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SPECIAL INSERT

A SIGNAL OF AIR QUALITY

WISCONSIN NATURAL RESOURCES

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June 2008 \$3.50

TOP DOGS

THE POINT OF DOG FIELD
TRIALS AND HUNT TESTS

Wild rivers, scenic journeys
on the St. Croix and Namekagon

A glimpse of the rare piping plover

Mountain biking basics

A tale of two tigers

Swallowtail butterflies are easy to recognize, but the ranges of two similar species overlap in Wisconsin.

Anita Carpenter

High overhead, a big yellow butterfly with bold black stripes and two long black tails floats by. It drops in for a visit on a lavender phlox and with wings still fluttering, sips a nectar meal. If you approach for a closer look, the wary insect takes flight and all too quickly is up, away and gone.

The beautiful, black striped butterfly is easily identified as a tiger swallowtail. The challenge is, two tiger swallowtail species grace the open

woodlands and nearby fields in Wisconsin. Before 1991, both species were classified as the eastern tiger swallowtail *Papilio glaucus*. However in that year, lepidopterists decided that the slightly smaller northern form that had been considered a subspecies should be elevated to a separate species based on some biological differences. Thus the Canadian swallowtail, *Papilio canadensis*, was officially recognized.

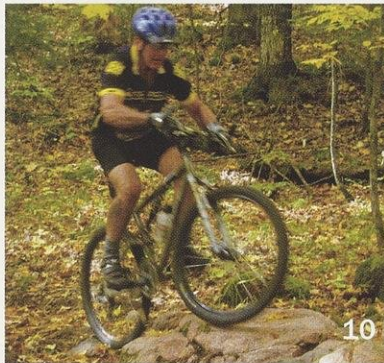
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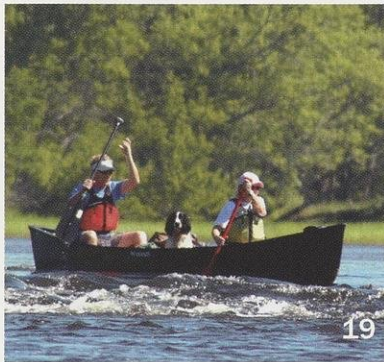
Through southern and central Wisconsin the eastern tiger swallowtail is a colorful summer beauty. In 1991, the Canadian swallowtail (see page 27) was recognized as a separate species. There are approximately 30 swallowtail species in North America, more than 600 worldwide.

WISCONSIN NATURAL RESOURCES

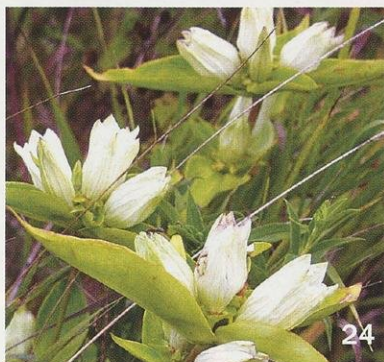
June 2008
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CAMBA



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SPECIAL INSERT

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31 Amble into summer

Traveler slaps on walking shoes to hike, stroll, sink some toes in the sand and dance the night away.

FRONT COVER: Hunting Retriever Champion and Upland Hunter Samantha Go Tiger Sam works a retrieve during a hunt test last August at DNR's Richard Bong State Recreation Area in Kansasville. "Sam's" job isn't over until she finds the downed bird, swims directly back to the blind and delivers it tenderly to her owners, Diane and Tim Kingsfield, of the WISILL Hunting Retriever Club. See our story page 4.

LARRY ANDERSEN, Racine

BACK COVER: Bohn Lake State Natural Area in Waushara County. (inset photo) Shooting Star, *Dodecatheon meadia*. For more information, or to order a guidebook to State Natural Areas, contact the State Natural Areas Program, Bureau of Endangered Resources, DNR, P.O. Box 7921, Madison, WI 53707 or visit dnr.wi.gov/org/land/er/sna.

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Dog training,
hunt tests and
field trials offer
opportunities
for camaraderie,
sportsmanship
and good days
afield with your
best friend.

Top dogs

German shorthaired pointer, Morgan, was a medal winner in a hunt test sponsored by the North American Versatile Hunting Dog Association. This association sets standards for 27 breeds of dogs that are bred and trained as hunting partners to point, track and retrieve on land and water.



Great field dogs are natural hunters bred to have the temperament, stamina and natural abilities for finding and alerting their hunting partners to small game, waterfowl and upland birds. They are eager to please and, like these English springer spaniels, also make excellent companions and house pets.

LORETTA BAUGHAN, AUTUMNSKYE LLC

Kathryn A. Kahler

Half a billion dollars is a lot of money by anyone's standards. The Rolling Stones pocketed that much from their most recent world tour, and Wisconsin sports enthusiasts feed the state's economy by that much in a year. It's also the amount U.S. hunters spend each year on their dogs. Because a good hunting dog is such an investment, it's safe to assume that a big portion of it goes into the three "T's" of gun dogs — training, testing and trialing.

A well-trained hunting dog is a valuable partner, helping in the search for game and retrieval of the harvest. Dog training and participation in hunt tests and field trials keep both hunters and their canine companions in shape year-round, and maximize opportunities for spending time in the field.

Dog owners don't have far to look for tools to help train their dogs to hunt. Books, magazines, websites and videos abound, all claiming to be the easiest, most effective or quickest way to assure your best buddy won't let you down in the blind. You can pay a professional

trainer, or join a dog club and go through an established training and testing program on your own. If you're of a more competitive nature, field trials may be the thing for you.

Any good training program begins with the basics, and for dogs that's good socialization and behavior at home, beginning with housebreaking, learning their name and basic commands like "no" and "come." Gradually, dogs are introduced to new commands, birds, guns and running with other dogs. Bird dogs are ultimately expected to be able to walk to heel, come

when called, sit or stay when told, track a scent, search for game, point, remain steady to flush and shot, retrieve on land and water, and be mannerly around other dogs.

Gun dog owners may also choose to participate in hunt tests or field trials to fine-tune their training efforts. These events are designed to simulate actual hunting situations and provide a measure of a dog's performance, either in relation to a set of standards (hunt tests) or compared to other dogs (field trials). In human terms, a dog that excels in hunt tests is like the high school senior with a high SAT score; a field trial champion is the valedictorian.

Alphabet soup

The world of hunt tests and field trials is a virtual alphabet soup of dog chow. Hunt tests are conducted under the auspices of the American Kennel Club (AKC), the United Kennel Club (UKC), Hunting Retriever Club (HRC), North American Hunting Retriever Association (NAHRA) and North American Versatile Hunting Dog Association (NAVHDA). Field trials are conducted under rules and regulations established by AKC, UKC, the American Field's *Field Dog Stud Book* (FDSB), National Shoot to Retrieve Field Trial Association (NSTR), and the Wisconsin Championship Hunting Series, affiliated with the National Bird Dog Challenge Association (NBDCA).

The AKC sets rules for tests and field trials for the pointing breeds, retrievers and spaniels. The UKC's field trial rules cover the pointing breeds, and its HRC affiliate governs hunting tests for retrievers. NAHRA hunting tests are only open to retrievers, but NAVHDA tests are open to 27 different breeds. Field trials conducted under the auspices of the American Field or NSTR are for pointing breeds.

These national organizations establish the rules, scoring systems, titling procedures and registries, but the trials are actually conducted by local, regional or state clubs. In Wisconsin, dozens of clubs conduct tests and field trials statewide, almost year-round.

The North American Versatile Hunting Dog Association (NAVHDA) is a



Young dogs are trained to retrieve dummies before they are field tested with actual game. Eventually retrievers are expected to run and pick up the dummy, return to the handler's side, sit and wait for the dummy to be taken from its mouth. (INSET) Both hunt tests and field trials simulate hunting situations. Dogs are taught to sit quietly in the blind or boat until after the hunters shoot, then are sent to retrieve downed birds.

national sporting dog organization with Wisconsin at its epicenter. NAVHDA's focus is on training and testing, as opposed to competitive field trials.

"The program is principally two-fold," explained Victor Connors, past president of NAVHDA International and founder of the Wisconsin River Chapter of NAVHDA, based in Dane County. "We have an educational program to guide and assist enthusiasts so their dogs will be well-trained hunting dogs before and after the shot in the field and marsh. We foster and promote ethical hunting and conservation of game.

"Secondly, we focus on hunt testing to improve the versatile breeds by promoting selective breeding of the best to the best."

Just what is a "versatile hunting dog?" NAVHDA's website lists 27 breeds, some with easily recognizable names like Brittany spaniel, German shorthaired pointer and Irish setter, and others with more continental names like Bracco Italiano, Cesky Fousek or Pudelpointer. More importantly, the term describes "a dog that is bred and trained to dependably hunt and point game, to retrieve on both land and water, and to track wounded game on both land and water." The NAVHDA

system keeps performance records on dogs that go through a series of tests geared for puppies through mature dogs, and makes these records available to breeders and buyers.

NAVHDA chapters — of which there are four in Wisconsin, with some 450 members — sponsor training and four kinds of tests. Dogs compete against an established standard rather than against each other, and are awarded Prize I (highest), II or III honors. The natural ability test evaluates a young dog's inherited instincts — nose, search, tracking, pointing, water, desire and co-operation. The utility preparatory test is a two-phased measurement of a dog's development midway through its training. In the water group, the dog must do a water search, walk at heel, show steadiness by the blind and retrieve a duck. In the field group, a dog is tested on searching, pointing, steadiness on game and retrieving. The utility test is the most challenging and assesses the fully-trained dog in all aspects of hunting on water and in the field, before and after the shot. The final invitational test is designed to evaluate an exceptional hunting dog for superior ability, versatility and obedience in a variety of hunting situations. Qualifying dogs

earn the title "Versatile Champion."

From tests to trials

Wisconsin field trials are of three types — pointing dog, retriever and spaniel. Dogs generally compete in amateur or open (professionals allowed) stakes, depending upon the status of their handlers, and in various categories according to the dog's age. Rules specify everything from how running order is decided, to the number of points awarded for placements, and what to do in case of bad weather. Pointing dog trials can also be either horseback or walking trials.

Charlie Blackburn, Edgerton, of the Four Lakes German Shorthaired Pointer Club put it all in perspective when describing pointing dog field trials:

"The events themselves are competitive hunts held under strict rules and regulations set forth by the respective governing bodies. In addition to satisfying the competitive nature of the participants, the trials provide a showcase for the hereditary ability and the level of training obtainable in these various breeds. These dogs are the stock behind the dogs that we choose as our hunting companions and provide us a more efficient method of finding and

harvesting gamebirds. This decreases the number of cripples that are lost, decreases the amount of random shooting that is done and therefore is a conservation and safety factor in the field."

Blackbourn explained that horseback field trials are timed events of 30, 45 or 60 minutes. Pen-raised birds, purchased by the sponsoring group, are planted on the course in areas where wild birds would likely be found. The dogs are run in braces of two. The handlers, judges (usually two), scouts (one for each handler), and the gallery are all mounted on horseback. The dogs are released and allowed to run the course, guided by voice commands of their handlers. The gallery, scouts and judges stay together and traverse the course at a slow pace. When the dogs are found on point, the gallery and judges are allowed to slowly ride over to the area to observe the birdwork. The handler dismounts and flushes the bird into flight. The dog is expected to exhibit the level of training required for that particular event.

"The judges evaluate the dog's ground performance, how it acts around birds, its style on point, and its retrieving ability (if required) and score each dog accordingly. Walking trials are run in a similar manner. Most field trials are held on public land though there are a small number of privately owned field trial grounds. A walking trial requires at least 200 to 250 acres while a horseback trial with a 30-minute course would need about 500 acres," Blackbourn said.

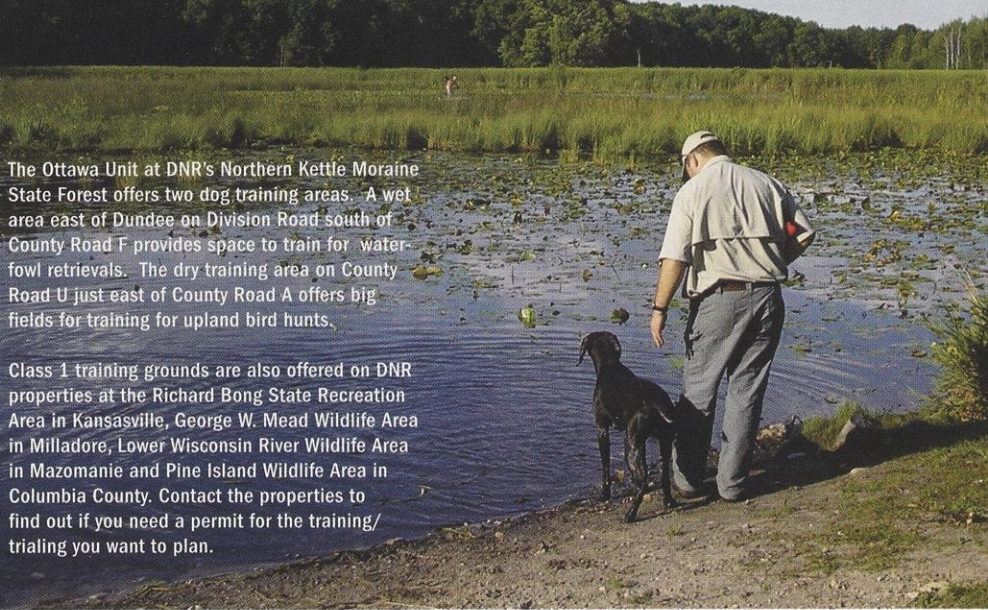
Besides more tangible qualities, dogs are judged on a range of subjective qualities as well. Hunting retrievers, for example, are judged on hunting style and desire, including such traits as sportsmanship, attitude and intelligence. Judges look for dogs that are happy and enthusiastic, that work with their handlers confidently as a team. If it looks to a judge as if a trainer has intimidated or pressured a dog so that it shows fear or uncertainty, the trainer will be seriously marked down or failed.

Hunting retrievers are also judged on how well-controlled they are — including marks for manners, obedience, steadiness, response to direction and delivery — how good their nose is, and

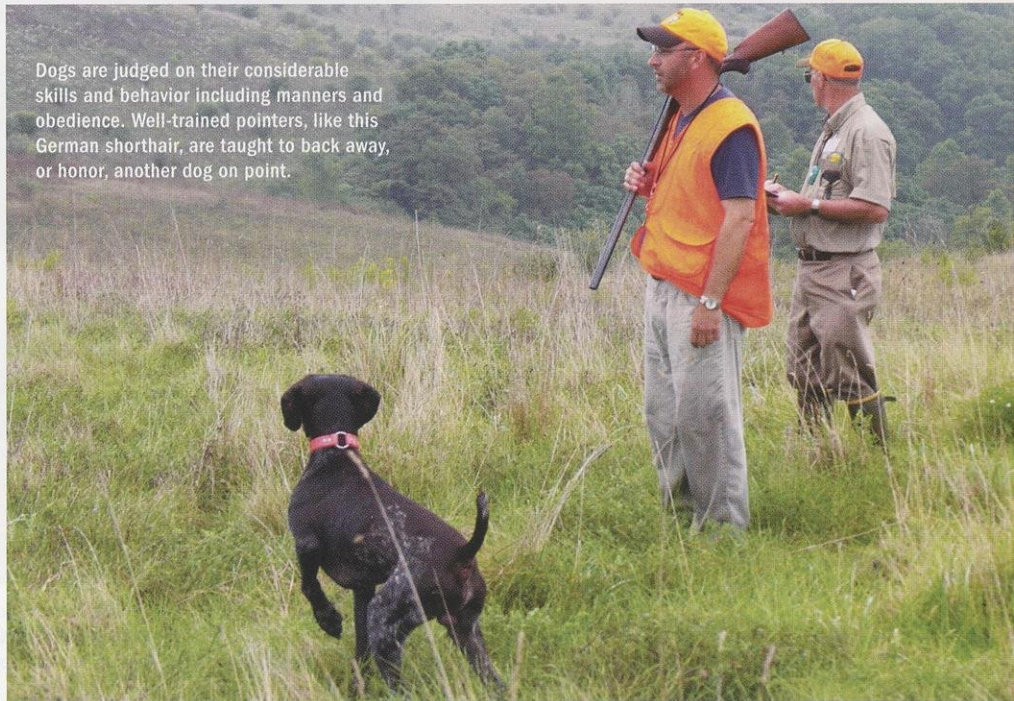
NORTHERN KETTLE MORAIN STATE FOREST

The Ottawa Unit at DNR's Northern Kettle Moraine State Forest offers two dog training areas. A wet area east of Dundee on Division Road south of County Road F provides space to train for water-fowl retrievals. The dry training area on County Road U just east of County Road A offers big fields for training for upland bird hunts.

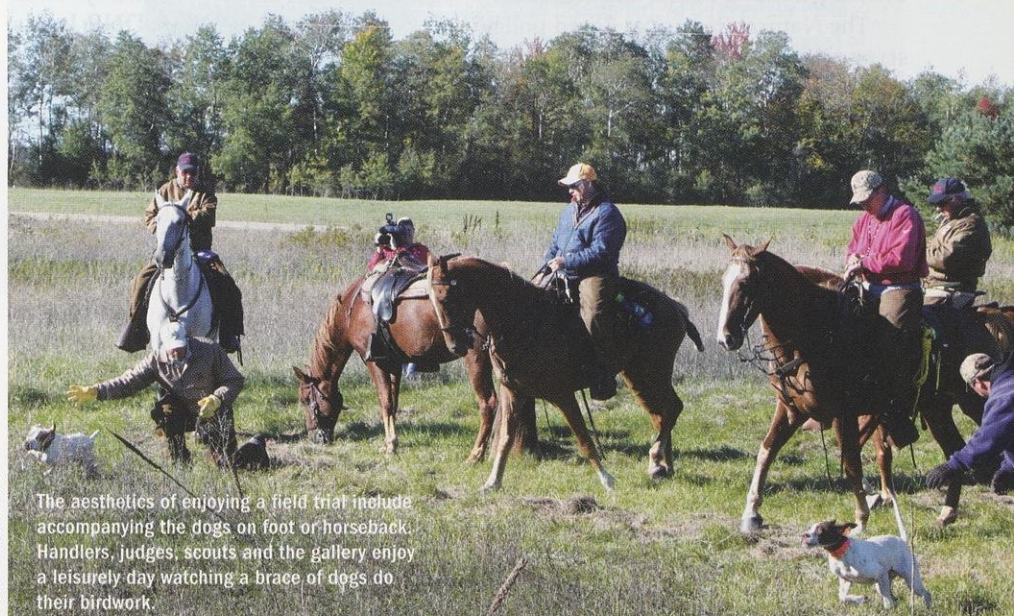
Class 1 training grounds are also offered on DNR properties at the Richard Bong State Recreation Area in Kansasville, George W. Mead Wildlife Area in Milladore, Lower Wisconsin River Wildlife Area in Mazomanie and Pine Island Wildlife Area in Columbia County. Contact the properties to find out if you need a permit for the training/training you want to plan.



Dogs are judged on their considerable skills and behavior including manners and obedience. Well-trained pointers, like this German shorthair, are taught to back away, or honor, another dog on point.



DAVE DULAK



The aesthetics of enjoying a field that include accompanying the dogs on foot or horseback. Handlers, judges, scouts and the gallery enjoy a leisurely day watching a brace of dogs do their birdwork.

ALLEN DUNBAR, DVM

how well they mark and remember where a shot bird falls.

A matter of policy

The Department of Natural Resources oversees Wisconsin's dog training and trialing regulations. In the 1930s, the State Game Farm at Poynette began a cooperative effort with the Wisconsin Association of Field Trial Clubs (WAFTC), an umbrella organization of 30 sporting dog clubs that offer field trials and training opportunities statewide. The game farm continues to provide member clubs with pheasants and quail to support training efforts.

"In the mid-1970s and through the '80s, hunting ethics became a priority with the Natural Resources Board," says Dave Gjestson, then DNR's liaison with WAFTC. "The board endorsed a policy encouraging hunting dog training and Dr. Don Didcoct (then WAFTC president) and I helped write a dog training book in 1977 that was the basis for clinics set up across the state. By 1984, more than 7,000 students had participated."

Bob Nack has been director of the State Game Farm since July 2006 and is currently the WAFTC liaison. Nack said DNR no longer conducts formal training clinics, but not because the sport is no longer popular.

"The dog training arena has really taken off since the program was first set up," he said. "Many of the groups have become well established and now hold their own dog training classes and seminars."

The Natural Resources Board policy strongly encourages the use of well-trained hunting dogs in the pursuit and retrieval of game and directs the department to designate and manage state-controlled lands for the purpose of training hunting dogs.

The department provides two types of field trial and training grounds. On Class 1 grounds, field trials are allowed year-round, except during hunting seasons. Class 1 grounds are designated at the Richard Bong State Recreation Area, Kenosha County; George W. Mead Wildlife Area, Marathon County; Lower Wisconsin River wildlife area — Mazomanie Unit, Dane County; Kettle Moraine State Forest — Ottawa Unit, Waukesha County; and the Pine Island



Dog trainers and owners enjoy each other's company and celebrate the accomplishments of their four-legged hunting buddies. Bob West congratulates Ron Stott whose two dogs earned medallions at a NAVHDA Invitational.

COURTESY OF RON STOTT



LARRY ANDERSEN, WISILL HUNTING RETRIEVER CLUB

A great day for a training session at DNR's Richard Bong State Recreation Area. This Class 1 training ground sees more than 3,000 dog training and field trial participants each year. Dog owners share the grounds with ATV riders, model rocket and model airplane enthusiasts, among other visitors.

Wildlife Area, Columbia County. Class 2 grounds are any other DNR lands designated on a dog training license approved by a local wildlife biologist, as long as the activity is consistent with property master plans and management objectives.

Dog trainers and trialers must purchase licenses for \$25; training licenses are good for three years and field trial licenses for one. All expire on December 31. A bird dog training license allows the trainer to release captive-bred quail, partridge, pheasants and mallard ducks under specified conditions. License holders must have the license in their possession while training, train only on the designated properties, tag all birds that are designated for the trial, and treat the captive birds in a humane

manner. The banding is done prior to release and prevents trainers from killing wild birds. The trainers also can't possess any unused bird bands while they are training in the field.

A bird dog trial license allows all participants to engage in an organized field trial sanctioned by a local, state, regional or national dog organization. They have similar restrictions as the training license, except that captive birds don't have to be marked before release (except for mallards).

Nack said under a Memorandum of Understanding with the WAFTC, the Poynette Game Farm provides clubs with old hens from the pheasant breeding stock.

"In 2007, we provided 500 hens in the spring and 270 in the fall," said

Use the Air Quality Index

Every day the Environmental Protection Agency (EPA) uses a color-coded scale known as the Air Quality Index (AQI) to report the amount of pollutants present in the air and the level of health concern.



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Air Quality Index

Index Value

Air Quality Descriptor

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Good

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Moderate

101-150

Unhealthy for
Sensitive Group

151-200

Unhealthy

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Good

51-100
Moderate

101-150
Unhealthy for
Sensitive Groups

151-200
Unhealthy

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GREEN means it is safe to proceed with your normal routine.

YELLOW means extremely sensitive people should limit prolonged outdoor exertion.

ORANGE means sensitive individuals should limit their outdoor activities. This group includes those with lung or heart ailments, elderly, children, and people who work or spend a lot of time outdoors.

RED means the air quality is unhealthy: everyone should slow down and take it easy.



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k. "WAFTC takes care of distributing them to the member clubs. The difference between the birds we provide and others that clubs purchase on private game farms is that ours won't be shot and any that are left over after the event must be released into the wild."

Field trials bring some challenges

Field trials are increasing in popularity in Wisconsin. They offer opportunities for improving hunting dog breeding, sportsmanship, camaraderie and outdoor recreation, but they are not without their challenges. At the Richard Bong Recreation Area, where 1,200 acres of the special use zone are dedicated to Class 1 field trials, managers try to balance this field activity with demands from other users.

Marty Johnson, the local wildlife biologist, explained there are field trials scheduled at Richard Bong every month from January through September. "Intermixed with them, we have activities such as model rockets, model airplanes and sometimes hang gliders on the runway," said Johnson. "Then in the middle of the dog training grounds we maintain an ATV loop, which has to be closed when training or field trials are in progress. On top of that, there's pheasant hunting from mid-October through December 31, which takes priority over everything."

Johnson said that in 2002, Richard Bong saw 3,260 dog training, testing and field trial participants in 40 different events throughout the season. The Tawa field trial ground also gets extensive use and Pine Island normally has about 20 to 25 formal field trials in an average year. The Mead and Mazomanie grounds don't see quite as much use, but still host events steadily from April through September.

"In recent years we've gotten better at addressing the needs of conflicting user groups. We have a meeting in January of representatives of all the groups where a calendar of events is set up. Maybe one group only needs to use a portion of the special use zone, like the retriever ponds at the western end, and another group can use another portion the same day."

Each Class 1 dog training ground has a "grounds association," or friends group, made up of dog clubs that use the properties and help with maintenance and special projects. In 2006, the Mazomanie Grounds Association surprised DNR managers with an extraordinary donation.


"Over the years the association has helped us out with several projects on the field trial grounds, with volunteer work days to clear brush, purchase of a few loads of gravel for a parking lot, that sort of thing," reported Bill Ishmael, DNR's area wildlife supervisor. "We had been discussing for years a contribution toward a fence along the edge of the trial grounds to keep the dogs from running onto the busy county highway. In the spring of 2007, we were delighted when the grounds association in a matter of a few weeks purchased the fence materials, lined up volunteers and equipment, and constructed nearly 3,800 feet of woven wire fence in one weekend. The project cost \$3,800 and involved about 250 volunteer hours, plus about 40 hours of donated equipment time."

Jim and Pat Gleash, Madison, have been active in the Southern Wisconsin Pointing Dog Club, the oldest bird dog club in the state, since 1967. Their three-day national trials, held at Pine Island Wildlife Area on Memorial and Labor Day weekends, are open to all pointing breeds and attract field trialers nationwide from the Dakotas to Mississippi and Florida.

Pat Gleash recalled that the Pine Island grounds association was instrumental in clearing, dredging, planting and putting in bridges on the property.

"We're still the ones who do the mowing and maintain and clean the buildings," said Gleash. "But it's worth it because we all love the sport. I wish you could see one of our weekend trials, with the kids riding their bicycles, riding their horses, playing with the puppies and going down to the river to fish or catch toads. It's a real family affair with a big picnic on Saturday night and fiddles playing into the night."

Most clubs do their part to assure their sport doesn't become a thing of the past, with special field trial youth stakes

and youth training and testing programs. They all promote good sportsmanship, safe hunting practices, ethical treatment of animals and a wholesome family atmosphere, assuring there will always be a place — whether in the blind or under the kitchen table — for the well-trained hunting dog. 

Kathryn A. Kahler crafts feature stories about outdoor activities and environmental topics from Madison.

What's in a name?



COURTESY OF ALLEN DUNBAR, DVM

Dogs who win field trials and score well in hunt tests get to add special titles before or after their names. FC (for Field Champion), AFC (Amateur Field Champion), VC (Versatile Champion) or CH (Champion) are prefixes that go before their name. Hunt test titles (like JH for Junior Hunter, SH for Senior Hunter and MH for Master Hunter) go after their name. This handsome English setter is CH Grouse Feather Mark, otherwise known as "Mark." He and his owner, Green Bay veterinarian Dr. Allen Dunbar, won the 2007 National Prairie Chicken Open and Amateur Shooting Dog Championships held each September on the Buena Vista Wildlife Area where there is a native population of prairie chickens. The dogs scent and point the birds and the handler fires a blank pistol after they flush to simulate a real hunting scenario.

Mountain Biking

The hills, twists, bumps and grinds are par for the course

Alisa Lopez

Anticipation grows as I firmly grasp the handlebars of my bike. I push down on my feet, hear the familiar click of my shoes locking into the pedals and set off down the dirt trail. The wind circles my face and tree branches wave as I pass by. The only sounds I hear are rattling leaves, the frolic of critters and the feverish beating of my heart. My eyes focus on the trail in front of me and there's no other place I'd rather be.

Mountain biking, in the simplest of terms, is riding a bicycle off-road. Although there are different categories of mountain biking trails and experiences such as downhill, freeride, all-mountain and urban riding, the most common style in Wisconsin is cross-country (XC). Cross-country trails differ slightly with the varied terrain, but are most often a mix of rough forest paths, grassy knolls and/or fire roads. Singletrack and doubletrack are commonly used terms to describe XC trails.

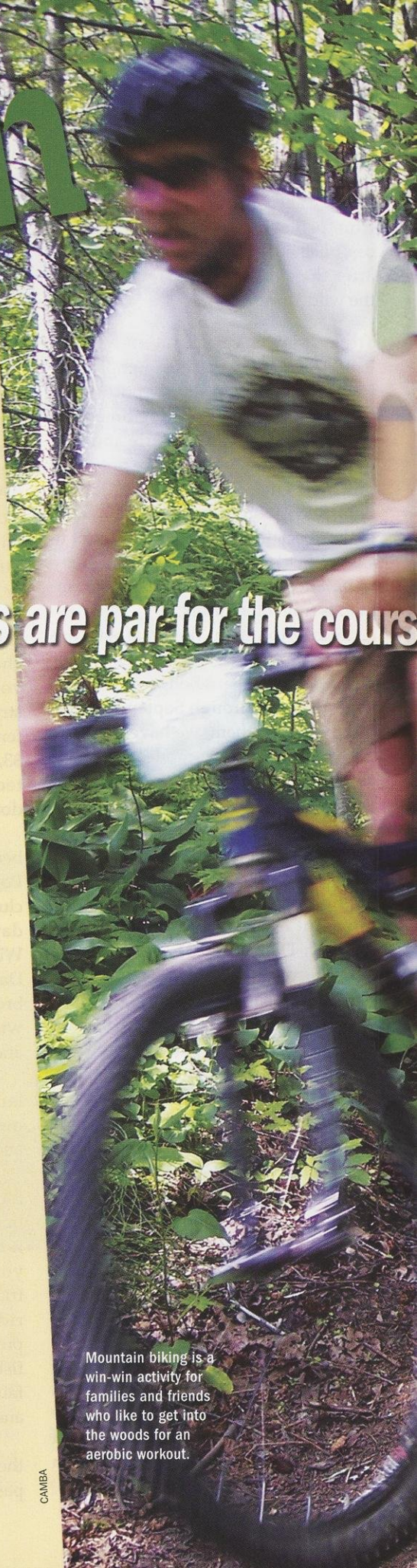
Mountain biking is an individual challenge, forcing you to rely on your own skills when out alone. Knowing how to repair your bike or care for a wound are necessary to avoid becoming stranded or worsening an injury. Although many riders choose to ride alone, you'll often see club or group



Each ride offers a fresh experience and new discoveries, says mountain biker Alisa Lopez.

ALFREDO SANTISTEBAN

CAMBA



Mountain biking is a win-win activity for families and friends who like to get into the woods for an aerobic workout.



When you go mountain biking in Wisconsin.

Before races and at occasional weekend get-togethers, bike clubs offer clinics and workshops for newcomers to the sport. Both young and older novices can gain the skills and confidence to negotiate the kinds of obstacles typically found on mountain biking courses.

rides, which provide safety and social support. In addition, many bikers turn to racing for social and competitive aspects and to improve their skills. Many races offer categories for newcomers or first timers, like the Learn to Race clinics at each event of the Wisconsin Off Road Series (WORS).

Before heading out on a trail and certainly before racing, it's important to have a good understanding of biking fundamentals and get some practice.

"Beginning mountain bikers should first be comfortable riding on paved roads and then dirt or gravel roads," says Ron Bergin, executive director for Chequamegon Area Mountain Bike Association (CAMBA). "It takes some adjustment to get used to narrower trails with bumps, turns and other minor obstacles. A solid foundation of good balance and basic bicycle handling skills is essential before venturing off onto more technical trails."

The majority of trails in Wisconsin offer routes ranging from easy to more difficult that might cover one to more than 30 miles and can take you 30 minutes to more than three hours to complete.

Mileage on a mountain bike trail is harder work than the same mileage on an open road. Distance and terrain will determine your average speed, and five miles on a technical, mountain bike trail will take considerably more time and energy than five miles on a paved road.

A trail's tempo will change regularly, just like a piece of music. Sometimes the pace is fast, uneven and beating hard, while other times it's a smooth rhythm. Each trail has a different composer and with time, each trail is transforming, adjusting to natural and human-made changes. What this means to the mountain biker is a fresh experience with each visit.

It's very important to check the trail map before you head out to determine the difficulty level and length of the routes. You can often find trail maps at DNR service centers if the trail is at a state park, at the trailhead itself, at local bike shops or online. Plan your route before you go and pay attention to whether facilities are located along the route for water refills or bathroom breaks. Although marked signs will often be available throughout the trail to illustrate different routes or facilities, sometimes they can be faded and hard to read, so taking along your own map should be common practice. Before

riding a trail for the first time, you should always scout the trail (off bike) to determine if your skills are sufficient for the challenge ahead. Also remember that the "music" of a trail can change over just a short period of time and new obstacles can be just around the corner. Be sure you are prepared and that your bike handling skills are up to maneuvering around unexpected terrain or you can just go slow!



CAMBA

Most mountain bike trails are designed as one-way loops that return you to the starting point. While there are no options to turn around and go back the way you came, many trails have loops of different lengths where you can choose a shorter route and make your way back to the trailhead. Know your physical limits and take your time building up to more challenging routes. Once you pass an opportunity to take a shorter route, your only choice may be to finish a longer route.

Trail obstacles come in many forms — rock gardens, logs or log pyramids, switchbacks, ladder bridges, drop-offs, slippery sand, steep grades, and other natural and manmade elements. It's perfectly acceptable to walk your bike over an obstacle if you're uncomfortable or, if the trail offers a second route, around it. Please keep in mind that riding your bike off a marked trail to avoid an obstacle or mud puddle, can damage the trail by widening it and destroying the vegetation that helps reduce erosion. You will often see bikers coming off the trail full of mud, but by doing so, they may have stayed on the trail and avoided damaging the surrounding area.

Several trails have stream crossings, which are unavoidable when trying to get from point A to point B. A bridge, ford or rock garden will lead you across the stream.

Mountain biking in Wisconsin can be a long season if the weather holds, with most bike trails open year-round unless they get really muddy or they are groomed for ski use in winter. May

through October is the prime time for mountain bikers, but you should always call ahead for current trail conditions. Keep in mind that if you arrive at a trail and it starts to rain, it may be closed at a moment's notice to prevent trail damage.

Some trails are dedicated for mountain bikers while others are shared with hikers, horseback riders or all-terrain vehicles (ATVs). When encountering other trail users, follow the DNR trail rules to maintain safety and respect while having a good time:

- Stay to the right of the trail
- Pass on the left
- Alert others that you are passing
- Control your speed
- Yield to uphill users if you are coming downhill

A family activity

Mountain biking can start a great family tradition. It gets kids off the couch and away from the TV and computer. It's a chance for quality time together doing something active. Local bike shops or biking clubs are great resources to find out what a child needs, depending on age, to get started mountain biking. You may find you can rent mountain bikes a few times to see if your family enjoys the experience. Also, shops and clubs can suggest easy trails for starters. Your clan can also catch the bug as spectators since many mountain bike races take place throughout the state. WORS has a kids race for riders 12 and under at almost all their events.

In addition, the International Mountain Biking Association (IMBA) is celebrating the fifth annual National Take a Kid Mountain Biking Day on October 4, 2008. Ask your local bike shop about any local events or opportunities.

Mountain bike types

For most Wisconsin mountain bike trails, you will need either a hardtail or a full suspension mountain bike. We'll describe the differences. Standard, rigid road bikes or department store bikes that don't have suspension and shock absorbers are not recommended for mountain bike riding.

"The best advice I can give anyone is to find a bike dealer who makes them feel comfortable," says Ben Milano, former Project One coordinator for Trek Bicycle USA. "Definitely stay away from department store bikes for this activity. The sticker price will be less, but consumers usually are not getting the warranty, customer service and knowledge level they would find at local bike shops."

A reliable bike shop will help you determine the right bike to fit you and your riding style. Here are some features to compare. The chart below can give you an idea of what type of bike you may need or want.

Given the financial commitment of purchasing a bike, it's important that mountain biking is something you know you'll really enjoy. If you have friends who mountain bike, see if they'll lend you a bike or see if a local bike shop offers rentals. Many shops allow you to rent a bike for a day or a weekend.

"I recommend renting or borrowing a bike and taking it out on the trails before you commit to buying," says Milano. "That way you're going to know if it's something you'd enjoy or if it's really not your thing. This also gives you a chance to try different bikes until you find one that is comfortable for you."

What to wear

When you first arrive at a trailhead, you may see riders in a plethora of matching outfits. Don't let this deter you. Some may choose to wear a bright bike jersey or skin-tight Lycra shorts. Here are a few suggestions when choosing your riding clothing and accessories:

Mountain Bike Comparisons		
	ADVANTAGES	DISADVANTAGES
FULL SUSPENSION Front and rear shocks	<p>Comfortable ride when dealing with rough terrain</p> <p>Feel less tired after the ride</p> <p>Saves your lower back and arms from hard jolt</p>	<p>Typically heavier than a hardtail</p> <p>May feel sluggish while climbing</p> <p>Sometimes higher priced</p>
HARDTAIL Front shock only	<p>Typically lighter in weight</p> <p>Great for climbing</p> <p>Helps you develop skills the correct way</p> <p>Sometimes lower priced</p>	<p>Can feel more "jarring" on the body</p> <p>May not be as comfortable as a full suspension bike</p>



A work day on the Blue Mounds trail. Biking clubs pitch in to work with park and forest managers to design, build and improve public mountain biking trails.

WILLIAM LORMANS

Helmet – A helmet is a must and the most important component of your outfit. This will keep your head safe from unexpected falls and tree branches that stretch across the trails.

Sport/weather specific sunglasses – The sun may not be too bright in some areas of the trails, but added protection on your eyes is great when loose tree branches or leaves are hanging into the trail.

Bike shorts/tights – These are normally made of Lycra and have a large pad of chamois in the crotch to keep moisture away, prevent chaffing and provide padding. If tight clothing isn't your cup of tea, many companies offer baggy shorts or pants specifically designed for mountain biking with Lycra and chamois built in for comfort and style. Or you can purchase underwear with a chamois built in to wear under a pair of regular shorts if you don't want to spend a lot of money just to try biking. Longer and slightly baggy shorts will work best.

Tip: Biking shorts are made to be worn without underwear. Wearing underwear under your bike shorts will result in wetness and rubbing against sensitive skin, which the bike shorts are designed to prevent.

Shirt – You can wear any shirt on your ride, but a good jersey with long or short sleeves, made of material that wicks away moisture, typically poly-

ester, will keep the sweat away from your body and keep you drier.

Gloves – Protect your hands with a pair of padded mountain biking gloves. These will help prevent calluses, forestall numb hands and are very convenient if you fall and need to catch yourself.

Shoes – The type of shoes you wear depends on the type of pedals you will be using. The most common types of pedals are either platform or clipless. Platform (flat) pedals are especially good if you are new to mountain biking. They will help you build good pedaling skills and you can bail off the bike quickly if need be. The downside is that you may lose your footing over rocky terrain or on steep downhills. Any solid outdoor shoe can be worn, but "skate" or "approach" shoes are recommended because the rubber bottoms provide a better grip against the pedal. "Skate" shoes, like those used by skateboarders, have soles with softer rubber that will grip the pedals the way a boarder would want a shoe to grip the skateboard. "Approach" shoes, like those used by rock climbers, are similarly designed to grip the rough rocky surface and provide better traction than a standard athletic shoe. Some platform pedals have metal cages that help provide a more secure fit between your shoe and pedal, but it can be difficult to remove your foot from the cage quickly.

Contrary to the name, clipless or clipped-in pedals have a mechanism or bracket that locks to a cleat on the mountain bike shoe. To engage the locking system, you simply point your toe downward on the pedal and your shoe will click into the pedal. To release your foot from the pedal, you need to twist your heel, which will unlock the clip, releasing your foot. This is a very popular setup among mountain bikers because it makes your pedal stroke more efficient and secures your footing over rocky terrain, wet conditions or steep downhills. The negative side of clipless pedals is the learning curve. It never fails that at some point, usually when there are a lot of people around, you'll forget that your foot is locked to the pedal. By the time you realize that you need to twist your heel, it's usually too late and you slowly fall over.

What to bring along

What you carry depends on how long you plan to be out. For a short 30 minute ride, a hydration pack or a water bottle, a map and your trail pass might be all you'll need. If you plan a longer ride or would rather be safe than sorry on a shorter ride, the following should cover most of your basic needs. Carry these in the pockets of a hydration pack, a backpack, jersey pocket or seat bag:

- Spare tire tube, miniature pump or CO₂, and plastic tire levers
- Energy bar, gel or snack
- Antibiotic cream and small bandages
- Personal ID and trail passes if needed
- Minitool – for basic repairs and bike adjustments
- Extra chain link and chain tool (if you know how to use them)
- Shock pump (adjusts suspension)
- Bug spray
- Cell phone (if you have one)

If you build it, they will come

DNR property managers, in conjunction with mountain bike associations such as the Wisconsin Off-Road Bicycling Association (WORBA) and the International Mountain Bicycling Association (IMBA), strive to build and maintain trails that are well constructed

and mindful of natural resources. Keeping trails in good condition can be a lot of work, so building in the right spot and in the correct way can save considerable maintenance time.

"Water is your number one enemy," says Brigit Brown, DNR state trails coordinator. "You need to be thinking of water flow when designing a trail. If the trail is flat, directly up a hill or directly downhill, water flows down along the trail, channels throughout the trail or just ponds and causes erosion. Initially, it will expose rocks and roots, or lead to a widening as users go around the water. Over time, water problems can severely scar the earth.

"Hydrologically invisible trails (trails that don't disrupt water flow) are an important goal," she says. "Following contours of the land and using native, on-site materials is the ideal situation, and allows you to create great trails that need lower maintenance and are enjoyable for trail users!" says Brown.

The DNR managers hired Trail Solutions of IMBA to design a five-mile connector trail at the Southern Kettle Moraine State Forest in 2003 and 15 miles of new mountain bike trails in the Northern Kettle Moraine State Forest in 2004. A Wisconsin state park system trail crew is constructing the trails at the Northern Unit. Two loops were completed in 2007 and the remaining 14 new miles are expected to be finished this year. For more details on the engineering considerations in building sustainable mountain bike trails, view a slide show on the web at dnr.wi.gov/org/land/parks/trails/council/minutes/sustainable_trails.pdf.

As with any property, more hands make the work go faster, and biking organizations pitch in where and how they can. Wisconsin chapters of WORBA raise funds for trail improvements, and volunteers provide work time to care for mountain bike trails; but the numbers of participants are low compared to the number of bikers who use the trails.

"Thousands of people ride the trails each year but only a few make time to get involved in trail work," says James Wamser, Southern Kettle Moraine chapter representative for WORBA. "If everyone gave even a couple of hours a year, it

would make a big difference. It may sound like a cliché, but if you're not helping, you don't get to complain. We're all challenged with balancing work and family, but if you have time to ride, you have time to work on the trail," he says.

If you can lend a helping hand on the trails, visit www.worba.org for more information on a WORBA chapter in your area, ask your local bike shop about participating clubs/organizations that are involved in trail work, or contact Brigit Brown at (608) 266-2183 or brigit.brown@wisconsin.gov. The trail time you invest today will reap benefits for years to come.

And when the trail work is done and it's time to enjoy your rides, you'll find that mountain biking takes you through the wonderful woods of Wisconsin and will bring many other great adventures your way. Mountain biking brought me strong muscles and strong determination, but it also brought me many unexpected pleasures. I found some of the best fish boils, glasses of wine, and one too many slices of apple pie on my travels statewide. I also discovered family inns, small-town shops, the beaches, lighthouses, the cozy cottages, the homemade ice cream, spring flowers and fall colors. I never went out looking for these things; they found my mountain bike and me. ❧

Alisa Lopez writes with DNR's Bureau of Education and Information.

On track with state trails

Mountain bike trails in Wisconsin state parks and forests:

dnr.wi.gov/org/land/parks/trails/mbike.html

Vehicle admission stickers are required in all state parks and state trail passes are required on some trails for riders 16 years and older. Purchase information is available at dnr.wi.gov/org/land/parks/fees/ — \$4 daily fee or \$20 annual pass. Trail maps are available at any state park entrance.

Trail conditions:

dnr.wi.gov/org/land/parks/regions/
or call the state park office for trail closings and current conditions.

Mountain biking trail safety and etiquette guidelines on state trails:

dnr.wi.gov/org/land/parks/trails/etiquette.pdf

Web links to mountain biking clubs and organizations

International Mountain Biking Association

www.imba.com

Bicycle Federation of Wisconsin

www.bfw.org

Wisconsin Off-Road Bicycling Association

List of clubs throughout Wisconsin can be found at www.worba.org

Mad FORCs: Madison's Female Off-Road Cyclists

www.madforcs.org

Chain Smokers (Madison area)

www.chainsmokers.org

Chequamegon Area Mountain Bike Association

www.cambatrails.org

Human Powered Trails (La Crosse area)

www.humanpoweredtrails.com

Chain Reaction Cycling (southwest Wisconsin)

www.chainreactioncycling.org

Capital Off-Road Pathfinders of Dane County

www.madcitydirt.org

Neillsville Area Trail Association and Neillsville Area Singletrack Inhabitants

www.worba.org/nasti/contact.html

Kinnickinnic Off-Road Cyclists

www.kinnioffroad.com

Chippewa Off-Road Bike Association (Eau Claire area)

www.chippewaoffroad.org

Point Pursuit (Portage County)

www.pointpursuit.org

Spokes and Folks Bicycle Club (Marinette & Peshtigo, Wisconsin; Menominee, Michigan)

www.spokesandfolks.com

Lakeland Area Mountain Biking Organization (Minocqua area)

www.lamboriders.org

Metro Mountain Bikers (Milwaukee)

www.metro mountainbikers.com

Rhineland Area Silent Trails Association

www.bikes-n-boards.com

Vernon Trails

www.bluedogcycles.com

WORS - Wisconsin Off-Road Series

www.wors.org

WEMS - Wisconsin Endurance Mountain Bike Series

www.wemseries.com

Piping up for plovers

Sumner W. Matteson



SUMNER W. MATTESSON

Avian biologists and a new generation of piping plover enthusiasts scope out the rare bird from a distance at Long Island last summer.

melodic voice. ■ What a nice surprise! When I was president of the Wisconsin Society for Ornithology back in 2000, and for years before and since, members had lively discussions about how to get more young people involved in ornithological pursuits. How wonderful that these two had expressed such keen interest in a bird quite near and dear to my heart.



SUMNER W. MATTESSON

A female piping plover spotted near Chequamegon Point. These seldom seen migratory shorebirds nest in small groups along Atlantic Coast beaches, the Great Lakes shore and along some rivers and prairie wetlands in the northern Great Plains.



Camouflaged eggs blend into the simple scrape of a nest in the windswept sands. For decades ecologists noted at most one or two pairs nesting in Wisconsin along the Lake Superior shore in the Apostle Islands. A few birds seen in recent years are likely extending their range westward from Michigan.



June 1998. Plover researchers erected an enclosure around the first piping plover nest discovered in 15 years. The pen gave birds ready access while keeping out potential predators. The area was also posted with signs asking human visitors to stay at least a quarter-mile away since piping plovers are extremely wary of any disturbance. Three chicks successfully fledged here.

SUMNER W. MATTESON

Piping plovers were hunted nearly to extinction for their eggs and feathers during the 19th century. With protection under the Migratory Bird Treaty Act of 1918 and later under the Endangered Species Act, the birds — through diligent conservation, management, and educational efforts — staged a strong comeback, culminating in a population resurgence during the 1990s.

Breeding piping plovers — now numbering several thousand range-wide — occur in three U.S. and Canadian regions: in the northern Great Plains from Alberta, Canada, south to Oklahoma; in the northern Great Lakes; and along the Atlantic Coast from Newfoundland to North Carolina. The Great Lakes population, however, has fewer than 80 breeding pairs with most of those in Michigan. Protection and monitoring of Great Lakes nest sites is of paramount importance to state and federal officials involved in piping plover conservation efforts.

Piping plovers are among Wisconsin's rarest breeding birds, numbering one to two pairs for decades, and reaching a record high of five nesting pairs — all in the Apostle Islands.

Spring migrants in Wisconsin arrive from the Gulf of Mexico during late April through late May, and nesting may occur from the third week of May to mid-June. Piping plovers prefer to breed on remote, wide sand beaches featuring patches of gravel with little or no vegetation. They typically lay four speckled, sand-colored eggs into a sand

depression or scrape. Both adults take turns incubating the eggs for 25-31 days. The young are born precocial, meaning within hours they can leave the nest to explore the beach and the water's edge, usually staying fairly close to the parents as they learn to feed on invertebrates. The young can fly when they are about three to four weeks old. They may migrate south as early as mid-July and are gone from the state by late October.

In winter, most piping plovers frequent coastal beaches from the Carolinas to the Yucatan with some wandering to the Bahamas and the West Indies. We know for sure that some of our Wisconsin piping plovers have spent the winter along the southwestern coast of Florida because young that we banded in the Apostle Islands have been observed on beaches there. These birds are smarter than we think: After the record snowfall in southern Wisconsin this past winter, Florida's sand beaches are looking better and better!

During summer, sand beaches in Wisconsin are prime get-away spots for human visitors, too, and plovers and people aren't a very good fit, particularly people with dogs. Nesting piping plovers are easily disturbed but often undetected as the birds leaving their nests never let people get close. When this happens, the temporarily abandoned eggs are vulnerable to intense heat or cooling winds. Fortunately, because all of Wisconsin's piping plovers currently breed in the Apostle Islands area on or near National Park Service

lands, birds and visitors can be monitored somewhat regularly, especially on Long Island and Chequamegon Point. U.S. Park Service staff in cooperation with the U.S. Fish and Wildlife Service and the Wisconsin Department of Natural Resources work as partners monitoring plovers with the nearby Bad River Band of the Lake Superior Chippewa Tribe and The Nature Conservancy. The Conservancy serves as a steward for a private landowner on Chequamegon Point.

Disturbance of breeding areas is an ongoing threat to establishing a secure population. To raise awareness about the plight of the piping plover, Clara Flood and Jesse Tysinger decided to give public talks and set a goal of raising \$300 for the species' conservation. The students contacted me to get presentation materials, and I e-mailed Mr. Flood a PowerPoint slide show I'd put together. "Use whatever you'd like," I told him. A few months later, I received word that Clara and Jesse had assembled their own PowerPoint presentation and established a nonprofit organization called Fundraiser for Endangered Species. With help from Mr. Flood, they opened an account at a local bank to receive donations. A February 2007 presentation to the Riveredge Bird Club in Ozaukee County netted \$100.

"I told the club all about the bird's habitat and the invertebrates that they eat," said Jesse. "And I told them about people stepping on their nests and the danger of driving vehicles on the beach. They wanted to know more, and if the birds had always been endangered," added Clara Margaret.

What do we know historically about the piping plover in Wisconsin?

The first records of their breeding in the state came from naturalist Ludwig Kumlien, who reported in 1891 that he shot piping plover young at Lake Koshkonong in Jefferson County. No evidence exists, but Kumlien and ornithologist Ned Hollister, who penned the first book (in 1903) on Wisconsin birds, stated that piping plovers "formerly bred sparingly about Lake Koshkonong and near Sheboygan on the lake shore."

U.S. Fish and Wildlife shorebird biologist, Robert Russell, estimated that historically 75-95 piping plover pairs likely occupied the Wisconsin Great Lakes' shores. He felt there was sufficient nesting habitat to support that many pairs.

Other Wisconsin naturalists contributed information about the bird's distribution and occurrence. The first recorded piping plover nest in Wisconsin was observed in 1923 by ornithologists Herbert Stoddard and Clarence Jung south of Kenosha in an undisturbed beach/dune complex. Stoddard's field notes lamented that the Kenosha site "seems to be the only remaining breeding spot on the Wisconsin shore of Lake Michigan, south of Green Bay. It is very doubtful whether this little colony will survive much longer, as the whole district is ripe for development, which indeed has already commenced."

Almost all 1,800 acres along the

shoreline and a mile inland was slated to be developed as a model city; a "gold coast" development, subdivision and golf course. Luxury homes were built on high dunes and protective barriers of concrete and stone erected along the shore. The venture failed when the Depression hit, properties were purchased in 1947 and the area was renamed Carol Beach Estates.

Piping plovers also nested down the shore throughout an area five to six miles south of Kenosha. Plovers may have continued breeding in the area until about 1938 before development pressures and recreational use doomed its use by these reclusive birds.

There were other breeding records at scattered Lake Michigan haunts through the years: a 1931 record and a suggested record in 1937 from Kohler-Andrae State Park in Sheboygan County; a 1940 account in Oconto County of a brood on a dredge spoil island at the mouth of the Pensaukee River; and two

breeding records from Door County in 1942 and 1948. In 2001, DNR Wildlife Manager John Huff and I located a nest at Seagull Bar in Marinette County — the first recorded pair nesting along the Wisconsin shore of Lake Michigan in more than 50 years. But breeding piping plovers have not returned to Seagull Bar.

Piping plovers nested intermittently from 1957-71 at Barker's Island in Douglas County until development and disturbance by off-road vehicles ended all nesting attempts. During the early 1970s, as many as six pairs of plovers nested on the Minnesota side of the harbor area. After 1977, the number of nesting plovers in the Duluth-Superior Harbor declined steadily for unknown reasons and were absent after 1986.

When I first started visiting the area back in 1974, Long Island was still a true island separated from Chequamegon Point by a narrow channel of water that I had to wade across. Lower lake levels



The author and University of Minnesota Researcher Lauren Wemmer band a piping plover chick on the Lake Superior shore, July 6, 1998. These plovers spend 55 to 80 percent of their year on their southern wintering range in Florida, the Gulf Coast and Caribbean. Their migration patterns are not well documented, so banding is a key step in tracking their movements. Protecting wintering habitat, limiting human disturbance, predator control and keeping off-road vehicles away from plover resting and feeding areas may all be important strategies in managing the recovery of these rare shorebirds.

and beach stabilization closed the gap in 1976, and the Long Island/Chequamegon Point area has been one long peninsula ever since. Ecologists classify it as a sand barrier spit: a really long, really narrow strip of land running parallel to the Lake Superior shore with a series of dune ridges and swales perched on bedrock. The area is continually shaped by sediment transported by lake currents and deposited by waves. Over the past 30 years, the beach-dune complex has changed due to vegetative succession, intense storms that battered the coast and changing water levels. Accordingly, locations of piping plover nests likely shifted as suitable habitat became available.

Piping plover nests were documented on these open sand-and-gravel beaches in 1974 and during 1978-1983, but none were recorded during 1983-98. Breeding pairs of these rare birds disappeared from the Duluth-Superior Harbor and the western shore of Lake Superior. Only 17 pairs were documented in the region — all in Michigan —



Call in

If you see a marked (banded) or unmarked piping plover, please report your sighting to one or more of the following: National Park Service Ecologist, (715) 779-3398, Ext. 211 (if observed in the Apostle Islands); WDNR's Bureau of Endangered Resources, (608) 266-1571; or to the University of Minnesota's Great Lakes Waterbird Research Program (www.waterbirds.umn.edu), which recommends reporting color band combinations (if present), sighting location and date. Record color band combinations seen from top to bottom on the left leg and then the right leg. The colors used in banding piping plovers in the Great Lakes region: dark blue, light blue, black, dark green, light green, yellow, red and orange. A silver U.S. Fish and Wildlife Service band is also used. Go to the website above for further information and click on "piping plovers."

and the Great Lakes population plummeted to only 11 breeding pairs by 1990.

Then, after a 15-year absence, a pair of piping plovers from Michigan returned to the Long Island/Chequamegon Point area in 1998. They scraped out a nest at the southern end of the island and four eggs were discovered on June 5th. A welded wire predator enclosure was installed over the nest and "no entry" signs were posted within a quarter mile of the nest. The pair successfully produced three young. Thanks to leg bands, we know these adult birds came from Wilderness State Park at the very northwestern tip of the Lower Peninsula of Michigan.

Why the sudden return? Most likely, Wisconsin benefited (and continues to benefit) from a fairly dramatic upturn during the late 1990s through 2002, when Michigan's piping plover population doubled to 50 nesting pairs. From 1995 through 2005, more than 600 young were produced by Michigan's breeding piping plovers.

Since 1998, National Park Service natural resources staff, directed by ecologist Julie Van Stappen and me, have been tracking piping plover presence and breeding pairs along the Wisconsin portion of Lake Superior. Usually no more than one to three pairs have been documented, but the last two years produced an upswing. In 2006, we found three nests along the shore and another on Outer Island of the Apostle Islands. In 2007, there were four nesting pairs on Long Island/Chequamegon Point, and a fifth on Outer Island. Almost all of these breeding birds originated from an area between Michigan's Beaver Island chain on the west and the Mackinac Straits to the east.

It was all as uplifting as the fund-raising activities of the young piping plover enthusiasts Clara and Jesse. In May 2007, they wrote to give me an update. "Our goal was to raise \$300," they said, "and look how well we did!" They had raised \$540.85 — every penny to be used for piping plover monitoring and research. In recognition of their accomplishment, I made arrangements with Park Service and Fish and Wildlife Service staff to ferry Clara and Jesse out

to Long Island. Their dads asked if they could go, too, and last June, Julie Van Stappen commandeered one boat, and Fish and Wildlife Service Fisheries Biologist Glenn Miller brought another.

On the island, we met up with Josh Bray, a summer helper hired to monitor plover activities and to make area visitors aware of the endangered birds. Josh told us that nesting pairs and young were scattered here and there and we had a hit-or-miss chance of seeing them since the young had hatched. We walked down the beach to a vantage point and set up a high-powered spotting scope 250 to 400 meters away, since we didn't want to disturb them. At first, we had no luck. Then, finally, we saw one of the adults scurrying along the water's edge, foraging for invertebrates. Our good luck continued, and soon we spotted two young nearby.

"Cool!" exclaimed Clara. "Oh, nice!" echoed Jesse, as they scoped out the family group. We watched them a while, then, while walking back toward the boats, we observed an abandoned egg at one of the nests. Glenn Miller, a stout fellow with tree-trunk arms and the appearance of a friendly Visigoth, offered to hoist Clara and Jesse into the enclosure to retrieve the lone egg. "Wow! Really?" they said, their smiles widening.

Very carefully, as if holding the most fragile thing in the world, they brought the egg to me. I slowly took it from them and placed it into a secure container, which was later mailed to a Fish and Wildlife research facility for analysis of the egg. The day had been a great success, and Clara and Jesse, with dads in tow, returned to the mainland happy and proud that their unique conservation efforts had been justly rewarded. Later, I received a wonderful e-mail from Rick Flood thanking all involved for making the trip so special.

For Julie, Josh, Glenn, and myself, the trip was especially rewarding knowing that the future of piping plover conservation looked brighter, bolstered by the unbridled enthusiasm and dedication of Cedarburg's Clara Flood and Jesse Tysinger.

Sumner W. Matteson is an avian ecologist with DNR's Bureau of Endangered Resources.

A wild ribbon of forest and water

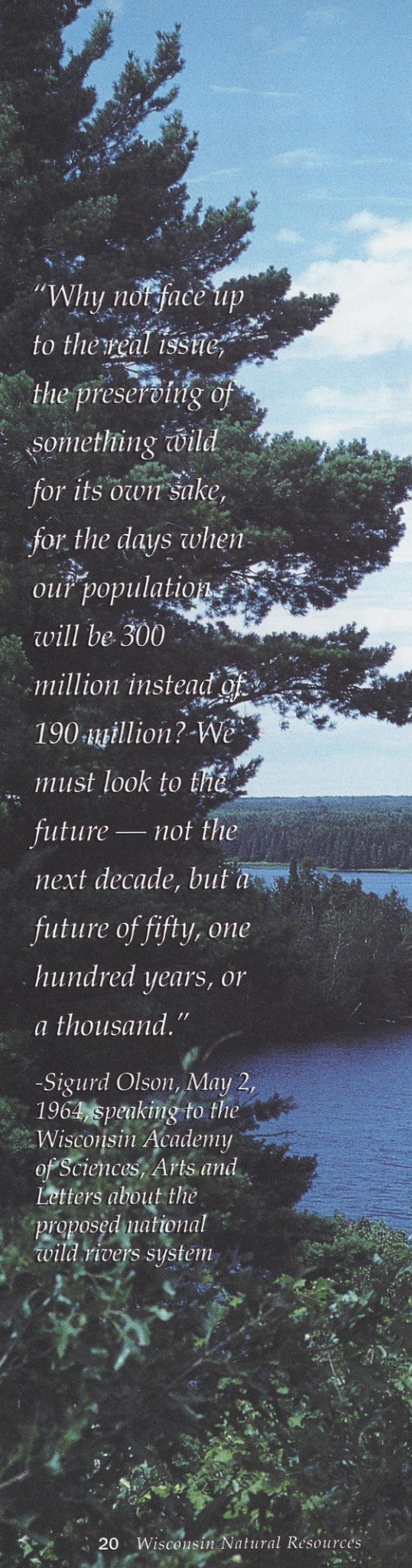


Two hundred and fifty miles of wild river corridor await exploration on the Namekagon and St. Croix rivers. These wild waters celebrate 40 years of scenic protection this year.

CATHERINE KHALAR

Dale Cox

Woven throughout our history are the tales of rivers and their people. As emblematic as any of our rugged waterways, the St. Croix and Namekagon are water trails to our past and future. Managed as the St. Croix National Scenic Riverway, this unique park is a living testament to the vision of wild rivers forged by Senators Gaylord Nelson and Walter Mondale when these waters were included among the original rivers preserved in the Wild and Scenic Rivers Act in 1968, forty years ago. Nationwide as of 2006, Wild and Scenic River designation protects more than 11,000 miles of 165 spectacular free-flowing rivers in 38 states.



*"Why not face up
to the real issue,
the preserving of
something wild
for its own sake,
for the days when
our population
will be 300
million instead of
190 million? We
must look to the
future — not the
next decade, but a
future of fifty, one
hundred years, or
a thousand."*

*-Sigurd Olson, May 2,
1964, speaking to the
Wisconsin Academy
of Sciences, Arts and
Letters about the
proposed national
wild rivers system*

The two rivers form linear paths of blue and green stretching over 250 miles in length. The federally protected St. Croix flows for over 25 miles in Wisconsin before becoming a border river marking the boundary between Minnesota and Wisconsin for almost 125 miles. Almost 100 miles long itself, the Namekagon is solely within the borders of Wisconsin. Together, they keep alive a fading memory of the primitive and pristine waters flowing from the bogs and wetlands of the Northwoods.

The richness of this surrounding watershed contributes greatly to the unspoiled nature of the rivers and is the source of all water that flows into the riverway. Nourishing the St. Croix is an expansive basin covering over 7,700 square miles that connects an intricate network of more than 1,500 springs, brooks and 16 major tributaries in Wisconsin and Minnesota.

Fed by these waters, the rivers pass through a midwestern tapestry of primitive Northwoods forests, scenic river bluffs, prehistoric archaeological sites, century-old farmlands, and thriving urban and rural communities.

Flowing past 13 counties, seven state parks and three state forests on its way to meet the Mississippi near Prescott, Wisconsin, the riverway is a unique partnership of planning and study managed by the National Park Service, with assistance from the states of Wisconsin and Minnesota, local counties and communities. The riverway, home to 40 species of freshwater mussels, including two on the list of endangered species, is considered to be exceptionally clean, despite its proximity to the Twin Cities.

The Namekagon

Rising in wetlands from small seeps, the Namekagon never gives the impression of being a "big" river due to the narrow nature of its watershed.

In the cool, clear waters that begin to flow together east of Cable, Wisconsin, the Namekagon is home to native brook and transplanted rainbow and brown trout. Farther down below Trego, muskies resembling submerged logs leisurely swim over the sandy bottom.

Campsites dot the riverside, inviting the visitor to rest or cast a fly in pools below long abandoned logging dams.

In the fall and spring, the rivers become classrooms, as local fourth grade students venture out with park rangers to learn about water quality, aquatic habitats, insects, fish, birds and mammals. Amid the laughter, children knee-deep in moving water begin to appreciate that this is a special place to be preserved.

As in any watershed, water levels near the headwaters of the Namekagon can drop off after spring runoff recedes. So at different times of the warmer seasons, floating the Namekagon can be a treat for both beginning and experienced paddlers. The final 30 miles near Spooner is a primitive stretch of water meandering through high sand banks, quiet marshes and even quieter forests. As the river twists and winds its way through changing scenery other river users are out of view, already around the next bend and downstream. Human noise wanes, then vanishes as the river follows the course it began thousands of years ago. On this part of the river, water flow remains steady through the fall, and this lower sweep beckons to be floated when the neighboring trees begin their fall color change.

Once surrounded by an immense forest of white pine, the water is now shadowed by a second growth of oak, maple and red pine. The area was opened to logging by a treaty signed with the Ojibwe tribe in 1837, and the pineries of the upper St. Croix watershed were heavily cutover to build a growing country. From the 1830s through the early 1900s, more than 12 billion board feet of lumber floated down the tributary rivers of the St. Croix to sawmills in Hudson, Wisconsin, and Marine-on-St. Croix and Stillwater, Minnesota.

The St. Croix

Rising on the south side of a natural divide that splits water north to Lake Superior (down the Bois Brule River) or south to the Mississippi River, the St. Croix is the shortest route between the two, as French fur traders learned from Native Americans when exploring the

St. Croix area in the 1600s and 1700s. A small two-mile portage is still accessible to modern day adventurers who travel this historic route.

Protected below Gordon Dam near Gordon, the first 20 miles of the river can be a rowdy, almost whitewater adventure, or a grueling low-water struggle, depending on the time of year. When the water's up, fields of glacial stone are covered with small ripples, and rapids dot the river mile after mile. An abandoned dam known as Coppermine requires a portage in low water, and great skill during high flow. Eventually the last major rapid, Big Fish Trap, presents a passage of thought and ability: the wrong choice can lead to a quick flip and a necessary stop to dry off.

After merging with the Namekagon, the St. Croix begins to widen and

slow. The river begins cutting down through native sandstone and limestone bedrock, to form ripples and small rapids in places. Smallmouth bass find home in this stretch of river well-known and beloved by anglers. Hiding among the rocks and boulders, the abundant smallies make an excellent opponent when captured on ultra-

light tackle or a fly rod: a river trip can create memories to last a lifetime.

While stopped to contemplate the water, visitors are sometimes surprised by caravans of youth paddling canoes, loaded with gear and garbage. Scout troops and summer camps conduct service projects along the river cleaning campsites and learn-

ing skills that are not taught on the Internet.

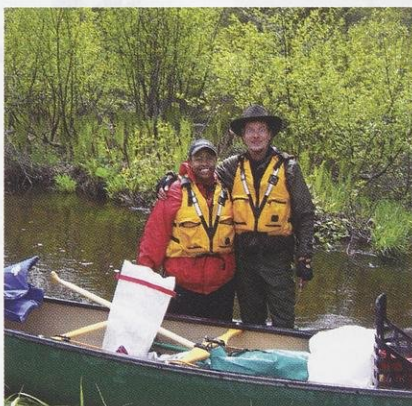
Below a hydroelectric dam in St.

Croix Falls, the river passes through the Dalles of the St. Croix, a unique gorge carved through an ancient basaltic lava flow. The site of numerous major logjams over one hundred years ago, the area today features some of the best rock climbing and one of the most scenic areas in the Midwest. Although not as remote as the upper stretches of the river, the high bluffs and wide water accompanied by numerous backwaters provide ample opportunities to see migratory birds in spring, summer and fall.

When the river reaches Stillwater, Minnesota, the location of numerous sawmills during the logging era, its current can become almost imperceptible. The final 25 miles of placid water before the confluence of the Mississippi River is used in summer by a wider range of recreational boaters, including anglers, houseboaters, water skiers and personal watercraft users.

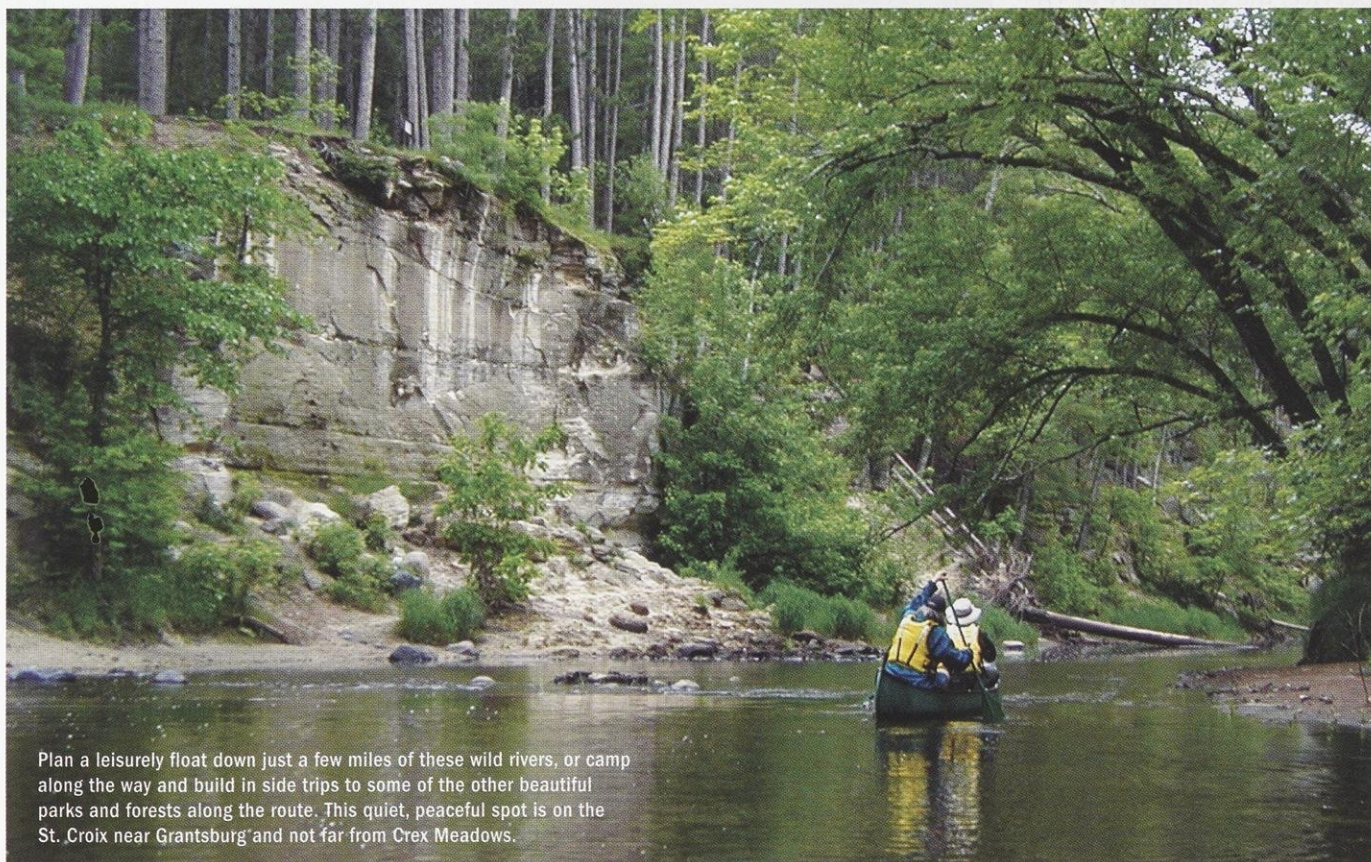
Take me to the river

So that all Americans may enjoy our natural heritage, the National Park Service cares for more than 390 special



The rivers run fast and cold in spring, but these canoers are still enjoying the trip after taking a quick dunking on the Namekagon.

NATIONAL PARK SERVICE



Plan a leisurely float down just a few miles of these wild rivers, or camp along the way and build in side trips to some of the other beautiful parks and forests along the route. This quiet, peaceful spot is on the St. Croix near Grantsburg and not far from Crex Meadows.

NATIONAL PARK SERVICE

places, from large properties such as Yellowstone and Grand Canyon National Parks, to lesser known but no less significant places such as Jewel Cave National Monument, Wilson's Creek National Battlefield, and St. Croix National Scenic Riverway.

Though protected by the Wild and Scenic Rivers Act and active management, the fate of the St. Croix and Namekagon, like other major rivers, is bound to what happens in the watershed. Development, soil erosion, and loss of wetlands in the surrounding basin eventually impair the riverway. Maintaining and enhancing the water quality in these rivers rests equally with the people who live and play there.

To increase awareness of this unique park unit, a celebration of the 40th anniversary of the St. Croix National Scenic Riverway and the Wild and Scenic Rivers Act will continue throughout this summer. The National Park Service, the University of Wisconsin-Extension and the University of Minnesota-Extension are collaborating to promote stewardship and understanding of the riverway. Support from the Wisconsin and Minnesota departments of Natural Resources, county conservation departments and many local organizations will offer programs and community festivals to celebrate these rivers.

Children throughout the watershed are involved in service projects which range from repairing shorelines and litter cleanups, to stenciling town storm drains that lead to local streams. In Burnett County, 4-H members are monitoring water quality in local waters which merge with the St. Croix River. These citizen scientists measure water clarity, total dissolved oxygen, temperature, flow, habitat and macro-invertebrates. The data they gather will be entered into a growing database maintained by the Wisconsin Department of Natural Resources.



Interpretive programs help visitors appreciate local culture as well as scenic beauty. National Park Service volunteer Debi Pomery led a workshop on Native American crafts and toys. Special excursions in big "war" canoes visible in the background add to group fun.



Plan ahead if you will be visiting and camping on holiday weekends. The Osceola Landing was a busy spot for launching trips and enjoying a long weekend last Fourth of July.

To learn more about how youth can become stewards of the Riverway or to explore Take Me to the River events including Big Top Chautauqua performances and local events, call (715) 483-2272 or visit www.wildrivers40.org.

For additional information on trip planning, visiting or volunteering for the St. Croix National Scenic Riverway, phone (715) 483-2274, or visit the National Park Service website at www.nps.gov/sacn.

Dale Cox is park ranger for the St. Croix National Scenic Riverway headquartered at St. Croix Falls.

Planning your visit

Brochures share a map and a sampling of some of the beauty, but they are a poor substitute for a visit to the St. Croix National Scenic Riverway website that is a veritable online travel agent for planning and booking visits and adventures on these waters. Visit www.nps.gov/sacn/planyourvisit/index.htm to get going. The site is chock full of helpful information to understand the nature of the riverway, explore different segments, check on river conditions, find outfitters and make plans for a visit. Park rangers at the two visitor centers will also help you plan a trip. Here are some practical tips to learn about camping, boating, visits and outfitting:

The riverway has two main branches — the 98-mile Namekagon River in Wisconsin and the 154-mile St. Croix River in Wisconsin and Minnesota. The rivers average about a half-mile wide along the corridor and shorelines contain a mix of undeveloped forests, public parks, private homes and riverside communities. Most people can comfortably paddle about 3 mph downstream with the current; but don't push it. Plan on floating about 15 miles a day or less and only expect to see a small segment of the riverway on a given trip.

Your headway will vary greatly depending on river depths and currents. Visit the portion of the website describing **river levels** to learn about conditions of each river segment that is commonly canoed. Smaller detailed section maps provide information to paddlers about potential hazards, dam locations and any portage requirements. The maps are organized by segment — Namekagon, Namekagon Dam down to Hayward Lakes and on the St. Croix above Riverside Landing, from the Gordon Dam to the CCC Bridge, from the CCC Bridge to Riverside, from Riverside to Nevers Dam and from Apple River down to Prescott. Canoeing conditions are described as "challenging," "good," or "excellent" depending on flow and time of year. The website contains links to water gauges on the river that provide real time water flow rates.

A section of the site called **outfitters** discusses launch sites and kinds of boat rentals available in different

segments. The riverway provides a wide range of on-water experiences from solitary canoe and kayak stretches to paddleboat rentals, charter cruises, paddleboat lunch/dinner excursions, angling, water skiing and the like. You can also find directions and contact information for canoe/kayak rentals, shuttle services, phone and e-mail addresses for water-related businesses on each river segment. Other listings offer leads to fishing guides if you want to book a float trip to cast for panfish, northern, bass or musky.

You will also find listings for launch sites and marinas in the **boating** section of the site, as well as descriptions of the river channels, obstructions and general features of each portion of the river bed. Launch sites are open year-round until freeze-up.

Picnickers will find shelters at local and state parks as well as at the Osceola Landing.

For those who want a variety of cultural activities mixed with natural beauty along the riverway, the main portion of the website lists **nearby attractions** in neighboring communities.

Practical tips abound for would-be campers. There are no fees for staying at the federal campsites along the river, but most cannot be reserved and it pays to claim a site earlier in the day. There are special fees for those planning large group gatherings like weddings, religious services, races and scientific research projects.

Camping is only allowed at established campsites. The National Park Service maintains more than 150 of these primitive shoreline campsites, the majority of which are only accessible by canoe or kayak. They are available at no fee on a first-come, first-served basis and there is a three-day maximum stay at any one location. Campsites are divided into "individual" sites designed for up to three tents and eight people, and "group" sites designed for up to six tents and 16 people. The federal primitive campsites have fire rings and picnic tables. Some have pit toilets and some offer drinking water wells that are open from late May

through September and closed the remainder of the year. Paddlers should be prepared to carry in their own potable water and use a water filter if needed.

The busiest time of year for camping tends to be early summer when the water is higher. Overnight use starts to drop off by early August. As with most recreational areas on holiday weekends, the campsites fill up fast. While campsites are located at fairly regular intervals along most parts of both rivers, there are fewer on stretches of the St. Croix that have extensive swamps. It is best to decide on several campsites where you might stop in case your first choice is full.

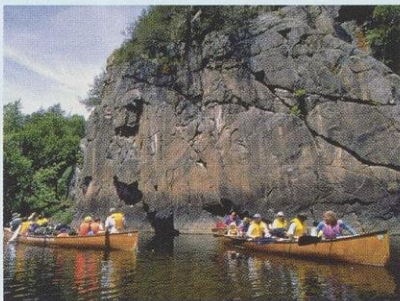
Camping is also available at state, county, community and private campgrounds adjoining the river and you can find information about these at the regional tourism offices listed at right.

New camping requirements are in effect for 2008 on the St. Croix River south of St. Croix Falls between Highway 8 at St. Croix (river mile 52.3) and the Log House Landing near Copes (river mile 39). Overnight campers in this segment need to obtain a free annual pass prior to camping. Toilets in this segment are only provided at Eagle's Nest Campsites; elsewhere

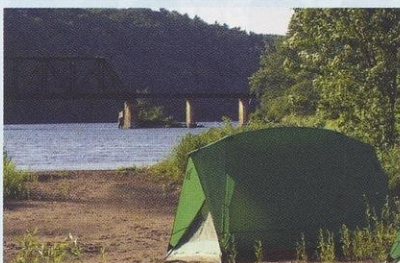
portable toilets must be packed in and out and used. Check online for details. All campsites require visitors to pack out all of their trash and prohibit glass containers.

The **Namekagon River Visitors Center** at Trego, (715) 635-8346, is open Thursdays through Mondays, 9 a.m. until 4:30 p.m. from Memorial Day through Labor Day as well as weekends in May and September. It is closed the remainder of the year.

The **St. Croix River Visitors Center** at St. Croix Falls, (715) 483-2274, is open seven days a week from April 19 through mid-October, 8 a.m. until 4:30 p.m. and is open those same hours on Monday through Friday the remainder of the year, except for federal holidays. That center has information counters, exhibits and a bookstore as well.



WILDERNESS INQUIRY



ROB ROSSI, COURTESY OF WILDERNESS INQUIRY

TOP: Outfitters along both rivers rent equipment and offer guided adventures and cruises.

ABOVE: Federal campsites are free, but can't be reserved and some require permits. Call or search online to learn if you will need to pack in water and portable toilets.

Other regional tourism contact offices are listed below from north to south.

Cable Area Chamber of Commerce

P.O. Box 217, Cable, WI 54821
715-798-3833
1-800-533-7454
www.cable4fun.com

Hayward Lakes Visitor & Convention Bureau

101 W. 1st St., Hayward, WI 54843
715-634-4801
1-800-724-2992
www.haywardlakes.com

Spooner Area Chamber of Commerce

122 N. River St., Spooner, WI 54801
715-635-2168
chamber.spooneronline.com

Wisconsin Indianhead Country, Inc.

(serving 22 counties in NW Wisconsin)
911 2nd St., Chetek, WI 54728
1-800-826-6966
www.wisconsinindianhead.org

Burnett County Tourism

7410 Co. Rd. K, No. 112
Siren, WI 54872
715-349-7411
1-800-788-3164
www.burnettcounty.com/tourism

Polk County Information Center

710 Highway 35
St. Croix Falls, WI 54024
715-483-1410
1-800-222-7655
www.polkcountytourism.com

St. Croix Falls Chamber of Commerce

106 S. Washington St.
St. Croix Falls, WI 54024
715-483-3580
1-800-467-5717
www.scfwi.com

Greater Stillwater Chamber of Commerce

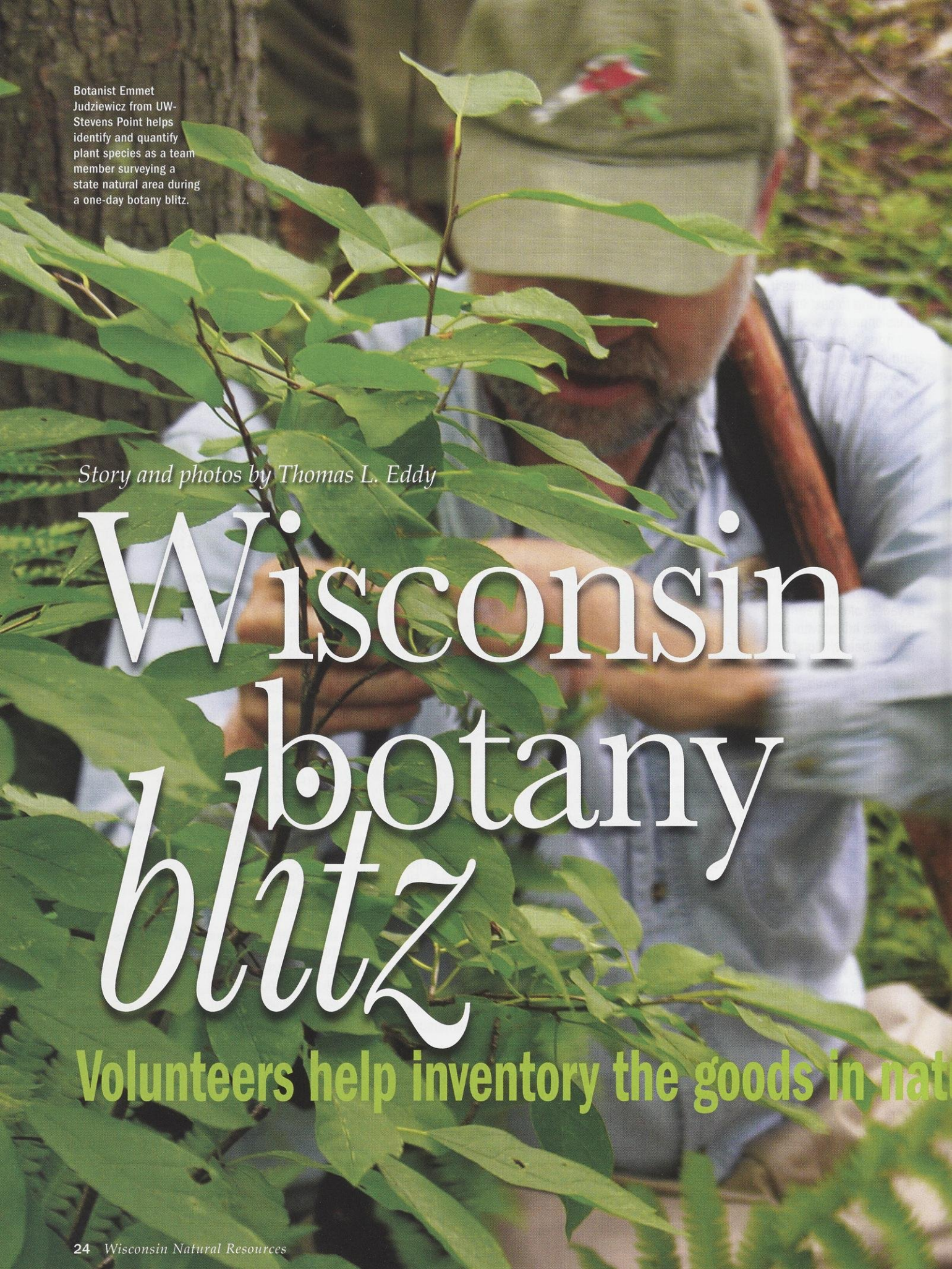
106 S. Main St.
Stillwater, MN 55082
651-439-4001
www.ilovestillwater.com

Hudson Area Chamber of Commerce

502 Second St.
Hudson, WI 54016
715-386-8411
1-800-657-6775
www.hudsonwi.org

Prescott Area Chamber of Commerce

237 Broad St. N.
Prescott, WI 54021
715-262-3284
www.prescottwi.com

A man wearing a green baseball cap and a light blue button-down shirt is looking down at a plant with green leaves. He is holding a wooden stick or tool. The background is a blurred forest scene.

Botanist Emmet Judziewicz from UW-Stevens Point helps identify and quantify plant species as a team member surveying a state natural area during a one-day botany blitz.

Story and photos by Thomas L. Eddy

Wisconsin botany *blitz*

Volunteers help inventory the goods in nature

DNR Regional Ecologist Armond Bartz keys out the tussocks, grasses and forbs at Trempealeau River Meadow in Buffalo County.



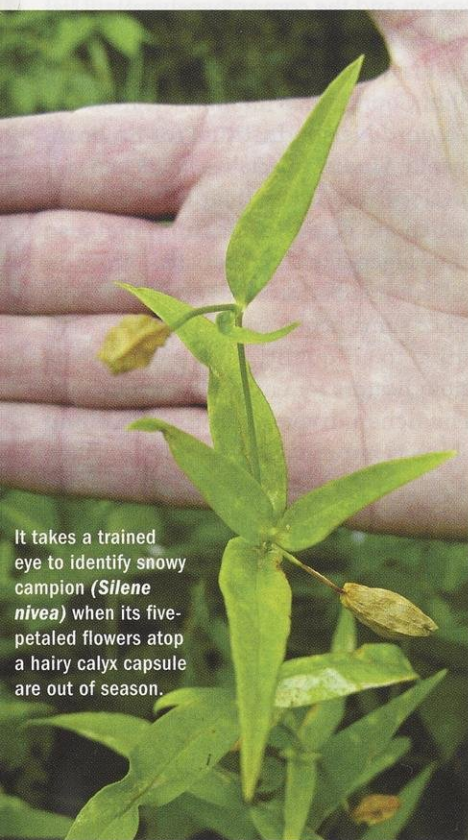
Botanists are an eccentric lot. Eyes trained on the ground most of the time, their attention is absorbed staring and stooping over shoots and flowers. They are thrilled to discover a rare bloom or even an adventuresome weed sprouting from the cracks of a paved parking lot that turns out to be a new state record. All the while they compile a mental list of what is growing underfoot.

One of Wisconsin's oldest support groups for those hopelessly fascinated by plants is the Botanical Club of Wisconsin — Wisconsin's Native Plant Society (BCW). Its members, professional and amateur alike, are inquisitive with an unpretentious passion to understand and protect native flora. Recently a handful of these BCW members collaborated and volunteered their time and expertise to evaluate the plant diversity growing at some of Wisconsin's less studied state natural areas (SNAs). These organized outings are referred to as "botany blitzes."

We know readers are familiar with the SNAs, which are featured on the back cover of each magazine issue. To date, Wisconsin has acquired or set aside 560 of these land parcels that are home to plants, animals, significant geological formations and archaeological sites. These locations are highly valued as reservoirs of natural and human communities that thrived in Wisconsin before the area was settled by European immigrants. More than 90 percent of threatened and endangered plants and more than 75 of the animals and insects on state threatened and endangered species lists benefit from SNA management.

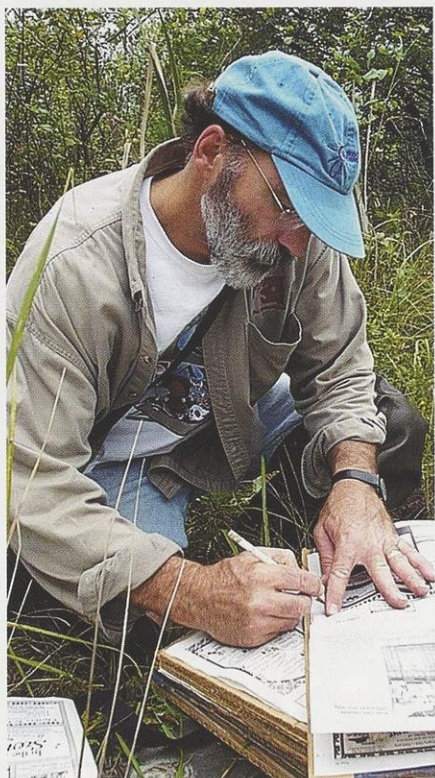
Protection alone does not mean that we have accurate inventories of the species found in these rare natural "warehouses." A botany blitz helps take stock of the natural riches of these rare sites. The information gathered provides a beginning point for future research, for comparisons in future years and a means to gauge how the ways we use land can also bring unintended changes to the landscape as parcels are developed.

Given limits of time, budget and personnel, the Department of Natural Resources routinely seeks assistance from individual volunteers and organizations to help manage outdoor spaces. The BCW stepped up and offered to conduct botanical surveys of some of the lesser known and more fragile SNAs. Starting from a list of potential sites developed by DNR Natural Areas Specialist Thomas Meyer back in fall 2006, BCW board members selected three sites for inventories during 2007: Red Banks Alvar (SNA #332), Trempealeau River Meadow (SNA #346) and Lawrence Lake (SNA #404). The three sites vary widely. Red Banks Alvar's flat limestone and shallow soils support low vegetation — shrubs, saplings and sedges — in addition to 25 extremely

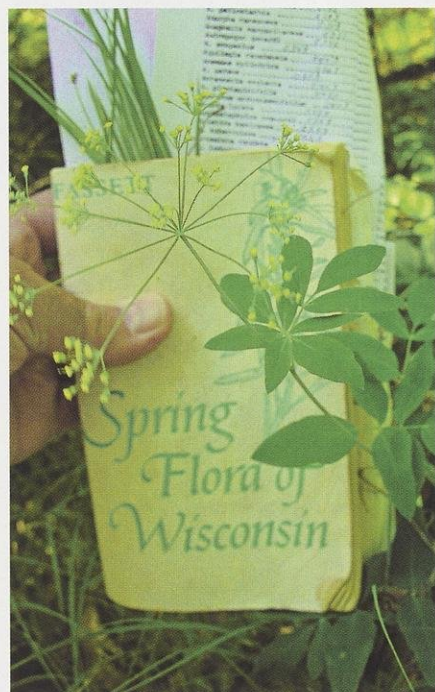


It takes a trained eye to identify snowy campion (*Silene nivea*) when its five-petaled flowers atop a hairy calyx capsule are out of season.

e's warehouse.



Author Thomas Eddy keeps field notes of the species and locations where plants are identified. He will collect a sample and send it with copies of the same information to a herbarium where the plant will be dried and pressed to form a "voucher specimen" for future research.



This is yellow pimpernel (*Taenidia integerrima*), a member of the wild carrot family, identified at Red Banks Alvar. Tracking plant locations, spread and range over time is useful in forming plant management plans to sustain diverse plants at the natural areas.

rare snail species. It is near the shore of Green Bay in Brown County, just a bit south of Edgewater Beach. The Trempealeau River Meadow is a wetland complex with tussocks, grasses, and forbs in old oxbows of the Trempealeau River over in the hilly driftless area northeast of Fountain City in Buffalo County. Lawrence Lake is a small, wild lake surrounded by wet forests and bogs in Langlade County.

During these botany blitzes, the observation teams visit each site at least twice at different times of the growing season to see what is blooming, prepare a flora report recording what plants were seen, collect specimens, summarize findings, recommend management steps to maintain the natural communities (like removing invasive species) and prepare descriptions that tell the public a bit about the natural features of each site. Before the blitz date, GPS coordinates of parking locations, access routes, and photos of the ecological communities are recorded to help give the volunteer BCW teams the lay of the land that will help plan their survey. Since many of the sites are not marked with big signs, the advance team also compiles driving directions to coordinate travel.

On the day of the blitz, depending on the number of participants, three to four teams of volunteers conduct a "walk through" of the property, evaluating as many ecological communities as possible in six to seven hours. The observers come equipped with field guides, hand lenses, field notebooks and sampling equipment aiming to compile a comprehensive list of plant species identified by scientific name and estimates of each species' relative abundance. They document each species, collect specimens and label each sample with the species' identification, location, collector's name and the herbarium where each specimen will be deposited. These voucher specimens are physical evidence of a plant's whereabouts on the site and become part of the botanical record for that SNA.

When rare species are encountered, the blitzers fill out a Rare Plant Field Report form. To collect these specimens, the BCW must have an SNA Research


and Collecting Permit or must be accompanied by one of the regional DNR ecologists. The botanists prefer to collect the above-ground plant parts but for endangered or threatened plants, they start by taking digital photos and then may subsequently return to the spot after the plant has been verified, an Endangered and Threatened Species Permit Application has been submitted, and permission granted to knowingly collect a specimen of these exceedingly rare plants.

Preliminary floral reports were submitted for Red Banks Alvar in June 2007, Trempealeau River Meadow in July 2007 and Lawrence Lake in August 2007. You can view the reports online at wisplants.uwsp.edu/BCW/news.html. These same SNAs will be visited once again later during a different growing season and the comprehensive plant list will be updated accordingly.

In addition to vascular plants, Botany Blitz Coordinator Jim Bennett from the Gaylord Nelson Institute for Environmental Studies specializes in lichen collection and identification. Lichens, which are classified as fungi that also have algae-like characteristics, grow on different substrates in varied habitats. Since some lichen species are very sensitive to air quality, they can serve as bioindicators for environmental quality. The lichen diversity at the examined SNAs is impressive — 44 related lichen species were identified at Green Bay's Red Banks Alvar, at least two of which were recorded for the first time.

The BCW collaboration with the Department of Natural Resources has already produced fruit. New distributions and range extensions for some plant species were discovered, new county records reported, and some of BCW's recommendations will be included in property management plans. For instance, at Red Banks Alvar, DNR property managers will work to aggressively eliminate the invasive species European buckthorn (*Rhamnus cathartica*) and Tatarian honeysuckle (*Lonicera tatarica*). Managers and partners will also be thinning tree density to promote a healthier mix of ground layer species, and conducting prescribed burns where possible.

Thomas Meyer also praised the help: "On behalf of the State Natural Areas Program, thanks to all of you who participated in the Botany Blitz this summer at Trempealeau Meadows State Natural Area. Your thorough documentation of the flora of this wonderful area is a welcome addition to the meager data we have in our files. Having comprehensive surveys of the plants and animals in our SNAs helps inform our decisions on how to protect and manage these sites. We look forward to working with you and the BCW in the future."

Throughout its 40-year history, the Botanical Club of Wisconsin has shown steady dedication to study of all types of native vegetation and flora. Members keep in touch through a newsletter and by participating in meetings, field trips, workshops and evening presentations. BCW also sponsors a monetary award to assist undergraduate research studies. For more information, visit the BCW at: wisplants.uwsp.edu/BCW/index.html, or mail inquiries to T. L. Eddy, at: 426 Walker Avenue, Green Lake, WI 54941. 

Thomas L. Eddy teaches for the Green Lake School District and at Marian University in Fond du Lac. He is vice president of the Botanical Club of Wisconsin — Wisconsin's Native Plant Society. And he continues to train his gaze on the ground.

WEB LINKS ABOUT WISCONSIN FLORA

Botanical Club of Wisconsin wisplants.uwsp.edu/BCW/index.html

Botanical Society of America botany.org/

Wisflora: Wisconsin Vascular Plant Species botany.wisc.edu/wisflora/

Robert W. Freckmann Herbarium wisplants.uwsp.edu/

Atlas of the Wisconsin Prairie and Savanna Flora botany.wisc.edu/herbarium/info/psatlas.asp

USDA Plants Database plants.usda.gov/

Lichens of Wisconsin mywebpace.wisc.edu/jpbennet/web/WisconsinLichens/

A tale of two tigers

continued from page 2


The two species look similar but have some subtle wing pattern differences. Insect size and location are a more defining distinction. The 3½-4 inch eastern tiger swallowtail flies throughout the eastern United States from the gulf states northward to southern Wisconsin. The Canadian tigers, 2½- 3¼ inches in length are the big creamy yellow butterfly of the Northwoods whose range extends into Canada where it is the most common tiger swallowtail present. The ranges of the two species overlap in central Wisconsin roughly along Highway 21. Look carefully if you are identifying butterfly species in this area as they don't recognize boundaries!

For visual clues, look for these tricky differences in their wing patterns. Particularly, look at the yellow band just inside the outer edge on the underside of the front wings (forewings). That's difficult to do on a butterfly that seems to constantly move. On the eastern tiger swallowtails, a series of disconnected yellow spots on the black band decorate the wing, but there are variations. The Canadian tiger swallowtail has a continuous yellow band. Also on the underwings, the black band along the inner wing margin is wider on the Canadian swallowtails. Additionally, it seems to me that the Canadian tigers have more black hairs covering their bodies and look hairier than their southern cousins.

Life histories of the two species are similar. Females lay spherical eggs singly on host plants. Eastern tiger caterpillars in Wisconsin eat cherry and ash, while Canadian tiger swallowtails prefer birch, aspen, willows and cherry. Between their early molts, caterpillars of both species look like bird droppings to protect themselves from predation. The mature caterpillars are a beautiful leafy green color with two black-centered yellow eyespots on a swollen thoracic segment. The larvae feed at night and rest during the day rolled up in leaf shelters to make them hard to find. The chrysalides hang in trees and overwinter.

Both species emerge from their chrysalides from mid-May through early June and are flying about the same time. The adult Canadian tigers only have one flight period from May into June and early July. Eastern tigers have two flight periods per summer. Individuals from the second brood are flying in August. So if you see a tiger swallowtail flying in later summer, you can be sure it is an eastern tiger.

When you are taking a close look at the eastern tigers, be alert for another interesting aspect of their biology. A small number of the eastern tiger females appear more black than yellow. Occasionally you will see a totally black swallowtail drifting across your path. The true black swallowtails (*Papilio polyxenes*) show a bright yellow band on the males and a hint of a yellow band on the females bisecting the wings. If you see a black swallowtail without such bands, it is likely the black female form of the eastern tiger swallowtail. It's pretty rare to see these, as the number of melanistic or black eastern tigers decreases significantly as you journey north from the gulf states up toward Wisconsin. In the southern states, these female black eastern tigers mimic the pipevine swallowtail that other animals find distasteful. The pipevines don't live this far north, and the number of black eastern tiger swallowtails found here is also very low.

Even though the swallowtails are big, elegant butterflies that are easy to spot, take the time to take a closer look to see if you can identify which species you are seeing. And if you can't get that close, just enjoy them for the grace and beauty they lend to our lives and landscape. 



MARY HOPSON

The Canadian tiger swallowtail (*Papilio canadensis*) is a little smaller than the eastern tiger. The Canadian tiger swallowtail raises only one brood during the summer while a second generation of eastern tiger swallowtails will mature during summer and hatch in early August.

Anita Carpenter keeps a close eye on creatures large and small near her Oshkosh home.

COMMENT ON A STORY?

Send your letters to: Readers Write, WNR magazine, P.O. Box 7921, Madison, WI 53707 or e-mail letters to david.sperling@wisconsin.gov

SENIOR FISHING FEES EXPLAINED

I notice that one provision of the fishing regulations is that people born before 1927 do not require a license. When I first saw this, I assumed that it was a moving date that meant that people of a certain age did not require a license. Now after watching it for several years, I realize that it appears to be a fixed date. My conclusion is that this is some sort of "grandfather" clause that may relate to the fact that the licensing regulation came into being in 1927 and that people who were alive then didn't need licenses. Do you know the history and purpose of this regulation?

Herb Gaede
Hudson

DNR's Tim Simonson, fisheries and lake sampling coordinator, provided the following explanation: Mr. Gaede is correct, 1927 is not a rolling date. Up through 1991, all residents over the age of 65 were exempt from purchasing a fishing license. Effective with the 1992 fishing season, the legislature removed that exemption from state law, meaning that everyone 16 years and older was required to purchase a fishing license. The 1927 date "grandfathered" all those anglers who were 65 and older in 1992 from the license exemption. Concurrently in 1992, a \$5 senior citizen fishing license was established for persons 65 and older. In 1995, that license was combined with 16 and 17 year-old anglers and re-named the

"reduced-rate fishing license," which is \$7 today, versus \$20 for the regular resident fishing license. The current law states: "No fishing license is required for any resident born before January 1, 1927, to fish subject to all other provisions of law."

HUMAN INTERVENTION CAUSED CORMORANT PROBLEM

The article on cormorants ("Cormorant conundrum," February 2008) was informative, but only to a point. I am well aware of the concerns that an "overpopulation" of a species, cormorants or other species, can bring about to the natural environment.

The article outlined the decline of these voracious predators from the 1950s-1970s, and the "help" they received from well-intentioned wildlife managers to recover to population numbers that have now maxed out certain breeding areas. Now, wildlife managers feel the need to diminish the breeding population, as was made clear in the article.

My questions are these: How was the initial determination to erect 1,269 artificial nesting platforms arrived at? Was a 5-, 10-, 20-year population growth calculated? How many birds can an area cover or a bay handle? I'm sure several other population questions are evident to your astute readers. Now that the numbers are deemed excessive again, human intervention is again called for. My suggestion requires less intervention: let nature set the pace for population growth cycles instead of feel-good, budget-minded bureaucrats. Why not gather up some "excessive" coyotes and reintroduce them to the areas in question, or perhaps bobcats or skunks? Then back off and

figure out what to do with all of it in 10-20 years.

This type of problem has similarities with the "excess" seal populations on the East Coast and on the Pacific Coast.

Patrick Mehr
Old Town, Fla. and Charlotte, Maine

DNR regional wildlife team leader Jeff Pritzl responded: Artificial platforms were developed to provide stable nesting habitat at a time when Wisconsin had very few cormorants. When cormorants nest in dying trees, the trunks typically fall over and these colonial birds then nest on the ground next to the fallen trees. At the time, the ground underneath these dead trees was not stable and was not conducive for ground nesting. The platforms maintained the nesting habitat that allowed several small colonies to remain.

That was not the reason for the tremendous population growth of cormorants on the Great Lakes as a whole or for cormorant concentrations on a few secluded islands in Green Bay and off the Door County coast. Cormorants are simply responding to habitat and forage that are available. They seek out relatively small islands that do not support potential predators, like raccoons, near areas where fish populations are abundant enough to support their needs and feed their chicks. Five Lake Michigan island colonies in Wisconsin support between 2,000 and 4,000 nesting pairs each. Inland colonies tend to have only dozens to a few hundred nests. On our largest inland lake, Winnebago, two relatively new colonies have quickly grown to over 500 and 1,100 nesting pairs.

You ask why in places where concentrations are now deemed

excessive, DNR does not just allow nature to set the pace for population growth cycles. In most inland waters that is exactly what we do, but the cormorant population growth in portions of Green Bay and Door County are not exactly "natural." The growth is caused by human-introduced factors to the ecosystem like the abundant exotic forage fish (alewives and round gobies, among others) in the Great Lakes or catfish aquaculture in southern states that are also near the cormorants wintering grounds. The tremendous increase in cormorant nesting effort has drastically changed some unique island plant communities to the detriment of other wildlife that depended on them. That raised concerns for commercial fishers and recreational anglers about the volume of fish eaten by cormorants.

You also asked why we don't just introduce predators like coyotes, bobcats or skunks to the islands where cormorant populations are growing and let these predator/prey populations settle out over a few decades. The small size of the islands where colonies exist would not support mammalian predators for an extended period. And it may prove devastating to other species nesting on these islands. Not to mention it would be inhumane treatment toward the predators that would likely perish themselves for lack of food after the birds left. Colonial waterbirds often abandon a site due to predator disturbance. This would not result in controlling cormorant numbers; it would just move them to another location. Further, predators would not have a regular means of coming to or leaving these small islands. This might set the stage for wholesale cormorant



decimation rather than more measured population destruction. This kind of stress would lead cormorants to leave the nesting colonies and disperse to other new areas, which is exactly what managers want to avoid.

PUFFBALL ENTHUSIAST

My husband, Norm, and I live in Kettle Heights Village, part of a retirement residential and rehabilitation facility nestled into the Kettle Moraine area of Wisconsin, near the shores of Big Cedar Lake. It's a wonderful place to live if one truly enjoys Wisconsin's outdoor environment and wildlife. I've been writing brief articles for the Cedar Citizen, our monthly community publication, for about five years. During that time I've especially enjoyed reading your magazine and found it to be a great resource for my column. I have suggested gift subscriptions for shut-in nature lovers. Anita Carpenter's articles have informed and inspired me to a great extent, and I've probably quoted them more frequently than others. I really enjoyed "Smoke from a bald giant" (October 2007) partly because I sensed Anita's enthusiasm and even more, because I have had that same excitement every year since we found puffballs growing in profusion here in our wooded kettles and moraines. I'd like to invite Anita to come visit us here at Cedar Community and enjoy a tour of our lovely natural environment.

Doris J. Alff
West Bend

ADD WINNECONNE TO EAGLE LIST

I just finished reading the story about the recovery of eagles here in Wisconsin ("Bald and beautiful," December 2007). On page 9 there is an inset story and map showing places where eagles can be observed easily. I would like to add Winneconne to that list. On the Wolf River between Lakes Poygan and Butte des Morts, Winneconne has been a winter home to many bald eagles over the past several seasons. They can be seen soaring over the river regularly in search of food, primarily the plentiful fish in the Wolf River and surrounding lakes. As a person in my mid-50's, I too remember the years when birds of prey were almost nonexistent and rejoice in their spectacular comeback. Hopefully, we and the generations to come will not take them for granted ever again.

Ken Mueller
Winneconne

PRAISE FOR NEW LICENSE SYSTEM PREMATURE

I've been a Conservation Patron for a number of years, and receive *Wisconsin Natural Resources* as part of my license. While I often enjoy the variety of the articles printed, consistently I enjoy the "Readers Write" portion. When the April 2008 issue arrived, I did my usual flip through, but was particularly interested in seeing what the readers had to say

concerning the February issue. I expected "License to Thrill" had brought some feedback. It all sounded good, but let's face it, there have been considerable problems in the licensing system in recent years. Examples abound, but in just the weeks since the article was published there have been issues. The "new and improved" touch screen license sales system was inoperable for nearly a week at the retailer at which I purchased my patron's license. The bonus turkey tag sale was a disaster (again). I expect budget issues and outsourcing are among the problems. I also expect there are many good people doing many good things. All the same, I believe it was premature to print an article such as "License to Thrill." Private sector organizations certainly would not be content with the level of service we've grown accustomed to. Statements such as "Our customers are going to love this system because it allows them to do business with us much more quickly" sound silly considering the reality of people waiting hours and days for the system to work. I can't imagine I'm the only one who found "License to Thrill" to be a bit off the mark.

Rob Kessen
Wausau

We acknowledge, Rob, that the licensing systems have had some glitches but assure you that the folks who design these

systems spend A LOT of time building and testing the systems for many months before they bring them online. They try to anticipate problem areas and test the equipment and supplies. They also train the licensing agents on how to use new equipment and procedures. Customer service staff were every bit as frustrated with problems that caused several hour delays during the initial shakedown period, and we are truly sorry that our customers suffered lost time and aggravation in purchasing extra turkey permits. At the start of the day they were handling less than 1,000 transactions an hour statewide and by the end of the day that had improved to better than 3,000 transactions an hour, but that sure does not make a customer feel better who has been waiting on line for two hours just to buy a permit.

On the whole, automation has enabled DNR to offer our customers many more opportunities to buy the permits and licenses they need to get outdoors much more quickly. The public no longer has to make the trip to a DNR station to get many of the licenses. They can get them at more than 1,500 licensing outlets, online at home or even over the phone when they are traveling to their recreational destination. Customer service staff is available from 7 a.m. until 10 p.m. seven days a week to answer questions in three languages — a big improvement over the past when customers had to come to our offices between 7:45 a.m. and 4:30 p.m., Monday through Friday to do business with us. We're grateful that you invest in the Conservation Patron program, and we will continue to try to make that a rewarding experience in as many ways as we can.

Comforts

Get ready to hit the road

After a winter of record snowfall in some parts of the state, we deserve a break and so does your pet. Spring is here, and summer is around the corner. It's time to grab a leash and pack up Max or Molly to enjoy the surf, sun, sights and sniffs that the seasons have to offer. Along with the fun, take a few precautions to keep all of you safe in the excitement to shake off those winter blues.

Pickups and your pooch

It is very dangerous, and in some states illegal, to drive with a dog or any other animal in the back of a pickup truck. Not only can flying debris, dust and stones cause serious injury, but animals may be unintentionally thrown into traffic if the driver suddenly hits the brakes, swerves, hits a bump or is hit by another car. Pets should ride either in enclosed cabs (in a

crate or wearing a seat belt harness designed for pets) or in a pet carrier protected from wind, sun and weather and firmly secured to the truck bed.



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When the sun isn't fun

Pets can get sunburned too, and your pet may require sunscreen on his or her nose and ear tips. Pets with light-colored noses or light-colored fur on their ears are particularly vulnerable to sunburn and skin cancer. Sunscreens (SPF should be 15 or greater), including those developed specifically for pets and those containing titanium dioxide as the active ingredient, should be used to prevent sunburn. For short-haired pets with skin exposed on their bodies, a t-shirt (children's or adult, depending on the size of the pet) can be fitted over the body. Sunburn treatments are based on the severity of the burn. Consult a veterinarian.

One for the day planner

It's some of the best dog-watching around. Featuring events such as a dog-owner look-alike contest and visits with dog-friendly organizations, the Mounds Dog Fest returns to Madison at noon on Sunday, June 8 at Willow Island, Alliant Energy Center. For more information visit moundspet.com or call (608) 825-9800.



Dog overboard

Not all dogs are excellent swimmers by nature. In fact, breeds with low body fat like greyhounds, Doberman pinschers and boxers can have trouble in the water. Older dogs may tire easily, and breeds prone to hip dysplasia may have difficulty swimming or getting out of the water. Pets can have great difficulties getting out of pools with disastrous results. Prevent free access to pools and always supervise a pet in a pool. Consider a lifejacket fitted for your dog when boating. Some of these jackets come with handles, which can make it easier to lift your dog out of the water.



BOATU.S. FOUNDATION FOR BOATING SAFETY & CLEAN WATER

Cats leaders as domestic pet rabies carriers

Keeping pets indoors has multiple benefits to pets and human health, including rabies prevention. Although people usually associate rabies with dogs, among domesticated animals in the United States rabies today is more prevalent in cats. Among wild animals, the disease is most often reported in skunks and raccoons. But other wild species including bats, foxes and rodents are carriers in Wisconsin.

Each year people bitten by feral or unvaccinated cats have to undergo expensive, repeated treatment to prevent rabies, which is almost always fatal if left undetected. To decrease the chance of exposure to rabid animals, veterinarians recommend that cats receive vaccinations, stay confined to your home or yard and be walked on a leash.

Roaming pets are more likely to be exposed to rabies than those supervised by their owners. To decrease the risk of rabies infecting humans, health agencies, including the Centers for Disease Control, recommend that children never approach or touch wild animals, pet stray animals or approach cats that they do not know well.

There are more than 90 million pet cats in the United States, the majority of which roam outside at least part of the time. In addition, millions of stray and feral cats roam cities, suburbs and rural areas.

Rabies is 100 percent preventable, yet at least 55,000 humans die from rabies each year around the world. Though deaths in the U.S. are now rare, 30,000-40,000 people annually are exposed to rabies requiring post-exposure treatment.

Rabies symptoms vary widely from animal to animal but in any animal, the first sign of rabies is usually a behavior change. The animal becomes either unnaturally withdrawn or unnaturally approachable and even aggressive. Staggering, paralysis and frothing at the mouth may also occur.

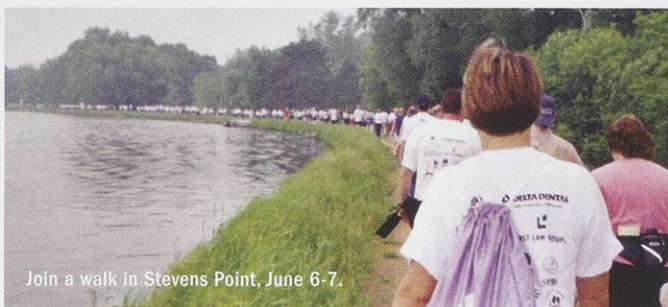
If you think your pet or farm animal has rabies, consult a veterinarian immediately and report to the local health department if any person has been bitten or exposed to the suspect animal. Be sure to keep the animal confined until it can be examined by a veterinarian. Try not to expose yourself or other people.



Traveler

Amble into summer

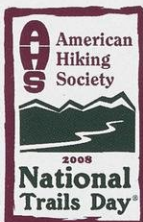
After months of slipping on ice and plodding through slush, puddles and mud, isn't it lovely to slip on some sneakers or sandals and just feel the breeze between your toes on a warm day? Traveler decided to celebrate the chance to follow a wooded path, sink into a bit of sand, feel light as a feather and waltz away a summer night.



Join a walk in Stevens Point, June 6-7.

Start with the whole family on a warm-up as **Kids Walk Wisconsin** on Friday evening, June 6, 5-8 p.m. at Pfiffner-Pioneer Park on Crosby Avenue in Stevens Point. The Central Wisconsin Children's Museum and local YMCA sponsor walks for youngsters under 10 and their whole clan along the paths bordering the Wisconsin River. It's a big weekend in Point with more than 2,500 visiting athletes for the **Special Olympics Summer Games** and an annual **Walk Wisconsin** marathon along the Green Circle Trail scheduled for Saturday, June 7. Don't feel obliged to do the whole route. Walkers of all ages will surely find plenty of company all weekend.

That's just as well, because Saturday, June 7 is **National Trails Day** nationwide when more than a million strong who believe their boots were made for walking will be hitting dusty trails, sprucing up hiking trails and enjoying special programs like the cleanup on the trails at our **Havenwoods State Forest** in Milwaukee scheduled from 9 a.m. to 3 p.m. along with a solar cooking demonstration for those who want to have a little culinary fun with the sun. Register in advance



for the mid-morning baking at (414) 527-0232.

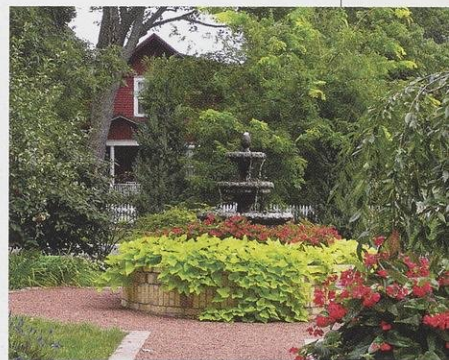
Or if you fancy a night stroll and some star-gazing, come **Search the Sky With the Naked Eye** at Kohler-Andrae State Park in Sheboygan, (920) 451-4080. Join star enthusiasts Joe and Mary Glover at 7 p.m. on Saturday, June 7 for an evening learning to read the night sky without the use of a telescope. Bring chairs or blankets and flashlights. Dress for cool lakeside temperatures and meet at the Sanderling Nature Center or at the bathhouse parking lot in case of inclement weather.

All the state parks, public ponds and lakes should be busy all weekend with **Free Fishing Weekend** (June 7-8) and free **Open House at state parks** on Sunday, June 8 when you can enjoy so many outdoor pleasures absolutely free of charge.

Feeling the urge to take off on a flight of fancy but your budget can't bear the airfare? No problemo. Wing on over to Kennedy Park, 4051 5th Avenue in Kenosha for an **Outta Sight Kite Flight** on June 7-8 from 10 a.m. to 5 p.m. With a little breeze and a little luck, you can get up, up and away with several hundred of your new friends enjoying the giant show kites and stunt kite flying exhibitions along the Lake Michigan shore. If you get the bug to set the

sheets to the wind for yourself, there will be plenty of colorful kites for sale, or you can make your own wind surfer at several workshops throughout the day. Contact (262) 653-4005 for all the breezy details.

For a toe-tapping good time, you can waltz the night away or twist-and-shout in Omro at the **Firemen's Street Dance** on Friday, June 13. No better way to ward off your friggatriskaidekaphobia (look it up!) than chasing away the goblins with some lively music and dancing. Not only is the street boogie a good time, but the proceeds will help buy equipment for the local fire department when they need to hot foot it to a local emergency. Omro is a few miles west of Oshkosh on Highway 21, (920) 685-6960.



Finally, slow down at month's end and take a little time to smell the flowers and gaze at the natural and manmade art blooming all around you. The **Garden Walk and Art Stroll** in Waupaca on Saturday, June 28, 9 a.m. to 5 p.m. might be just the ticket. Local artists show their wares and give demonstrations as you tour the landscaping at eight or more local homes in the downtown area. Contact the Waupaca Area Chamber of Commerce for more information (1-888-417-4040).

WAUPACA AREA GARDEN WALK & ART STROLL



The Kite Flight in Kenosha is festive and fun.



Wisconsin, naturally

BOHN LAKE STATE NATURAL AREA

Notable: One of a series of "tunnel channel" lakes formed where a glacial melt-water stream flowed beneath the glacier and scoured depressions in its wake. When the ice retreated, small lake basins in a linear arrangement remained. The shallow lake is resplendent with aquatic plant and animal species, and the surrounding uplands harbor restorable oak savanna containing shooting star, Canadian milk-vetch and puccoon.



How to get there:

Within the Bohn Lake State Ice Age Trail Area. From the intersection of County GG and V on the east side of Hancock (Waushara Co.), go three miles east on V, then one mile south on County B to a pull-off and trailhead on the east side of the road. The Ice Age Trail winds through the site. Visit dnr.wi.gov/org/land/er/sna/sna530.htm for a map and more information.



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