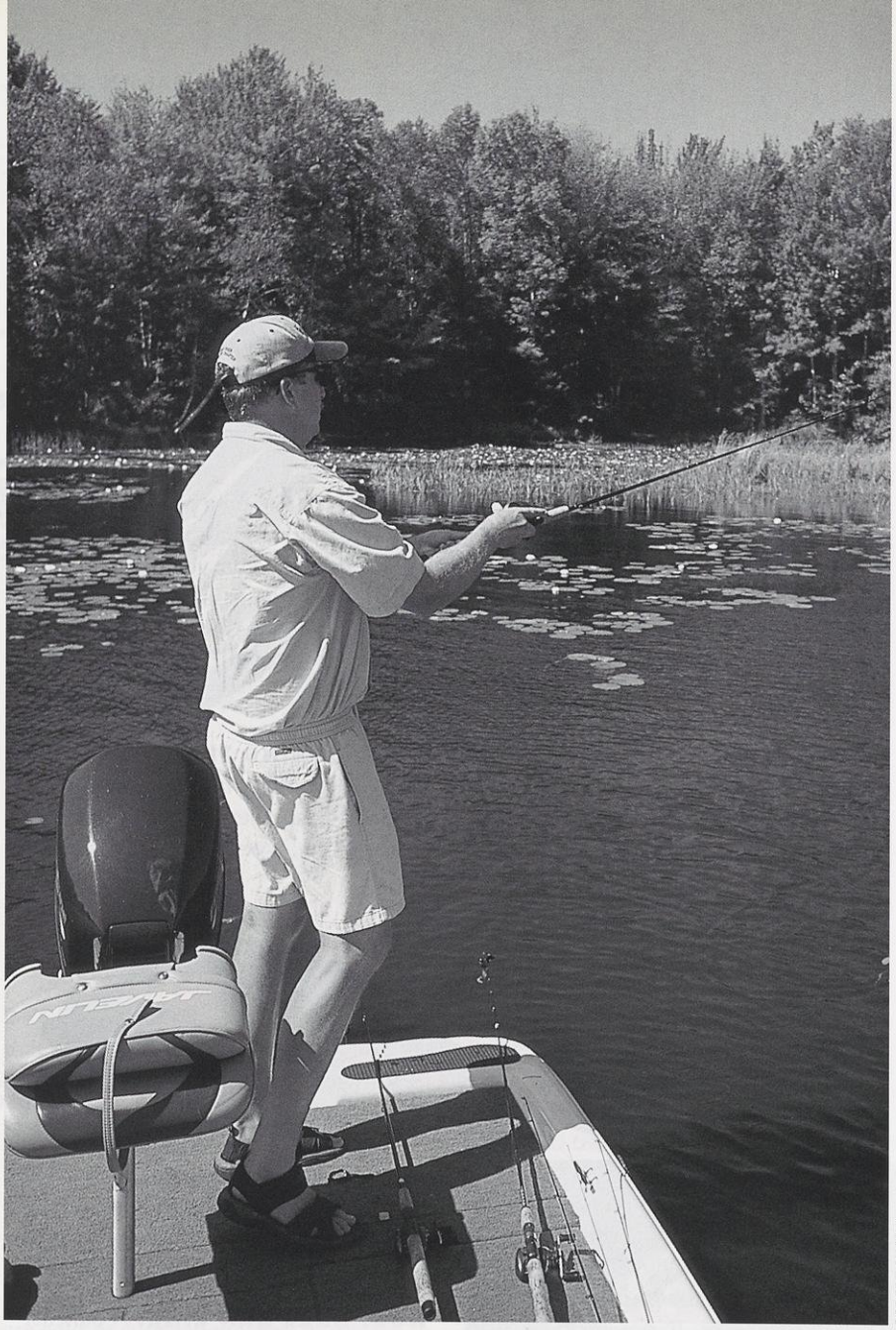
LOCATIONS: Some prime locations for crankbaiting include riprapped banks, stump fields, vegetation beds, logs or underwater islands. Depths may vary from less than one foot near shore to more than 15 feet in other areas.

BEST FISHING TIMES: Given the crankbait's ability to emit sound, vibration and flash, they're a good lure to use anytime, especially after dark.

(left) Ken Snow weighs then releases a bass he caught using these techniques.
(right) Crankbaits are designed as floaters, divers and neutrally-buoyant lures that will fish at different depths with different actions.

DOUG STAMM

ROD, REEL AND LINE: A baitcasting or spinning reel paired with a medium action rod are good choices when crankbaiting. A rod with a very slow tip will enhance your hook-up percentage and help land more fish. Six- to 10-pound test monofilament line allows your lure to achieve its maximum depth on the retrieve. Heavier lines may be needed if you're fishing around rocks that cause line frays. Keep in mind that heavier line reduces a crankbait's running depth.



ROBERT QUEEN

Though fishing TV shows tout southern states like Florida and Texas for great bass fishing, we think the bass fishing in Wisconsin is of unmatched quality. Through resource management and support from anglers, Wisconsin offers both unique and diverse fishing experiences. As long time bass fishing fanatics, we see the size structure and populations of both smallmouth and largemouth bass improving year by year.

We hope our advice will give you the confidence to try different techniques that add excitement to your fishing day. If we've piqued your interest, there are plenty of additional information sources that include fishing magazines, books, videos and the Internet. Learning more about bass life history, behavior, seasonal movements and fishing patterns can increase your chances of success. But book learning cannot replace the benefits of spending time on the water "reading" the situation, adapting to changing conditions, getting in tune with your quarry and enjoying some time outdoors.

As you fish across Wisconsin, enjoy exploring quality lakes and rivers, support conservation efforts and take along someone you'd like to see enjoy fishing as much as you do. The future of fish and fishing depend on it.

DNR Fisheries Biologist Brian Brecka and his friend, guide Ken Snow, are avid anglers who travel Wisconsin fishing for bass.

ROBERT QUEEN

(top) **Brian works the undulating edge of a lily pad weedline.**
(bottom) **He connects with a nice bucketmouth.**

Chris Klahn, DNR forester from Montello, wears the fire-resistant shirts, pants, leather boots, gloves and other protective gear that DNR grants provide to rural fire departments to battle wildland fires. To work effectively and safely on steep slopes, firefighters need lighter gear than they use to battle fires in town at homes, warehouses and other buildings.

Packaging progress

There's an art to combining grants and loans so communities get a bigger bonus from public aid.

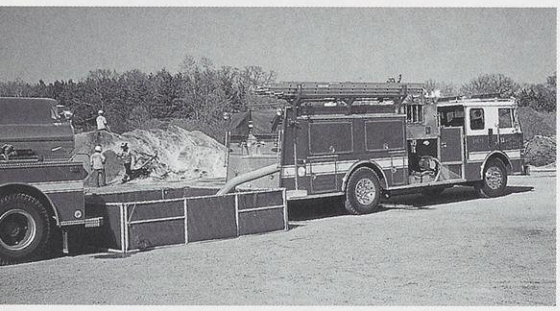
Megan R. Matthews

Each year the Department of Natural Resources distributes more than $200 million in loans or grants to Wisconsin communities for a spectrum of activities. Wisconsin offers environmental and outdoor recreation grants for more than 30 different programs — everything from constructing wastewater treatment plants and establishing recycling programs, funding outdoor trail and land purchases, building boat launches and buying equipment to fighting forest fires, and preventing runoff from farm fields and city streets.

"Over the years, we've gotten skilled at putting together grant offers and efficiently tracking expenditures, but we realized we had more to offer communities," said Kathy Curtner, who directs DNR's Community Financial Assistance (CFA) program. "As we reviewed the grant requests, we better understood improvements communities wanted to make and problems they were trying to solve. We knew about lots of different grant and loan programs offered by various state and federal agencies. We knew that communities might qualify for several different aid programs. And we knew if the communities could raise some matching funds on their own, we might leverage that money to get more grant aid for their dollars."

When DNR reorganized in 1995, the grant writers who had been working

CHRIS KLAHN



CHRIS KLAHN

Grants buy mobile equipment so rural companies can draw and store water to extinguish fires. *(left)* Grants can also underwrite costs for training. Here firefighters learn to use foams that smother flames and hold moisture in the soil longer than water would be retained.

separately on wildlife, fisheries and environmental programs were brought together under one administrative umbrella in the CFA bureau. Today we share our expertise in securing grants, administering grants and working productively with communities.

Here's a look at some of the programs where that cooperative approach has made a difference.

Taking the heat to suppress wildfires

Almost half (46 percent) of Wisconsin is forested — and there are large areas where fire departments are few and far between. To muster firefighters when needed, foresters rely on a network of volunteer fire departments to quickly spot, contain and extinguish wildfires. These volunteer crews are often financially strapped as rural fire-fighting departments spend their limited funds buying equipment to put out burning buildings.

Fighting wildfire requires a different approach. With firefighters battling burning brush and trees on rough terrain, often off-road, the vehicles have to be sturdier and more mobile. The personal gear has to be lighter in weight, because wildfire suppression is often done on foot over hundreds of acres.

The DNR Forest Fire Protection (FFP) and Volunteer Fire Assistance (VFA) grants help community fire-fighting volunteers buy lightweight fire-resistant shirts and coveralls, helmets, chainsaws and radios to improve communication. "This year, it appears communities need tools and equipment," says Ken Terrill, DNR forest fire operations specialist. "Given grants, rural communities can install dry hydrants that allow them to draft water from ponds or rivers in remote areas, and set up emergency fire numbering systems to quickly locate and respond to rural fires."

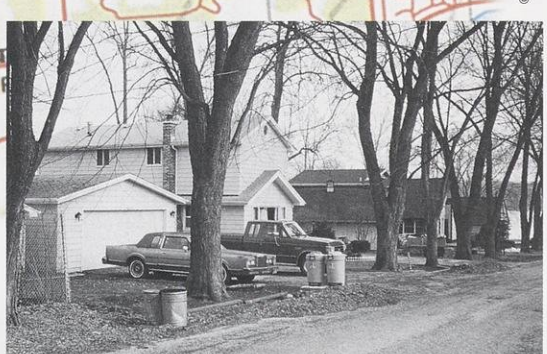
To qualify for FFP grants, organizations agree to help suppress forest fires, train their staff in wildfire techniques and provide the proper equipment. Currently more than 660 departments have signed agreements with DNR to better protect rural residents, firefighters and forested landscapes.

Subscribing to sanitation

Lake Como Beach is a 750-acre subdivision located on the north shore of Lake Como, just north of Lake Geneva in Walworth County. The area was devel-

Summer and weekend homes are packed tight near the north shore of Lake Como where a Chicago newspaper historically offered lots to its subscribers as a premium. The map shows the street patterns. Drinking water wells and septic systems were packed close together.

©DELORME'S WISCONSIN ATLAS AND GAZETTEER



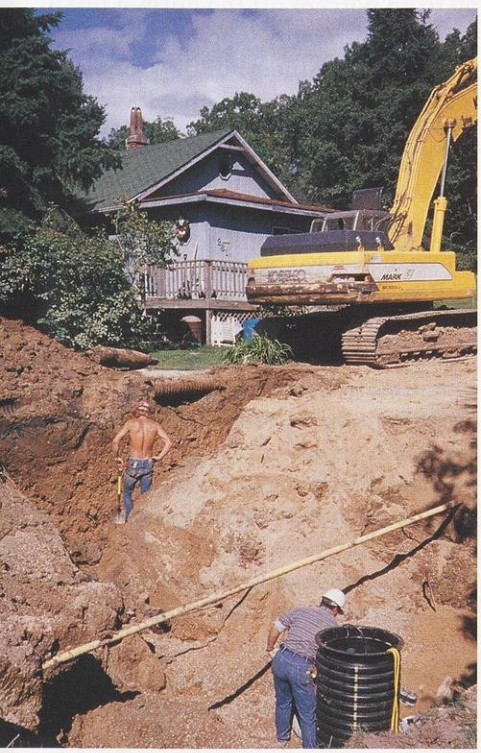
STRAND ASSOCIATES, INC.

oped back in the 1920s when the Chicago Post newspaper (now defunct) bought a tract of shoreland, divided it into 20x100-foot lots, and offered readers a free lot for every year they would purchase or extend their subscriptions. Lake Como is just a short ride away from the Chicago metro area, and subscribers old and new took up the offer to own a little slice of Wisconsin. Many built modest vacation cottages on the small lots.

The property owners association provided streets, but no water or sewer services. Individual septic systems and drinking water wells were built on the small, contiguous parcels. Local geography offered other water-supply challenges: The area is riddled with springs. Over time some of the septic systems failed and wells became contaminated.

The tightly packed development was ripe for a community well and collective sewage treatment, but the cost to install those improvements was awfully steep for turf that had been developed for 80 years. Construction estimates ran as high as $24 million for the 1,000 homes and businesses in the affected area.

State and federal aids packaged by DNR grants staff covered more than half the costs for a community well and sewerage system for the Lake Como Sanitary District in Walworth County.



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By working with financial planners, state and local elected officials, and the Lake Como Sanitary District, the federal and state grant managers helped the Lake Como Sanitary District receive $9.2 million ($2.1 million in grants and $7.1 million in loans) in U.S. Department of Agriculture Rural Development Funds; $11 million in DNR wastewater treatment grants; and another $4.4 million in zero-percent loans.

The grants alone were well over half the cost of a new public well and sewers to provide safer water, protect human health and stem the flow of nutrient-rich waters into Lake Como.

"Without this money, I don't think it could've been done," said Hubert Jensen, the general manager of the Lake Como Sanitary District. "It was a great thing for this community." A new public well and sewers have also increased property values, renewed interest in remodeling some of the homes and increased the tax base to further revitalize the community.

VILLAGE OF TIGERTON

VILLAGE OF TIGERTON

Recreational aids helped create an ATV skills track, 20 miles of trails along the Embarrass River, campsite and picnic areas as well as a community center in Tigerton. The renovation attracts tourism and has boosted downtown business.

A new route for riverside drives

Sometimes it just takes a nudge to kickstart a community. The Village of Tigerton, in southwestern Shawano County, is home to beautiful woodlands that run along the Embarrass River and people who stay there for the peace and quiet. It's hardly the kind of place that would embrace an ATV park, but you would be surprised at how much pride and harmony now surrounds Tigerton's newest recreation attraction.

The community wanted to make use of tax-delinquent lands along the river. Local ATV riders and civic leaders had an idea that was long on vision but short on cash. Gary Hanson, DNR's recreational trail coordinator for the Northeast Region, helped that vision blossom. The community staked out and developed 20 miles of ATV trails winding through wooded hills and along the river. ATV trail funds helped purchase 584 acres of land for the trails.

The ATV trail sparked further village projects. The community built about 1½ acres of intensive-use area within the ATV park. That area can be used for ATV competitions, and it provides a series of jumps, turns and dips where riders can hone their ATV handling skills.

Part of the pleasure for ATV enthusiasts is the chance to relax outdoors with good friends. The park added 37 scenic,

wooded campsites near the trails and a community center to host group events and public meetings. The center also houses restrooms and showers for campers.

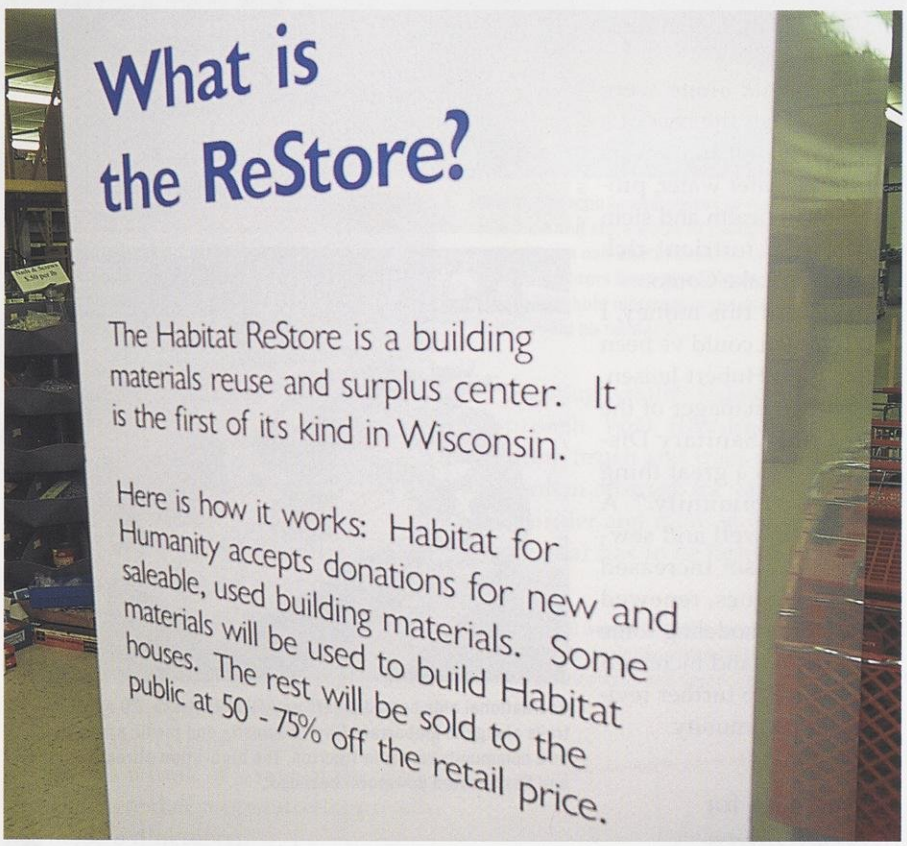
Trails for ATVs aren't the only attraction. The Embarrass River ATV Park now includes a designated hiking trail that follows the river through a gorge. Walkers can also reach some of the river's quality fishing holes.

Volunteers from the local ATV club greet visitors and provide much of the labor required to keep the park clean and operating at minimal cost.

The park has been good for the whole community. "Downtown businesses support the park too," said Hanson. "It's a draw that has increased traffic in the area. In fact, some businesses in the village got together to develop a safe, legal way to link the recreation area to nearby businesses. They are in the final stages of connecting a permanent trail from the village to the ATV park so people can get in and out of town off-road safely." Additional money came into the community through a new gas station, restaurant, convenience mart and motel, located within a few miles of the trails and park.

The park has been so good for Tigerton that the village had to make room on a wall of the community center for a plaque from former Governor Thompson honoring the project as one of the top ten rural economic development projects of 2000.

A waste reduction and recycling grant helped open a ReStore in Madison where Habitat for Humanity sells surplus supplies and quality recycled building materials at hefty discounts.



ROBERT QUEEN

ROBERT QUEEN

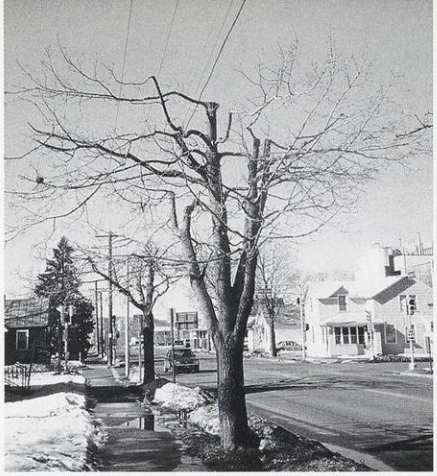
Salvaging local economies

A recent waste reduction and recycling grant will keep tons of waste out of landfills and keep quality housing more affordable in Wisconsin's capital city. The grant to Dane County Habitat for Humanity underwrote part of the cost to open a "ReStore" in Madison.

Habitat builds sturdy, simple homes for low-income families with the assistance of volunteers and family members. The organization's ReStores are a natural offshoot of their homebuilding efforts. The retail stores offer quality new and recycled building materials at 50 to 75 percent off the normal retail price. Contractors who have surplus supplies from their building projects and demolition crews that have salvaged perfectly reusable materials when older buildings are renovated or removed donate the goods to Habitat. More than 50 ReStores now operate across the United States and Canada.

Based on experiences at other ReStores across the country, Dane County can expect to keep an estimated 100 tons of construction supplies out of area landfills in the first four years of operation.

Proceeds from ReStores fund the construction of Habitat houses in the community. Habitat's most successful ReStores raise enough funds to pay for 10 new houses annually, so if the Madison store is a winner, the community can look forward to more and better housing for more of its residents.



PATRICK BONADURER, CITY OF LA CROSSE FORESTRY

CINDY CASEY

(top) Power lines are set at 35 feet above ground, but some of the trees planted underneath grow to 50–60 feet, warranting severe pruning or eventual replacement.
(above) Lower-grow trees planted in Thorp will only reach a height of 25 feet and never touch the wires.

PATRICK BONADURER, CITY OF LA CROSSE FORESTRY

In La Crosse and several northern and western Wisconsin communities, Xcel Energy paid to replace trees under utility wires and dig out stumps. DNR grants cover the planting costs; community foresters provide the labor so street trees that are growing into the power lines are replaced at no cost to property owners.

Planning plantings around power lines

Communities grow and spread, but trees can't get up and get out of the way as new housing and businesses take root. With DNR urban forestry grants, Xcel Energy in northwestern Wisconsin can replace trees on community property and private lands where trees were planted too close to power lines, or where established trees are growing along proposed new transmission routes.

In this partnership, DNR grant funds are used to purchase new trees or other appropriate plantings and to underwrite planting costs; Xcel Energy donates the fees for tree and stump removal. The program doesn't relieve the pain of losing mature trees, but it does ease the financial sting of such losses. The projects are completed at no financial cost to the property owner or the community.

The Community Tree Renewal program began as a pilot project in Clear Lake in 1994. Other participating communities include Dresser, Hudson, West Salem, La Crosse, Menomonie, Durand, Tomah, Sparta, Viroqua, Altoona, Bayfield, Ladysmith, Park Falls, Athens, Neillsville, Holmen and Thorp. Currently the program is expanding into Galesville and Chippewa Falls.

Another urban forestry grant provided funds to publish a booklet for sixth graders on reasons to nurture community trees. It's offered free of charge to all public school teachers. Dave Stephenson, DNR's former urban forester in south central Wisconsin, noted why it's valuable to plant that idea in tomorrow's leaders: "Properties with healthy trees are more valuable, and people tend to linger longer at commercial properties with trees, spending more money." Studies show social, economic and environmental assets appreciate in value in communities that treat their trees as valuable assets.

A package for protection and recreation

In Polk County, DNR is but one of 12 partners helping local government and

conservation groups develop a trail system for hiking, walking, running, cross-country skiing, snowshoeing and nature education.

"Sometimes our grant programs don't fit into a neat little niche and we try to figure out how a package of grants can best protect the resource," says Diane Conklin, DNR community services specialist in Spooner. "We all put our heads together to make something happen."

DNR grants were bundled into a long-term project to protect watersheds that feed into Deer Lake, five miles east of St. Croix Falls. The area first received a lake planning grant to analyze pollution sources and plan water quality improvements. That work led to nonpoint source grants, which helped clean up watersheds and acquire land. Trail grants gave the public access to the restored areas.

"DNR grants helped finance and guide the work of the Deer Lake Conservancy from project planning, to implementing water quality projects, to providing recreational trails," said Cheryl Bursik, the conservancy's program consultant.

Walking trails now wend through a 20-acre prairie, a reclaimed gravel pit, woodland springs and restored wetlands. New sediment basins are capturing runoff from agricultural lands and more than 20 truckloads of discarded tires were removed from area streambeds. The Deer Lake Conservancy area has become such a community asset that the group developed a tourism guide to the walking trails and recreation areas.

Jim Miller, co-founder and past president of the Deer Lake Conservancy, says the group grew from a project that principally benefited lake water quality into a community and educational resource that benefits the entire area.

Cooperators included the Polk County Land and Water Resources Department and the Parks Department, the DNR, the Natural Resources Conservation Service, Pheasants Forever, Ducks Unlimited and the Wisconsin Conservation Corps. The UW Geological Survey also worked on monitoring lake quality, partnering with Amery High School to get students involved.

The handsome harbor and launch at Bender Park.

DNR grants were one of several partners that helped create several miles of linked trails and wetland improvements at Deer Lake Conservancy in Polk County.

CHERYL BURSIK (ABOVE) JIM CIHA, MILWAUKEE COUNTY PARKS, RECREATION & CULTURE

Getting more to the lakeshore

Lakeshore improvements at Bender Park in southern Milwaukee County were 40 years in the making. The park is in Oak Creek on Lake Michigan, between the mega-marinas at Milwaukee and Racine harbors. The park site was purchased and developed in the late 1960s-early '70s using federal Land and Water Conservation (LAWCON) funds. DNR added more than $3 million in the past several years through development, shoreline enhancement, clean vessel and recreational boating grants; Milwaukee County's investment is even bigger. Now the lakeshore park has a launch site and ramp with room for 100 boat trailers, parking lots, a weather-protected harbor with breakwater structures, a pavilion, a lakefront promenade and picnic areas, walking trails and restrooms, and a pump-out station for boats to prevent waste from going into Lake Michigan.

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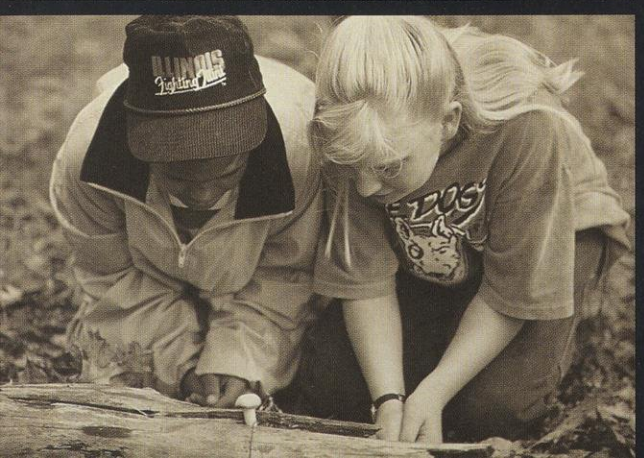
As these examples show, marshalling grants to assist communities requires knowing where the funding is, how it can be secured, who can help, and most of all, what the community itself wants and needs.

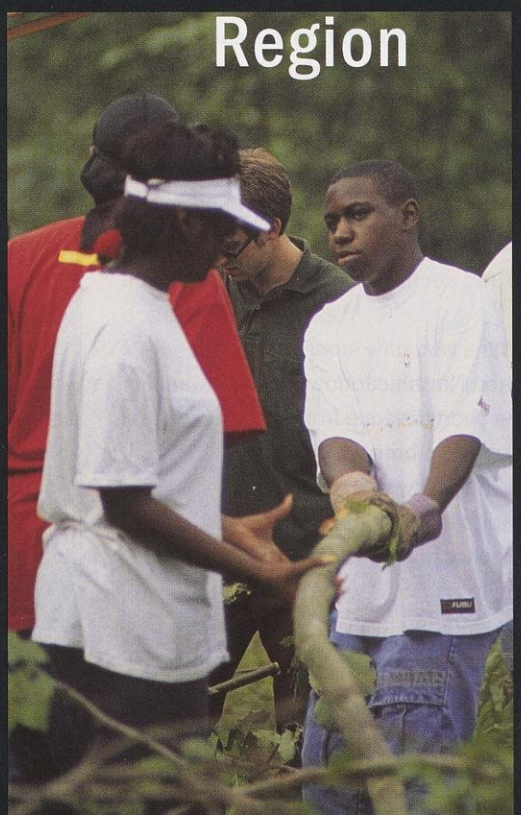
"Our grant managers in DNR's Community Financial Assistance program work as a team," says Kathy Curtner. "When we receive proposals, we try to package available state and federal funds to make it easier for customers to reach their goals in conserving and protecting natural resources. Sometimes, in cases like the Deer Lake Conservancy, we help them accomplish more than they originally planned. Those partnerships we form with local government and nonprofit organizations stretch their resources and their imaginations to envision innovative ways to protect Wisconsin's environment."

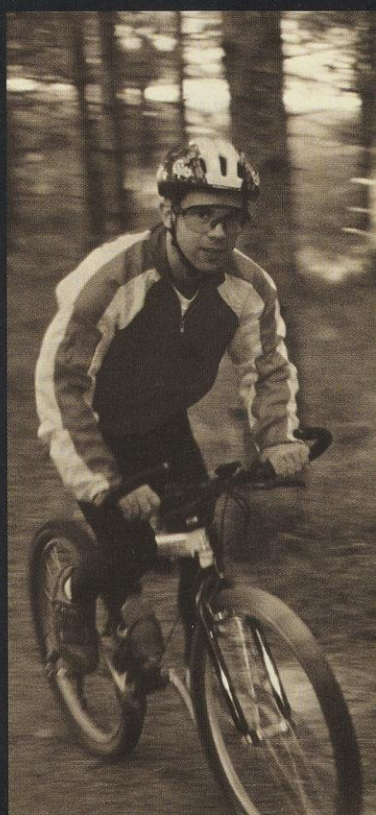
Megan R. Matthews communicates about community grants and recycling issues for DNR's Bureau of Communication and Education.

DIVE INTO DIVERSITY

Exploring Wisconsin's Southeast Region







Welcome: nyob zoo, bienvenidos, hau

Gloria McCutcheon

The Minority Intern Program in the Southeast Region promotes an opportunity to achieve and join a diverse workforce.

Diversity adds richness to workplaces and everyday lives in Southeast Region (SER). We embrace diversity in its fullest sense: race, ethnicity, culture, age, gender and thinking patterns, as we carry out Wisconsin Department of Natural Resources' rural and urban work.

The SER covers eight counties and serves over 40 percent of the state's population. Its urban presence is a contrast to DNR's more traditional rural focus. Here, we recognize our rural features and celebrate urban opportunities for revitalization, restoration and redevelopment.

Investment in community

Our headquarters on Third and North near downtown Milwaukee opened in September 1983, a short distance from the Milwaukee River, Lake Michigan, the lakefront ethnic and music festivals, and a large, vital neighborhood. The SER was ready to approach its work differently and our headquarters building remains a catalyst, a community asset and an anchor to redevelopment.

The building was planned to remain open for community meetings and gatherings. The community event renaming Third Street to Dr. Martin Luther King, Jr. Drive occurred on our doorstep.

Diversity opportunities

Our workforce reflects community diversity. We've achieved this through active recruitment and comprehensive community outreach.

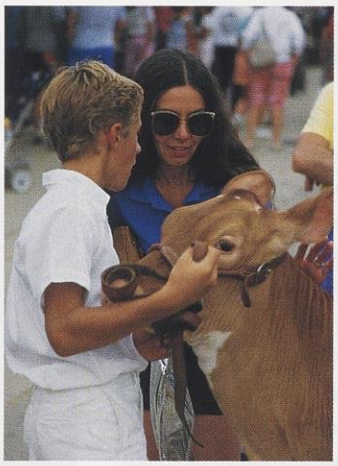
In 1986, the region teamed with Milwaukee Public Schools to create a Minority Intern Program. Our six-year summer earn-and-learn program introduces students to DNR work and encourages them to consider working for the DNR after college graduation.

Work as conservation wardens, environmental engineers, fisheries and wildlife biologists, and water supply and waste management specialists were some opportunities available. The program continues with students from:

- South Division High School — Tourism and Recreation
- Vincent High School — Natural Resources and Agriculture
- Bay View High School — Mathematics/Science and Law Enforcement
- Madison High School — Energy, Environment and Electronics

Service centers

DNR service centers are the gateways to the department's services. These one-stop shopping points of contact for customers provide easy access to services offered by the department's various programs. Buy licenses and parks stickers, meet with staff, and receive information on programs and projects at one of the four service centers listed on page 8.



The DNR Park offers shade, a fishpond, exhibits and more at the Wisconsin State Fair.

Air monitoring occurs at Chiwaukee Prairie, a lake plain prairie home to a globally rare plant community, in Kenosha.

(BOTH PHOTOS) ROBERT QUEEN

Urban initiative

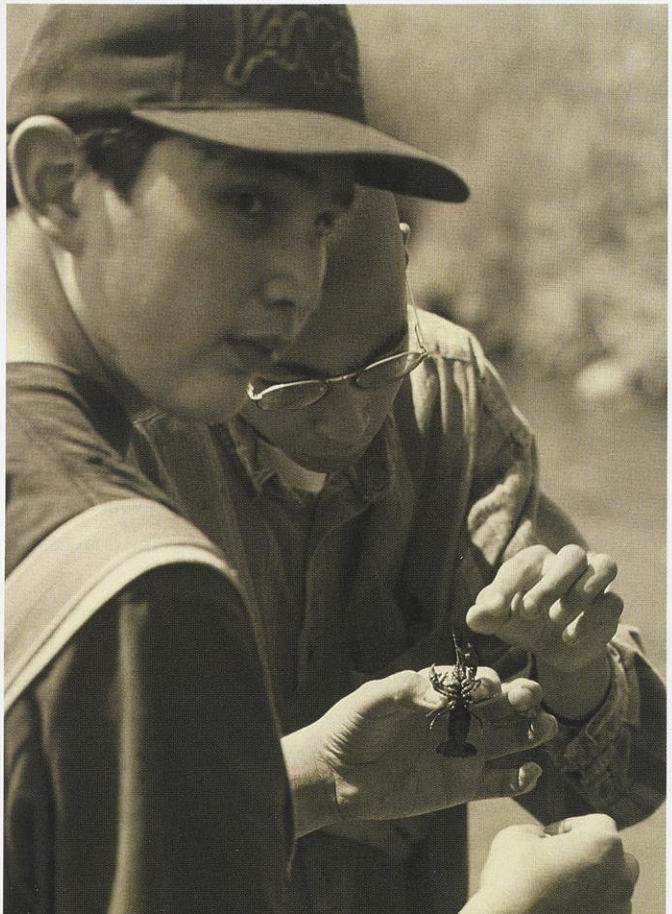
Several projects taken collectively form an urban initiative that gives children nearby opportunities to experience the outdoors. Those pieces include Havenwoods State Forest, Lakeshore State Park, proposed Milwaukee County Grounds Forestry Awareness Center, Hank Aaron State Trail and State Fair Park. These outdoor experiences are supported by Secretary Darrell Bazzell who graduated from North Division High School in Milwaukee.

The first piece, Havenwoods State Forest, became a state property in 1979 following a history as the Zautke family farm, the Milwaukee County House of Corrections, a Nike missile site, a military base and a city landfill. Havenwoods Environmental Education Center was built in 1986. Recently the missile site was filled, the landfill capped and Lincoln Creek, which flows through the property, restored. Stormwater and flood control ponds were developed as teaching tools. School children and teachers use the site that continues to change as the hundreds of trees planted a decade ago thrive on the 237-acre property.

The Wisconsin Lake Schooner Education Association and DNR are exploring ways to share classroom, exhibit and other space on the lakefront for the s/v Denis Sullivan, Wisconsin's new flagship and a stately reconstruction of sailing vessels that traversed the Great Lakes in the 19th century.

Another piece in this urban initiative is redeveloping State Fair Park. The Exposition Center is the new neighbor east of the DNR's two-acre parcel. It will provide year-round opportunities.

The urban initiative gives urban children a close-to-home opportunity to experience the outdoors.



ROBERT QUEEN

Timeless tribute

In an August 1993 article in "The Week," Jerry Laudon, the author, observed that "There are unique resource and environmental problems that face the people in the southeast — more so than in any other part of the state.

"Because of the number of people, roads and parking lots — not to mention the industrial levels — there are some immense environmental problems that affect air and water quality. There is much to be done yet, but the district's professional staff has managed to keep us afloat in an area besieged with people problems. No, the people who work for the DNR's Southeast Region don't get the credit they deserve, but here's one cheer for what they've done. Good job, folks!"

We share that tribute with new employees. We use the energy of citizens, partners and staff to accomplish together what no individual can do alone. We learned that the best decisions result from collaborations of diverse people with diverse ideas.

ROBERT QUEEN

Gloria McCutcheon

Gloria McCutcheon is the director of the DNR's Southeast Region.

Alliances at work

Sheena Carey

To achieve its vision for diversity, DNR focuses on building greater diversity in our workforce; enhancing day-to-day business practices by enhancing partnerships; and strengthening community ties. Here are examples of that work in progress.

Striding together with Hammering Hank

Progress on the Hank Aaron State Trail continues, thanks to partnerships to develop, maintain and promote this urban oasis in Milwaukee's Menomonee Valley. Aaron, the Baseball Hall of Famer, began and ended his record-breaking career in Milwaukee.

The Friends of the Hank Aaron State Trail leads the pack of trail partners that includes the City of Milwaukee, Milwaukee County, Milwaukee Journal Sentinel, Miller Brewing Company, Milwaukee Brewers, Potawatomi Casino, M&I Marshall and Ilsley Bank, and Metropolitan Milwaukee Civic Alliance.

A National Park Service grant helped provide trail signs that interpret natural features and the area's cultural history. Another grant will fund a bicycle/pedestrian ramp and a stairway off of the southern end of the Sixth Street Viaduct. The National Endowment for the Arts awarded the group a grant to incorporate artwork along the trail.

Once completed, the seven-mile trail will be part of a route that connects Lake Michigan to the Milwaukee County Oak Leaf Trail and other state bike trails reaching to the Military Ridge Trail that ends in Dodgeville. Within the City of Milwaukee, the trail will connect to the future Lakeshore State Park.

To learn more about the trail, friends group, or volunteer and fundraising activities, call Melissa Cook, Hank Aaron State Trail manager, (414) 263-8559.

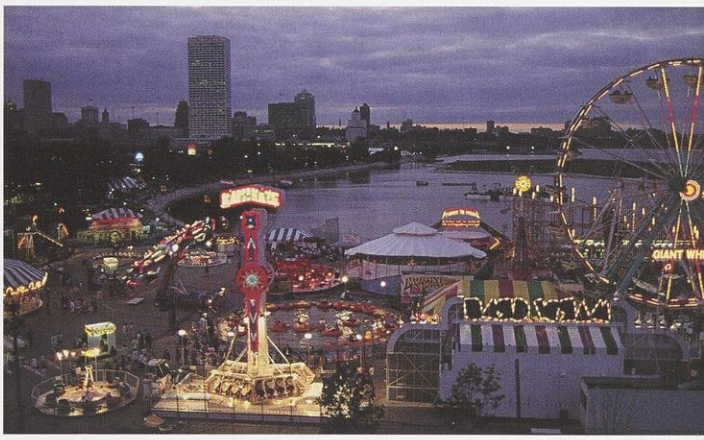
A popular state park for our most populous city

Lakeshore State Park, the first state park developed since 1978, is a 20-acre urban recreational jewel that will extend from Municipal Pier and include Harbor Island in Milwaukee. It will abut, but not include Maier Festival Park — home to ethnic festivals and Summerfest.

Lakeshore State Park will be the easternmost focal point of a recreational trail system that will eventually connect the Lake Michigan shoreline and downtown Milwaukee with the Hank Aaron State Trail, and beyond. As part of the regional open space system, this corridor would also link many cultural, historic and natural sites.

Plans for the park include:

- Increasing year-round shore fishing on the lake walk and island
- Restoring a cool-water Lake Michigan fishery including annual stocking of walleye fingerlings



Lakeshore State Park will look to the Maier Festival Park, home to Summerfest and ethnic festivals, to its south and the Calatrava Art Museum addition to the north.

- Developing a visitor's center
- Developing an observation platform and picnic areas on the island
- Providing a 10-acre recreational area for kite flying, dog walking, biking, rollerblading, picnicking, bird watching, walking and jogging
- Developing a 200-foot small boat beach area on the island
- Constructing a 17-foot-wide lake walk
- Providing on- and off-property year-round programs on natural, historical and cultural resources

For more information, call Therese Gripentrog, regional landscape architect, (414) 263-8669.

Going the extra mile for the environment

WE Energies (formerly WEPCO) and Cook Composites and Polymers Company (CCP) are the first companies to volunteer for the state's Environmental Cooperation Pilot Program created by the state legislature in 1997.

By entering into five-year agreements, these companies made a formal commitment to go beyond normal regulatory requirements, and pursue superior environmental performance.

WE Energies' Pleasant Prairie Power Plant in Kenosha County will reuse coal ash from its landfills as a fuel, reducing coal use, freeing landfill space and protecting groundwater.

WE Energies also will develop and carry out a facility-wide environmental management system to identify, minimize or eliminate environmental consequences of its operations.

The company plans to conduct mercury emissions testing and research, expand its efforts to inform and involve the public in environmental decisions, and publicly report on its environmental

performance.

In return, DNR staff will streamline permitting procedures while protecting the environment; eliminate some monitoring requirements; and share more information electronically to reduce paper and enhance decision-making.

CCP's agreement covers the company's manufacturing facility in Saukville, Ozaukee County. The facility can produce up to 52 million pounds of resin a year used by industries.

The company's commitment to superior environmental performance includes no longer burning hazardous waste in its incinerator, reducing the wastes generated and contaminants released, and implementing an environmental management system.

CCP will conserve natural resources — including raw materials and energy — and work with neighbors and the community. DNR will provide expedited review of permits for CCP projects that involve wastewater pretreatment, waste management and air quality.

For more information call Scott Lee, environmental assistance coordinator, (414) 263-8681.

Helping their community breathe a little easier

The Easy Breathers project is a high school education project that focuses on air quality issues in problem areas, such as southeastern Wisconsin.

Students from four public high schools in Milwaukee have successfully led the Easy Breathers project with DNR's supervision. John Marshall High School's Eagle Wings Productions and Media Makers, Inc. produced A/V materials. Visit www.easybreathers.org.

Protecting Great Lakes fish

With help from the Great Lakes Fishery Commission, there's a lot of good fishing in Wisconsin.

Established by the Convention on Great Lakes Fisheries between Canada and the United States almost 50 years ago, the Commission has two major responsibilities: coordinating research in the Great Lakes, and based on findings, recommending measures that sustain stocks of fish species that concern Canada and the United States. Another important goal is eradicating sea lamprey in the Great Lakes.

Recent efforts in the SER have focused on improving stocks of native species like northern pike, walleye, smallmouth bass and yellow perch.

For more information, call Brad Eggold, Southern Lake Michigan fisheries supervisor, (414) 382-7921.

Sheena Carey is a public and community outreach specialist in the Southeast Region. Call her at (414) 263-8634 with questions about these diversity issues.

The air quality and ozone connection

EPA and local officials use the Air Quality Index (AQI) to give the public timely and easy-to-understand information on local air quality and whether air pollution levels pose a health concern. The AQI is a color-coded numerical scale that tells you how to limit your exposure to air pollution.

When the AQI is forecast to hit above 100 for ozone (code orange, red or purple), consider adjusting daily activities so you breathe easier.

For daily air quality updates call toll-free, 1-866 DAILY AIR (1-866-324-5924). Visit www.epa.gov/airnow or contact Eva Robelia, a public information specialist at (414) 263-8657.

Index Values	Air quality descriptor	Possible heath effects and advice
0 to 50	Good	No health effects expected.
51 to 100	Moderate	Unusually sensitive people may have respiratory effects from prolonged outdoor ozone exposure. At-risk people should consider limiting outdoor exertion.
101 to 150	Unhealthy for sensitive groups	Sensitive people may experience respiratory symptoms (coughing, deep breath pain) and reduced lung function. Active people and those with respiratory disease should limit prolonged outdoor exertion.
151 to 200	Unhealthy	Sensitive people have a greater chance of experiencing respiratory symptoms and reduced lung function, causing difficulty breathing. But at this level, anyone could experience respiratory effects. Active people and those with respiratory disease should avoid prolonged outdoor exertion. Others should limit prolonged outdoor exertion.

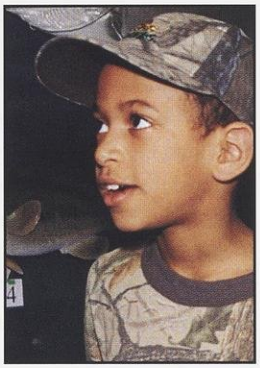
Access to the outdoors

Natasha Kassulke

Dressed from head to toe in camouflage, A.J. Howard, 8, of Milwaukee recites his interests: fishing, hiking and 4-wheeling.

But at the Milwaukee Journal Sentinel Sports Show, A.J. also was introduced to rock climbing, camping and the "Into the Outdoors" kids TV show.

A.J.'s advice to kids of all ages: "Be patient, bring a snack and get outdoors."



ROBERT QUEEN

A.J. Howard

The Department of Natural Resources offers educational programs and information about exploring resources — water, trails, campsites and more — to make the outdoors accessible to people like A.J. who live in the city.

Fishing for the future

To reach a young audience, DNR works with local fishing clubs to offer angler education and fishing clinics throughout the Southeast Region.

"Our programs are aimed at kids who don't have a way to learn fishing skills," explains Matt Coffaro, SER's regional fisheries biologist.

Earlier this year, ice-fishing clinics held at five ponds drew 250 kids, even though the winter was too warm to hold the clinics on ice.

Last year, 1,750 kids attended spring fishing clinics held at 12 county park ponds and lagoons (nine in Milwaukee County, one in Racine and two in Waukesha). The angler education program also gets people to urban ponds and lagoons that are stocked with fish.

"This year we're stocking 75,900 rainbow trout in 54 urban ponds and lagoons — the fish size averages just over nine inches," Coffaro says.

Coffaro credits DNR's partners for making urban fishing education a success, including local fishing clubs and the fish hatchery at the Milwaukee County House of Corrections that helps by stocking trout and panfish.

For more information, call Cheryl Peterson at (414) 263-8662 or Coffaro at (414) 263-8614.

Outdoor skills

Michelle Grimm is DNR's urban outdoor skills coordinator. Stationed in Milwaukee, she's responsible for introducing the region's urban families to outdoor skills, promoting recreation events, recruiting and training volunteer instructors, and developing partnerships to sponsor outdoor events.

Outdoor skills include hunting, fishing, cider pressing, snowshoeing, trapping, orienteering, camping, canoeing, outdoor cooking, bird watching, hiking, biking, animal and track identification and more.

"We want to help people appreciate that we have a full range of parks, trails, forests, beaches, lakeshores and even archaeological sites in this region," Grimm says.

Call Grimm at (414) 263-8619, or visit www.dnr.state.wi.us.

Emphasizing people's abilities

Matt Pipp, 26, of Oconomowoc, has cerebral palsy but it hasn't stopped him from pursuing a passion for hunting.

ROBERT QUEEN

Matt Pipp

"The DNR has been very helpful when I hunt," Pipp says. "They told me that I can get a permit to shoot from a stationary vehicle and shoot a crossbow."

Many people with disabilities like Pipp fully enjoy Wisconsin's state parks, forests, trails and other areas that offer accessible campground sites and cabins.

Most picnic areas, park offices and toilet/shower buildings are accessible.

State laws provide hunting, fishing and recreational use permits for people with disabilities. Application forms for licenses and permits can be downloaded from www.dnr.state.wi.us/org/caer/cs/disabled. Discounted licenses are available at DNR service centers or county clerk's office. Customers must provide proof they are receiving disability insurance when applying.

"Don't ever give up," Pipp stresses. "Everyone, no matter if they are disabled or not should be able to enjoy the outdoors."

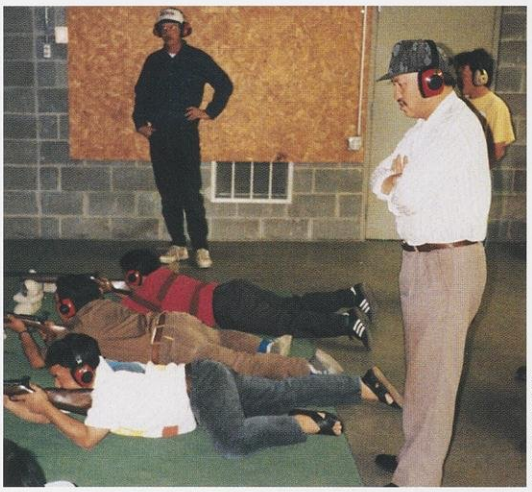
Hmong have a helping hand in Kou Xiong

As the DNR's Hmong liaison, Kou Xiong, works with Hmong and Laotian populations statewide to help translate fishing and hunting guidance. He has presented programs at the Milwaukee Laos Family Community, Inc. and holds a Hmong Education Advancement summer class.

"Many of the people I work with are interested in hunter safety classes," Xiong says. "I also am working with Southeast Region DNR staff to find Hmong instructors."

When questions about fish advisories and fishing regulations arise in the region, Xiong recites public service announcements on the Hmong-language radio in Milwaukee. Call (414) 385-3380

Urban outdoor skills classes promote recreation to urban residents.



Hmong liaison Kou Xiong offers guidance to Hmong and Laotian anglers and hunters.

DNR FILE PHOTO

or visit www.laofamilyonline.org for information. To reach Xiong call (715) 839-1638 or send an email to xiongk@dnr.state.wi.us.

Brownfields get a second life

Restoring "brownfields" means restoring access to abandoned lands. These forgotten commercial or industrial properties can be expanded or redeveloped once they are inspected, cleaned up and decontaminated. They are usually in the city with ready access to sewer, water, mass transit, energy and a workforce. Communities benefit as brownfields recover — acres of contaminated land cleaned up, property tax base increases, green spaces restored and jobs.

Nancy Ryan, a DNR hydrogeologist in Plymouth, points to the Sheboygan lakefront property as one project that may lead to greater public access to Lake Michigan. Formerly the C. Reiss Coal property, the area was a storage site for coal, salt, fuel oil and fertilizer for nearly 100 years. More recently, the City of Sheboygan bought the property with plans to redevelop it, add a fishing pier and link to the city river walk.

Call (800) 367-6076 or visit www.dnr.state.wi.us/org/aw/rr for information on brownfields.

Beach Task Force

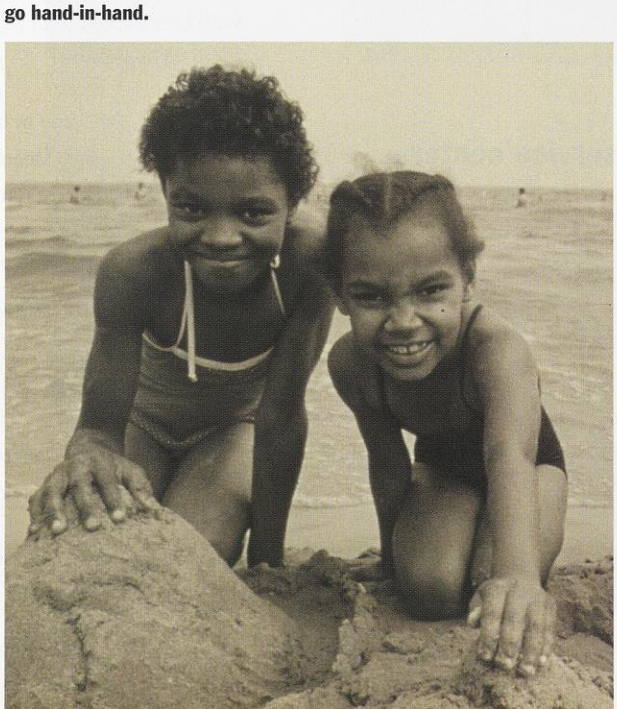
Sharon Gayan, Milwaukee River Basin leader, says DNR and its partners are examining how to keep one of the region's tremendous assets — the Lake Michigan coastline — accessible and enjoyable.

The Southeast Wisconsin Beach Task Force investigates causes of Lake Michigan beach closings and recommends improvements to ensure public beaches stay open and healthy.

The task force wants to determine the sources of *E. coli* bacteria and other pathogens (microbes capable of causing disease) that warrant beach closings because they may pose health risks.

South Shore Beach in Milwaukee, for example, was closed a record 42 days of the swimming season in 2000. To learn more visit www.epa.gov/waterscience/beaches.

Studies are underway to pinpoint sources of bacterial contamination that leads to beach closings. Shoreland accessibility and water quality go hand-in-hand.



Accessing inland lakes, rivers and lands

While most lakes in the SER have adequate public access, there are a few larger lakes without enough launch sites for motorboaters.

"It's our goal to provide public access to all lakes," says Tom Blotz, SER government outreach team supervisor.

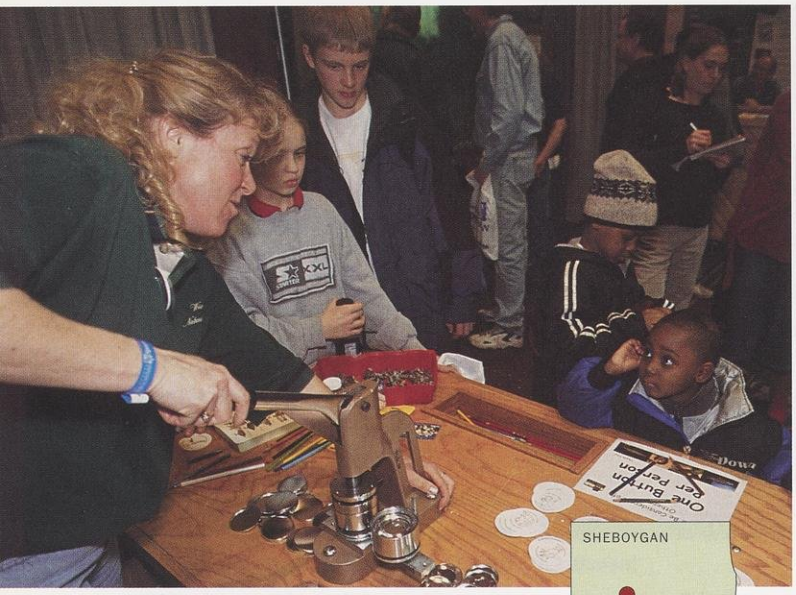
DNR staff works with local governments, lake associations and others to identify and acquire sites for public access and to help with funding to purchase, develop and renovate public boat ramps.

Recent projects have included buying and developing a public access site at Lake Keesus in Waukesha County; renovating a boat ramp at Lake Nagawicka in Waukesha County; and renovating a public access site at Silver Lake in Kenosha County.

The region published a free inland lakes access guide for Waukesha, Washington, Walworth, Sheboygan, Racine and Kenosha counties. Copies are available at SER service centers. (Milwaukee and Ozaukee counties are not included in the guide because there are no inland lakes with public access).

Likewise, Blotz says companion DNR programs are acquiring property through purchase and donation for recreational lands, habitat preservation, wildlife watching and for preserving plant and animal species, wetlands and other environmental corridors. For more information, call Dave Dahms at (414) 263-8670 or Blotz at (414) 263-8610.

Natasha Kassulke is associate editor of Wisconsin Natural Resources.



ROBERT QUEEN

The 10-day Milwaukee Journal Sentinel Sports Show attracts about 150,000 people and is the largest indoor consumer show in Wisconsin.

SOUTHEAST REGION

Helpful websites and phone numbers

DNR Southeast Region office — 2300 N. Dr. Martin Luther King, Jr. Dr., P.O. Box 12436, Milwaukee WI 53212. Call (414) 263-8500 TDD Line: (414) 263-8713

State of Wisconsin — www.wisconsin.gov

Wisconsin DNR — www.dnr.state.wi.us lists information about wildlife properties, recreational lands, natural areas and environmental initiatives throughout the region.

"Into the Outdoors" kid's show — www.intotheoutdoors.org

EEK! Environmental Education for Kids — www.dnr.state.wi.us/org/caer/ce/eek

Fishing regulation/updates — www.dnr.state.wi.us/org/water/fhp/fish or call (608) 267-7498

Urban Waters Fishing Hotline — (888) FISH-LINE (888-347-4563)

Fishing equipment loans — www.dnr.state.wi.us/org/water/fhp/fish/equip

State park camping reservations — www.wiparks.net or call (888) 947-2757. Visit www.dnr.state.wi.us/org/land/parks/access/cabin for accessible cabins

Southeastern Wisconsin Beach Hotline — (414) 290-2450 Ext. 732

Wheelchair accessible piers/docks — contact a service center for "Fishing and Boating: Access for Everyone"

Hunting regulations and safety classes — www.dnr.state.wi.us/org/es/enforcement

Hunting and fishing licenses — (toll free — available 24 hours — $3 fee) (877) 945-4236 or via Internet at www.dnr.state.wi.us

Boat registration — call (414) 263-8500

Wisconsin State Fair — www.wsfp.state.wi.us

Summerfest and ethnic festivals — www.summerfest.com

For a copy of "What You Should Know About Permits for People with Disabilities" call (414) 263-8500 and ask for publication PUBL-WM-352-2001

The Southeast Region service centers

DNR regional office/Milwaukee Service Center
2300 N. Dr. Martin Luther King, Jr. Drive
P.O. Box 12436
Milwaukee, WI 53212
(414) 263-8500

Sturtevant Service Center
9531 Rayne Road, Ste. 4
Sturtevant, WI 53177
(262) 884-2300

Plymouth Service Center
1155 Pilgrim Road
Plymouth, WI 53073
(920) 892-8756

Waukesha Service Center — moving into the Waukesha State Office Building in May/June of 2003
Until then, the center is located at
407 Pilot Court, Ste. 100
Waukesha, WI 53188
(262) 574-2100

Produced by the Wisconsin Department of Natural Resources

Design: Moonlit Ink

Edited by: Natasha Kassulke

Publ-CE-4001-2002

Cover photos by Robert Queen, except the photo of fishermen on a pier, which was taken by Larry Nielsen.

Fighting for a worthy shore

As algae slimed up little English Lake, neighbors fought back.

Patrick Robinson and Tim Hoyman
Story photos by Patrick Robinson

Nestled near the Lake Michigan shore just six miles southwest of Manitowoc, English Lake was a getaway that got away. A mixed forest of maple, hemlock and yellow birch originally surrounded the 51-acre lake. Like much of northeastern Wisconsin's landscape, its larger trees were cut and the land was cleared for agriculture. During the 1950s and '60s pressures to develop the shoreline for weekend and vacation homes increased. Today the shore is dotted with 60 homes, mainly summer cottages interspersed in the farmlands.

By 1980, concern about the lake's health emerged from residents as quickly as the plant life in the water. Filamentous algae blooms were common during summer months. The algae didn't look good, and it was unpleasant for boaters, canoers and swimmers to navigate. Shoreline property owners and residents of the surrounding community were troubled by the lake's decline.

Carol Entringer was among them. The lake was providing plenty of exercise, but not the kind she wanted. "I was hauling seven wheel barrows full of green slime from my shoreline a week," she recalls. "My neighbors and I decided we wanted to do something about it."

Entringer and her neighbors formed the English Lake Protection and Rehabilitation District (ELPRD) in 1982. She has been the group's elected chairperson since 1996. Through mutual consent, the majority of property owners surrounding English Lake agreed to form a lake district rather than a lake association.

"Forming a taxation district was the right option for us," Entringer says. "We decided a district would provide some money to address our concerns, protect the health of English Lake and accomplish our goals." As a legal entity, ELPRD could apply for grants to stretch the local investments the community was prepared to make.

In 1991, ELPRD was awarded its first Lake Planning Grant from the Wisconsin Department of Natural Resources to study English Lake's ailments. The grant marked the starting point for developing and carrying out a comprehensive management plan for the lake.

Researching lake problems and developing a plan

Property owners were willing to take on work to restore English Lake, but analyzing the lake's condition was outside

Farmland nutrients flowing into English Lake led to algal blooms. Years of research and testing identified pollution sources and led to a community project to build a detention basin to slow the flow of nutrients.

TIM HOYMAN

their areas of expertise. ELPRD hired NES Ecological Services (NES), a natural resource consulting firm, to sample the lake's water and investigate possible sources of pollution.

The baseline study showed the water contained unnaturally high concentrations of phosphorus and nitrogen, nutrients that fuel plant growth. The nutrients entered the lake through surface runoff from rain and snowmelt, and through agricultural tiles used to drain farm fields. This regular dose of nutrients was the most likely reason for the periodic algae blooms.

Second and third DNR Lake Planning Grants in 1992 and 1996 confirmed the study findings and suggested directions for reducing algae problems. The two largest sources of nutrients reaching the lake came from a barnyard directly east of the lake, and from agricultural tiles draining land just south of the lake. Of the two sources, curtailing the uncontrolled barnyard runoff was the top priority. Sampling showed phosphorus concentrations in the barnyard runoff were 400 percent higher than from any other monitoring site. Water quality sampling around the lake showed that greater than 70 percent of the phosphorus load reaching the lake from overland runoff came from that one barnyard.

The English Lake group used additional grants in 1997 to develop cleanup strategies. The lake consultants proposed an artificial wetland basin to catch surface runoff, providing space and time for nutrients from the barnyard and other farm fields to slowly settle into the soil instead of flowing into the lake. To further decrease nutrient discharges, NES ecologists recommended relocating the cattle from the barnyard parcel nearest the lake to a less sensitive area.

Of course, there was no guarantee the landowner would consider moving his cattle or constructing a wetland on his property. "The project hinged upon the landowner's cooperation and additional partnerships," Entringer says.

Timing was important

The Manitowoc County Soil and Water Conservation Department (SWCD) made the initial contact with the farmer. The agency already had a working relationship with the farmer, and could offer him an important helping hand: It could pay for part of the project. The farm and English Lake are located in the Seven Mile-Silver Creek Watershed, a Wisconsin Priority Watershed — meaning there would be state funds to relocate the cattle and set a conservation easement around the barnyard.

Another bit of good luck attended that first meeting of the farmer, SWCD and the lake group: The timing was right for the project. The farmer had already considered retiring; knowing there was funding available to move his cattle and create an easement provided further incentive. Plus, the proposed 1.5-acre detention basin added to the property value; it would be pleasing to look at and well within view of his house. In the end, the landowner agreed to move his cattle and placed seven acres — including the barnyard and the wetland basin site — into a conservation easement.

After years of planning and careful analysis, the improvements came quickly. By spring of 1998, the cattle had been moved to a farm outside of the English Lake watershed. A perpetual easement on the seven-acre parcel prohibits future livestock or cropping on that lakeside parcel. ELPRD took the lead to

It pays to persevere. Lake improvements took studies, grants, testing, negotiations, permits, contracts and partnerships that were nine years in the making. Installing a detention pond took a week in the summer of 1998.
(left) **Digging the detention pond.** *(center)* **The landowner prepares the gently sloping sides for seeding with grasses.**

pursue state and federal grants to design and excavate the wetland detention basin. The U.S. Fish and Wildlife Service reviewed all the studies and plans, and concurred that a detention basin would protect aquatic habitat in English Lake. USFWS agreed to provide the remaining funds to construct the basin. A final partner, the Wisconsin Conservation Corps, provided the strong backs and people power to make it happen.

The basin took only a week to build. In July of 1998, the USFWS staked out the property, set up silt barriers, and brought in heavy equipment to dig out the basin. The landowner donated his time and farming equipment to seed the upland portion after the soil was sculpted into a basin with gentle slopes. The WCC crew hand-planted nursery-grown aquatic species, including hardstem bulrush, common arrowhead, pickerelweed and common bur-reed in and around the detention pond.

Their work was quickly put to the test. Within a few weeks of construction several heavy rains filled the detention basin with nutrient-rich water. The rain spurred some spectacular and intense filamentous algae blooms in the basin

After stormwater settles in the basin, a crushed rock outlet filters additional solids before water flows into English Lake. Instruments in the monitoring shed measure the amount of pollution removed by the basin.

— but it held, trapping nutrients and keeping them out of English Lake.

Hungry geese and other industrious visitors

Of course, there were a few glitches and like most projects, this one provided some unanticipated learning opportunities. One lesson was to never underestimate the grazing power of Canada geese and the lure of a good meal. The aquatic vegetation planted was young, succulent and consequently very palatable for hungry geese.

When the basin was designed, the human partners had decided that the cost and effort of protecting the vegetation from predation probably wasn't justifiable. Shortly after construction, the geese showed us otherwise. Geese that normally resided on English Lake began to frequent the little basin. Within two to three weeks they had eaten the majority of the carefully planted stock. In hindsight, the cost of excluding geese would have been preferable to losing the plants.

And then there were lessons from four-legged friends. We recognized muskrats might pose a challenge, but we underestimated their skill. Within the first year of construction, muskrats began to burrow into the earthen berm that dammed the water and created the basin. The numerous burrows rising from the shallow wetland raised concerns that muskrats might tunnel through the berm, causing it to weaken and seep water from the basin, or per-

(left) A Wisconsin Conservation Corps crew hand-planted the basin edges with aquatic vegetation. *(right)* A win-win situation. The runoff controls are both effective and pleasing to the eye. The work isn't over. Now the lake improvement group is examining drain tiles at the south end of the lake and shoreline restoration.

Viewed from the farmhouse, you can see how the bermed detention pond allows stormwater nutrients to settle and soak in before cleaner water flows into English Lake.

haps even breach. ELPRD members worked with the landowner to start trapping. Some 20 muskrats were removed the first year and trapping will continue as long as it is necessary. The muskrats' diligent burrowing made us wonder if covering the berm with rock or other impermeable material would have been worth the additional cost and effort.

Mission accomplished?

Having completed two of its major goals, ELPRD members wanted to know if they had accomplished the ultimate aim of reducing the amount of sediment and nutrients entering English Lake. Lakes don't recover overnight, but anecdotal evidence indicates English Lake is on the mend.

"Long-time shoreline residents report vastly improved water clarity and a resurgence of aquatic vegetation," Entringer says. "The DNR water quality biologists said the lake 'looked better than it had in years.'"

Even though the lake is starting to look better, lakeshore owners want to ensure the detention basin continues to trap pollutants as designed. The group secured state grants to continue testing and monitoring. Measurements taken during seven storms between April and October 2000 showed the basin trapped 60–90 percent of the total phosphorus, nitrogen and suspended solids. James Havel, an ecologist with NES, noted that during heavy rains the water trapped in the detention basin was quite turbid, but the water leaving the basin was noticeably clearer.

The taste of success has inspired ELPRD members to take on improvements for the long haul. Now the group is examining the south end of the lake, where drainage tiles carry water from farm fields directly into the lake. The group is considering options for "goose-proofing" the detention basin before replanting it with aquatic vegetation. ELPRD is also restoring the shoreline at a county park abutting the lake.

Group members continue to learn important lessons along the way. First, lakes are fragile ecosystems. People drawn to live on English Lake for the natural amenities it provides also carry the seed of the lake's problems. Aging septic systems, lawn fertilizers, animal wastes, paved streets and construction runoff ring the lake with a steady, seeping source of pollutants. Second, a few dedicated leaders can galvanize their neighbors to organize and collectively address community problems. Third, there is a host of technical help to restore lakes, but communities and groups must seek out those partnerships. Fourth, there are state and federal grants available to help finance improvements, but the community has to be willing to pay part of the way — sometimes in cash, sometimes in making time to complete grant applications, sometimes in providing volunteers to roll up their sleeves and do the labor.

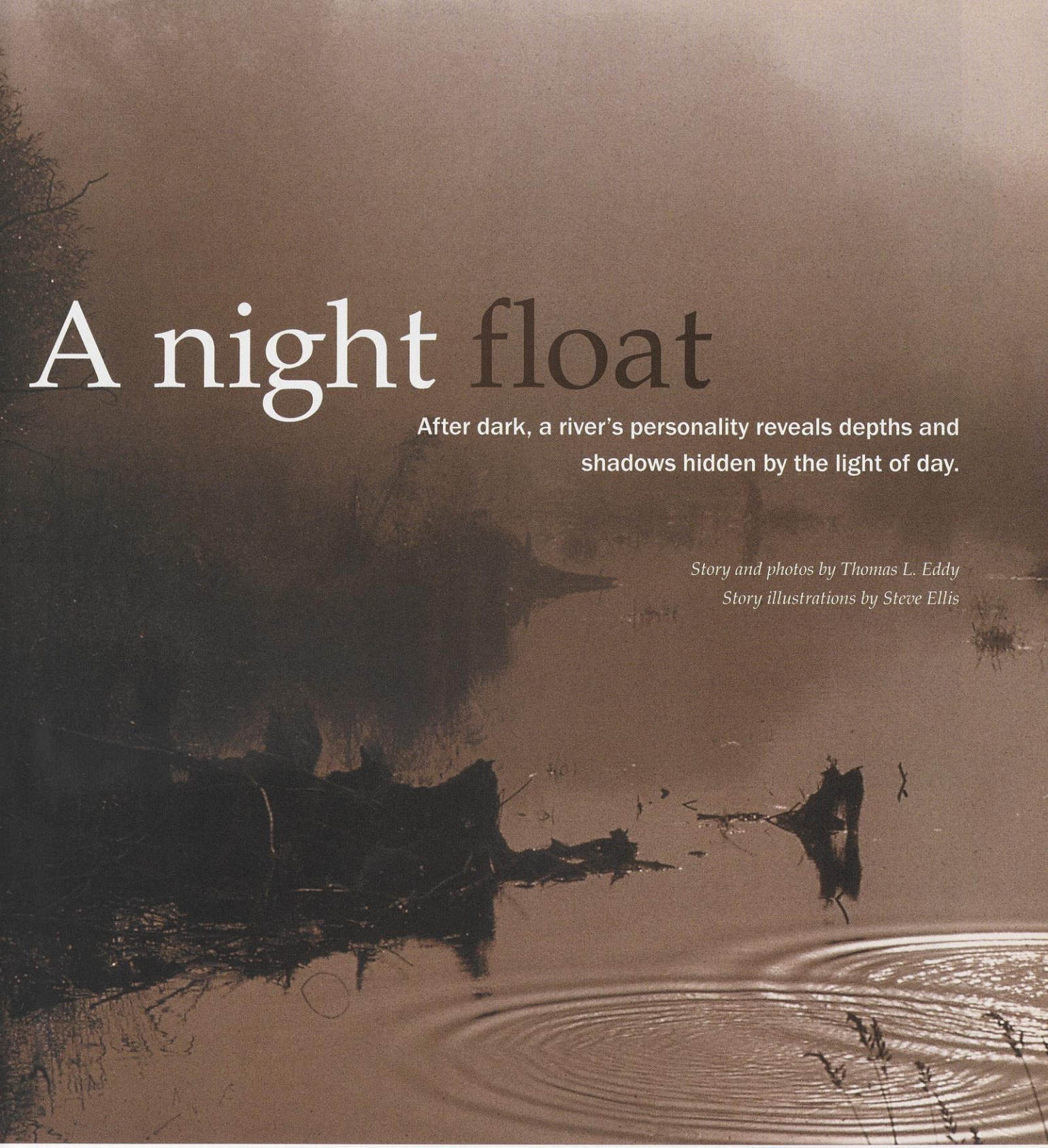
To date, ELPRD has obtained more than $70,000 in grants to improve conditions and clear algae around little English Lake. The group has forged partnerships among neighbors, county conservation agencies, the Department of Natural Resources and the U.S. Fish and Wildlife Service. Just as it took decades for pollution to do its damage, it may take decades to reverse the problems pollution has caused. The communities that succeed in lake restoration share a vision and persevere to maintain the natural beauty that initially drew them to the water's edge.

Patrick Robinson is a natural resources educator with the University of Wisconsin-Extension Basin Educator Program. Tim Hoyman is an aquatic ecologist and division manager with NES Ecological Services of Green Bay.

A night float

After dark, a river's personality reveals depths and shadows hidden by the light of day.

Story and photos by Thomas L. Eddy
Story illustrations by Steve Ellis

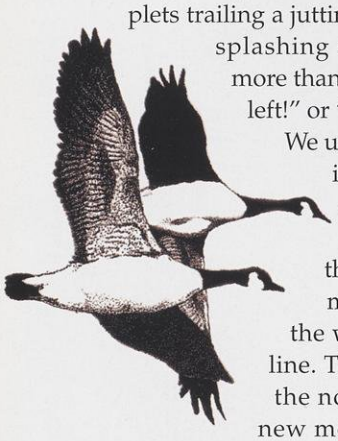


In the dead of night, when most townspeople and country folk are snug in their homes, I am drawn to a five-mile stretch of the Fox River shrouded by darkness and infused with the sounds and smells of freshwater life.

Trained downstream, my canoe glides past overgrown spoil piles, left heaped along the banks from days when steamboat travel was in its heyday. Wetlands and timbered stretches punctuate the shores, syllables of an arcane river language. Snags and sandbars loom out of nowhere. This river in the darkness seizes and transports me in a rapture across an ancient glacial lake basin.

I'm not alone. My friend Ellis — grateful I am for his industrial-strength imagination — is posed in the bow like a bygone whaler, paddle raised out of the water, looking and lis-

tening intently for deadfalls and submerged snags that could change a night float into a swim. Shimmering eddies and ripplets trailing a jutting branch, or the musical tinkle of water splashing about a waterlogged obstruction, are more than enough to cause him to proclaim "Hard left!" or "Bear right!"



We use no artificial light for navigation. There is no need for it, save for a chance encounter with night fishers. On evenings when moonlight settles on the water, the main river channel is a beacon, a glimmering, silvery tunnel. Shadows cast by the wooded banks press beyond the shoreline. They narrow the passageway and guide the nocturnal river traveler. Even during a new moon, light spilling from nearby towns and farmyards illuminates the main channel with sufficient lumens for safe travel.

•

Our first night float set the standard for all our subsequent evening ventures. In late November we paddled steadily downstream from Princeton beneath a waxing moon until the sounds of traffic, clock chimes and barking dogs faded. The air was still and cold, with temperatures in the upper 20s. Wisps of wood smoke clung to the air and a trace of October lingered in the smell of moldering leaves. The absence of foliage revealed silhouettes of tree trunks and limbs. Although there was no snow, new frost formed a bejeweled groundcover.

The feel of the paddle and the sound of its wooden blade splaying water provided a cadence, lending a sense of purpose to being on the water in the darkness. We canoed past shadowy oak openings with brittle leaves still clinging to the branches, past riparian forests of silver maple, beyond alluvial plains congested with willow thickets, open meadows and grassy marshes. Beneath a starry firmament, illumined wisps of clouds drifted across the river valley and provided perspective to the treeline and horizon. Our breath was steaming; we paddled on.

Near the mouth of an old oxbow, we glided upon a settled flock of Canada geese that took to boisterous honking and then finally to the air, leaving feathered down in their wake. A short distance downstream our canoe floated beneath a large cottonwood. Growing near the water's edge amid a copse of buckthorn, the cottonwood's limbs hung over the river, massive and bare.

Like bowling balls with wings, wild turkeys erupted from the tree with a din that broke both the stillness and their roost. Brittle limbs cracked and branchlets littered the waters with trailing debris. When the last bird careened ponderously across the river, we speculated where they might end up that night.

On wide-pooled stretches, we set our paddles aside, shed our gloves and cradled cups of steaming coffee in our hands. From nearby and afar, great horned owls hooted and barred owls *hoo-hoo-aw*-ed. Deer browsed along shore, their movements heard in the rustling leaf fall. We hardly spoke — the distant clamor of Canada geese made up for our awestruck

silence. As I refilled Ellis' cup, shifting my weight to steady the canoe, a flock of tundra swans swung low over the river, their swooshing wing beats audible above the canoe. Open-mouthed and teary-eyed from the cold, the encounter was burned into our memories. Between gulps of coffee, my cigar smoke wafted toward the stars and the current gently pushed and pulled aft, then fore, washing us downstream like a feather falling from the sky.

•

A night float is special in every season — for Ellis it is mid- to late spring, when lilacs bloom and the fishing picks up. Paddling in the dark, the evanescent bouquet of lilac blossoms causes us to pull up short, drift, linger awhile, and inhale great draughts of lilac-drenched air. The human stories behind the lilac blossoms may be richer than the fragrance itself. Old homesteads and farms, some abandoned and some with no trace of buildings left at all, live on through the cultivated bushes and trees planted by European settlers and their descendents. For Ellis, when the lilacs bloom in May, a night float cuts loose a flood of childhood memories that can cause his eyes to well up.

Sometimes it's solitude that makes a night float memorable. On one late autumn outing, falling snow blanketed the river like the flocculent seeds from a cottonwood grove in

The human stories behind the lilac blossoms may be richer than the fragrance itself. Old homesteads and farms, some abandoned and some with no trace of buildings left at all, live on through the cultivated bushes and trees planted by European settlers and their descendents.

June, decking the shore and snags with a snowy mantle. Sifting through bare branches, the icy flakes whirled and hissed like radio static. Paddles iced over, snow pelted our faces and the canoe tracked across the inky blackness, slicing through patches of icy slush. Shivering, eyeglasses fogged and beaded with moisture, a sense of isolation gathered around us like snow in the hull and then, the solitude was complete.

In the darkness our senses heighten, and perceptions are honed such that we can discover a good deal about neighboring lands. Depending on the season, we float downstream taking in fresh-cut hayfields and manure-scented barnyards, farm lights and barking dogs. We hear the rumble of cars and trucks, their tire treads humming up and down the rural township roads and county trunks. Nearby from its roost in a backwater swamp, a great blue heron issues a harsh croak. Marshes and wet meadows throb with the choruses of breeding frogs and toads, and the cries of soras and snipe. When a northeasterly blows in, the fantail rudder of an old windmill guides the wind, propelling the rusty blades with a creaky groan. The

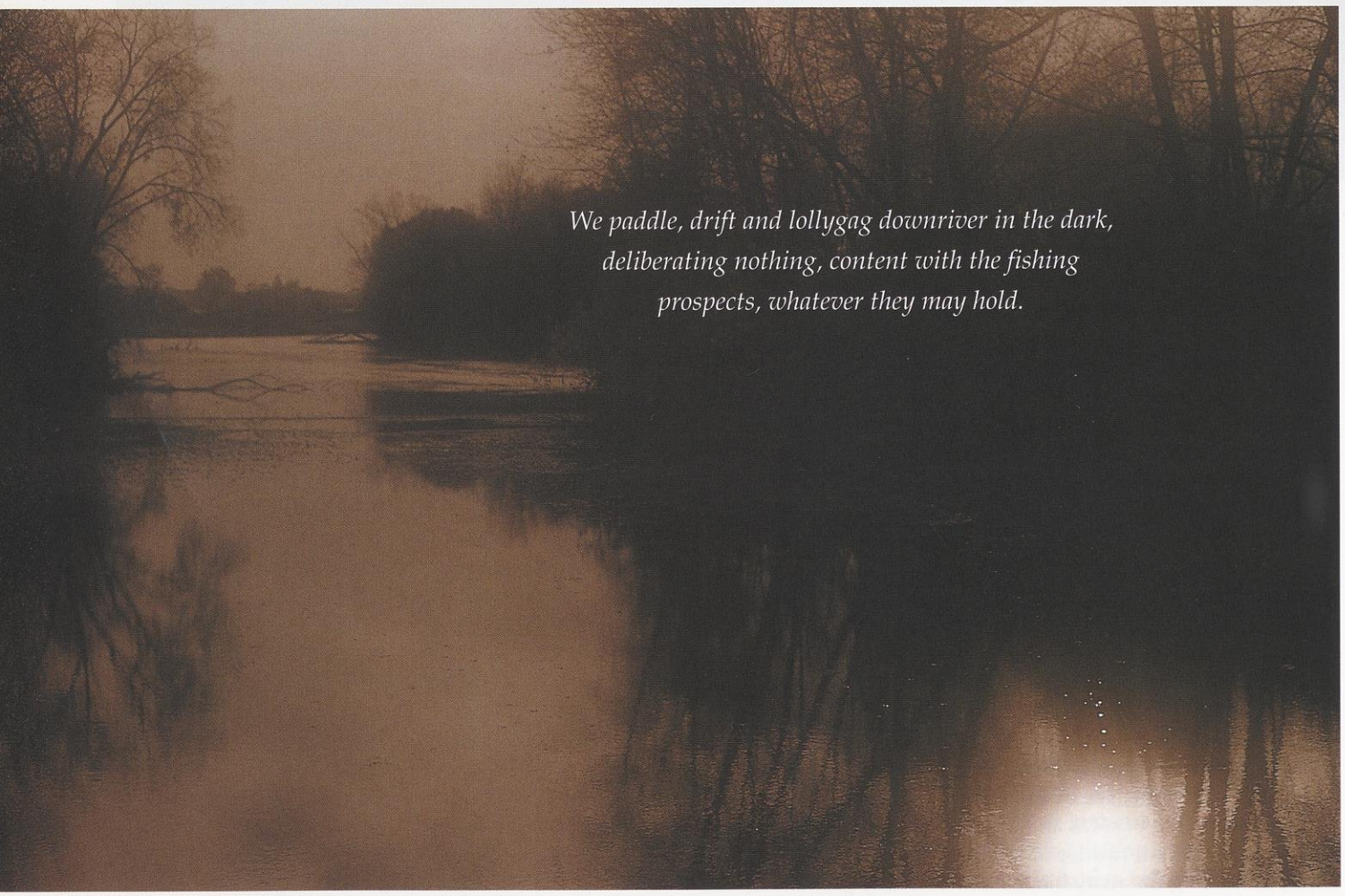
gusts sweep across the river valley, circulating through an aspen wood where the rise and fall of rustling leaves sounds like rain.

Evidence of fluctuating water levels abounds. Waterlines stain the trunks of trees, exposed fibrous roots mat the undercut banks, verdant patches of vegetation sprout from the muddy riverbed, and water-deposited detritus, now dried and matted, clings to pendulous branches overhanging the river. Straight away downstream from town, flotsam is wedged in the limbs of deadfalls and washed ashore: old tires, ice chests, minnow buckets, lawn chairs, a child's plastic ball.

Rivers sleep in the day and wake up at night. After dusk, following the last robin's evening chortle, swarms of insects come out, fishes splash, raccoons ramble and a solitary mink slinks about the gnarled roots buttressing the shore. Bats flutter and skim over the water, dodging our movements and assaulting the slight wake of air the canoe stirs up to catch their fill of insects. Every river nook and cranny is occupied by hunger.

We paddle, drift and lollygag downriver in the dark, deliberating nothing, content with the fishing prospects, whatever they may hold. The canoe brushes up against a deep-cut bank, eddies swirl and shimmer in the dark. I tie off a short section of cotton rope from the gunwales to a twisted swath of shore grass. Hooks baited, lines tossed overboard, we sit in the dark and wait. And still upstream from the take-out point, a mile, maybe two, without our knowing, late evening becomes early morning.

Thanks to mild weather this winter, Thomas L. Eddy reports that he and Ellis took night floats on this stretch of the Fox River in every month this year. Mr. Eddy lives in Green Lake, Wis.



Launching better ways to the shoreline

With DNR help, communities can get grants to improve shoreline access.

Darcie Gurley

(BOTH PHOTOS) JIM TOMASKO

The old Berlin Locks launch site was getting rundown. *(inset)* **With DNR help to secure grants, the restored site is seen as a real community asset.**

The challenges of being a landlord get no easier when you are responsible for managing a large number of public lands in widespread locations. You just can't give each parcel the attention it deserves to receive.

The Berlin segment of the Fox River Locks and Dams was one such property. Created for navigating the river and for commerce by the U.S. Corps of Engineers in the late 1800s, the locks and dams fell out of use once railroads started moving freight. The Corps of Engineers maintained the site as part of the lock and dam system until the 1950s and 60s, then sold the property to the Wisconsin Conservation Commission for a negligible price.

At that time, the Conservation Commission didn't own nearly as much public hunting and fishing land as its successors, the Wisconsin Conservation Department and the Wisconsin Department of Natural Resources now manage. The site in Berlin was initially maintained in park-like condition.

JIM TOMASKO

Changing signs of the times. In the old days, signs at Berlin Locks discouraged dumping. Now the restored park welcomes visitors to relax, picnic and launch a fishing trip.

But the aging lockhouses were not used, and over time, this corridor along the Fox River started to look shabby. The brush became overgrown, trash accumulated by the riverbanks. The portions of the property that edged through town looked particularly rundown, recalled Jim Tomasko, a wildlife technician based in Wautoma, whose work unit includes portions of Waushara, Marquette, Green Lake, Winnebago and Fond du Lac counties. The wildlife technicians develop and maintain public hunting and fishing grounds in their region.

In this case, the Fox Locks site had been purchased to provide a boat launch site and an access point for river anglers. And in Berlin, some people took advantage of the fact that the property was often vacant. They used it as a dumping ground. Tomasko recalls that people didn't clean up after their dogs. Others dumped garbage and tires there, and the unlit spot attracted traffic. "There was graffiti, and even port-a-potties were dumped in the parking lots."

In an effort to head off further damage, he placed two signs on the property. One read, the DNR does not provide dumpsters or garbage pick-up here. The other warned, if the litter problem in the area continued, the property would be closed to public access.

Two months later conditions were not improving, and Tomasko decided as a public safety measure to gate off the property. That decision came just before the opening weekend of the fishing season, and it raised much more concern than he had imagined. When he arrived at work the following Monday, he had several phone messages from angry anglers and a reporter who was ready to rake the DNR over the coals for shutting the property down. Tomasko's explanation for his decision to gate the property off fired up other locals, but out of that anger came some very positive results. Neighbors, local fishing clubs, Walleyes for Tomorrow, and the Berlin Rod and Gun Club expressed their strong interest in the property. They decided to form their own neighborhood watch. The reporter's story helped, too, because it explained why the property had been closed.

Local involvement helped tremendously. People on watch started keeping an eye on the launch site and promptly checked out changing site conditions. They scheduled clean-up days, cleared brush, and built picnic tables, but they didn't have the maintenance staff to keep the launch site that clean in perpetuity. Tomasko contacted local boys and girls clubs and contracted maintenance chores like mowing the grass. Then Jeff Pagels, DNR's regional leader of the Government Outreach Team, used his skills in securing recreation aids to see if he could get some grant money for the City of Berlin.

Federal Sport Fish Restoration (SFR) money and state Recreational Boating Funds (RBF) can provide support to construct and maintain fishing and boating facilities. SFR, administered federally by the U.S. Fish and Wildlife Service, is funded by a portion of the federal gasoline excise tax attributed to motor boat use, plus a 10 percent federal excise tax on the sale of fishing rods, reels, creels, lures, flies and artificial baits, and a three percent tax on electronic motors and sonar fish finders. State RBF money comes from a portion of the state gasoline excise tax attributed to motor boat use.

The state Department of Natural Resources is eligible for SFR funds, but by leasing the property to an eligible sponsor — like the City of Berlin — for a minimum of 20 years, the sponsor can receive both federal and state funds. Though there are limits on the cost-sharing, the city was granted a variance and got additional funding when they agreed to maintain any renovations at the boat launch.

The project turned into a win-win situation. The site was renovated and locals agreed to keep the property clean and maintained; the responsibility is now in the hands of those who are actually near the facilities. Berlin received $200,000 and the site has changed dramatically.

"The turnover in this site was unbelievable," Tomasko said. People were afraid to go down there; now kids are riding their bikes. There are boat docks (one on either side of the dam so you can go upstream or downstream), fishing decks, nature observation posts, interpretive signs... It's beautiful." And it has stayed that way. "Most of the time," he says, "the better places are maintained, the more people respect them."

A hit on the ol' Miss

Kurt Welke, DNR Fitchburg, has similar positive things to say about the partnership he helped forge when he worked along the Mississippi River. One of the properties he managed was the Gordon's Bay Public Boat Landing in Crawford County. Here, the river itself gave the landing as harsh a pounding as any of the human users.

Welke recalls, "The place was showing its age. The boat launch was structurally failing; the concrete was destroyed. It wasn't the least bit adequate for the amount of use it was receiving."

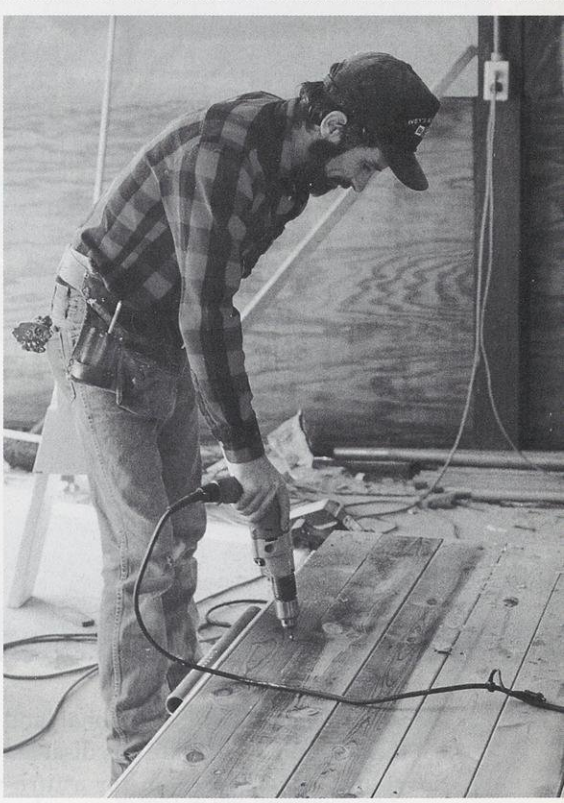
Welke decided to work with locals to tap local enthusiasm and local work crews. DNR leased the Gordon's Bay launch to Crawford County for $1 for 25 years. That opened the door to tap local talent. The county highway commission provided the staff to do things like grading the parking lot and removing overgrown trees, greatly reducing the need and expense of contracting out certain tasks. The local walleye club donated lots of time to the site and raised its renovation as an important issue to the county commissioner. Welke now describes the landing as a "first-class facility that looks nice and is functional and convenient."

Crawford County also didn't have a ready source of funds to maintain the launch site, and along the river, you can count on recurring expenses. Every year the Mississippi deposits enough mud and debris that the parking lot has to be hosed off, the parking lines have to be restriped and, of course, the docks have to be put in and taken out. To fund this work, the county instituted a launch fee as allowed to defray costs. It drew some initial grumbling, since launch sites were previously free of charge, but visitors and users are getting their money's worth. Welke says, "[Visitors] see no trash or litter, there are good information signs, good places to park vehicles, security, lighting and bathroom facilities... It's as good as it gets in western Wisconsin."

Getting on water in the southeast

In the Southeast region, Tom Blotz secured a partnership with a lake management district and township to build a boat landing and a handicapped-accessible parking space where four condominiums were developed. The condo builders were required to leave a 30-foot access strip (which was given to the Town of Merton) to provide public access to Lake Keesus. The strip wasn't big enough to provide an adequate boat launch, but fortunately DNR staff and

KURT WELKE



(RIGHT AND BELOW) PAT SHORT

At Gordon's Bay in Crawford County, crews and shovels prepare land between the two old ramps for a new pier approach. Once it was poured, community volunteers assembled the piers that were installed next to the new parking lots and ramps that provide great access to the Mississippi River.

KURT WELKE

ROBERT QUEEN

ROBERT QUEEN

On Lake Keesus in Waukesha County, a new ramp provides public access to a lake surrounded by private homes. The small, tasteful landing provides a launch site and turnaround. Parking is down the shore at a nearby lot.

locals purchased some additional land at the lakefront to provide one disabled parking space and room for a turnaround. As luck would have it, another 60-foot lot next door became available to Waukesha County as tax-delinquent property. DNR land agents then worked with the county to buy the parcel, which now provides even better lake access. A new small access road on more level ground provides a route to the launch and a turnaround space.

At this same time, a new subdivision was planned near the new public access site. Space in that subdivision, less than a quarter-mile from the launch, provides public parking. An agreement with the lake management district pulled together ownership and management of this public parcel under a 25-year lease to the lake district. The district received federal SFR and state RBF funding to develop the public portions of the property.

"We ended up with a pretty good partnership with a number of units of government, including the lake management district, the town, the county, the Department of Natural Resources, and state and federal grants," Blotz says. The grants covered the costs of building a road to the launch site, launch construction, an enclosure around a portable restroom, a boarding dock, landscaping and parking areas.

Blotz was especially pleased with this partnership because it is so difficult to find new public access points to southeastern Wisconsin lakes. "A lot of lakes are completely surrounded by private development — shoreland owners view the water as their lake, and they don't want the public gaining access to the water," Blotz said, despite the fact that the lake itself remains a public resource. Additionally, Blotz notes, purchasing and constructing public access sites is very expensive in this part of the state — lakefront property is extremely costly, and the public expects that the facilities that are developed will be high-quality facilities that can handle powerboats.

Through their own efforts and collective work with local and state agencies, communities are finding more ways to develop and value their access to public waters.

Darcie Gurley writes for DNR's Bureau of Facilities and Lands in Madison.

continued from page 2

Most pitcher plants secrete digestive enzymes to break down the insect's exoskeleton and release its nutrients. Our northern pitcher plants are the least efficient member of the family secreting weak digestive solutions, if they do so at all. Mostly they rely on the digestive activities of microbes — bacteria, fungi, protozoans, algae and other small microscopic organisms living in the rainwater soup that accumulate in the base of the plant. The microbes all eat and benefit from the trapped insects and ultimately provide life-giving nutrients to the host pitcher plant.

One might assume that every insect that finds its way into northern pitcher plants becomes trapped. Interestingly, two insect species, the pitcher plant midge, *Metriocnemus knabi* and the non-biting pitcher plant mosquito, *Wyeomia smithii*, depend solely on pitcher plants, living in the "soup" for all of their lives except for a short-lived adult phase.

Northern pitcher plants blossom in early spring, before or just as new pitcher plant growth appears. A solitary nodding flower tops a leafless stalk or scape. Five burgundy-red sepals radiate from the stalk on top of five strap-like petals. Nectar-producing glands lie at the base of each petal. Many stamens surround the ovary and hang down under the petals so the whole structure resembles an open, inverted umbrella.

Attracted by color, nectar and smell, a bee enters the flower at the only visible parting of the petal curtain. As the bee passes through the curtain, it brushes over a stigma lobe, pollinating the flower with pollen it has carried from another pitcher plant.

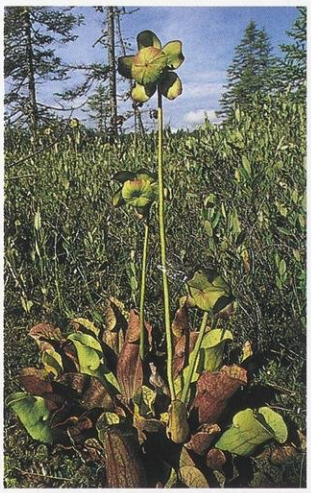
As the bee walks around inside the flower searching for the nectaries, it picks up pollen that rains from the overhanging stamens. The bee drinks its nectar meal and exits by pushing aside a petal and taking flight from one of the wide umbrella edges, bypassing the stigmas on its way out.

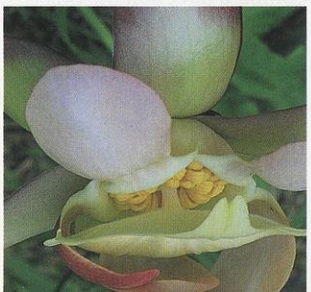
After pollination and fertilization, the petals drop, but the red sepals and umbrella remain all season. The five-parted ovary swells and in autumn, brown tubular seed pods split along the five seams, shedding teardrop-shaped light brown seeds. The seeds must be exposed to cold temperatures to germinate the following year.

Pitcher plants are truly unique plants, worthy of slogging through soggy, boggy terrain for a closer look.

Anita Carpenter of Oshkosh tromps the swamps, woodlands and fields for signs of nature's finest sights.

Pitcher plants send up flowers on a leafless stalk.
(below) **A close-up of the intricate blossom.**





(BOTH PHOTOS) ROBERT QUEEN

WHERE THE SNOWIES ROAM

My class downloaded some information on snowy owls from your website that said the bird is found in Wisconsin. Other resources said this owl is only found in the Arctic. Could you help us find the truth? We're dying to know.

Kay and her Third Graders
New York, NY

We last visited snowy owls in our December 1997 story "A hunter in winter white." Snowy owls (Nyctea scandiaca) *usually are only seen in Wisconsin during winters in years when their Arctic food supplies dwindle. The snowies may take up temporary residence from late November through April in treeless areas that resemble their Arctic home — on the coasts of lakes Superior, Michigan and Winnebago or on broad, flat expanses of flat fields and marshes. Snowies have big five-foot wingspans and are the owl heavyweights, if you can call a 3.5-pound bird heavy. They are unusual because they are active hunters during the day, unlike most other owl species. In late winter, those snowy owls that ranged south return to their Arctic home for the May breeding season.*

PLANNING YOUR STAND

I have just inherited a farm and want to have some timber cut, but had no idea what is involved. I liked your website.

Roxanne Shute
Pittsburgh, Penn.

Several stories in recent years aimed to help woodlot and rural landowners look at options for managing their property. State foresters, other public foresters and private consulting foresters can help landowners inventory their trees, assess what grows naturally on the land, examine their goals and make long-term plans. Depending on the species, some stands benefit from selective tree cutting, other areas might do well from small clearcuts to stimulate new growth, and many others just need selective pruning so the strongest trees can mature. As we discussed in our February 2002 supplement on sustainable forestry, you can plan to grow and cut trees in ways that sustain the value and diversity of your woodlot for decades to come.

RURAL DUMPING IS A BIG CONCERN

Your February 2002 story, "The stuf of dreams" caught my attention. Like any good mystery thriller, it kept me interested right up to the end. My opinion with one part of your article would differ though.

Toward the end of your article you mention making inquiries with DNR property managers on how often illegal dumping occurs on state lands. The people you talked to described this as a relatively rare occurrence. In my experience working as a wildlife technician on 50,000 acres of state wildlife areas in western Burnett County this is far from the truth.

Old appliances, building materials, cast-off furniture, auto parts, along with the ever-popular household trash all find their way onto our public lands. It is not uncommon to fill the back of a pickup with junk. On a really bad day I have filled a dump truck and still not had room for everything on certain areas we manage.

What is almost as sad is the mess this dumping creates on public lands takes away from work that really needs to be done. People who dump on public lands have not only stolen the beauty of our wildlands, they take from the money paid by hunters, trappers and anglers to manage these lands. The only solace in these cleanups is [occasionally] finding evidence in the debris [so we can identify the dumper.] That does not happen often enough!

Thanks for the good story and pictures.

Steve Hoffman
Grantsburg

COMMENT ON A STORY?

Send your letters to Readers Write, WNR magazine, P.O. Box 7921, Madison, WI 53707 or e-mail letters to sperld@dnr.state.wi.us.

I don't know which people you talked to on the topic of dumping garbage on state owned lands [who felt it was not a significant problem], but I am quite sure it was no one from central Wisconsin.

I work on 25,000 acres of state wildlife areas and natural areas in Green Lake and Marquette counties. I invite you to come and view the 200 used tires collected in the last two years from state lands, or the dumpster full of TV sets, mattresses, beds, couches, recliners, end tables and bags of household garbage each week. You would not see bottles or cans as those are all recycled. You would not see the pickup truck load of air conditioners or the four refrigerators collected last summer, as they were sent to have the freon removed before being recycled. I do not mention the stoves, fans, tire rims, auto bumpers, other car parts that are all taken to the salvage yard for metal recycling. You could name any piece of household furniture or appliance and we have collected it off state lands.

Each year I have to take a backhoe excavator to areas to either remove or bury dead dogs, sheep, hog parts, cow skeletons and deer bones and hides. An increasing litter problem is garden vines, rotten squash, spoiled fruit, plants, lawn clippings, pruned branches, construction cement, and used landscaping lumber, which have to be buried or removed. These are not old items from the former private owners of the land (those items have all been cleaned up), but all items discarded in the last few months at parking lots, access roads, overlooks and viewing areas.

I know you will find the same problems if you talk to the wildlife people at Oshkosh, Poynette, Horicon and Wautoma. Maybe this lack of respect by some members of the public for state owned lands would be a good article for the magazine.

Jerry Reetz
Berlin

I enjoyed "The stuf of dreams," in the February 2002 issue. As the story unfolded, I too was pulling for the "find" to be a new rare life form that may have held uncountable solutions to man's environmental and physical ailments.

Alas, your dreams and my hopes were dashed by the truth that some people just "don't get it" and are willing to dump their wastes wherever they please.

Maybe the right "stuf" is still out there waiting to be found, and hopefully that wonderful discovery will come your way.

Larry Kartz
Milwaukee

ON WASTED STURGEON

I want to add a few comments and corrections to your response to Clyde Christensen in the February 2002 issue. He recalled accounts of how sturgeon were widely wasted in the area.

I am a native Ocontoan and while going to college in the mid-1970s had the pleasure of working for commercial fishermen out of Oconto. Every summer we caught a dozen or so sturgeon up to five feet or more in length. Being the rookie on the crew, I was usually the one who had to wrestle the brutes out of the net.

During that time, I had the opportunity to meet a number of the old commercial fishermen, some of whose families had been living on the shore north of Oconto for three or four generations. More than one of them mentioned all the sturgeon they caught in the "old days." They were considered a nuisance because they tore up the old style cotton and silk nets of the day. Some were sold or traded to Native Americans who smoked them, but most went to waste. Apparently the markets you described weren't available to those fishermen. None of them ever mentioned eating the meat or caviar. I also recall one of the old timers bringing some pictures of the piles of sturgeon on the ice around the turn of the century.

To back this up, I refer you to "A History of Oconto," by George E. Hall. Oconto Publishing Co. 1969. On p. 69 it states "Sturgeon were plentiful, but considered a nuisance because they tore up the fishermen's nets. Taken by the ton, they were piled on the shore like cordwood. Later some were used for garden fertilizer."

The low regard for sturgeon in the early days in Green Bay is also mentioned in "Fishing the Great Lakes," by Margaret Beattie Bogue, where one of the reasons for killing the sturgeon was the mistaken idea that they ate the eggs of more desirable species.

Al Stranz
Abrams

RIGHT BIRD, WRONG BERRY

The pine grosbeak featured on the February 2002 issue is feasting on highbush cranberries, not crabapples.

Tom Wirth
Madison

BLUEBIRD DIRECTIONS

I enjoyed your April 2001 story "Thinking out of the box," about a new design for bluebird houses. I'd like to try the plans. Does it make any difference which compass direction the box is oriented?

Cathy Jo Aspenson
Columbus

We asked article author Joe O'Halloran to respond: Do bluebirds prefer that bluebird nest boxes be placed so the opening faces some particular compass heading? The studies I have seen had not taken the compass direction around the nest box into account. I don't think any of the studies resulted in one direction being a clear winner.

I believe that in Wisconsin, the weather factors such as wind direction are very variable. I believe that facing a box at one compass heading direction to take advantage of meteorological factors is likely to be as self-defeating as any other direction. For example, I faced a box east to let the early morning sun warm the box, only to have lost a mother and five babies in it when they became buried in snow when the box became snow-packed during a driving "horizontal" snowstorm out of the east.

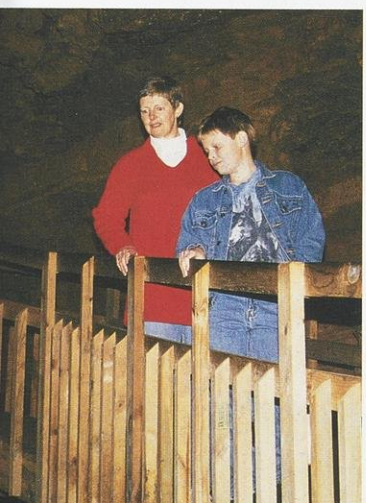
Based on ten years of monitoring (and now having 75 boxes) I put no store in selecting the box direction based on a compass heading. I have found that boxes in a good habitat facing any compass heading will have high bluebird occupancy rates. I orient each box to face toward one or more important nearby "bluebird amenities." These amenities include a relatively close tree haven for fledgling nestlings' first flight, approach perches, and hunting perches over short grass (in that order of my preference).

Hope this helps.

It's cool to spelunk

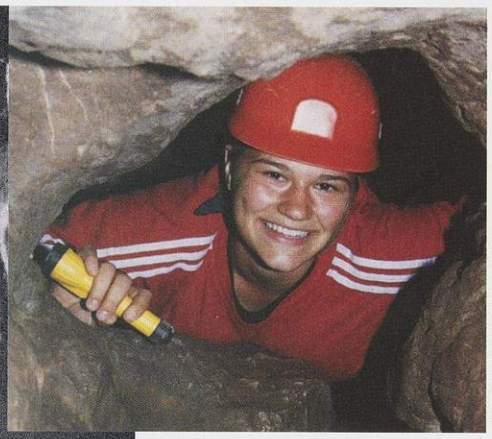
If Wisconsin's unusually balmy winter was any indication, this summer could be one sizzler of a season. Should that prove true, it's wise to have a reliable backup for the central air-conditioning. You could lay in plenty of straw for the icehouse and a goodly stash of beer and lemonade. But for the ultimate in cool — for rock-solid, steady, stable temperatures guaranteed to relieve the heat — TRAVELER recommends a trip down under...ground.

Though not as famous as Spain's Altamira or Kentucky's Mammoth, Wisconsin's caves offer ample spelunking adventures for wannabe troglodytes and experienced cavers alike. The vast damp caverns and unusual mineral formations created by the dissolution of limestone over time have thrilled visitors for generations, and in some caves new chambers and passageways continue to be discovered.



Crystal Cave offers one-hour tours. Bring a sweatshirt.

BLAZE CUNNINGHAM



LEDGE VIEW NATURE CENTER

CAVE OF THE MOUNDS

(left) **Lights dance on the sparkling Gem Room at Cave of the Mounds.** *(above)* **Squeeze through passages at Carolyn's Caverns at Ledge View Nature Center.**

Spelunking requires a minimum of equipment: A simple flashlight, gloves and a pair of knee pads for those moments when you'll be slithering from point A to point B. Wear long pants and a long-sleeved shirt or sweatshirt for warmth and to protect your skin from scrapes. In the larger, more established caverns equipped with lights and walkways, you need dress only for the cool temperatures.

A good place to start is **Ledge View Nature Center** in Chilton. The center offers two guided cave tours: A two-hour, narrated walk-in tour, and an "adventure tour" that will have you crawling on all fours and wishing you hadn't left those knee pads in the trunk. Walk-ins climb down ladders to reach two cave rooms. The adventure group shimmies down a seven-foot rock shaft, then crawls through "The Squeeze" — the entrance to Mother's Cave. You'll crawl and crab-walk more than 300 feet en route to two different caves. Ledge View offers cave tours Memorial Day through Labor Day on weekends only, at 1 p.m. For a schedule, or to make reservations, call (920) 849-7094 or visit www.dotnet.com/~ledge/ on the web.

Crystal Cave in Spring Valley first came to light in 1881, when local boy William R. Vanasse poked a stick through a leaf-filled hole and saw it disappear into the ground. More than 100 years later, spelunkers found a new section of the cave. Today the three-level Crystal is recognized as Wisconsin's longest cave. Stairs and ramps lead to lighted passageways and chambers. One-hour guided summer tours leave approximately every 30 minutes from 9 a.m. to 6 p.m. daily through Labor Day. (715) 778-4414. See www.cavern.com/crystalcave/ for a fall schedule.

The **Cave of the Mounds** takes its name from Blue Mounds — two blue hills that have long been landmarks in southwest Wisconsin. Blue Mound State Park covers the West Mound; the cave is located at the base of the East Mound's southern slope. Although the area around the cave was settled in the late 1820s, the cave itself wasn't discovered until 1939, when a dynamite blast from a nearby quarry revealed a limestone cavern more than twenty feet high. Dramatic lighting brings out the splendor and eerie beauty of the cave's ribbon stalactites, "lily pads," helectites and cave pearls. In 1988, Cave of the Mounds was designated a National Natural Landmark by the U.S. Department of the Interior. In summer, hour-long tours leave every 15 minutes from 9 a.m. to 7 p.m. daily through Labor Day. See www.caveofthemounds.com for additional dates, or call (608) 437-3038.

Other underground destinations to add to your spelunking itinerary include Eagle Cave near Blue River (608) 537-2988 and Kickapoo Indian Caverns in Wauzeka (608) 875-7723. If you like the idea of being more than six feet under, you're not alone: the Wisconsin Speleological Society invites you to learn more about caves on its website at www.caves.org/grotto/wss/ or by writing Bob Bultman, P.O. Box 151, Baileys Harbor, WI 54202.

Wisconsin, naturally

Rush Creek State Natural Area

Notable: A spectacular series of dry prairies along the Mississippi River bluffs where steep, limestone-capped bluffs rise more than 400 feet above the river, providing a stunning view of the valley below. Birdsfoot violet, compass plant, butterfly milkweed, Indian paintbrush and blazing star splash the prairie with color throughout the summer.

How to get there: From the intersection of highways 35 and B northwest of Ferryville in Crawford County, go north on 35 for 1.2 miles, then northeast on Rush Creek Rd. 0.5 miles to a parking area. Cross the road, and walk east on an old lane to the bluff top. Alternatively, go north on 35 for 0.8 miles from its junction with Rush Creek Rd. to a parking area and walk up the slope. *Wisconsin Atlas:* page 32, grid B2.