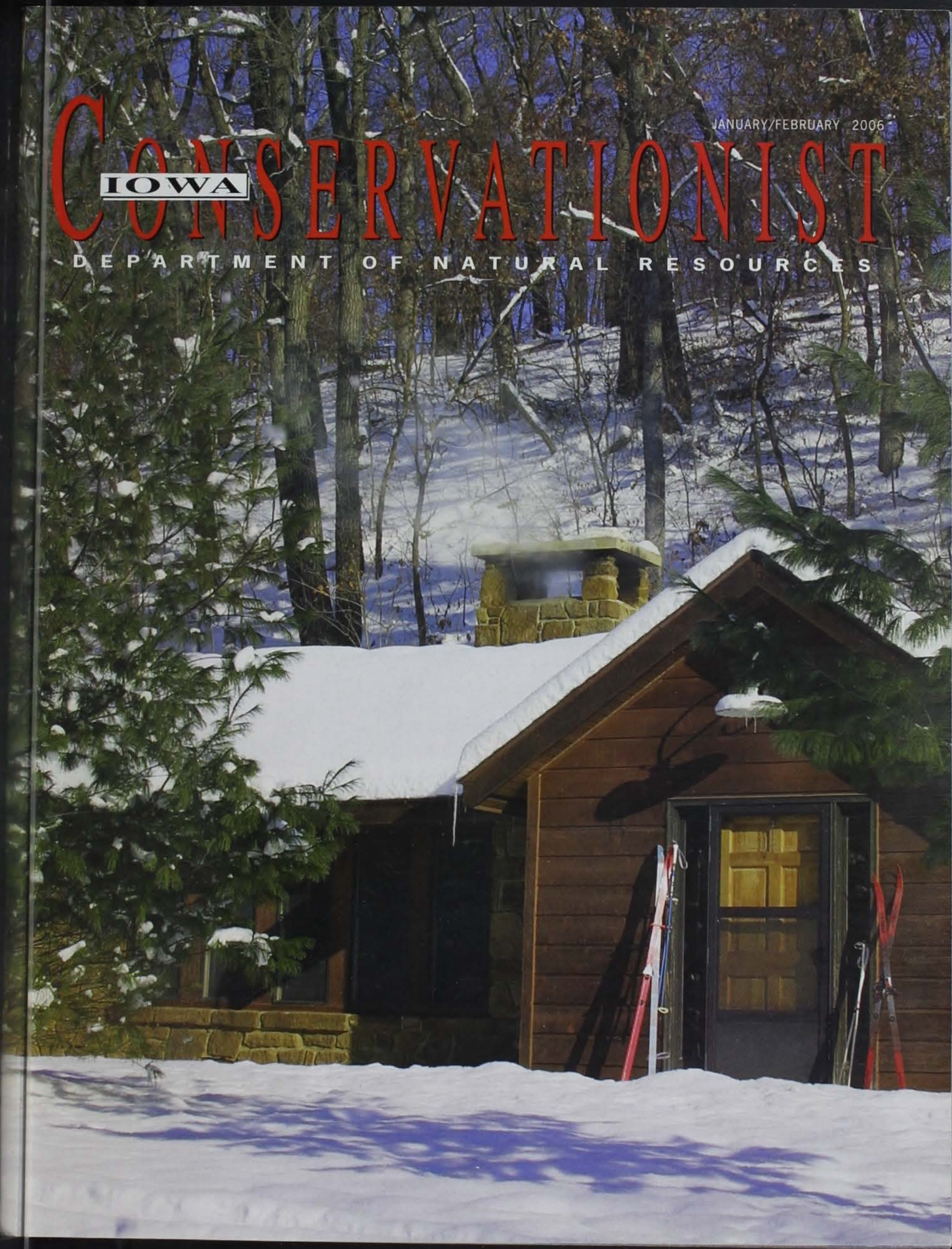


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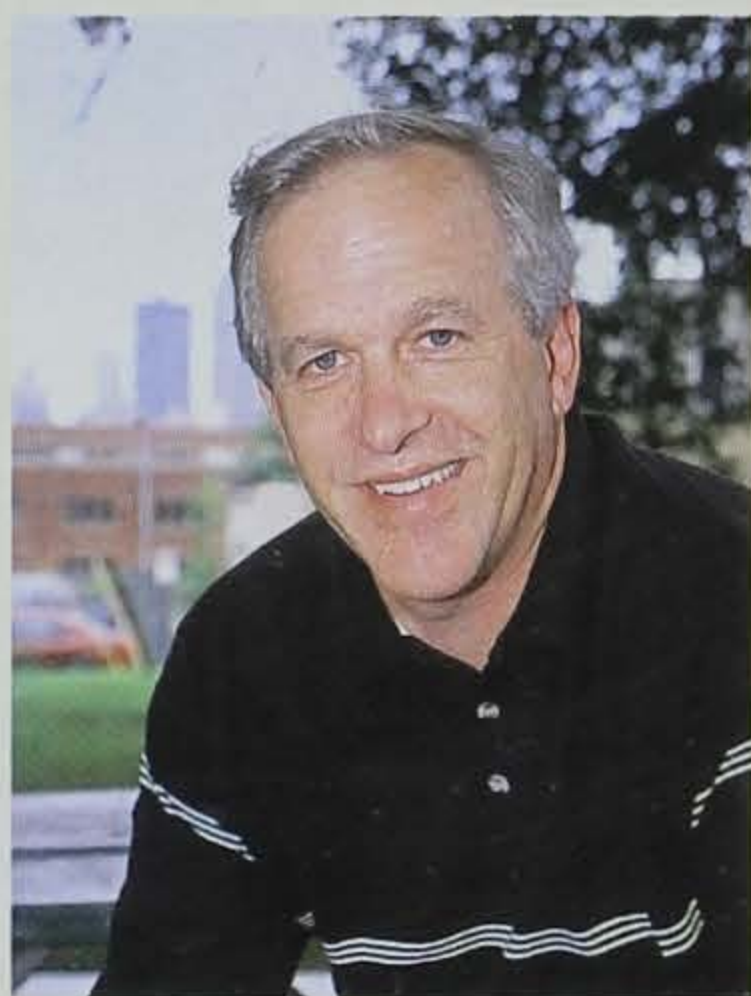
IOWA

DEPARTMENT OF NATURAL RESOURCES

JANUARY/FEBRUARY 2006



FROM THE DIRECTOR



Bob Castelle

The Discussion Continues

In recent months, the topic of improving water quality standards has generated a great deal of discussion and, admittedly, some controversy in Iowa. Anyone who has had even a passing interest in the Department of Natural Resources in the last several years is keenly aware that improving water quality has been our top priority. The standards are the cornerstone of our efforts as a state to improve water quality because they provide the very definition of what our goals need to be.

The discussion on water quality standards will no doubt continue and I want that discussion to be based on factual information and a clear understanding of the issue's importance. Therefore, I have decided to share with you the following letter that I have provided to

members of Iowa's General Assembly regarding water quality standards.

Dear Legislator:

Over the past few months, I know that you have been receiving letters (and probably phone calls) regarding proposals by the DNR to upgrade Iowa's water quality standards. I would like to take this opportunity to discuss this with you in a factual and, hopefully, understandable way.

Water quality standards are the basic tools used to determine just how clean Iowa's water will be. These standards function in much the same way as speed limits; faster (less protective) on interstates; slower (more safe) near schools. Different standards apply depending on the use of the water. There are standards set to protect for swimming (human contact) and different standards set for the protection of fish and other aquatic life. An important first step in establishing water quality standards is to properly designate the appropriate use of a river or stream segment. For example, a stream that could be used for both swimming and fishing should have standards that are going to protect for those uses. Another stream, one that cannot be used for swimming and fishing, should (and will) have less restrictive standards applied.

As the legislative session begins, one of the issues that you will hear about is whether a "bottom-up" or a "top-down" approach should be used to establish water quality standards. The "bottom-up" approach, applied to water quality standards, begins with an assumption that the stream is not intended for swimming or fishing until actual assessments are done to prove otherwise. A "top-down" approach begins with the premise that the stream should be protected for fishing and swimming until actual assessments show that the water does not deserve that high level of protection. Put another way, the top-down approach starts from a point of placing a high value on the water body (reflected by a strong standard) to ensure safety and adjusting from there if justified and appropriate. The "bottom-up" approach starts with minimal standards until the proof shows that more should be done.

The current rulemaking underway uses the "top-down" approach. We have adopted this strategy for two basic reasons: 1) the Clean Water Act requires it and 2) it is the right approach for Iowa's citizens, aquatic life and for our waters.

Director's Message

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FRONT COVER: PINE LAKE CABIN
BY CLAY SMITH
BACK COVER: SHED ANTLER
BY ROGER A. HILL



Clay Smith

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Director's Message

cont. from page 2

Another issue that I believe you have been hearing about quite forcefully deals with the monetary impacts of this proposal. The \$960 million estimate prepared by the DNR is a worst-case scenario, based on assumptions that all communities on streams where standards may change will have to upgrade treatment facilities to meet new water quality standards. On the basis of some assessments that have recently been completed, we now know that not all dischargers will have to change their current systems. Additionally, our proposed rules require us to go back through a rulemaking process whenever a stream classification is changed in order to allow the public and the legislature to have input. In fairness to all, the cost estimates prepared by DNR staff were directed to capture the worst case. I firmly believe that the final price tag will be

much less than our estimates for worst case impacts.

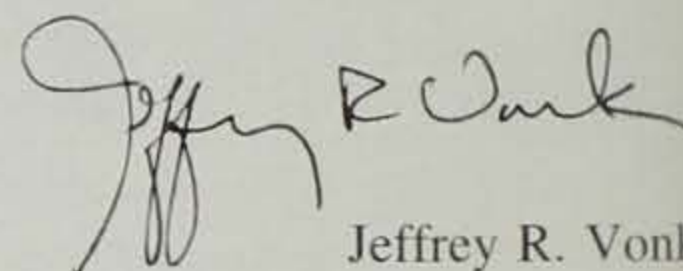
In addition, those that are using economic scare tactics to oppose the rulemaking are choosing to ignore the fact that there are ways to reduce costs through variances if costs become too excessive for some communities. For many of our very smallest towns, it can be fairly easy to show that some of the costs of full compliance are out of line economically. Also, in some small communities, we have approved the use of alternative technologies for treating wastewater that are more cost effective. Greenville, Truesdale, Arispe, Tingley, Ayrshire, and Shannon City are all recent examples of small communities that the DNR has been able to work with to improve their wastewater treatment at a reasonable cost.

As you know, improving water quality is the biggest natural resource challenge we face in Iowa. This standard setting process is a crucial step

in clearly establishing the goal.

What I hope is understood by all is the fact that ignoring this duty is not an option. Iowa's water quality standards need to be revised to come into compliance with the federal Clean Water Act. Many states have elected to fight this battle in the courts. In my opinion, it would be foolish and a waste of scarce resources to allow this discussion regarding Iowa's water quality to be decided by a judge. The courts have consistently ruled that standards need to be established that assume water quality must be protected at the highest levels that can be economically and environmentally justified. Our rulemaking lays out both the strategy and our plans to accomplish this.

I look forward to visiting with you in person about this soon.


Jeffrey R. Vonk

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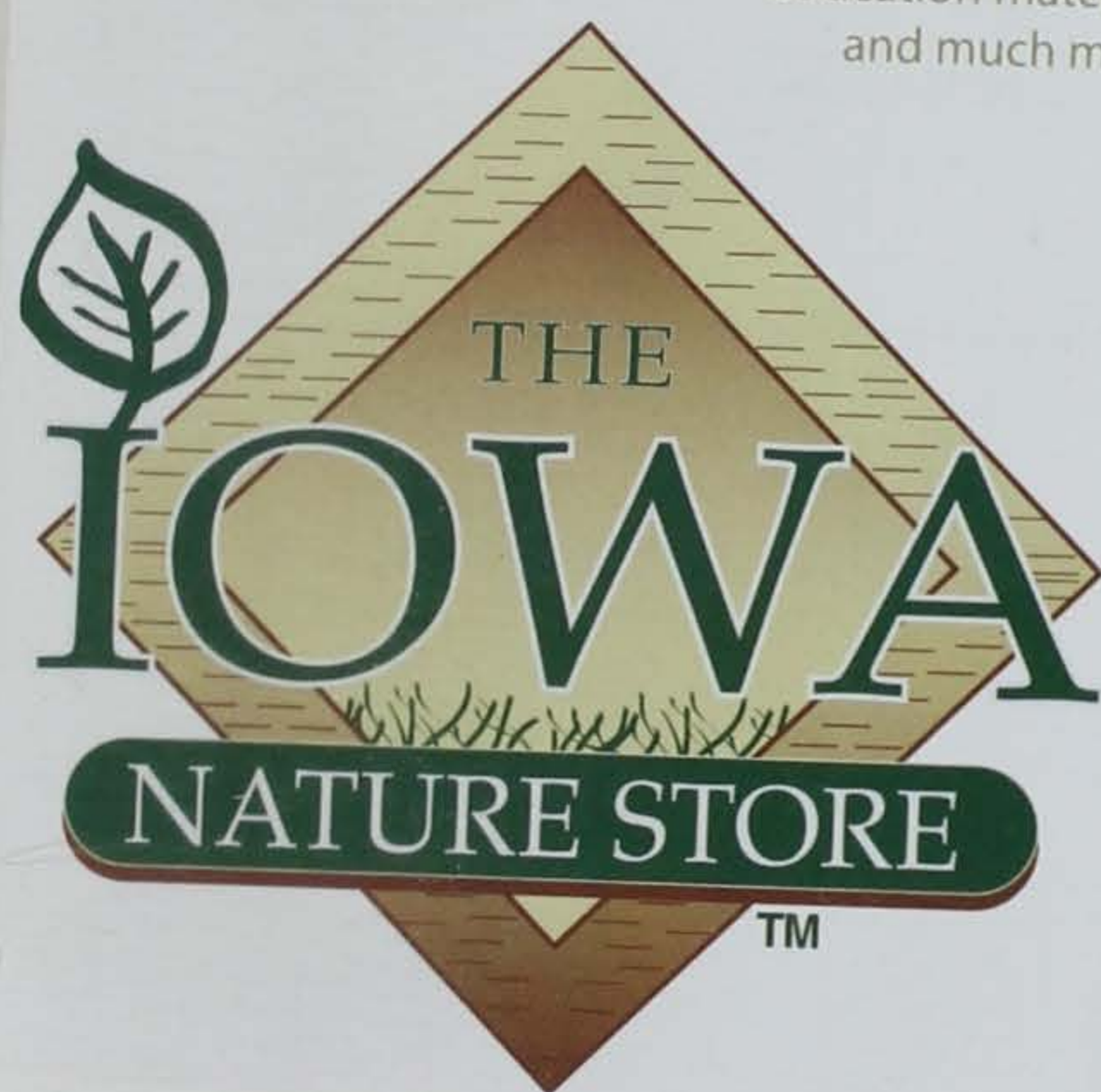
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KEEP SPIRITS HIGH WHEN THE TEMPERATURE DROPS

unfreeze your mind
and cure your cabin fever

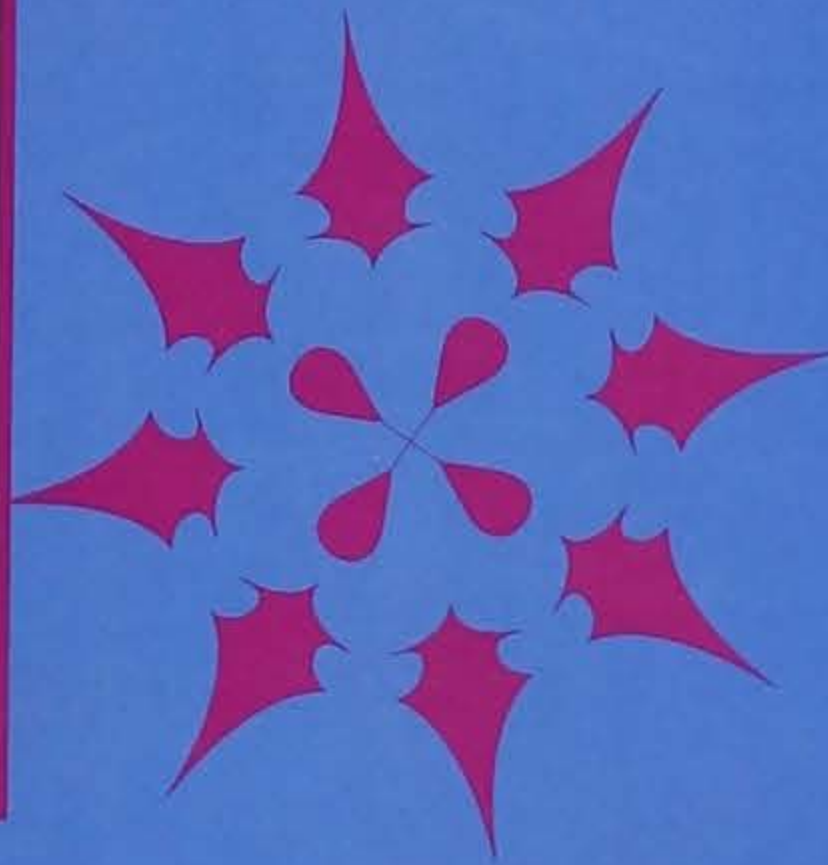
Some Iowans are rather hardy souls, relishing the cold and snow and the activities they bring. But for most Iowans, the winter months — January, February and March — are undoubtedly some of the toughest to “get through.” Holiday celebrations are over, days are short and temperatures are frigid.

Although most of us aren’t training for the Birkebeiner (North America’s largest cross-country ski marathon, held in Wisconsin) or perfecting our snow angels, we might do well to adjust our attitude toward winter — maybe find something between love and loathe. So, before you just muddle through, waiting for warmer days and letting cabin fever set in, read on. Following is a list of “fever reducers” for this season, albeit a small sampling, but something for a range of hardness.

Give it a chance. There really is a lot to like about winter in Iowa . . . even if it’s only that these Januarys, Februarys and Marches make us appreciate, even more, the Aprils, Mays and Junes to come.

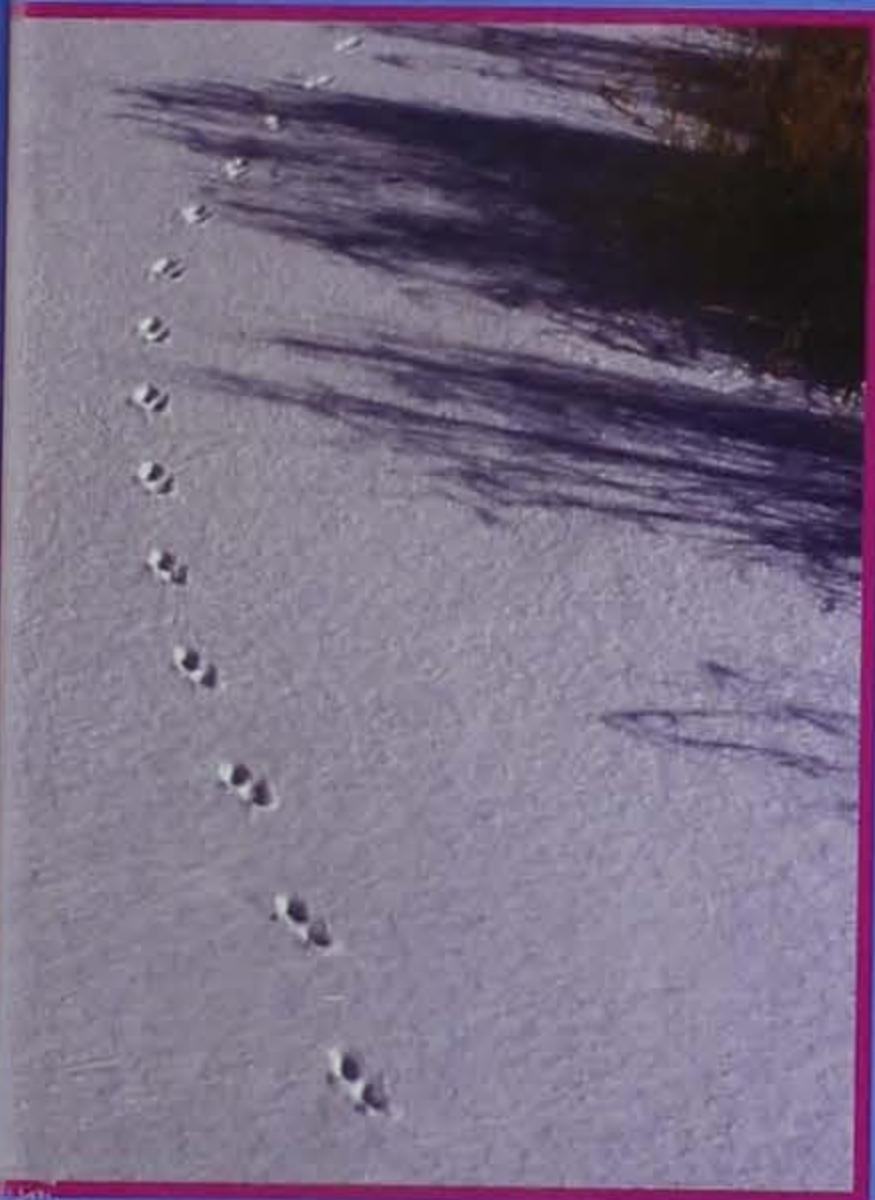


Ken Formanek



Host a game feed. Celebrate your harvest with your friends or hunting buddies. Need some new recipes? The *Warden's Cookbook* is available through the DNR by sending \$15 to 502 E 9th St, Des Moines, IA 50319. Don't forget to gather your hunting photos, old and new. Good food, friends and sharing memories — it's a formula for enjoyment.

Make friends with the birds in your neighborhood. There is something very satisfying about sitting down with a cup of coffee on a cold winter morning and watching birds at your feeders. If you aren't already feeding birds, try a couple of feeders outside a breakfast table window. If you



"If we had no winter, the spring would not be so pleasant; if we did not sometimes taste of adversity, prosperity would not be so welcome."

— Anne Bradgate



Clay Smith

County conservation boards are a terrific resource. Get the most out of winter by attending events in your area. Polk County naturalist Lewis Major (below) nets a bat as part of an interpretive winter seminar.

Remember, some hunting seasons are still open. Iowa's squirrel season is open until Jan. 31, cottontail rabbit season until Feb 28 and crows until March 31. Remember to buy your 2006 small game license.

Organize your tackle box. It likely could use a **purging.** Get rid of the sticky old plastic jig skirts and rusty hooks. Make a list of what you need, then...

Take in a local sports and vacation show or fishermen's swap meet, or visit your favorite sporting goods store.

Photo courtesy of Polk County Conservation Board



already have feeders, add another or maybe a heated water source. (See page 16 of this issue for "Feeding The Birds.")

Bald eagle days are happening. Iowa's major rivers and waterways often host large concentrations of our nation's symbol. The Mississippi River locks and dams, the Des Moines River Red Rock Reservoir and around Saylorville Lake are just a few of the prime locations. For information about bald eagle watching events, go

to www.iowadnr.com/wildlife/files/divevents.html.

Order tree seedlings from the state forest nursery. You don't have to own a farmstead to take advantage of these seedlings. Small packages are available for acreages and backyards. For an up-to-date listing of available stock, visit www.iowadnr.com/forestry/orderform.html or call 1-800-865-2477.

Pick up the tackle you need. Don't forget new line for your reels. Buy your 2006 licenses and pick up new regulations.

Make sure you're "in tune" for the upcoming turkey season. Break out that turkey call and



"In the depth of winter, I finally learned that within me there lay an invincible summer."

— Albert Camus



Ken Formanek



Lowell Washburn



Ron Johnson



Lowell Washburn

practice. Sort through your gear and . . . get ready. The first season opens April 10.

They say, next to swimming, cross-country skiing will give you one of the best overall workouts. And it's a great way to combine fresh air and fitness this winter. Like walking or running, it can be as strenuous or as leisurely as you want to make it. Check with your local county conservation board or recreation service for possible classes and ski rentals.

Try cross-country skiing with a twist. There is cross-country skiing and there is dog sledding, and then there's skijoring. Not many of us have a sled dog team, but many of us love cross-country skiing and

have an active, healthy dog just waiting to go along. "Skijor" is Norwegian for "ski driving," and skijoring involves one or two dogs pulling the skier via a harness and bungee cord system. Check out the web for more information about this rapidly growing sport.

Indulge your cabin fever and . . . rent a cabin. A few of Iowa's state parks (and some county parks) have cabins for rent throughout the year. Escape the everyday hassles and enjoy a couple days at a cozy cabin in a beautiful setting. (See article on page 12.)

Visit a hunting preserve.

Extend the bird hunting season for you and your dog. Visit one of the approximately 60 hunting preserves in the state, open through March 31. For a brochure with all the contact information, visit www.iowadnr.com/wildlife/files/hunting.html or call 515-281-5918.

Look for antler sheds. It's like an Easter egg hunt in the middle of winter. Some bucks will shed their antlers as early as December, some will hang on into early spring. January and February are prime months. Look around bedding areas, prime trails and anywhere fences or overhanging branches may jar them loose.

Try hardwater fishing. Ice fishing — it doesn't have to be a

cold solitary sport. Invest in a portable shack and make it an outing with friends. Remember, safety first and foremost.

Participate in the Audubon Society's annual bird count.

The 9th Annual Great Backyard Bird Count is Feb. 17-20. Bird watchers nationwide count birds in backyards, schoolyards and

anywhere else, and results can be tracked on-line in real-time. For more information, go to www.audubon.org/.

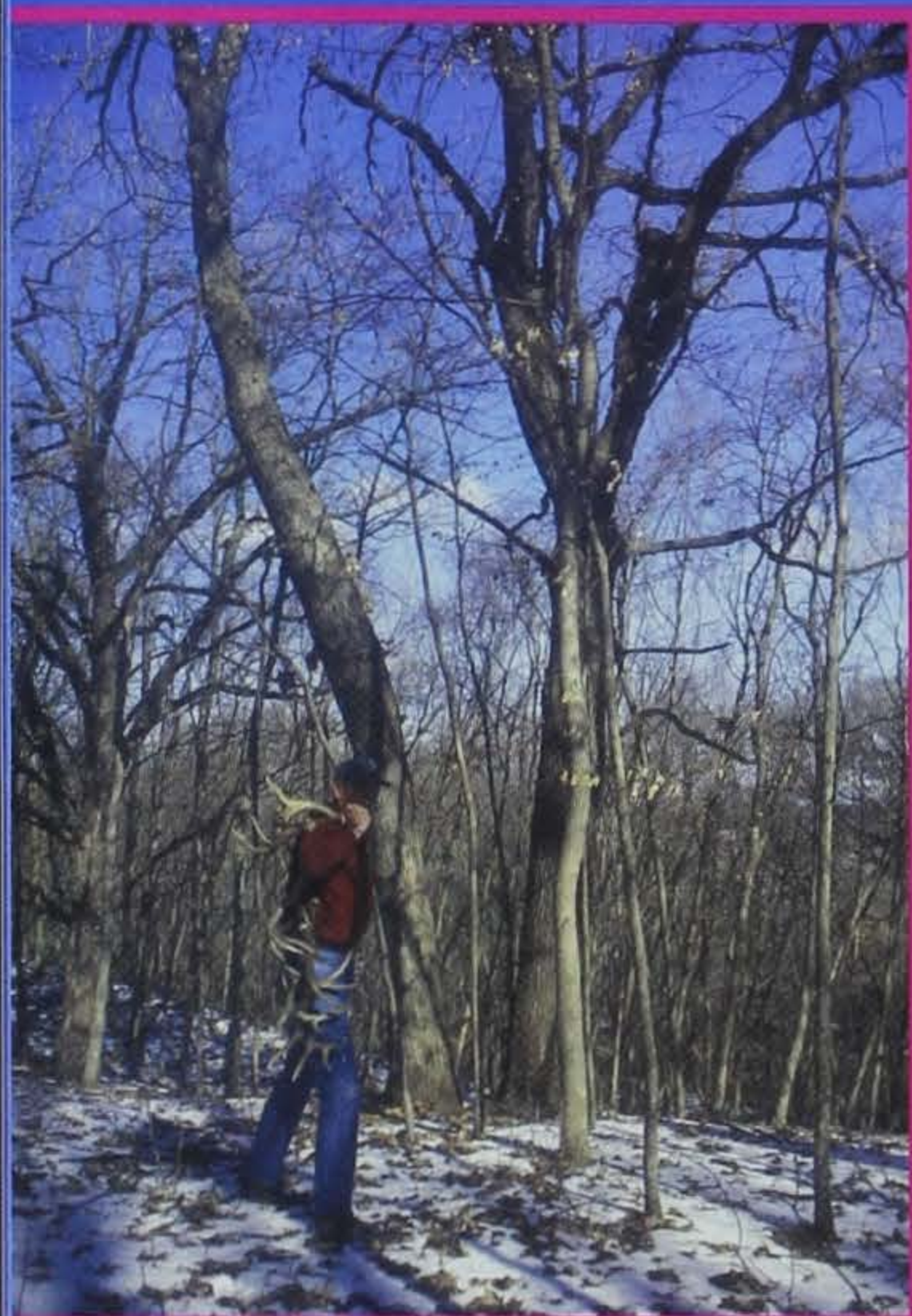
Stretch your legs. Whether it's with skis or snowshoes or just a good pair of snow boots, take a hike on a familiar park trail. Strike out on your own or with family or friends. It is a great way to experience your favorite park in a quieter setting. Don't forget to go prepared for the elements and be sure to bring some binoculars. For something a little different, try a moonlit hike. A full-moon hike with snow cover is the next best thing to daylight.

And the lists goes on. Everything from stargazing to snowshoeing to owl calling and maple syruping — they are all great *winter* activities. Investigate the possibilities. A place to start is your local county conservation board. Many have "calendars of events" that will help you enjoy the season.



"The aging process has you firmly in its grasp if you never get the urge to throw a snowball."

— Doug Larson



Roger A. Hill

SEASONAL AFFECTIVE DISORDER

For many of us, leaving the warmth of our bed on a dark winter morning can be a chore, just a part of dealing with what we call the "winter blues." But for some, the change in seasons can bring on serious depression.

Seasonal Affective Disorder, or SAD, is a subtype of major depression that begins to show its symptoms in the fall and winter as the days grow shorter, with no symptoms during the summer. Changes in appetite and sleep patterns, as well as increased irritability, are common symptoms. However, SAD is just more than "cabin fever."

"When you just can't shake the blahs with something that's normally fun, and it's interfering with normal life," you should visit with your health care provider, said Dr. Judith Crossett, an associate clinical psychiatry professor in the University of Iowa Carver College of Medicine.

As symptoms begin to show as the amount of daylight decreases, many people have found exposure to light helps their symptoms.

"Just getting outside can help, walking down to your mailbox. Any time you can spend outdoors can help. Sunlight works even if it's overcast," said Crossett. "Get out and enjoy the winter sports, just hearing the scrunch of snow under your feet."

For those who work away from windows, Crossett said light boxes that simulate natural light are available, but she also suggests walking in hallways with large windows or in skywalks and to get outside during breaks. Crossett also suggests keeping a regular sleep and exercise routine.

all the comforts of home

Story by Mick Klemesrud
Photos by Ty Smedes

State Park Cabins Offer a Not-So-Roughing-It Experience



DNR photo

Don Primus can recall like it was yesterday the day he drove the brush-cutter through 12-foot weeds—horseweed, he called it—just to get to the four cabins below the spillway from Lower Pine Lake. The cabins, two built in 1933 and two in 1936 by the Civilian Conservation Corps and closed off since 1978, were now being considered for renovation by the Iowa Department of Natural Resources.

At first glance, to say the cabins had fallen into disrepair would be a compliment.

"They were horrible," said Primus, park manager at Pine Lake.

Angela Corio, park planner with the DNR, remembered visiting the cabins for that initial inspection. The roofs were full of holes and windows were broken; however, the cabins did serve a certain clientele.

"The critters ran in and the critters ran out," Corio said.

The renovation project focused on maintaining and preserving as much of the original features as possible. The DNR has worked with the Office of Historic Preservation on many cabin renovations, including the Pine Lake cabins.

"We took them down to the sandstone walls and basically started over," Primus said. The roof, floor and kitchen additions were all replaced. New electricity, water and sewer service was installed. After all the hard work, spit and polish, the cabins began hosting visitors in 1994. They have been popular ever since.

Nestled in a remote corner of the park, near the banks of the Iowa River, the cabins are a quiet place. "If you want to get away from the phone, where no one can find you unless you want them to, the cabins are the way to go," Primus said.

Cabins are available in 12 state parks with varying levels of comfort. For example, the deluxe family cabin at Backbone is a two-story walk-out with two bedrooms, two family rooms



with futons, a full kitchen and a bath and a half, that sleep up to nine.

"It (cabins) allows people to stay overnight and spend some quality time in a state park without having a major investment in camping equipment," Corio said. The cabins have pots and pans, but campers must furnish their own utensils, dishes, food, linens and toiletries — the usual camping supplies.

Corio said through the years, the general public has demanded more cabins. "It's what the public wants," she said. "They like their creature comforts."



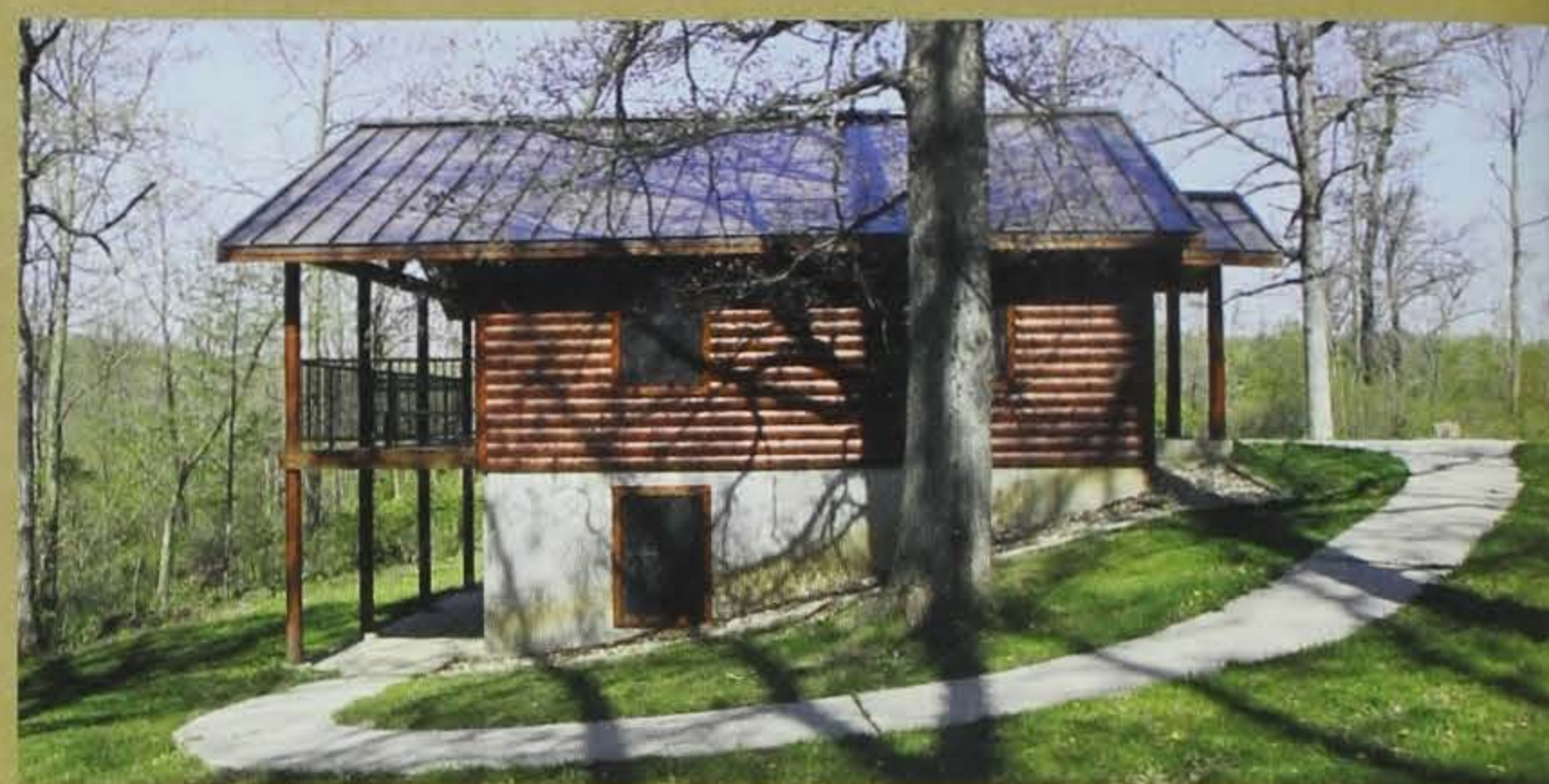
Opposite page: Yurt interior (top) at McIntosh Woods on Clear Lake; modern family cabin at Lake Wapello.

Studio cabin at Lake of Three Fires (top); the Petermans, concessionaires at Backbone, relax in the park's year-round modern family cabin; and camping cabin at Wilson Island on the Missouri River (left).

Cabins are planned for the Honey Creek Resort State Park, and at Brushy Creek State Recreation Area. The DNR is currently building four camping cabins at Honey Creek State Park and two at Stone State Park. Two camping cabins will also be constructed at Prairie Rose State Park in the near future.

Corio said cabins could potentially be added to Casino Bay at Storm Lake, Viking Lake and Volga Recreation Area.

The peak season for cabin rental is from Memorial Day through Labor Day. Cabins must be rented for one week during the peak season. During the off season, there is a minimum two-night stay. Cabins



offering the most amenities are full about 80 percent of the time during peak season, and 40 percent or so during the off season.

"Cabins are a really affordable alternative for families," Corio said. "Try to stay in a hotel suite for these prices."

Cabin rental is also becoming more convenient. The state's new campground reservation system launched Jan. 3, allowing cabins to be reserved online 24 hours a day, or via a phone center, operated 9 a.m. to 5 p.m., seven days a week.



Deluxe cabin at Backbone State Park (top) and its spiral staircase (below); basic family cabin at Dolliver (bottom left); yurt at McIntosh Woods (left) and Pleasant Creek's camping cabin (above).



Park listings with *cabin rentals*

Park Name	# of cabins	open	rates night/week
Backbone State Park			
Deluxe Family Cabins	4	Open YearRound	\$100/\$600
Modern Family Cabins (2 BR)	4	Open YearRound	\$85/\$510
Modern Family Cabins (1 BR)	8	Open Seasonal (April 1 – Oct. 31)	\$50/\$300
Dolliver Memorial State Park			
Basic Family Cabins	2	Open Seasonal (May 1 – Oct. 15)	\$35/\$210
Green Valley State Park			
Camping Cabins	2	Open Seasonal (April 15 – Oct. 15)	\$35/\$210
Lacey-Keosauqua State Park			
Studio Family Cabins	6	Open Seasonal (April 1 – Oct. 31)	\$50/\$300
Lake Darling State Park			
Camping Cabins	5	Open Seasonal (April 1 – Oct. 31)	\$35/\$210
Lake of Three Fires State Park			
Studio Family Cabins	6	Open YearRound	\$50/\$300
Lake Wapello State Park			
Modern Family Cabins (1 BR)	12	Open Seasonal	\$60/\$360
Modern Family Cabins (2BR)	1	Open Seasonal	\$85/\$510
Modern Family Cabins (2BR)	1	Open Seasonal (April 1 – Oct. 31)	\$75/\$450
Palisades-Kepler State Park			
Studio Family Cabins	4	Open Seasonal (April 15 – Oct. 15)	\$50/\$300
Pine Lake State Park			
Modern Family Cabins	2	Open YearRound	\$75/\$450
Studio Family Cabins	2	Open YearRound	\$65/\$390
Pleasant Creek State Recreation Area			
Camping Cabins	4	Open Seasonal (April 15 – Oct. 15)	\$25/\$150
Springbrook State Park (Being replaced in 2006 – call for opening date)			
Basic Family Cabins	6	Open Seasonal (to be determined)	
Wilson Island			
Camping Cabin	1	Open Seasonal	\$25/\$150

State Park Cabin Types

Deluxe Family: two-story, two-bedroom, full kitchen and baths. Sleeps nine.

Modern Family: one- and two-bedroom, full kitchen or kitchenette, full bath. Sleeps four to six.

Studio Family: open floor plan, full kitchen or kitchenette, full bath. Sleeps four.

Basic Family: open floor plan, running water kitchenette, half-bath in some, located near campground. Sleeps four.

Camping Cabins: open floor plan, electricity, a microwave and small refrigerator, no running water or sanitary facilities, located near campground. Sleeps four.

Yurts: circular tent-like structure on platform, electricity, no kitchenette, shower and rest room close by. Sleeps four.

A new campground reservation system launched earlier this year is making it easier and more convenient for Iowans and our visitors to secure summer vacation plans.

As of Jan. 3, all state park cabins can be reserved either online – 24 hours a day, seven days a week – or through the phone center. The phone center is staffed from 9 a.m. to 5 p.m. (CST) seven days a week, with extended hours February through September. Beginning Feb. 13, campsites can be reserved via the same methods (half of the campsites in each state park can be reserved, the other half remain first-come, first-served).

Lodges, shelters and group camps will go online June 19. Until then, they may be reserved by contacting the individual park offices.

To reserve a cabin online, go to www.reserveiaparks.com. To reserve by phone, call 1-877-IAPARKS.

Feeding the birds . . .

By Karen Grimes

Photos by Clay Smith

Two Iowans Two Approaches

... in the City

It began with just a few bird feeders, then it became almost an obsession — causing this avid birder to fill, clean and maintain 16 backyard bird feeders.

Carolyn Fischer of Mason City now feeds literally hundreds of birds. It all started in 1984 after an injury prevented her from her other hobby, golf. In 1988, she bought a new home



Lowell Washburn

with a large porch, a bittersweet vine and a backyard that backed up to woods and a river — perfect for the birds.

Her new neighbor was Rita Goranson, who is also a passionate birdwatcher. Soon the two of them began the pursuit of feathery beings, including inviting them to their backyards with feeders.

Fischer's approach is to provide multiple little feeding stations and watering areas, with multiple types of feeders. She attracts birds with heated birdbaths and fills them frequently as the water evaporates. She also touts the importance of having protected



Ty Smedes



areas that provide a safe haven from predators, such as accipiters, the "bird hawks."

"Birds like a good hiding place. They like cover in the winter," Fischer said. "It's really nice when an accipiter comes through that the small birds have someplace to go." With many shrubs in the yard, birds have a place to hide when a sharp-shinned hawk or a Cooper's hawk soars overhead seeking lunch.

"Anyone can feed birds," she says. "It depends on how much you want to spend and how much time you have. After time you learn what works. And there are so many bird stores and feed-farm stores that carry a lot of feeders and seed."

During the winter, Fischer feeds a high protein black-oil sunflower seed and Nyjer (niger) seed, along with suet and peanuts. "I buy the rendered kidney

The secret to successfully attracting birds is to “Try one thing. And, if it doesn’t work, try another,” according to Carolyn Fischer, an enthusiastic bird feeder from Mason City.

Below left: Downy woodpecker at a suet log and a cardinal, the undisputed king of winter plumage.

... in the Country

Troy Lust is a commodity grain broker with a farm background. He’s used his farming savvy to help his suburban neighbors lure in songbirds by planting warm-season grasses and sorghum on their acreages. But, like many suburbanites, he has longed for a place in the country.

For him, that meant buying a 340-acre farm in Lucas County and bringing the quail population back to health—a project that has succeeded much faster than he expected.

In just a year and a half, two small flocks or coveys have grown to six coveys. Lust attributes a lot of his success to working with DNR private lands biologist, Helga McDaniel. He calls his farm “Helga’s pride and joy,” as she has put a lot of time and effort into the development of the plan and is just as excited as he is about the results.

The same strategy has created food and cover for other grassland birds such as the threatened Henslow’s sparrow, the loggerhead shrike and the bobolink—which McDaniel has noticed particularly on revitalized farms.

To develop the plan, McDaniel and Lust looked at aerial photos of the farm, figured out strategic places for

food and shelter to provide the most help for quail.

The resultant wildlife plan focused on managing solid stands of brome grass that had been in the federal Conservation Reserve Program (CRP) for 17 or 18 years.

“There was no diversity,” McDaniel said. “I am very conservation-oriented, and I take a holistic approach to farm management. The brome fields were so sod-bound, that bumblebee-sized baby quail couldn’t maneuver through the grass. Cold, wet grass is the worst combination for fuzzy baby quail. Hypothermia can take its toll quickly.



“You’ve got to have all the components to succeed: nesting and brood-rearing habitat, food plots, and heavy, dense cover for winter and predator survival,” says Troy Lust.

“It takes three weeks after they hatch before they can fly,” she said. “During that time, they eat primarily insects. A solid stand of one species, like brome grass, doesn’t produce many insects or weed seeds, either. As far as wildlife, it was less than optimal.”

net, and then put suet pellets in holes in a wooden log post,” she said.

She justifies the expense, because birdfeeding is her hobby.

“I love feeding the birds, as well as going out birding. It’s such an adventure,” Fischer said. “And it’s something you can do 365 days a year.

“With winter birdfeeding, you’re hoping for some of the northern species, such as the northern hawk owl that Paul Hertzler discovered on Valentine’s Day last winter,” she said. Hertzler, Coranson and Fischer fielded calls about the hawk owl, as birders from all over the state sought more information about where to find this rare winter migrant. (see sidebar on page 22.)

“Some years, you see lots of redpolls, pine siskins and evening grosbeaks. In the winter, it’s so quiet—nature walks right over you.”

Lust created a patchwork landscape, with strips of brome, plantings of partridge pea (right) and Illinois bundleflower, and foodplots of sorghum. Next year he will encourage bluebirds by adding houses on the ridges.



To fix the problem, Lust killed strips of the brome grass. "Once you suppress the brome, it's amazing how much plant diversity comes back," he added.

With food and brood-rearing areas created, Lust provided dense cover to protect birds from winter weather and predators. With the help of the local Pheasants Forever Chapter, he constructed thickets by partially cutting down trees.

"It took about four hours with a chain-saw," he said. "It's so simple, anyone can do it." Creating brush piles near existing woodland

Federal Help for Songbirds, Quail

Federal incentives and rental payments offered for quail and songbird buffer strips on Iowa farms are now available statewide.

Now landowners throughout Iowa can help provide travel lanes and critical food and cover for these declining species by converting part of a crop field to a buffer strip.

Participating landowners can receive up to 90 percent of establishment costs and a \$100 per acre sign-up bonus. Rental rates are based on soil types.

More information about the continuous Conservation Reserve Program (CRP) is available at local USDA Farm Service Agency offices,

or call (515) 281-5918 to contact a DNR biologist or forester. DNR biologists like McDaniel, can help landowners attract more wildlife to their acreages and farms.

"You need to look at your property and the others around you and see what's missing," McDaniel said. "All animals need food, water and shelter. It's all about providing the missing elements."

—KG



Roger Hill

Winter Essentials

All birds need three things for survival. The more variety you offer, the more birds you will attract.

Food—Black-oil sunflower seed is popular with many birds and works in most feeders. Suet is particularly popular with woodpeckers. In the country, you can plant corn, sorghum or another grain and leave it standing through the cold, winter months. For an added attraction, plant trees and shrubs that produce nuts or berries.



DNR biologist Helga McDaniel preaches diversity, as she checks the snow in this sorghum foodplot for signs of success. It's all about the mix -- planting shrubs and a mixture of food sources to supply the ingredients missing from many crop fields.

areas, a technique called edge feathering, is particularly attractive to quail.

"I call it the softball technique," said McDaniel. "For quail, you want to meet all their needs for food, cover, water and brood rearing within the distance you can throw a softball."

Lust added that the ideal situation for quail is to provide overhead cover with bare ground for travel lanes and dust baths underneath, with food and escape areas nearby.

"It's not often that we want to encourage weeds to grow, but for quail, common weeds like foxtail, ragweed and button weed are a primary food source," McDaniel said.

And when you manage for quail, pheasants naturally benefit also.

"This area put to rest in my mind that turkey, quail and pheasant can't live on the same ground," Lust said,

"as they all have prospered together."

He can't wait until early summer when he plans to bring his family out to find young broods. He plans to watch and listen for the adult quail, just sitting quietly.

"Sit really still. Wait until the adults calm down. Then you can see 13 to 14 bumblebee-sized quail moving through the weeds."

Protective thickets are easily created when trees are "hinged" several feet off the ground. The fallen, but still partially living trees, let in sunshine for vines, shrubs and weeds to grow.



Lowell Washburn



Water—Streams, ponds and ditches provide a year-round water source in the wild, while clean birdbaths pull birds to the backyard. A birdbath with a recirculating pump in the summer or a small heater in the winter can entice birds that would normally never visit your feeders.

Cover—Brushy areas, evergreens or dense vegetation provide places to hide and shelter from winter storms.

—KG

Public Bird Watching areas

Photos by Clay Smith

Walnut Woods State Park

Inspired by his work on a national wildlife refuge in Texas, park manager Tim Gedler and his brother designed and built a bird watching blind at Walnut Woods State Park. Easily accessible by car, the blind provides a wintry feast for birds and birders alike near Des Moines. It can be found northwest of the park office, about halfway through the park.

"The blind is a great way for beginning bird watchers to see a lot of species, and, in the winter, a lot of birds," Gedler said. "It's a spectacle to see 20 to 30 cardinals around the feeders in the evening."

Chickadees, cardinals, nuthatches, juncos and goldfinches in their winter plumage are common sights.



Dick Stulwell

"This could be a good winter for seeing common redpolls, pine grosbeaks, and white-winged and red crossbills," Gedler said.

Low production of evergreen cones in the north may drive these finch species to the Midwest as they search for food.

Stop by during early morning or near dusk for peak numbers. The park is open from 4 a.m. to 10:30 p.m. and the feeders are filled on Mondays and Fridays.

Macbride Nature Recreation Area

For the ultimate wintry bird watching trip, try the bird blind on the Macbride Nature Recreation Area located between Lake Macbride and Coralville Reservoir in Johnson County.

"Visitors can observe mammals and a wide variety of songbirds at about two dozen feeders," said Jodeane Cancilla, director of the Macbride Raptor Project.

Volunteers stock the feeders twice a day, seven days a week. Hungry birds go through about 350



pounds of donated seed every month.

Bird watchers can expect to see "...lots of birds and lots of activity, with more red-breasted nuthatches than usual this year," Cancilla said. "Occasionally they'll see a raptor zinging through for a quick snack."

The blind is a small, unheated building located in a quiet forested area near the Raptor Rehabilitation Center. Visitors can also take a self-guided tour through the rehab center, where permanently injured hawks, owls and



Other raptors are housed in 16 outdoor cages.

The recreation area is open from 9 a.m. to 6 p.m. every day, including holidays, in the winter. After the first snowfall, the road to the blind is closed to vehicles, but plowed open for hikers and skiers. If a 10-minute walk is too much, birders who need help with accessibility should call Cancilla at (319) 398-5495 several days before their visit.

Managed jointly by the University of Iowa and Kirkwood Community College, a map and directions to the rehab center and Macbride Nature Recreation Area can be found on the web at www.macbrideraptorproject.org.

Other Areas: Check locally for city, county, state and federal nature and conservation centers that feature bird feeding stations.

—KG

Opposite page, top to bottom: Green baffles prevent food raids from squirrels, while a chickadee, nuthatch and cardinals grab a snack at Walnut Woods. Park manager Tim Gedler novels snow in some areas to attract ground feeders like juncos, cardinals and sparrows. The white-throated sparrow was photographed from the blind.

Top to bottom: Birders at Macbride record their observations, including a recent sighting of a pileated woodpecker. Finch feeders attract goldfinches, as director Jodeane Cancilla and volunteers keep the 24 feeders well supplied. A suet feeder is a magnet for a downy woodpecker.



For More Information

Iowa Bird Watching by Bill Thompson, III has great tips for attracting birds and discouraging pests.

Check the Iowa Ornithologists' Union's web site at www.iowabirds.org for checklists, photos and a weekly rare bird alert.

Iowa Audubon maintains lists of where rare birds have been sighted. See www.iowaaudubon.org.

Hawk Owl

Rare Bird Sighting Brings Excitement to Rural Iowa Community

Story and photos by Lowell Washburn

It could have been the weather. Or it might have been a lack of food; or just an unexplained urge to travel. Whatever the reason, Iowans received a rare treat last winter when a vagrant



northern hawk owl was discovered in the north-central town of Manly. Since this was only the second time the species had been documented in the state, the sighting created no small stir. The bird quickly became the biggest thing to hit this town in . . . well . . . a long, long time.

Overnight, this quiet Worth County community became the destination point for birders from across the Midwest.

"The excitement this bird generated was remarkable," said Paul Hertz, an avid birder and instructor at Mason City's North Iowa Area Community College. "I personally know of people who came here from all across Iowa, as well as from Wisconsin, Nebraska,

Missouri, Illinois and Minnesota.

"Part of what made this possible for so many people was that the bird stayed so faithfully for so long in one little place," Hertz said.

By the time I was able to travel to Manly, the hawk owl had already been in Iowa's birding spotlight for several days. Arriving in town, I didn't actually look for the bird. I just looked for the crowd.

In almost less time than it takes to tell, I spotted a cluster of birders huddled behind spotting scopes and camera lenses. I joined the group for an hour or so, chatting and snapping photos.

The February weather was extremely bitter. Remembering the nearby Casey's General Store, I decided to break for coffee. As I pulled in, I noticed a couple of Wisconsin birders that I'd met upon first arriving in town. They were gassing up before heading back to Madison. The excitement in their conversation left little doubt that they were still pretty revved over adding the "new bird" to their lists.

Walking into the station, I headed for the rest room. No deal. A line of nine fidgeting people waited ahead of me.

I decided to grab that cup of hot coffee instead. Again, no deal. All four pots were completely dry. A trip to the donut rack proved better. I bagged a pair of double chocolates.

Stepping to the counter, I got in line behind four ladies. The women, it turned out, were just arriving from Des Moines. I told them the owl was providing excellent viewing and they were notably pleased by the news.

It was my turn at the register.

"Uh, did you realize that you're out of coffee?" I asked the clerk.

"Yes," replied the obviously frustrated attendant. "And it's all because of *that bird*. It's been this way all week. We just can't keep up. People are driving from all over just to look at a bird."

"Can you imagine?" she asked.

THE LAST SIGHTING of Manly's northern hawk owl was on April 2, 2005. According to Hertz, the raptor was known to have been in Worth County for exactly 100 days. No one knows, of course, how many people actually viewed the owl, how many miles they traveled, or how much money they spent along the way. It is also impossible to calculate how much pleasure they received from viewing this rare and unique wild bird.

But one thing is certain. Anyone who came to view the owl should have also come away with a sense of amazement over the tremendous impact the arrival of a single bird had on one rural Iowa community.



Jay Gilliam of Norwalk (left) and Greg Greimen of Garner photograph the northern hawk owl.



IOWA NATIVE

LAUNCHES ENVIRONMENTAL FUND-RAISER

**Bike Ride Through South
America Aimed at Preserving
Rainforest Habitat**

By Lowell Washburn

Dan Schutte is just days into the biggest challenge of his life.

That challenge is for the north Iowa native to successfully complete a 3,500 mile bike ride whose path will traverse some of the most hostile terrain the South American continent has to offer. Landscape features will include the windswept high-altitude plains of Patagonia, the ultra challenging trails and backroads of the Andes mountain range, and the grassy pampas of northern Argentina. The ride will ultimately terminate in the biologically rich Paraguayan ecosystem known as the interior Atlantic rainforest.

The physically grueling marathon began January 6. The starting point was at Cape Horn in Ushuaia, Argentina which is literally the southernmost city on earth. The ride will conclude around mid-April in Paraguay's San Rafael Preserve. The purpose of the trek,

said Schutte, is to raise funds and increase global awareness for the plight of South America's rapidly diminishing forest ecosystems. (Schutte has studied rainforest ecosystems in Central and South America, and since 2003 has served as a Peace Corps volunteer in Paraguay.)

"Some of the areas we'll be biking

are considered to be somewhat dangerous. A lot of people back home in Iowa wonder why in the world I'm doing this, or why anyone outside South America should care about what happens to the forests down here," said Schutte.

"I guess the short answer is that while I've been working in Paraguay

as a Peace Corps volunteer, I've had a firsthand opportunity to become exposed to some of the world-scale environmental and socio-economic problems that exist across much of South America."

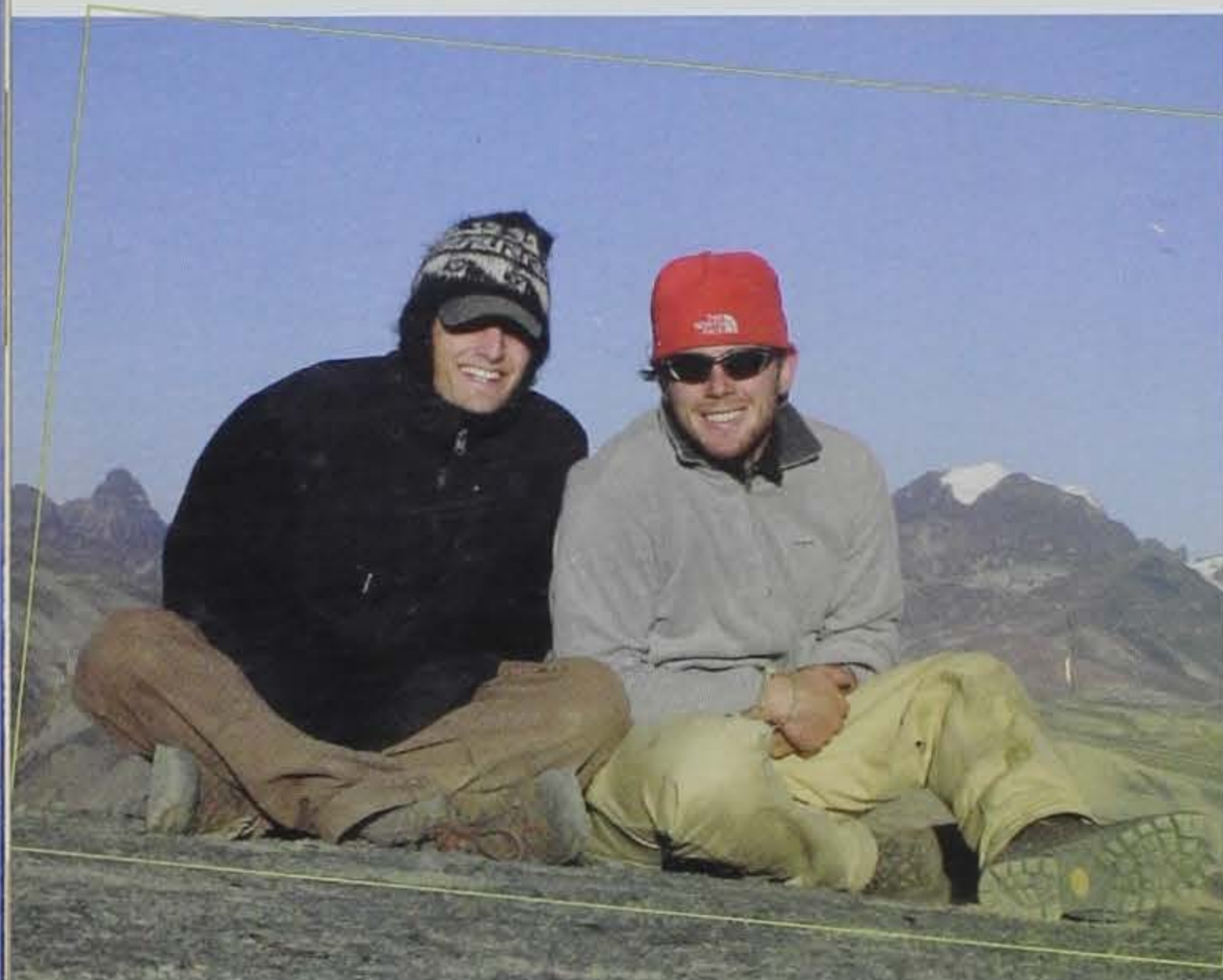
"What I've come to realize is that many of these issues (such as large scale deforestation) do not just affect me or

the other people living in this part of the world. Many of the things that go on here directly affect people in America and vice versa."

"There are lots of examples. Every single day, the United States imports things like sugar, sesame and even soy from the country of Paraguay. One of my goals is to have people start thinking about where their food comes from and how it was grown. Back home, we criticize the farmer for cutting down the rainforest but then we turn around and put that same farmer's sugar on our table and don't even realize it. That's why I think it's so important to globally raise the level of environmental awareness toward major world ecosystems. That's one of the main reasons we decided to do the bike ride."

Planning for the ride began early in 2004 when Schutte and fellow volunteer, Iain Clark, discussed what they would do when their Peace Corps service ended. Both had a passion for bike riding and were interested in a "big ride." Determined to achieve something positive with that ride, they eventually decided to turn it into a fund-raiser for the San Rafael forest system. The bikers then decided that every penny raised during the ride would go directly toward the preservation of this unique ecosystem.

PARAGUAY'S SAN RAFAEL FOREST PRESERVE is a world-class, natural paradise. Dominated by humid, subtropical (deciduous) hardwood forest, the rugged landscape supports an extraordinarily high level



Iain Clark of Ithaca, New York (left and opposite page) and Dan Schutte of Clear Lake, Iowa pause to enjoy the stark scenery of a Bolivian mountain trail. The two cyclists toured the area earlier this year to gauge the duo's compatibility while undergoing the stress of physically grueling conditions. Earlier this month, the pair launched a 3 1/2-month, 3,500-mile bike ride that will take them across some of South America's harshest terrain. The bikers will camp along most of the route, and plan to subsist largely on a diet of beans, rice, tuna and oatmeal.

The purpose of this epic journey is to raise funds for the protection of Paraguay's San Rafael Forest Preserve. Rich in resident and migratory birdlife, the forest is one of South America's richest natural ecosystems. During winter, birds from across North America migrate here to capitalize on the region's rich food supply, but not everyone appreciates this natural paradise, and the region is being severely impacted by commercial deforestation.

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Photos courtesy of Schutte and Clark

migrants from North America. Orioles, tanagers, warblers, and others all flock to this food-rich environment. It's no stretch to imagine that some of these travelers could be the birds that nested in your neighborhood last summer.

"The importance of saving faraway habitats for migratory birdlife seems to be a connection that people can easily make," said Schutte.

So far, around 10,000 acres of the San Rafael forest have recently been protected, and Schutte hopes to raise funds to preserve an additional 5,000 acres of this unique subtropical ecosystem. Considering current land values, the project does seem very "doable."

Consider this. A single, one-time donation of just \$210 will purchase or save 2.5 acres of San Rafael's Atlantic forest habitat.

Unfortunately, those seemingly reasonable land values have the ability



of biodiversity. Easily ranking as one of South America's most significant examples of interior Atlantic forest, the preserve is home to 11 globally threatened bird species and 17 near globally threatened birds. It also harbors more Atlantic forest endemic bird species than any other site in Paraguay.

During the winter months, local bird populations are bolstered by

"One of the first things we did was contact groups like The Nature Conservancy, World Wildlife Fund and Birdlife International to let them know what we planned to do. Everyone was extremely enthusiastic over the concept of using a bike ride to raise awareness. It ended up that we'll be riding for Birdlife International, and they'll be managing the land we help to preserve."

to cut both ways. Those who wish to slash and burn their way across the landscape can, of course, buy rainforest acreage for the same price. Consequently, the San Rafael region is becoming rapidly degraded as large scale Brazilian ag interests clear forests — mainly for soybean production — to the north while small independent farmers cut from the south.

once in a lifetime

"When I was back home (in Iowa) it was easy to read about people destroying the rainforest and get mad about that. But now I've actually been working with the people who are doing that and I see that they don't have any other options. They're just poor farmers who get no help from any government program and are just trying to feed their kids. Suddenly the simple issues become very complicated. It definitely changes your perspective."

"There are currently some very big (global) issues that we all need to be aware of. For example, whether we all want to believe it or not, global climate change is happening and those changes

will eventually affect everyone. The rapid deforestation of South America contributes to that change and should be a concern of everyone everywhere.

"Of course, the preservation of migratory and endemic birdlife is obviously important, but there are much deeper issues tied to the rainforest. Loose the forest and you lose biodiversity and impact global climate change. You also lose significant supplies of fresh water. Cutting the forest to gain a couple of years of marginal farming isn't the answer. We're all in this together and that's the message I want to come across back home."



Photo courtesy of Schutte and Clark

Dan Schutte, 24, is a 1999 graduate of Clear Lake High School. He is a graduate of North Iowa Area Community College and graduated from Iowa State University where he double majored in biology and environmental science. In 2003, Schutte joined Peace Corps. During the past two years he has worked as a beekeeper in Paraguay, teaching local citizens to capture and culture wild colonies of killer bees for honey production. He has also worked with local residents to encourage sustainable agricultural practices and worked with Paraguayan students on environmental issues.

Preserving South American Forest Benefits Iowa Birds

By Lowell Washburn

Who can possibly measure the simple pleasures that wild birds bring to our lives?

Whether it's the song of an unseen warbler in spring, the iridescence splendor of an indigo bunting or the annual return of purple martins to their aluminum backyard condos, wild birds thrill our spirits and enrich the quality of our lives in a way that truly is immeasurable.

No matter where you live in Iowa, more than one-third of the birds that will visit or nest in your backyard this summer are Neotropical migrants.

Neotropical migrants are birds that nest and rear their young in North America and then migrate to spend the winter months in the tropical habitats of southern Mexico, Central America and South America.

It should alarm you to know that populations of at least half of North America's 360 Neotropical bird species are in decline. For some species, the declines have been extraordinary. The total number of midwestern bobolinks, for example, has declined a full 70 percent since 1966. Although no one can say with certainty why some species are disappearing so rapidly, scientists suspect answers lie at both ends of the flyway.

"What we do know is that (of all the bird species that nest in Iowa) at

least one-third will travel to South America. Consequently, what happens to habitats in South America suddenly becomes a huge issue to us," said Bruce Ehresman, a DNR wildlife diversity program biologist.

"Regardless of whether you're talking about bald eagles, warblers or shorebirds, protecting the wintering habitat for that species is crucial for survival. In order to be successful, birds don't just need to survive the winter, they also need to arrive on the breeding areas in as good a physical condition as possible. That condition is essential and largely determines nesting success. Since most Neotropical migrants are so small and travel so far (Up to half of the annual production is lost during the first migration.) it is vital for those species of songbirds to have successful nesting during their first attempt.

"I think if we take a long hard look, that we may find that preserving winter habitat acreage is equally important to saving breeding acres. I know this is a difficult issue to communicate, but there are some facts to support this," said Ehresman. "Many species, for example, spend much more time on the wintering areas than on the breeding grounds. Some species, such as cerulean warblers, are very area-specific. During the summer, they nest over a large area that reaches from the Midwest to the Atlantic seaboard. During winter, however, they travel to South America where they concentrate into a comparatively small geographic region. Large scale logging of that particular habitat could literally wipe the species out.

Lowell Washburn



"Right now, I think the greatest concern is for protecting South American forests. If we lose grasslands, we can replace them fairly quickly. In two years you get bobolinks and grasshopper sparrows. In three years you get

Henslow's sparrows back. But it doesn't work that way with a mature forest. If we make a mistake there, then it's a very long-term mistake."

Lowell Washburn



Carl Kurtz



The demise of the South American rainforest has a direct impact on such Iowa species as the bobolink (above), the peregrine (top) and scarlet tanager.

Some scientists are comparing the current and rapid decline of Neotropical birdlife to the DDT-era of the 1950s. Some go so far as to call the decline "a second Silent Spring."

"I think that may be a very valid comparison," said Ehresman. "Some people are accepting the fact that we're going to lose species. It's arrogant to think that way. To me, it's just irresponsible to not at least try and save all the pieces. Everything has a significance, even if we don't fully understand what that significance is."

mussel canary of Iowa rivers?

Story by Joe Wilkinson
Photos by Scott Gritters

The warning signs are vivid.
**Searchers probe the bottom of the Cedar River on a summer afternoon, but muster just two species of live mussels. That stretch of river once hosted 29 species.*

**Commercial clamming is now closed on the Mississippi River, between Iowa and Wisconsin. Biologists urge that the Iowa-Illinois segment also be shut down. Interior streams have had no clamming for years.*

**"The deterioration of Iowa streams is the worst I have seen," assesses a research leader in a 1987 survey of mussel populations. Yet, a 2000 follow-up shows that it got worse!*

Mussel populations are crashing in Iowa and across North America. That doesn't bode well for those rivers, the fish in them or other plant and animal species intertwined in a symbiotic environmental existence with the humble "clam." It creates an unsettling analogy.

In the old coal mining days, caged canaries would be positioned throughout the shafts as miners labored to bring coal to the surface. Among the dangers they faced every day was asphyxiation from toxic

fumes emitted in the mysterious underground caverns they carved. The canaries would react at the first whiff of noxious gases, often dying, but providing miners a lifesaving head start to thwart their own demise.

Are dying mussels our canary in the coal mine? Are shrinking populations of "heelsplitters," "pimplebacks," "elk toes" and "pistolgrips" a wake-up call to us "higher organisms" to the importance of water quality and the complicated balance of nature?

"We are losing a lot of components of the river; organisms which live in the water," cautions Scott Gritters, Department of Natural Resources fisheries biologist. From his office window in Guttenberg, he looks out on the Mississippi River lock and dam. Fishing boats bob in the current. In warmer months, flocks of gulls swoop down to snatch gizzard shad and other fish from the water. Through the winter, scores of bald eagles take advantage of the free meals — fish stunned as they go through the roller dams and float to the surface.

But the activity there belies the potential environmental time bomb ticking below. "Mussels are a real good indicator of water quality. There has been a real decline in water quality," explains Gritters. "Probably one of the biggest issues is sedimentation — soil getting into our streams and clogging up rock riffles and sandbars. Get a layer of mud on top and it's no longer good for fish. It's certainly no longer good for mussels. There also could be other issues such as pesticides and invasive species. We don't know all the factors affecting mussels. We just know their numbers are declining drastically. It's a huge issue." Yet, he admits it is hard to stir up interest in something people cannot see.

Mussels are filter feeders. Partially submerged in a stream's bottom, a 4-





Pocketbook (left) and pimpleback mussels. "We don't know all the factors affecting mussels," says DNR biologist Scott Gritters (bottom right). He admits it's hard to stir up interest in things you cannot see.

'die off' of mussels in the Mississippi River," explains Gritters. "Was it

ounce mussel can filter 2 quarts of water an hour, digesting plankton and organic detritus, then expelling small pellets, which fish feed upon. Water quality is critical to the supply of that microscopic food, as well as other stages of life beneath the waves. Sediment reduces water clarity. As it drops to the stream bottom, the gravel or sand strata needed by mussels becomes choked with mud. Other pollutants — runoff nutrients or traces of pesticides and other toxins — alter the availability of food and the chemical makeup of the water.

Several studies compiled through the 1990s underscore the drop. They

show that of about 300 species of freshwater mussels in North America, 190 are threatened or endangered. Of the 50-plus Iowa species, a dozen are already extirpated. Another 15 are listed as endangered or threatened. Others are right behind.

Iowa's Mississippi River waters showed massive declines in mussels at nine of 10 sites monitored — mostly from the early to mid-1990s to early in the 2000s. Near Lansing in Pool 9, data showing an average 37 mussels per square meter in 1995 plunged to three in 2001 and 2002, zero in 2003 and six in 2004.

Downstream near Clayton, in Pool 10, the count dropped from 49 per square meter in 1992 to 25 in 1999 and less than two in 2002.

"In the late '80s, there was some sort of

disease? Was it a major water quality problem. We never fully understood why. We were in the grip of a severe drought during that time. Perhaps that was a factor. In a lot of places, though, only about half the populations remained."

Overharvest played a role also, with a small but active clamming industry. The work was hard, seasonal . . . but it paid well. "There were 10 or 15 clammers just around here," recalls retired DNR fisheries biologist Gary Ackerman, in Guttenberg. "They could make \$75,000 a year at the peak. Each river town had a few clammers. It was like having a small industry in those communities."

Restricted to certain sizes and species, clammers supplied the Asian cultured pearl industry. Harvested mussels would be cut and formed into small spheres. These would be introduced into an oyster's shell. Over time, its secretions would coat the human-induced irritants, eventually forming pearls. It was a second life for the "on board entrepreneurs" following the boom and eventual bust in the pearl button industry of the early 1900s. (See sidebar on page 33.)





Zebra mussels, prolific invaders, attach to hard surfaces; often native mussels which they out-compete for food.



A summer afternoon of "pollywogging" or searching for mussels in Iowa's rivers unfortunately yields few if any for researchers.

The call for cultured pearls was loud and clear, with 450 licensed clammers in Iowa in 1990. Their harvests climbed, even as the mussels they pursued were disappearing. Nearly 2.5 million pounds of harvested shells were reported in 1990. From there, their numbers dropped as fast as the mussels they were pursuing. Since 1998, there has been no harvest on the Mississippi River. The Iowa Natural Resource Commission voted in November 2005 to close commercial clamming on the Mississippi, between Wisconsin and Iowa. Some fisheries biologists recommend closing Iowa-Illinois waters, too.

More recently, exotic species have entered the picture. Zebra mussels exploded onto the Mississippi River scene, after first appearing in 1992. The prolific invaders attach to hard surfaces, often native mussels which they out-compete for food. The "zebes" literally blanket existing mussel beds. "Some major beds were under 8 inches of zebra mussels. Some had 2 feet of zebes atop them," emphasizes Gritters. "Natives had no access to food, no reproduction and a live 'crust' of zebra mussels still growing on top."

The problem peaked in 1996, with the first wave of zebes crashing shortly after. Still, biologists see flare ups from pool to pool — and year to year — indicating the unwelcome visitors are here for the long haul. Complicating matters is the fact young zebra mussel veligers simply drift through the water before attaching themselves to a hard surface. They do not require fish hosts to transport the larval mussels (glochidia) and colonize new areas.

As Iowa was settled in the 1800s, it was an entirely different picture. "Prairie streams were hotbeds for

mussels. Some were covered with mussels, shore to shore. Now, we find just a sprinkling," notes Gritters.

The disappearing act is just as eye-popping inland. Gritters watched as volunteers waded and felt their way through the shallows of the Cedar River in Waterloo one day last summer. Historically, on that stretch of the Cedar River, 29 species of mussels have been documented. Only two live species turned up during the survey. Specimens from 10 others were found . . . dead.

"If you walk the banks, you find a lot of dead shells and you think, 'well, they're here.' When you actually look in the water, though, it is a different story," admits Gritters.

A 1987 study of interior Iowa streams, underwritten by the Iowa DNR, U.S. Fish & Wildlife Service

"The future is pretty bleak. Almost all mussel species have been declining; even the tolerant ones."

**Scott Gritters
DNR fisheries biologist**

and the University of Northern Iowa, left no doubt as to the severity. "I would state categorically that at least 40 percent of Iowa mussel species have been eliminated. The deterioration of Iowa streams is the worst I have seen," pronounced principal investigator Dr. Terrence Frest in that report. He listed 6 percent of the streams surveyed as "totally without mussels." A harsh pronouncement? Definitely. Then came a follow-up survey in 2000. That

Like some fish, mussels can be reared in cages (below), creating a predator-free environment until they reach appropriate size.

research, headed by Kelly Poole of Iowa State University, showed 47 percent of interior streams were devoid of mussels. The "worst" had gotten worse!

With so many strikes against them, it's a wonder that freshwater mussels are still in the ballgame. "The future is pretty bleak. Almost all mussel species have been declining, even the tolerant ones," acknowledges Gritters. "We need to keep the base population that remains."

Biologists have a long list of remedies, from removal of lowhead dams (to expand fish movement), to reducing runoff, to increased culturing programs. "If there was just one thing, I would like to see buffers along all streams," urges Gritters. "There isn't a huge economic cost involved and the improved water quality would be worth the expense. People are responding to the call for better water. It impacts their quality of life."

In addition to a slight upturn in mussel numbers at monitoring sites the last couple years, he also sees a glimmer of hope, with recent work in "culturing" mussels. Research that began nearly 100 years ago to investigate how to increase mussel reproduction and growth for the button industry is being pursued with 21st Century tools and imagination. Scientists can remove larval glochidia from parent mussels and "infest" host fish with them. They can also

propagate mussels and fish in cages, offering predator-free environments until the mussels hit a target size. Each method has been successful in the fight to keep species like the Higgins' eye early mussel from going extinct. (See sidebars on pages 32 and 33.)

"Culture techniques have the potential to keep the most endangered species from totally disappearing," Gritters says. "It is quite labor intensive, though. We should not rely on it as the answer, but as one of the tools in our toolbox."

He advocates a combined approach: say buffer strips to reduce runoff, fish bypass structures to move

migrating fish past lowhead dams and routine fish stocking with host fish carrying inoculated glochidia.

With today's freshwater mussel populations at an all time low, we are running out of "tomorrows."

Joe Wilkinson is an information specialist with the department in Iowa City.



LOST AND FOUND: HIGGINS' EYE DISCOVERED

Discovery of an endangered Higgins' eye pearly mussel this past summer in the Wapsipinicon River is breathing life into efforts to reestablish the rare clam on Iowa's inland streams.

Biologists from natural resource agencies in Iowa, Wisconsin, Minnesota and Illinois, the U.S. Fish & Wildlife Service and the U.S. Army Corps of Engineers, had combed stretches of streambeds to survey mussel variety and

populations. They were specifically interested in whether intensive Higgins' eye reintroduction efforts over the last five years would yield results.

Searchers were optimistic that the 3-inch brown clam plucked from 10 feet of water in the Wapsi near Central City might be a Higgins' eye. However, genetic testing was needed. "The genetic analysis is complete and it is conclusive," announced Iowa DNR fisheries biologist Scott Gritters. "The mussel from the Wapsi River was a Higgins' eye." It was the first one found in an interior Iowa stream in more than 80 years. It was found within one river mile of the earlier release site.

The find is a strong indication that human reintroduction of the nearly extirpated clam can be accomplished. Since 2001,

Fish play host to a part of the Higgins' eye's life cycle. Biologists are culturing the endangered mussel by inoculating walleye gills (bottom left) with glochidia, the larval stage. As the Higgins' eye reach a certain age, they drop off the host fish and colonize new areas, and from that point are at the mercy of the water. If they are to survive from young (left) to adult (below), there must be hospitable habitat, away from siltation and heavy current.

researchers have released thousands of host fish into interior streams, their gills inoculated with glochidia (the larval stage of the mussel) extracted from small, well-guarded stockpiles of adult Higgins' eyes. "We knew we could 'culture' some in the protected environment of underwater cages, with known substrate. However, that is very labor intensive," pointed out Gritters. "Putting them into the wild, though — with all the variables — is a whole different world."

Finding a needle in a haystack would be far easier than trying to pinpoint the mussels. At least you can see the haystack. Once the juvenile mussels are attached to the gills of their host fish (most often walleyes, but also on smallmouth and largemouth bass) they are at the mercy of the water. As they reach a certain age, they drop off the host fish. If they are to survive and grow, it must be in a hospitable habitat,

away from siltation and heavy current. Even then, they face heavy losses from predation. "We can't control when and where they will fall off," Gritters admitted. "Just to make it through that gauntlet, like this Wapsipinicon River mussel, is amazing."

Researchers will be back on the Wapsipinicon and other potential Higgins' eye haunts later this year. Gritters says they will spend extra time in areas similar to where they found the 2005 clam.

—JW



MUSSELS AND CLAMMING

Iowa's freshwater mussels were a major part of the booming garment trade at the turn of the 20th Century. It was an industry that exploded and then faded, tied closely to availability of the resource, and later, the development of petroleum-derived plastics. Perhaps it is ironic, as the global scramble to find more oil, stabilize prices and seek alternatives, obsesses us in the first years of the next century.

Early in the 1900s, half of all buttons made in the United States were produced from freshwater mussels. Buyers brought in mountains of mussels from the Mississippi, Ohio and Tennessee river corridors and their interior streams. Workers punched out button "blanks" from the shells to be ground to proper thickness, have eyes drilled, and be polished before being sewn on to button cards or shipped to New York's garment manufacturers or other destinations. In Minneapolis, for example, Munsingwear featured McKee's "clam buttons" on their long johns.

Bellevue, Guttenberg, McGregor and Dubuque were big players, but the capital of the pearl button universe was Muscatine, home of the McKee Button Company. "At one time, we had a couple thousand people working for us," recalls Ted McKee. The 78-year-old grandson of founder James S. McKee. The younger McKee began helping at the factory after school in the late 1930s and early 1940s, going to work full-time in 1953. "There were 50 to 100 companies making buttons — Automatic Button, Hawkeye Pearl Button, U.S. Pearl Button, Rhonda

Button Companies," he recalls. "I think every garage had somebody selling blanks to us."

Clammers ran their flat-bottom wooden boats over mussel beds. Crowfoot bars and brailing hooks trailed beneath, snagging mussels. Clammers would separate by size and species. The right shells brought a little more as they negotiated with the button companies. "A good cutter could produce 200 gross of blanks a week. They all worked at piece rates," remembers McKee. "We were making 150,000 to 200,000



Photos courtesy of the State Historical Society

One cutter (top) could produce 200 gross of blanks, or 28,800 a week. Factory workers sit atop a mound of "punched" shells like those at left.

gross a week. It was pretty steady work. We had one big steam engine that ran the whole factory."

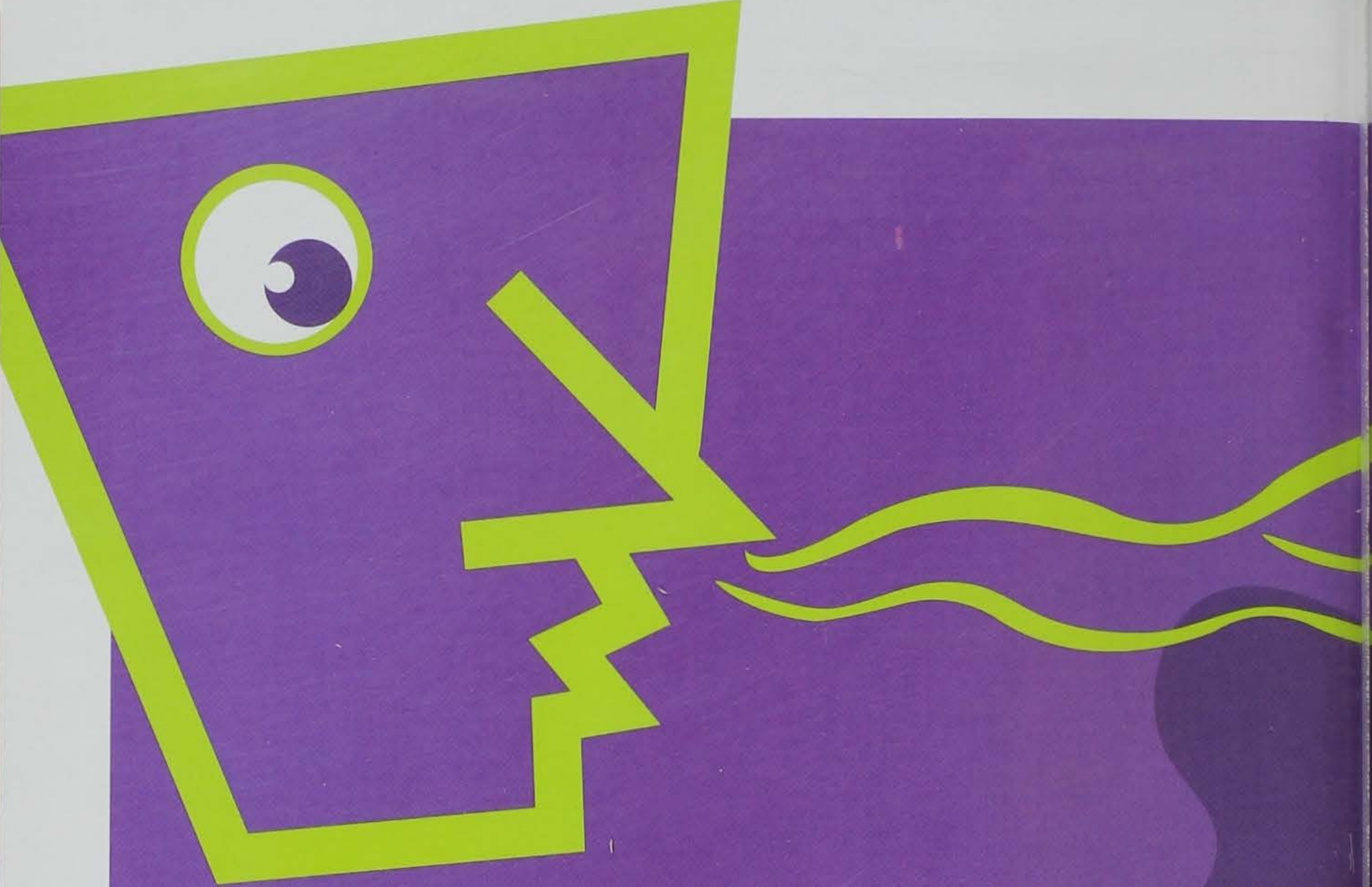
In 1916, U.S. manufacturers punched out 40 million gross of buttons. By then, the heavy demand was depleting the supply of mussels. The industry, several universities and the federal Bureau of Fisheries established a research laboratory at Fairport, near Muscatine. Among its many projects were attempts to "culture" or grow and stock large quantities of mussels to help supply the



button industry. The desired results never surfaced, due to a variety of hurdles. However, much of the early understanding of mussel life stages and research into introduction is being used today, as scientists look for ways to stem plummeting populations.

Following World War II, the proliferation of plastic caught up with the pearl button industry. Buttons could be made faster and cheaper from petroleum extracts. McKee sold its last pearl buttons in 1957.

—JW



Sniffing out the truth on odor in Iowa

Story by Brian Button
Photos by Clay Smith

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Of the five senses, smell is perhaps most complex. It gives 80 percent of the flavor sensation during eating, which explains why kids hold their noses while taking medicine. As part of our defenses, the olfactory system can alert us to irritants, yet during breathing, only 10 percent of inhaled air passes under olfactory receptors in the top and rear of the nasal cavity. When properly sniffing, that amount doubles.

"There's breathing, and then there's smelling," says Ted Petersen, sharing the finer points of the not-so-glamorous task of investigating agricultural odors. For three years he was one of 35 specialists trained to read odor levels under a study that ended this past November, although the state continues to monitor hydrogen sulfide and ammonia.

Petersen, in his office south of

downtown Des Moines, lifts a Magic Marker-sized pen filled with precise amounts of n-butanol, a volatile chemical which gives off a sweet odor, and places it under the nostrils of Bill Gibbons, another specialist. Both are taking monthly smell sensitivity tests to hone olfactory senses and determine if their noses are overly sensitive or under-performing due to allergies or colds. By noon, Petersen will head into the humid air to sample odors at a confinement filled with 2,500 nursery-sized pigs on a hot, hazy July day.

Petersen holds a numbered pen under the nostril of Gibbons, who is blindfolded by a thick black mask. "All right Bill, are you ready? Pen one, sniff," says Petersen as Gibbons takes four, short sniffs. Two more pens, both blanks with no odor, are passed beneath his sniffer before Gibbons reports pen one has an odor.

Petersen marks the answer, picks up a second of 14 pens with varying degrees of odor intensity and repeats the process. "The whole goal is to tell which pen is the n-butanol pen," says Petersen. Sounds easy, but it isn't. Some odors are virtually non-detectable to help identify unusually sensitive noses. "We will see where he first starts to detect odor. We'll know because he will start to nail them correctly. He will get detects," says Petersen, who notes test patterns vary to ensure staff cannot learn the test.

Once inhaled, odors waft over 10 to 25 million olfactory cells in a membrane packed with cilia and receptors that total 5 square centimeters of surface area. The mucous-covered cilia trap chemicals and create an electrical nerve response in the brain. This takes 500 milliseconds.

It is a split-second response, but it took three years to gather enough data to complete the study, resulting in nearly 1,800 statewide readings at hog, chicken, turkey, beef and dairy farms. Some are in response to complaints, but most, like a scheduled trip to a hog confinement later today are routine inspections. Nearly 120 readings have shown high odor levels, including one taken a third of a mile from the source.

Complaint readings were typically taken at a public area like a home, school or business. Routine tests during inspections were done onsite near a

property line. Each test has rules for distances to roads, property lines and tall structures like trees and buildings, which can affect airflow. As a further accuracy check, some tests were done by two inspectors.

Using an olfactometer, which has a rubber cup to seal around the nose and green and red lights to indicate if inhaling too fast or slow, staff control how much air is filtered by the activated charcoal canisters. Often onsite for 20 minutes or longer, staff can become desensitized to odors, but by breathing pure, filtered air for one

minute, nasal passages are refreshed. Filtered air also helps check for leaks or bad seals.

"I've never had anybody get real mad, but they are concerned," says Gibbons, reflecting upon past inspections. He says producers usually tagged along to see how the test was done which also shows the scientific methodology used.

Gibbons once tested when chicken manure was spread on fields. "It was a pretty strong, constant odor," he says, adding that chicken manure has a lot of ammonia. "It was

Ted Petersen (below) prepares to check odor levels near a lagoon of hog manure. The lagoon uses a biocover, made from a layer of straw, over the manure. Microbes in the straw feed on carbon, nitrogen and sulfur compounds to reduce odor. Bill Gibbons' smell sensitivity is tested using a variety of odor-filled "pens."



a warm day, the wind blowing in my face. It was an ideal scenario and a good opportunity to take readings" in response to a hotline complaint. He detected odor at both a seven and 15 part dilution with filtered, odorless air. If staff could detect odor after that much dilution — the typical thresholds used by many states and cities — that is a strong odor. Yet under the study, no action is taken against the odor source, which was done solely to collect data. The final study report will be completed by February and provided to the legislature to aid

decision makers in determining if any future rules are necessary.

Odor strength varies depending upon temperature, humidity and wind levels, says Gibbons. "I've had days where I thought I would get a reading and didn't, and other days where I did unexpectedly."

His sensitivity test complete, Petersen heads out to inspect a manure storage lagoon and check odor at a Warren County farm with 2,500 pigs. Eldon Sanderson, the owner, walks from his office and greets Petersen. Sanderson's pigs arrive when they are 17 days old, and in six weeks, the pigs will grow to 55 pounds, leaving after eating 56 tons of feed. Their manure is stored in a

Petersen refreshes his smell sensitivity by breathing filtered air. The olfactometer will then dilute odorous air 7 to 15 times — a common benchmark for detecting

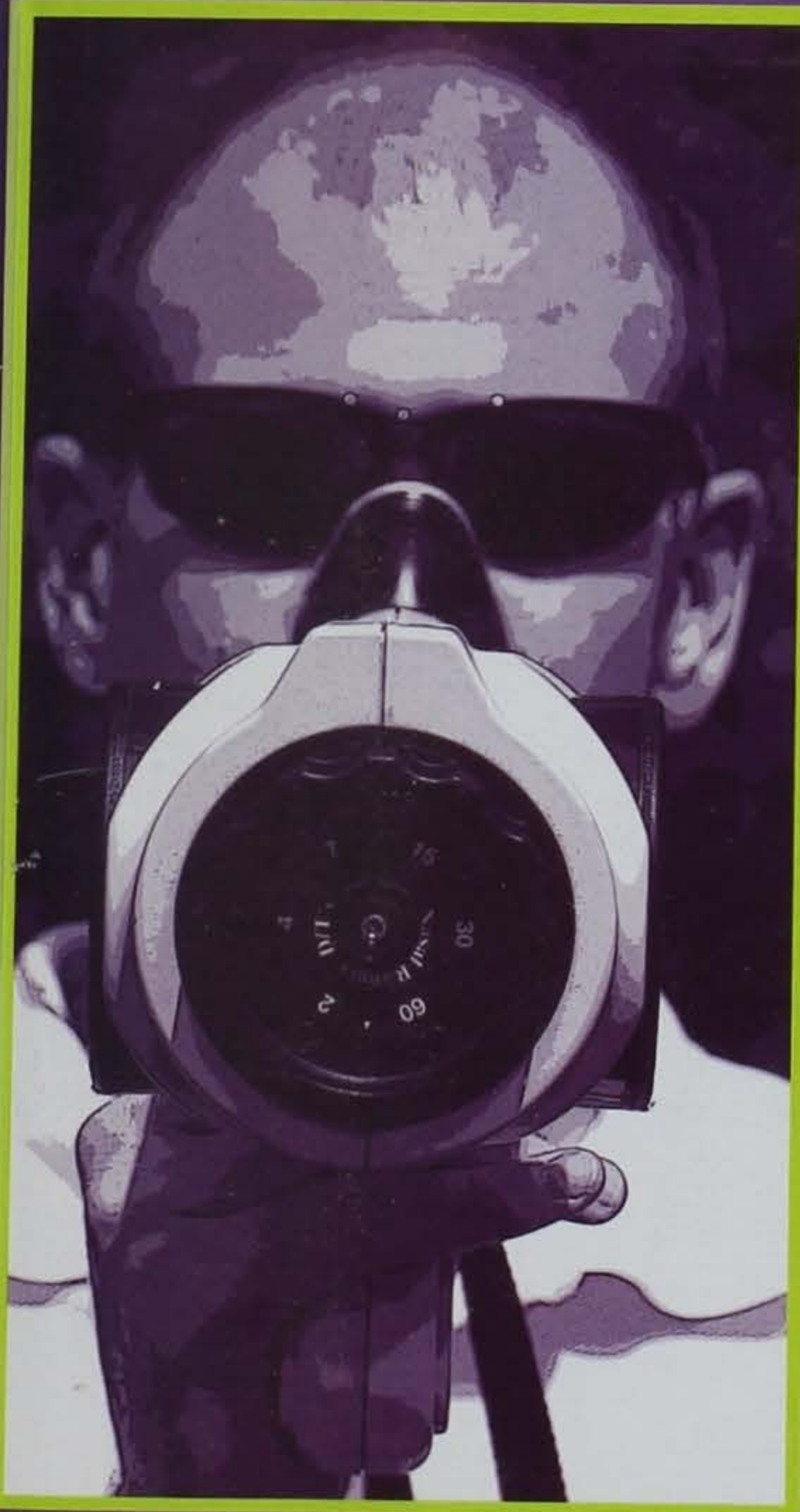
pit beneath the confinement. When full, a plug is pulled and the slurry flows into the concrete-lined lagoon which is covered by a thick straw layer to help reduce odor. Petersen inspects the lagoon, which passes due to ample storage and structural integrity. "This farm is always well run and clean," says Petersen, who has inspected it in the past. Next comes the odor test.

Petersen tries finding wind direction, which is light, sporadic and variable. First he walks in the 90 degree heat under full sun to the southern property line. By tossing puffy dandelion seeds into the air, and watching them gently carry north, he determines a slight southerly wind, so he hikes to the opposite, north end of the property line, takes distance readings using his hand-held global positioning system to pinpoint his location. Here, downwind of both the confinement and the manure pit, he places the olfactometer to his face. He detects no odor at either seven or 15 dilutions, carefully takes wind speed data using another hand held device and logs it all.

If high levels were found, another reading taken at least 15 minutes later, but within an hour, must also have detectable levels. Then upwind readings find background levels.

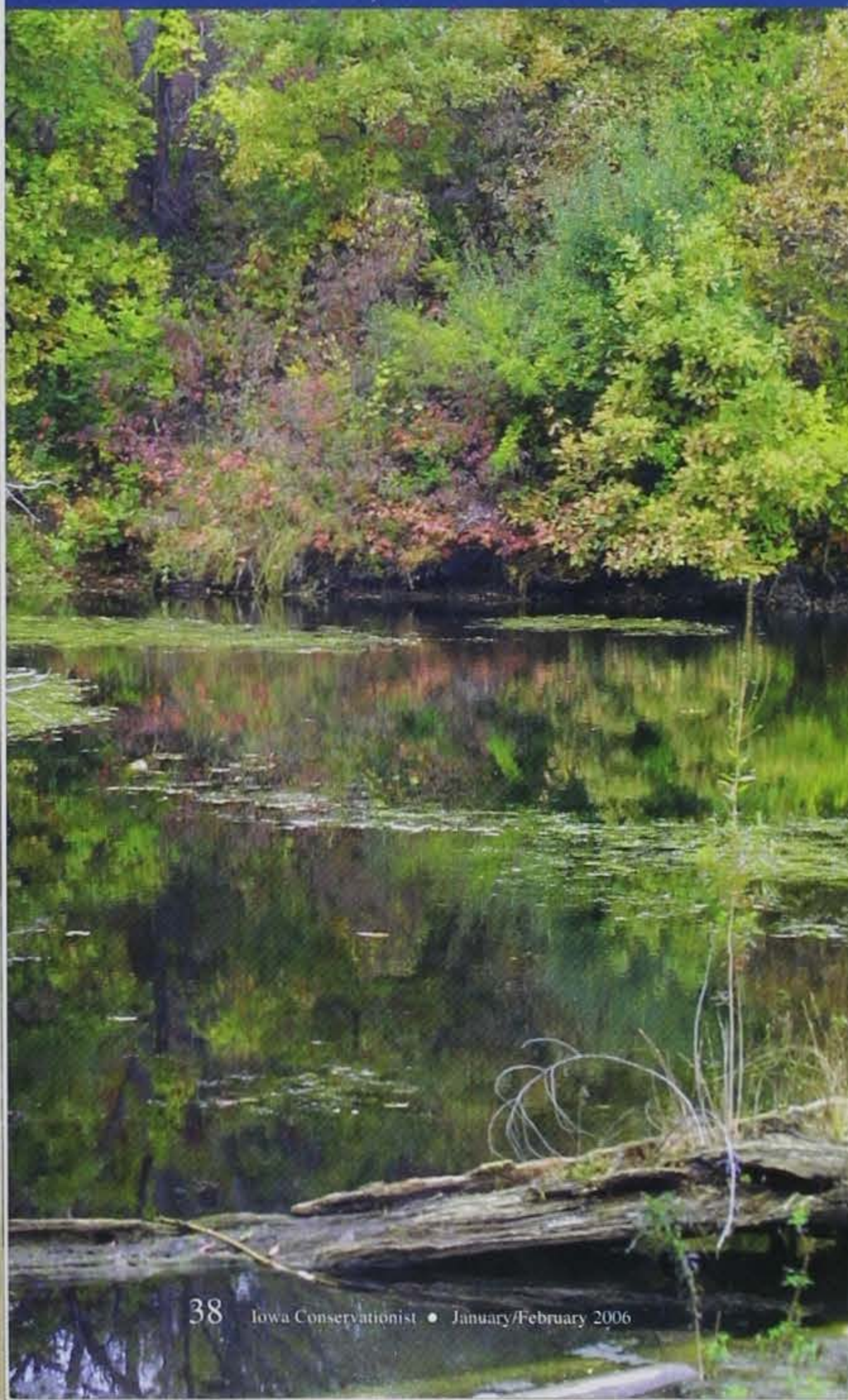
With sweat dripping, his tests done, he will enter the results into a database at the office. Tomorrow he may get an emergency call like a chemical or petroleum spill or conduct air emission inspections at an industrial facility. But the diverse tasks and fast pace keeps his work day lively. And for Iowans concerned about rural air, his tasks today helped gauge its quality and complete the state's odor study.

Brian Button is an air quality information specialist for the department in Des Moines.



BANNER LAKES AT

SUMMERSET STATE PARK



Story by Josh Shipman
Photos by Clay Smith

The area once known to locals in Warren County as Banner Wildlife Area or Banner Pits has undergone a transformation into Iowa's newest state park, Banner Lakes at Summerset State Park.

Located just off of Highway 65/69 south of Des Moines, the park offers trout fishing, bicycle trails and multiple picnic areas, as well as an adjacent shooting range. The scenic 222-acre landscape of the park includes multiple fishing lakes, a two-mile paved bicycle loop, connecting with the 12-mile Summerset Bike Trail, three rest rooms and ample parking all located in the history-rich area — an easy travel from Iowa's most populace city.

HISTORY

The landscape development at Summerset State Park dates back to the early 1930s when the area was being prepared for, according to a 1932 *Des Moines Tribune* article, the "largest strip mining operation to take place in Iowa." The article continued, "The coal — an unusually good grade of the Iowa product — could not be mined in the ordinary way because of the poor 'roof' and the proximity of the four-foot vein to the surface. It is covered by about 40 feet of earth and shale.

"In order to get to the coal, it is necessary to dig a 'young Panama' canal 115 feet wide at the top and 80

Banner Lakes at Summerset State Park was once a wildlife management area offering hunting, fishing and target shooting. It is now Iowa's newest state park and is quickly becoming a popular recreational destination.



feet wide at the bottom.” In the years following the coal mining operations, several pits filled with water leaving the lakes that are found in the park today.

In 1954, the Iowa Conservation Commission purchased the 222-acre setting as a wildlife management area. As a management area, Banner was open for fishing, hunting and eventually, a shooting range. However, because of limited patrol access, the area was an easy target for a variety of rogue activities.

Within the last several years, the Department of Natural Resources was looking for a place to build a new park. Summerset was a prime choice for a variety of reasons. The land was already owned by the state and needed increased patrol, as well as clean up. It was also located in excellent proximity to a sizeable percentage of the state’s population and easily visible and accessible from one of the states busiest highways (16,000 cars per day). For those reasons, among others, new park planning resulted.

NAMING THE PARK

A contest was held to give the new state park a name as a part of the region’s transformation. The public was asked to suggest a name based on four different categories: a person’s name (who has made a significant contribution to the Iowa state park system or preservation of Iowa’s natural resources), historic events (related to the area), place or feature (related to the area), or indigenous people and/or cultures (related to the area). After receiving 180 entries from around the state, a committee of diverse professional backgrounds had to make a decision.



Summerset Trail runs from Indianola to Carlisle and connects to the two-mile park road, making it a popular with walkers, runners and bikers (top). Fishing in either of the two lakes has always been popular — even more so now with the winter stocking of trout in the larger of the two lakes.

The two most popular entries submitted were (with moderate variation) Banner, based largely upon a want to keep the area familiar in name and Summerset, relating the area to both the adjacent Summerset Trail (connecting the towns of Indianola and Carlisle) as well as the former community once located close to the new park.

After discussion, it was decided the park would be called Banner Lakes at Summerset State Park, incorporating the history of the area to the location while at the same time giving it a sense of something new.

ACTIVITIES

Iowa's newest state park offers a variety of activities attractive to many different interests. For those who enjoy fishing, Summerset features two lakes, both having boat ramps and docks with ample parking near each. The larger of the two lakes is stocked several times a year with trout, making Summerset the only location in central Iowa where angling for that species is possible. The initial stocking

Bicycling is another popular activity at the Summerset. The Summerset Trail, which runs from Indianola to Carlisle along the edge of the park, connects to the two-mile loop of park road. The park is about halfway between the two towns making it a wonderful rest area for riders, or a scenic addition of a couple miles. The utility trail in the park is often used not only by bicyclists, but by walkers and joggers, too.

The park also features a variety of places to picnic. Multiple areas throughout the park have parking and picnic tables. Those picnicking can enjoy scenery from lakeside, woods or prairie. The



takes place in the fall, when water temperatures are suitable for trout, followed by several others during the colder months of the year, making ice fishing a popular sport at Summerset. The lake reaches temperatures too warm during the summer to sustain much of a trout population but features an array of other fish species including bass, bluegill, black crappie, red ear sunfish, channel catfish, carp and buffalo. These particular fish are found in both lakes and can be caught year round.



Banner Shooting Range, which is adjacent to the park, is set to undergo renovation this year. The range remains open, however hours vary depending on the season. To check range hours, go to www.iowadnr.com/law/ranges.html, or call 515-961-6408.



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areas are wonderful for a family picnic, a rest stop while bicycling, jogging or walking, or just as a place to sit and enjoy the beautiful surrounding environment.

Another area of interest is the shooting range adjacent to the park. The range is owned by the DNR but is not a part of the park. The shooting range is open for select hours and features pigeon throwers for trap shooting, as well as target shooting for rifles, shotguns and handguns. The range is currently looking at renovations. In the future, a concessionaire may run the range, offering a variety of convenience items for shooters as well as bikers, anglers and other visitors.

FACILITIES

Currently, two non-modern rest rooms are located in the park. The first can be found at the main parking lot at the entrance to the park. The second is located on the backside of the park at the entrance to the shooting range, just off the Summerset Trail. A portable rest room is available near the boat ramp at the larger of the two lakes, while a permanent non-modern rest room is under construction.

As of now, no shelter buildings are available at Summerset State Park, however the idea is currently a subject of discussion.

Iowa features many beautiful parks full of beauty and unique scenery. Many of them have individual characteristics that set them apart from others. While the flora and fauna is sometimes similar at many of the parks, the characteristics of the land always seem to make them unique. Banner Lakes at Summerset State Park is no exception in that the coal mining operation that took place nearly three-quarters of a century ago has left the area with steep rolling hills and deep lakes that look like no other park in the state. Rich with history, directly related to the physical appearance of Summerset, the park is a must visit for all who can.

Josh Shipman is the park manager at Lake Ahquabi State Park and oversees management of Banner Lakes at Summerset State Park.

TENDING TO THE TROUT

By Alan Foster

The first stocking of trout in the larger of the two Banner lakes drew scores of onlookers — and even more anglers. And in the year since, the traffic of anglers in search of some winter trout angling has done nothing but grow.

But while Banner Lakes is the only trout fishery in central Iowa, it isn't the only one in the state. A trio of lakes in the north-eastern corner of the state has been providing winter trout fishing for years.

Blue Pit is a 10-acre lake in Mason City, south of Highway 18 on Pierce Avenue in Lester Milligan Park. It has a handicapped-accessible fishing pier for use during open water and is surrounded by a paved trail.

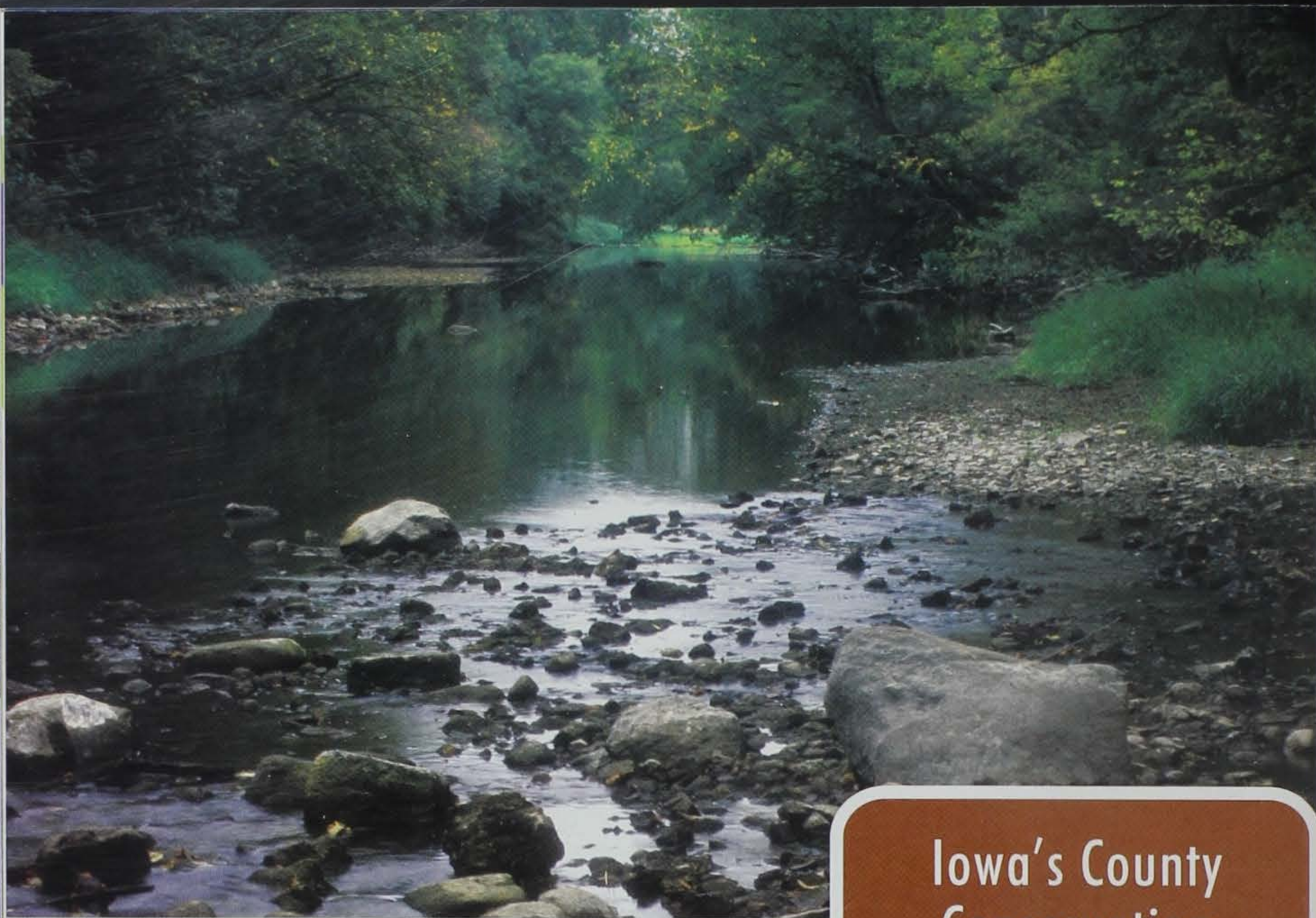
North Prairie Lake is an 8-acre lake located on the south edge of Cedar Falls, just east of the intersection of Hudson Road and Viking Road.

Heritage Pond, in Dubuque, is a 10-acre lake situated just west of the Highway 3/52 and Rupp Hollow Road intersection. It has a handicapped-accessible dock for use during open water conditions.



Wayne Lonning

Along with the various trout streams in northeast Iowa, four lakes — including Banner Lakes in Central Iowa — offer winter trout fisheries.



Roger A. Hill

Iowa's County Conservation Board System Turns

50 YEARS

by Mick Klemesrud

Iowa's county conservation board system holds more than 160,000 acres of land in public ownership, such as Story County's 620-acre Skunk River Greenbelt (above).

Perhaps the greatest impact Iowa's county conservation board system has had during its 50-year existence is the creation of its environmental education program. Those closely associated with the program believe it more valuable than the 160,000 acres acquired, or the 53 nature centers built, or the parks or cabins or shelters.

"It's the real jewel of the program," said Don Brazelton, executive secretary of the Iowa Association of County Conservation Boards.

Steve Derman, director for the Lee County Conservation Board from 1978 to 82, and past liaison with the Conservation Activities

Office within the Iowa Conservation Commission agreed.

"County conservation boards are the leaders. They were involved way before the state ever thought about conservation education and the credit goes to their staff. They are educated people who are up to speed with all that is going on in their areas," Derman said.

Another important feature is the way the Iowa county conservation board system is set up. The County Conservation

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Law provided an outline and a set of laws, but required voters in each county to decide if they wanted a conservation board or not. The first year, 1956, voters in 16 counties approved creating conservation boards. During the next election cycle, 1958, another 34 counties approved creating conservation boards. And on it went. Local officials working with local citizens to promote outdoor recreation. Many states have tried to emulate this system, but none can match it.

"We think we are the best locally based conservation recreation system in the nation — statewide — and that Iowans should be proud of what the legislature did 50 years ago," said Brazelton.

During the early years, the focus was on creating parks — camping and picnicking — because money was available for those pursuits. Over the years, the funding has evolved and so has the focus. The Wildlife Habitat Stamp, Marine Fuel Tax, Iowa Department of Transportation and Resource Enhancement and Protection (REAP), to name a few, all have specific grants available for specific projects.

"It is a neat system and unique to Iowa," Derrand said. "The quality of the professional people in key positions in every county; that is what made it go."

Over the years, improvements in funding, professionalism and coordination have all made an impact. Boards worked to establish trails, and access to hunting land and streams; county parks were created and refuge areas established.

Iowa has changed a lot over the last 50 years. The state is becoming

less rural as the population is shifting to regional, more urban centers. Within the next 50 years, Iowa will have even less direct connection to the land. The county conservation boards are each assessing their needs for the future to address this shift to a more urban/suburban population and fewer people living on the farm. Boards are looking for opportunities and what challenges these changing demographics present.

"The continual challenge is to continue to provide quality programs and facilities to a changing public," Brazelton said.

For more information about Iowa's county conservation boards visit <http://george.ecity.net/iaccb/welcome.html>

Mick Klemesrud is an information specialist with the department in Des Moines.



Lori Foresman-Kirpes (above) and Lewis Major (below), both with the Polk County Conservation Board, are two of many county naturalists around the state providing conservation education to Iowans.



Photos courtesy of Polk County Conservation Board

thinking about SOLAR?

OR staring at THE SUN



84

Megawatts of solar power produced by the U.S. in 2004.

10

The number of square feet of solar power needed to fuel each person's energy needs.

10,000+

Number of American homes powered entirely by solar energy.

20,000+

Number of grid-connected American homes that use some form of solar energy.

1

Number of hours of sunlight that could potentially meet the world's energy demands for an entire year.

1

Number of tons of sand, used to make photovoltaic cells, that could produce as much electricity as burning 500,000 tons of coal.

97

Percentage of the energy the state of Iowa uses that it imports from out of state.

It's a great time for Iowans to be "looking up" for their energy needs.

Article by Kelley Myers

You don't hear "tropical island" and "Iowa" uttered in the same sentence very often. But there is one thing we have in common with the island state of Hawaii — and that's our high potential to produce solar power.

Iowa is blanketed by sunlight 60 percent of the time, and the National Renewable Energy Laboratory classifies much of the state as a "Very Good" solar resource (on par with Hawaii), while the rest of the state is "Good."

Now, couple that with the fact that solar electric systems have become more reliable, efficient and (most importantly) cheaper in recent years than ever, it's become more practical than ever for Iowans to look up to the sun . . . for energy, of course.

Solar 101

Most people know that solar electric systems (also called photovoltaic, or PV, systems) harness the sun's energy and convert it into usable electric energy. What's surprising to some, though, is the fact that solar power can be stored. Nearly all systems are available with storage batteries, meaning you can use the sun's power even when it's not shining. Another surprising fact is advancements in solar technology have made it possible to produce power with only marginal sunlight.

PV systems come in an array of shapes and sizes to meet most needs. Some solar panels are integrated into the roof as solar shingles, making the solar system almost disappear into the design. Other systems, such as solar-powered window awnings and car ports, are even more pragmatic in that they provide clean power while providing shade. Still others are meant to be seen. This way, they not only serve as a power source, but as an educational piece as well.

Solar systems are not only good for the economy, but because they use



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The Solar Lifestyle

Wherever you live . . . or wherever you travel, there's a solar power option to fit your lifestyle. Here are just a few examples:

On the Move

One exciting development in solar technology is how portable it has become. Thin-film technologies have produced durable, lightweight and "packable" sources of solar power. A 10-watt system weighs less than a pound and can be used to charge a cell phone or any other portable device. Because the system weighs so little, you can put several panels together to provide more power output.

These thin-film panels are flexible, so you can attach them anywhere. Solar panels can adorn your tent, your pack and even your clothes. And you can connect them to batteries to store the power for the nighttime hours.

In the Country

The same features that make solar ideal at the campsite also can make solar work in a remote, permanent application. Solar panels are portable and reliable, and you can capture the power in batteries to use for those times when the sun is not shining.

Connecting a remote cabin to the utility grid can often be expensive — if not impossible. Other applications, such

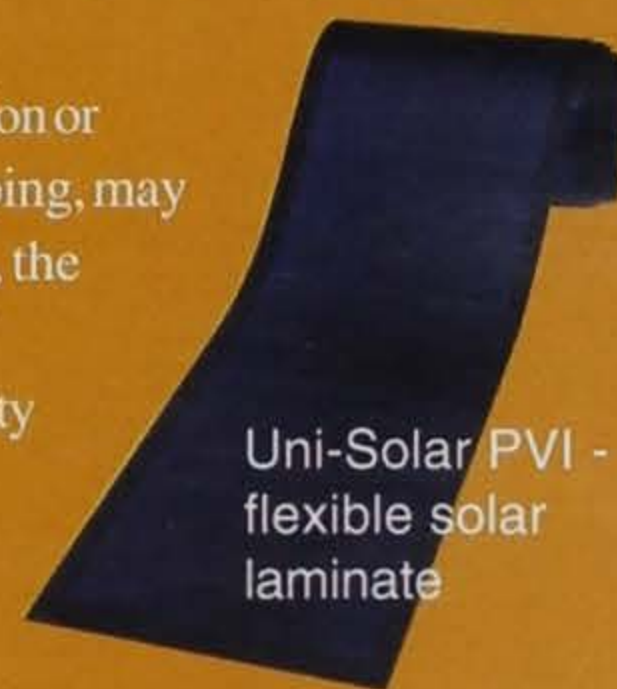
as fence electrification or water pumping, may be so small, the expense of running utility lines is not even an option.

Around Town

Solar power is becoming a familiar feature in town, as well. Commercial businesses, utilities and residential customers alike are embracing solar power as an energy alternative. According to Solarbuzz, Inc., a solar research and consulting firm that provides market information about solar, the industry has grown by 20 to 25 percent each year for the last 20 years. In the last five years, the number of grid-connected solar systems in the world has more than doubled.

Cost

In the last five years, the costs to install solar systems have dropped, while conventional energy stores (such as natural gas, oil, and coal) have increased.



Uni-Solar PVI - flexible solar laminate

Bottom Left: PV systems can help a family or business get through an unexpected power outage or provide power to places the utility grid does not reach.

Upper Left: This solar electric system, integrated into an awning over a back porch in California, generates electricity while shading the family's outdoor activities.

Renewable and clean sources for energy instead of coal or petroleum products, they help the environment. Solar power produces no emissions, so it doesn't harm the air we breathe. In fact, solar energy can actually offset emissions from other power sources when it's used in lieu of older, pollution-producing systems to meet peak demand.

If 1,000 acres of Iowa land were covered with solar panels, it would:

- Provide enough electricity for 11,000 homes.
- Displace the consumption of 38,480 tons of coal per year.
- Keep \$10.9 million from being exported from Iowa to pay for fossil fuels.
- Avoid 1.2 million tons of carbon-dioxide emissions per year.
- Ensure dollars stay in the state to circulate in Iowa's economy instead of being spent elsewhere to import energy resources.

Solar & You

How can you buy into solar power? Tapping into solar may be easier and cheaper than you think. Solar power can power a campsite, charge a satellite phone, energize a remote cabin and offset rising energy bills. It's available in a number of applications and is viable in a variety of settings. To learn more

about technologies, see The Solar Lifestyle sidebar above.

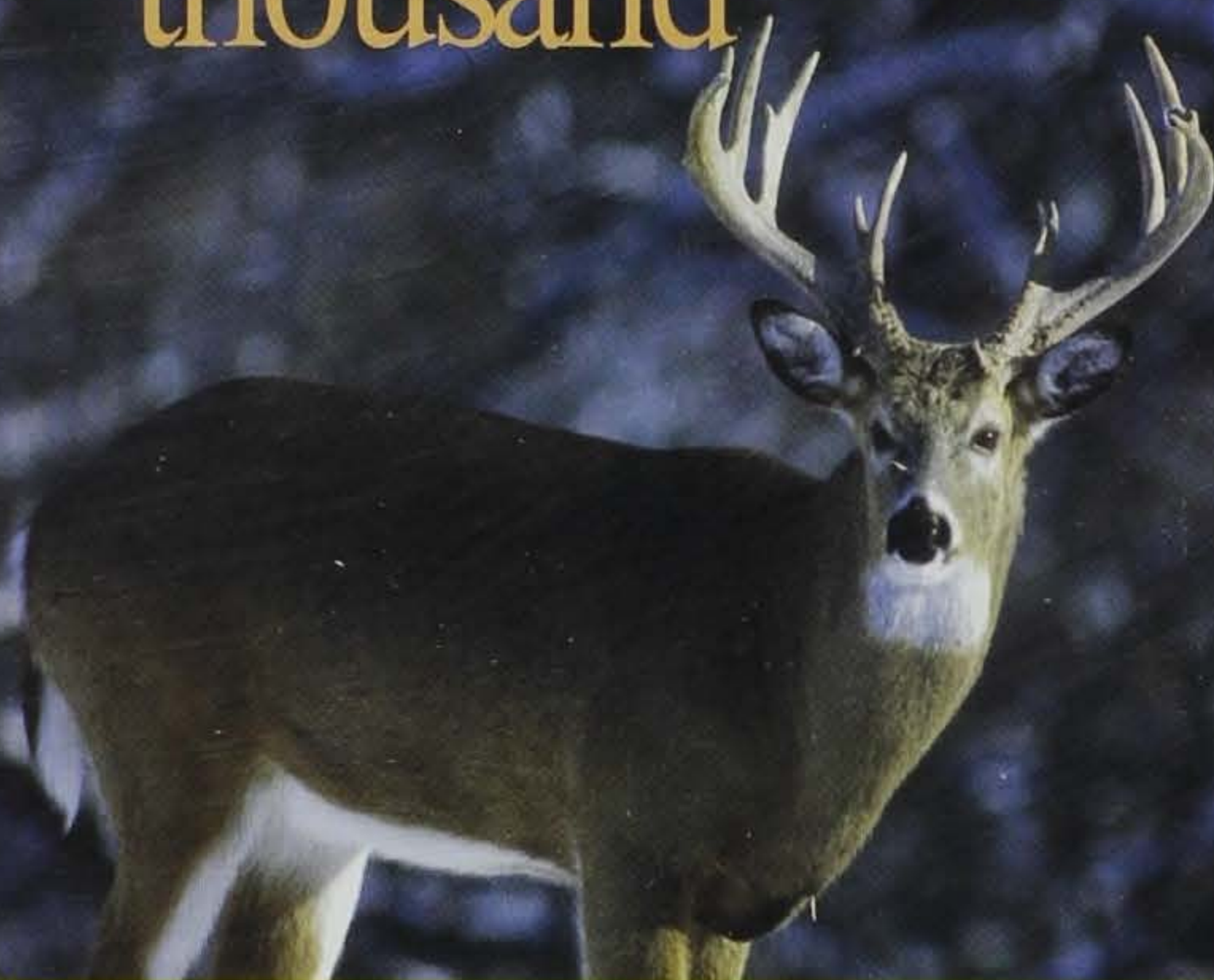
The Bottom Line on Solar

With energy and electrical prices soaring, now is a great time to look at solar power as an energy-saving alternative. Not only do the systems look better and work more efficiently

than ever before, but, thanks to technological improvements and government funding, they are also more affordable. As you can see, solar power is the one instance where it's okay to "look at the sun."

Kelley Myers is a program planner with the department.

two & four thousand



Record Deer Racks

This is a list of the top 25 record deer racks scored in each category between October 2004 and September 2005 for the Iowa trophy deer record program. A complete list of the racks scored during this time period is also available on the DNR web site at www.iowadnr.com/wildlife/files/trpdeer.html

* Denotes a new entry into the all-time Top 10 Racks (page 49)



Bow
Shotgun
Muzzelloader
Pistol

Name	City	County Taken	Total Score	Year	Name	City	County Taken	Total Score	Year
BOW, NONTYPICAL					MUZZLELOADER, NONTYPICAL				
Minimum Qualifying Score - 155 pts					Minimum Qualifying Score - 170 pts				
Sean Thompson	Earlham	Dallas	220 6/8	2004	*Mark Hautt	North Liberty	Johnson	218 1/8	2004
Scott E Benz	Lake City	Calhoun	216	2004	*Cale Plowman	Douds	Van Buren	210 1/8	2004
Dr Gary Latimer	Uniondale, PA	Jefferson	213 4/8	2004	*Wayne Nelson	Madrid	Boone	207 4/8	2004
Rick Gibson	Keystone	Benton	203 5/8	2004	Tom A McMurrin	Walker	Linn	192 2/8	2004
Roger Short	Des Moines	Polk	200 6/8	2004	Steven Larson	Decorah	Howard	186 4/8	2004
Larry VanderLinden	Tracy	Mahaska	197	2004	Steve Noonan	Central City	Linn	182 4/8	2004
Todd Williams	Burlington	Des Moines	192 7/8	2004	James Norris	Diagonal	Ringgold	179 3/8	2005
Luke C Piper	Bloomfield	Davis	191 5/8	2004	Randy Albers	Goodell	Hancock	175 3/8	2004
Nathan Byrn	Bloomfield	Davis	190 7/8	2004	Mark O'Brien	Atlantic	Cass	171 7/8	2004
Brian Grove	Donnellson	Van Buren	190	2004	Kevin Lee Stoa	Polk City	Polk	170 6/8	2004
Gerald Folstad	Decorah	Winneshiek	189 2/8	2004	MUZZLELOADER, TYPICAL				
Robyn Henderson	Monona	Allamakee	189	2004	Minimum Qualifying Score - 150 pts				
Aaron Werling	Grinnell	Jasper	186	2004	*Henry Kollbaum	Moville	Woodbury	176 6/8	2005
James Rowe	Wellman	Washington	185 6/8	2004	Jason Orendorff	Lineville	Wayne	174 4/8	2000
Corey Williams	Waterloo	Clayton	183 5/8	2004	Rob Bain	Van Meter	Monroe	170 5/8	2005
David Doerr	Bellevue	Dubuque	182 7/8	2004	Dennis Freese	Charles City	Chickasaw	170 3/8	2004
Gregory J Kuhlmann	Peosta	Dubuque	181 1/8	2004	Ian Goldsmith	Earlville	Delaware	170 1/8	2004
Jack Theiler	Des Moines	Madison	180 7/8	2004	Arlo McKenzie	Chariton	Lucas	168 6/8	2005
Kevin Oetken	Monmouth	Jackson	180 5/8	2004	Janet L Teten	Sidney	Fremont	165 6/8	2004
Larry Dorenkamp	Mason City	Cerro Gordo	178 6/8	2002	Howard Yoder	Bloomfield	Davis	165 5/8	2003
Jerry Jones	Leon	Decatur	178 6/8	2004	William Armstrong	Mount Ayr	Ringgold	164 6/8	2005
Bob Rinderknecht	Chelsea		178 6/8	2004	Dean A DeVore	West Bend	Wapello	164 4/8	2004
Jason Strelow	Dunkerton	Allamakee	177 7/8	2004	Randy Templeton	Blue Grass	Des Moines	164	2004
Aaron McKinney	Fort Dodge	Hamilton	177 1/8	2004	Mike Zoellner	Shelby	Iowa	163 5/8	2004
Ken Rick	Vinton	Benton	175 6/8	2004	Matt Rosenbaum	Ionia	Chickasaw	163 2/8	2002
BOW, TYPICAL					Jerry Ehler	Kellogg	Jasper	162 4/8	2004
Minimum Qualifying Score - 135 pts					Glenn Pauly	Peosta	Clayton	160 2/8	2004
Jason Henle	Indianola	Warren	179 7/8	2003	Doug Murray	Silver City	Pottawattamie	158 5/8	2004
Richard Martin	Mount Pleasant	Henry	175 2/8	2004	Blake Carver	Salem	Jefferson	158 4/8	2002
Nathan P Stiens	Hopkins	Taylor	174 1/8	2004	Jordan Bailey	Earlham	Dallas	158	2004
Doug Ericson	Humeston	Wayne	173 7/8	2004	Dick Paul	Red Oak	Montgomery	157 1/8	2004
Peter DeJardin	Chetek, WI	Winneshiek	173 1/8	2004	Tony Seivert	Everly	Clay	156 6/8	2003
Mark Adam	Farmington		172 6/8	2004	Jeremy Beeson	Anthon	Woodbury	156	2004
Olin Bontreger	Cincinnati	Lucas	172 6/8	2003	Kyle Klaren	Earlville	Delaware	155 6/8	2004
Shad Derby	Sioux City	Plymouth	172 2/8	2004	Blake Carver	Salem	Jefferson	155	2003
Will Roling	Delhi	Delaware	171 5/8	2003	Ron Lochner	Ely	Linn	154 4/8	2004
Derek Wilkerson	Adel	Dallas	171 1/8	2004	Randy Manuel	Swan	Marion	154	2005
Steven V Hansel	Dubuque	Clayton	169 2/8	2004	PISTOL, NONTYPICAL				
Darrin Pelland	Iowa City	Johnson	168 4/8	2004	Minimum Qualifying Score - 170 pts				
J R Miller	Ida Grove	Greene	168	2004	No entries				
Brandon Sickels	Bridgewater	Adair	166 7/8	2004	PISTOL, TYPICAL				
Brian Barkey	Clarinda	Page	165 6/8	2004	Minimum Qualifying Score - 150 pts				
x William Bump	Panora	Guthrie	165 6/8	2004	*Jeff Brownfield	Blanchard	Page	173 5/8	2004
Jason Jones	Ankeny	Guthrie	165 4/8	2004	*Bob Wiley	Clarence	Muscatine	158 4/8	2005
Thomas Cinadr	Davenport	Cedar	165 2/8	2004	<i>x denotes a crossbow take</i>				
Mark Wilson	Milo	Warren	164	2004					
Phillip L Rich	Chariton	Lucas	163	2004					
Kevin Muehlenkamp	Dubuque	Jones	163	2004					
Tim McDonough	Monticello	Jones	162 6/8	2004					
Tim Hackett	Oakland	Pottawattamie	162 5/8	2004					
Michael E Kalkwart	Otley	Marion	162 3/8	2004					
Jason W Hempey	Sioux City	Woodbury	162 2/8	2004					

Name	City	County Taken	Total Score	Year
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SHOTGUN, NONTYPICAL

Minimum Qualifying Score - 170 pts

Philip G Kooima	Rock Valley	Lyon	227 6/8	2002
Matt Lansing	Calmar	Fayette	205 6/8	2004
Jason Vickerman	Albia	Monroe	200 6/8	2004
Mike Bauwens	Iowa City	Johnson	200 5/8	2004
David Platz	Onamia, MN	Lucas	200 1/8	2004
John Matlock	Ottumwa	Wapello	199 6/8	2004
Shane Heywood	Council Bluffs	Mills	199 1/8	2004
Russ C Amundson	Boone	Decatur	197 3/8	2004
Gary Young	Coon Rapids	Guthrie	197 1/8	2004
Joey I Nachtman	La Motte	Jackson	196 6/8	2004
Bruce Heishman	Norway	Poweshiek	195 4/8	2002
Gene Hegwood	Knoxville	Marion	192 5/8	2004
Bill Goodrich	Chapel Hill, NC	Van Buren	192 1/8	2003
Brian Hennefeld	Knoxville	Clarke	192 1/8	2004
Jeff Scieszinski	Tyndall, SD	Monroe	191 7/8	2004
Brad Herrmann	Evansdale	Black Hawk	191	2004
David Kirkland	Cincinnati	Appanoose	190 5/8	2004
Brad Bergan	Strawberry Point	Clayton	190 3/8	2003
Andrew Miller	Urbandale	Madison	190	2003
Robert Pranger	Waterloo	Lee	189	1997
Phil Hommer	Milo	Warren	187 1/8	2004
Todd VandeNoord	Van Meter	Madison	186 6/8	2003
Joseph Schmitz	Waterloo	Fayette	186 6/8	2004
Russell Coffey	Oskaloosa	Mahaska	184	2003
Matt Steinke	Gibson	Mahaska	183 6/8	2002
Frank Cogdill	Dunlap	Jefferson	183 3/8	2004

SHOTGUN, TYPICAL

Minimum Qualifying Score - 150 pts

Rod & Curt Livesay	Mt Sterling	Van Buren	183 2/8	2003
Dan L Post	Albia	Monroe	182 3/8	2004
Kirk Wicks	DeSoto	Decatur	181 6/8	2004
Dennis Kommes	Exira	Madison	177 5/8	2004
Adam D Young	Cascade	Dubuque	176 6/8	2004
Tanner Schwab	Shell Rock	Butler	172 3/8	2004
Kevin Hatch	Sac City	Ringgold	172 1/8	2004
Steve Kahl	Malvern	Lee	171 7/8	2004
Eric Boles	Grand River	Clarke	171 3/8	1992
Dennis M Adam	Fairfield	Jefferson	170 6/8	2004
Robert De Joode	Knoxville	Marion	170 5/8	2004
Bruce A Sanburn	Mitchellville	Marion	170 1/8	2004
Ed Olson	Sioux City	Woodbury	169 5/8	2004
Rod Scheuermann	Scranton	Greene	169 4/8	2004
Gary Killion	Laurel	Marshall	169 1/8	2003
Dave Squire	Lacona	Warren	168 6/8	2003
Stan Corbin	Wadena	Fayette	168 5/8	2004
Ron Richards	Eddyville	Mahaska	166 7/8	1996
Lauren Terpstra	Oskaloosa	Mahaska	166 6/8	2004
Mike Anliker	Harlan	Shelby	166 4/8	2003
Shawn Lochner	Marion	Linn	166 2/8	2003
Bob L Crawford	Polk City		166 2/8	2003
Richard Ehls	Donnellson	Lee	165 5/8	2004
Matthew J Breiner	Sherrill	Dubuque	165 2/8	2004
Andy Rogers	Fairfield	Jefferson	165 2/8	2004



Name

SHOTGUN

Harold Dic
Michael A.
Wayne A.
Dean Wet
Kenneth T
Michael R
George L
Forest N. R
W. Eugene
John Chas

MUZZLE

Ryan Scott
Marlon Van
Jerry W. C
Ronald Co
Blaine Dav
Ron Murra
Clark Corb
*Henry Ko
Nate Ames
Randy Lat

PISTOL

William H. I
Don Walk
Dave Hotz
George Da
Kendal Po
Darle Mey
*Jeff Brow
*Bob Wile

Bow, T

Lloyd Goa
Robert Mil
Steven E.
Roy Alliso
Jeffery L. W
Richard B.
Alan Bloo
Randy Pet
Kevin Pet
Dan Enger

TOP 10 RECORD RACKS

Name	City	County Taken	Year	Total Score
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SHOTGUN, TYPICAL

Harold Dickman, Sr.	Woodbine	Harrison	1964	200 2/8
Michael A. Hinzman	Guttenburg	Clayton	2000	200
Wayne A. Bills	Des Moines	Hamilton	1974	199 5/8
Dean Wetzel	Guthrie Center	Guthrie	1998	199 3/8
Kenneth Tilford	Lamoni	Decatur	1985	198 1/8
Michael R. Edle	Danville	Des Moines	1989	196 4/8
George L. Ross	Ottumwa	Wapello	1969	195 1/8
Forest N. Richardson	New Virginia	Warren	1989	194 3/8
W. Eugene Zieglofsky	Washington	Van Buren	1997	192 7/8
John Chase	Glenwood	Mills	1997	192 2/8

MUZZLELOADER, TYPICAL

Ryan Scott	Ottumwa	Wapello	2000	184 1/8
Marlon Vander Heiden	New Liberty	Clinton	2003	183 7/8
Jerry W. Conover	Sioux City	Monona	1990	182 7/8
Ronald Cornwell	Waterloo	Hardin	2003	180
Blaine Davis	Waverly	Bremer	2000	179 1/8
Ron Murray	Missouri Valley	Harrison	1998	179 1/8
Clark Corbin	Minneota	Crawford	2000	178 3/8
*Henry Kollbaum	Moville	Woodbury	2005	176 6/8
Nate Ames	Keokuk	Lee	2001	176 4/8
Randy Latcham	Washington	Washington	2003	175 6/8

PISTOL, TYPICAL

William H. Fahrenkrog	Davenport	Scott	1998	171 4/8
Don Walker	Burlington	Des Moines	1998	167 4/8
Dave Hotz	Cedar Rapids	Louisa	1998	161
George Davis Jr.	Allerton	Wayne	2002	160 4/8
Kendal Pommer	Otho	Webster	2000	159 4/8
Darle Meyers	Lehigh	Webster	2000	157 3/8
*Jeff Brownfield	Blanchard	Page	2004	173 5/8
*Bob Wiley	Clarence	Muscatine	2005	158 4/8

BOW, TYPICAL

Lloyd Goad	Knoxville	Monroe	1962	197 6/8
Robert Miller	Wyoming	Jones	1977	194 2/8
Steven E. Tyler	North Liberty	Johnson	1994	194
Roy Allison	Knoxville	Monroe	1995	193 5/8
Jeffery L. Whisker	Clinton	Scott	1993	191
Richard B. Swin	Des Moines	Polk	1981	190 5/8
Alan Bloodgood	Prole	Warren	2000	190 1/8
Randy Petersburg	Waukon	Allamakee	1996	189 1/8
Kevin Peterson	Mediapolis	Des Moines	1989	188 1/8
Dan Enger	Fort Madison	Lee	2003	186 7/8

Name	City	County Taken	Year	Total Score
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SHOTGUN, NONTYPICAL

Larry Raveling	Emmetsburg	Clay	1973	282
Lyle Spitznogle	Wapello	Louisa	1982	258 2/8
David Mandersheid	Welton	Jackson	1977	256 7/8
Carroll Johnson	Moorhead	Monona	1968	256 2/8
Larry J. Caldwell	Des Moines	Warren	1990	248 6/8
Don Boucher	Albian	Marshall	1961	245 3/8
Carl Wenke	Cedar Rapids	Lee	1972	245
Robert Wonderlich	Oskaloosa	Monroe	1970	244 6/8
Donny Grant	Turin	Monona	1996	240
Jack Bell	St. Berlington	Des Moines	2002	237 7/8

MUZZLELOADER, NONTYPICAL

*Mark Hault	North Liberty	Johnson	2004	218 1/8
Richard Muff	Clarinda	Taylor	2000	214 3/8
Mike Moody	Hamburg	Fremont	1990	210 2/8
*Cale Plowman	Douds	Van Buren	2004	210 1/8
Alan Funk	Scotch Grove	Van Buren	2000	209 5/8
Vincent P. Jauron	Harlan	Monona	1990	209 1/8
*Wayne Nelson	Madrid	Boone	2004	207 4/8
Daniel Kauffman	Wapello	Louisa	1984	205 3/8
Jeff Tussey	Creston	Union	1995	205
Donald Mason	Albia	Monroe	2003	204 2/8

PISTOL, NONTYPICAL

Bob C. Garside	Greenfield	Adair	1998	211 5/8
Bill Fahrenkrog	Davenport	Scott	2000	206 3/8
David A. Arnold	Des Moines	Mahaska	2000	178 7/8
David Miller	Shenandoah	Page	2003	170 4/8
Jim C. DeFosse	Mediapolis	Des Moines	1999	170 2/8

BOW, NONTYPICAL

Brian Andrews	Independence	Buchanan	2003	253 1/8
Dave Gordon	Waukon	Allamakee	2000	240 4/8
Rick L. Dye	Knoxville	Warren	2000	240 2/8
Harlan Swehla	Cedar Rapids	Des Moines	2002	237 6/8
Larry V. Zach	Ankeny	Monroe	2000	237 3/8
Russ Clarken	Desoto	Dallas	1994	236 7/8
Harvey Dirks	Cedar Rapids	Allamakee	2003	233 1/8
Mike Hobart	Prole	Madison	1993	229 5/8
Terry M. Long	Des Moines	Polk	1995	229 4/8
Jerry L. Wells	Altoona	Madison	2001	227 3/8

Ambrose A. Call State Park

by Deb Coates, Park Ranger

A.A. Call State Park may be one of the smaller parks in Iowa but it does not lack in natural beauty. Located on the southwest edge of Algona, this 134 acre tract of heavily wooded rolling hills was given to the state by Mrs. Gardner Cowles in memory of her father, Ambrose A. Call.

It was in 1925, 71 years after Ambrose, along with his brother, Asa, and William Smith, came north of Fort Dodge where there were no other settlements. The trio

spent their first night in Kossuth County on July 9, 1854, and carved their claim to the land on a walnut tree. The next day, while Asa went for his wife and supplies, Ambrose and Smith began work on a cabin in what is now the park.

Later Asa wrote: "At the site of Algona, I found a good tract of land with a fair amount of timber, some water power, and near the center of the county."

The park was

dedicated on July 15, 1929 and the first park custodian was Paul Wille. He established the five miles of trails through the woods at A.A. Call with assistance in 1933 by the Civilian Conservation Corps. Upkeep of the trails was later done by Germans from the prisoner of war camp in Algona.

Ambrose A. Call State Park is actually made up of glacial material left from the Wisconsin Ice Age. It is a 138-acre "oasis" of rugged hills, heavily wooded with virgin timber, among gently rolling farmland.

The park offers a log cabin-style lodge, which was built in 1928. It was built from elm logs, some as large as 18 inches in diameter. Wille, who served as custodian for 20 years, built much of the lodge furniture by hand from native wood. Inside, the lodge was like a museum with a collection of Civil War and Indian artifacts. The lodge was renovated in 1998 with RTO funds and is still a popular site for reunions, weddings, graduation receptions and meetings.

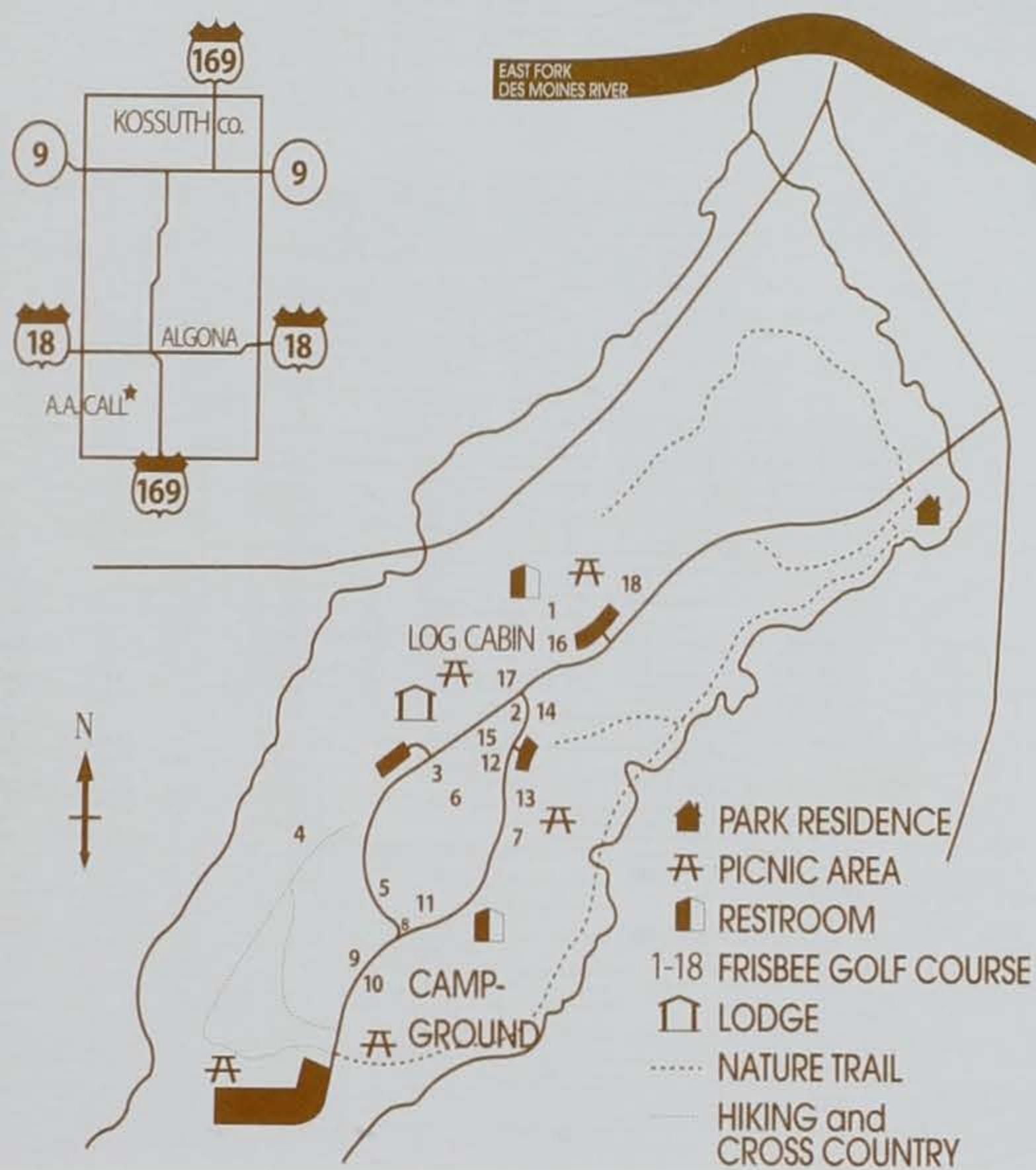
Other features of the park include a non-modern campground with 13 electric sites, three nonelectric sites and an 18 hole frisbee golf course.

For more information about Ambrose A. Call State Park, call (641) 581-4835.





The log cabin-style lodge (above), built in 1928 and renovated in 1998, is a popular site for reunions, weddings, graduation receptions and meetings. A plaque marks the donation of land made by the family of Ambrose A. Call. The park also features an 18-hole frisbees golf course (opposite page) for additional fun and relaxation.



Article by Mick Klemesrud
Photos by Clay Smith

ULRICH MEAT MARKET



19th Century Meat Market Serves 21st Century Iowa Deer Hunters

The first thing that hits you when you walk into Ulrich's Meat Market is the smell of spices and sweet hickory smoke. Ulrich's has been serving Pella and surrounding communities from the same location since the late 1870s, and after 130 years, that smell is as ingrained in the building as wooden shoes and windmills are to Pella itself.

Over that time, Ulrich's has gained a reputation for producing high-quality meats, a fact not lost on deer hunters looking for a locker to process their harvest. In 2004, Ulrich's handled 30,000 pounds of deer meat and co-owner Carl Vos expects to do about the same this year.

One of the specialties at Ulrich's is bologna. And deer hunters request a lot of ring bologna. Vos said making the specialty meat is a three-day process. On day one, the deer is ground to a coarse texture and the spices and a cure (to prolong the bologna life) is added. On day two, the deer spice

mixture is ground to a fine texture and a little flour is added. Day two is also when the extras are added – the cheese or special-request spices. The mixture is stuffed into the skins and allowed to rest overnight in a large cooler. On day three – it's a trip to the smoker for about 3 or 4 hours at 115 to 130 degrees, then to the cook tank to finish the cooking process. Once it is cooled, it is packaged with the "Not for Sale" wrapper and frozen until the hunter comes to pick it up.

When we visited Ulrich's this fall, Vos had a stack of custom meat processing forms from deer taken by hunters during the youth, early muzzleloader and archery seasons. But things will really pick up during the shotgun seasons. It can take as long as eight to 10 weeks to complete the orders

after shotgun seasons.

Mick Klemesrud is an information specialist for the department in Des Moines.



Carl Vos (left) along with business partner Joe Becker are the owners of Ulrich's Meat Market in Pella.

Established in the late 1870s, the market has developed a reputation for fine meats, particularly their ring bologna.



Ulrich's Meat Market
715 Franklin St.
Pella, IA 50219
641-628-2771
www.dutchmall.com

Governor's Iowa Environmental Excellence Awards

EMC Insurance Companies

by Jill Cornell

Photos courtesy of EMC Insurance Companies

This past April, four Iowa businesses and organizations were recognized for their comprehensive environmental programs. Following is the third in a series featuring the four Governor's Environmental Excellence Award winners.

For several decades, a potential danger has been lurking in the cabinets and storage areas of some Iowa classrooms. But, thanks to EMC Insurance Companies, that threat has been reduced through the company's Rehab the Lab program.

The danger: Unwanted chemicals (including radioactive materials, potential impact explosives and other hazardous chemicals) that were once used in classrooms, but are now considered too dangerous for school use and pose significant safety and liability issues.

"Our goal is to prevent losses before they happen," said Lisa Hamilton, director of corporate communications at EMC Insurance Companies. "We want to provide a safe learning environment for Iowa's children, staff and communities."

Headquartered in Des Moines, EMC Insurance Companies is the largest insurer of school districts in Iowa. Through a partnership with Metro Waste Authority, EMC developed Rehab the Lab as a chemical management program to help schools develop the proper and safe identification and control of hazardous materials. The program assists with management, education and disposal options for all of these chemicals.

Key components of the Rehab the Lab program are an on-site assessment by EMC loss control professionals, a comprehensive report including an inventory of chemicals for disposal, and access to discounted disposal rates. In addition, the company provides chemical management training for school staff and follow-up support and resources to ensure

ongoing management and proper disposal of chemicals.

Along with these benefits, Rehab the Lab assists schools with EPA and OSHA regulations to prevent future chemical stockpiles.

Some of the chemicals that have



been discovered in schools were found to be potentially explosive. After this development, "It was critical that appropriate school personnel undergo training to help them identify threats to their safety," said Hamilton.

Through training on the Iowa

Communications Network (ICN), Rehab the Lab provides sessions for school staff covering five topic areas: administration and business managers, art and photography, custodial maintenance/building and grounds, industrial/vocational technology and science. The topic areas have been surprising to some people.

"Most dangerous chemicals are located in science laboratories, but we're not just looking there," said Hamilton. "We're assessing the custodian closets, the bus maintenance sheds and the art rooms."

As most school budgets decrease, EMC Insurance Companies provides the program as a value-added service through its school insurance program.

Hamilton says the economic impact of preventing potential school loss to school property and, more importantly, preventing injury to students and staff cannot be estimated.

To date, Rehab the Lab has assisted 140 school districts throughout the state of Iowa with the removal of more than 145,000 pounds of hazardous

chemicals. Along with minimizing potential health and safety risks, the program has reduced environmental impacts to the state's water, air and land.

"Rehab the Lab offers hazardous disposal options at a considerable discount through

contractors," said Hamilton. "Our intent with presenting this service is to aid in the proper disposal of these chemicals."

EMC loss control specialists have surveyed more than 237 schools buildings and provided training for more than 1,900 district staff members. Several community colleges have participated in Rehab the Lab, as well as many of the largest school districts in the state.

Because the Rehab the Lab program has been so successful in Iowa, the company is considering offering the school program through other EMC Insurance Companies branch offices and even expanding it to the company's corporate clients.

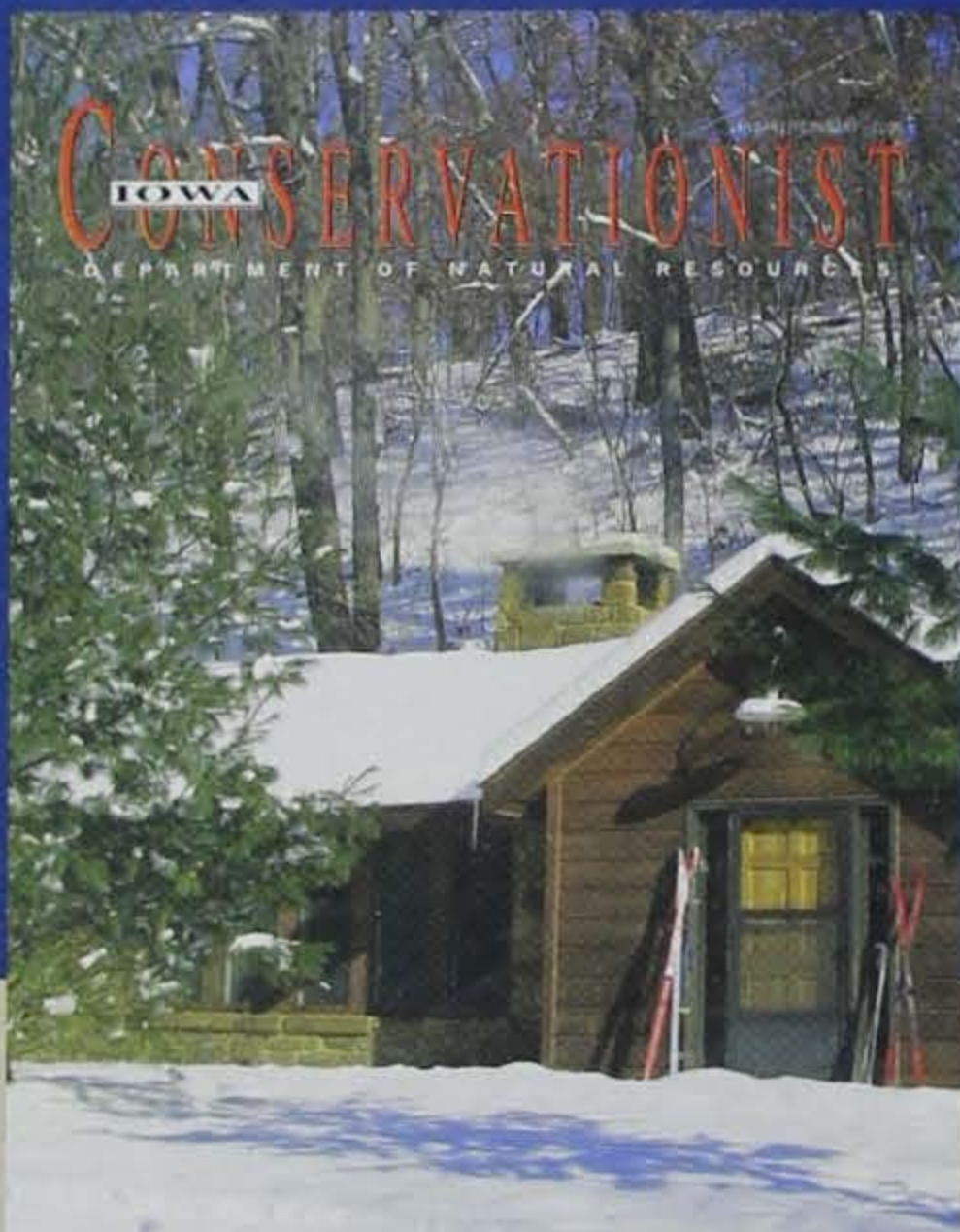
"We just started a similar Rehab the Lab in Nebraska," said Hamilton. "We hope to achieve just as much as we have in Iowa."

EMC Insurance Companies was also awarded a Governor's Environmental Excellence Award—Special Recognition in Waste Management.



Jill Cornell is an information specialist with the department in Des Moines.

EMC loss control specialists survey chemicals for Rehab the Lab (left). Old, corrosive chemicals (top) are potential hazards in schools across Iowa. EMC inventories chemicals for disposal (bottom).



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"Buffalo Bill" delights park visitors

by Michael Dhar

The man standing, swaying slightly, on a 19th century riverboat tells of a three-mile stretch of river blanketed in white feathers. An expedition of pioneers came upon this sight, he says, rounded a bend, and saw thousands of white pelicans rising into the air.

This is the technique of William J. Sanders, a.k.a "Buffalo Bill," a volunteer interpreter at Lewis and Clark State Park outside Onawa.

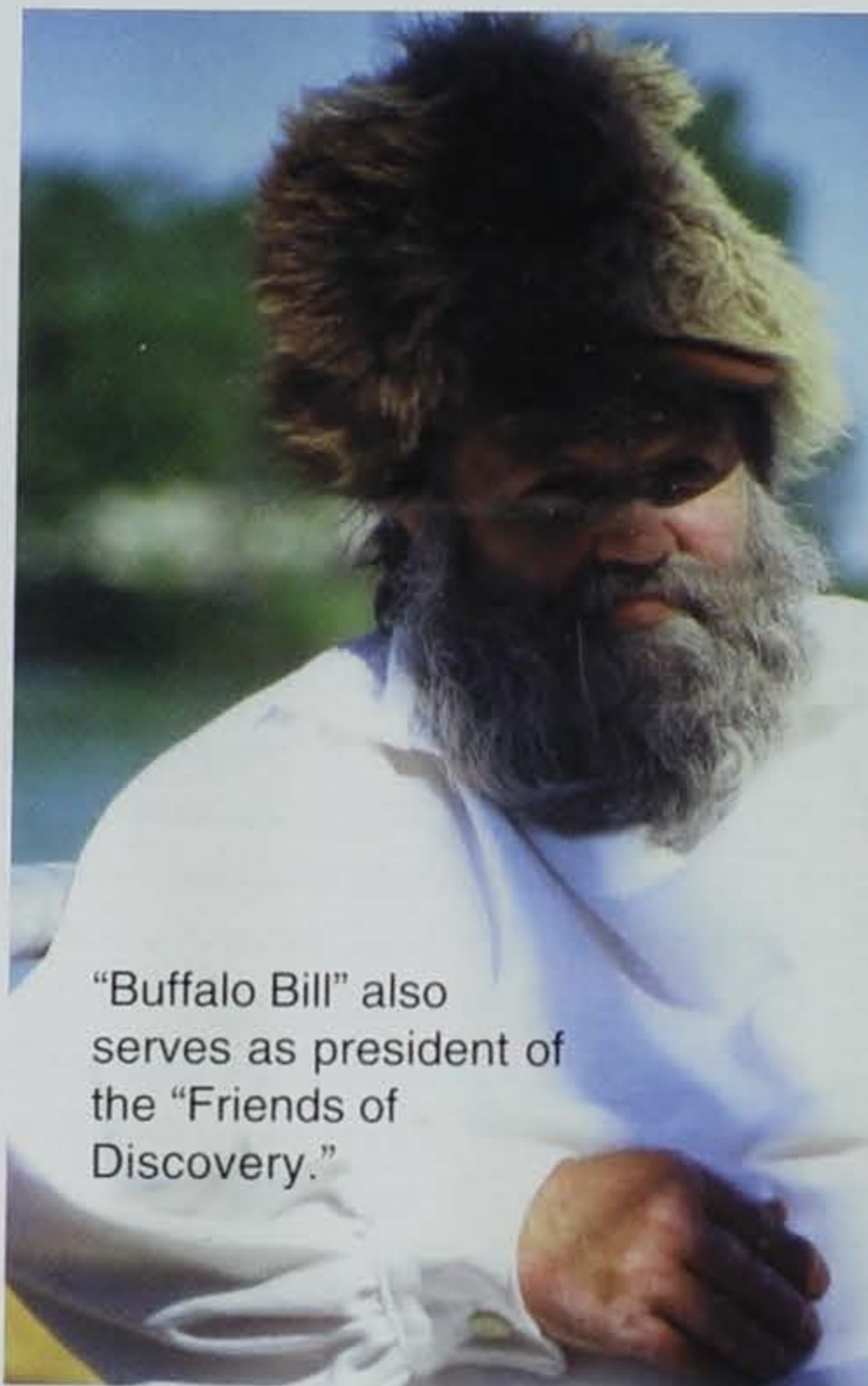
The 315-pound, thick-bearded retired farmer, dressed in his customary buckskin coat and buffalo hat, brings the story of the Lewis and Clark expedition alive with vivid mental pictures.

The most lasting image that Buffalo Bill gives to his listeners, however, is usually his own.

"If we see a tour bus coming, and I'm working in a shirt, I throw it off and put on the buckskin and hat," he says. "People are just thrilled. I look like I stepped right out of 1814."

Sanders first volunteered at the park in 1985, after a disability prevented him from tending his nearby farm. The park, home to

Butch Bovier's one-of-a-kind replica keelboat and "Pirogue" row boats, serves as a perfect



"Buffalo Bill" also serves as president of the "Friends of Discovery."

DNR photo

setting for Sanders' stories.

A love of history inspired him to start giving extemporaneous talks at the park, Sanders says.

"I couldn't farm anymore, so I found two things I'm good at," he says. "One is sitting on my butt, and the other is telling stories."

Sanders routinely puts in 60-hour weeks, giving as many as six presentations a day during the summer. Sometimes his efforts

send him home with a fading voice, he says.

"He's been selfless in his years of serving here and in the state of Iowa," said former Lewis and Clark park manager, Russell Field. "I think of him as a cornerstone of our Lewis and Clark heritage program."

Nearly 20 years — and more than 30 books worth of research — since first volunteering, the "old farm boy" has expanded his presentation to 45 minutes. He covers the Lewis and Clark expedition from Monticello, through all the major encampments, to the Pacific Ocean, and back.

"There are a lot of professional interpreters that are very good," said Dick Williams, the Lewis and Clark Trail Manager for the National Park Service in Omaha, who has seen several of Sanders' presentations. "But as far as volunteers, and somebody who has just picked it up without any professional training, he's right up there with the pros."

Volunteer Opportunities

- * Find our volunteer events calendar at: www.keepersoftheland.org
- * IOWATER water quality monitoring training sessions. See www.iowater.net for details.

CONSERVATION UPDATE

Feeding Wildlife During The Winter Is Not Always The Best Solution

Many Iowans are calling the Iowa Department of Natural Resources (DNR) with concerns about the impact of the earlier snowfall and extremely cold temperatures on Iowa's upland game population.

"Our research with wild hens shows we lose about 3 percent of our hen population for each week of snow cover," said Todd Bogenschutz, upland wildlife biologist for the Iowa DNR. "With only a little over three weeks of measurable snow this winter, it has not been a serious winter yet."

"Still, many folks are asking me if they should feed the birds, and my advice is to not feed the birds, in most situations, because it concentrates the birds for predators," Bogenschutz said. "It also does not address the larger issue facing the birds which is the lack of secure roosting cover."

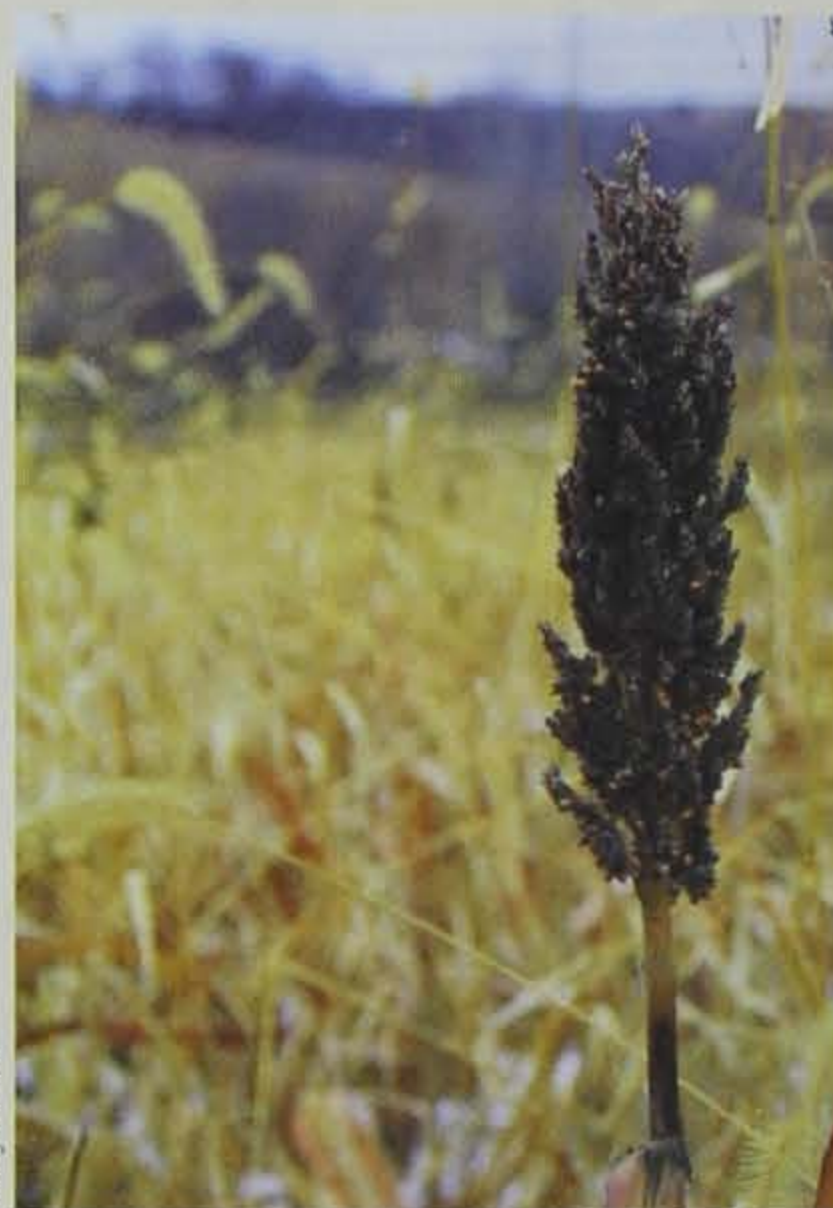
For those who do feel the need to feed the birds, the DNR offers these guidelines:

- Keep the food adjacent to good winter cover (cattails, switchgrass or conifers) and away from tall trees. Scatter the food to keep the birds dispersed throughout the habitat.

- Do not put food on the road as it increases the risk of vehicle collisions.

- Once feeding begins it MUST continue through the remainder of the winter, as the animals become dependant upon it rather than seeking out other food and cover sources.

Perhaps the best advice, Bogenschutz said, is to contact the local DNR biologist or Pheasants Forever chapter and plant a food plot or other winter habitat for the birds for next year.



Clay Smith

Feeding upland game doesn't solve the larger issue facing bird survival, and that's a lack of suitable cover.

"A little advanced planning is the best defense the birds have against mother nature come next winter," he said.

Limited Bobcat, Otter Season Proposed

River otter and bobcat numbers have risen to the point where state wildlife officials are proposing a limited harvest of the once-endangered furbearers.

Iowa DNR furbearer biologist Ron Andrews said otter and bobcat populations are growing at an annual clip of 6 and 7 percent, respectively. At the same time, more and more complaints are being fielded from pond owners and fisheries

personnel about growing fish losses due to increased otter populations.

Andrews anticipates a limited season with a specified zone for each of the species. The harvest would still allow population growth.

The proposal will go before the Natural Resource Commission in March. Public comment is being accepted



Lowell Washburn

through the process, which seeks final approval by June. If approved, seasons would be established in the fall of 2006.

Iowa Fish Finding New Home In New Orleans' Hurricane-ravaged Aquarium Of The Americas

It's a long way down the Mississippi River, but when disaster strikes at one end, there is help at the other.

With all the death and destruction dealt New Orleans and the Gulf Coast by hurricane Katrina, the stories of damage and rebuilding continue to unfold. And some Iowa fish are playing a big part in the rebuilding, finding a new home at the Audubon Aquarium of the Americas. The aquarium lost 10,000 fish when staff were forced to evacuate and life-support systems failed.

"When we close our aquarium here each October, we call the aquarium (National Mississippi River Museum and Aquarium) in Dubuque to see if they want any of the extra fish," said Kevin Hansen, who works at the DNR's Guttenberg fisheries station. "They told us about the folks in New Orleans, so we gave

them some of our (aquarium) fish. Since we were also doing over-winter survey work on the river, we also got fish from the backwaters — bass, bluegill, crappies, some carp — a little bit of everything we could find to send along."

The Dubuque museum/aquarium also donated additional species, like paddlefish, sturgeon and eels.

"I cannot imagine the devastation they have seen," said Abby Garner, from the Dubuque aquarium. "Basically, everything that these people had is gone. We'll help any way we can. Institutions like this, we help each other out, like a neighbor, knowing they would do the same for us."

Hewitt says Iowa's contributions will play a big role in the Mississippi River gallery. Officials hope to reopen this summer.



Lowell Washburn

State threatened Blanding's turtle, featured on the 2006 Nongame Support Certificate.

Chickadee Checkoff Helps Wildlife Diversity

A recent U.S. Fish & Wildlife Service survey found nearly half of all Iowans over the age of 16 enjoy viewing wildlife. Despite the high interest, most Iowans do not realize there is a state program that supports these species.

The Iowa DNR wildlife diversity program teaches people about landscaping for wildlife, private land management and bird feeding, among other offerings. Staff also conduct research on wildlife, from frogs and turtles to bats, bald eagles and grassland nesting birds, and have been successful in restoring such species as peregrine falcons, ospreys and trumpeter swans.

The program is funded through the Fish and Wildlife Fund (Chickadee Checkoff) on state income tax forms. The donations help 80 percent of Iowa's wildlife species, including more than 400 nongame species in Iowa.

Free Camping Now First Weekend In May

The Iowa Department of Natural Resources has designated the first weekend in May each year to be free camping weekend for Iowa residents. Free camping weekend impacts only state parks, and not county and federal campgrounds.

Campsites cannot be reserved through the state's new reservation system; all sites are first-come, first-served.

Free camping weekend began in 2002, and is open to Iowa residents only. Nonresidents may camp during that weekend, but must pay the appropriate camping fee.

CONSERVATION UPDATE



Financial Assistance Available To Landowners For Bottomland Hardwood Tree Planting

New financial incentives are now available to assist landowners with converting flood-prone bottomland crop fields to tree stands.

The Iowa Division of Soil Conservation (DSC) has announced it will provide an additional 25 percent cost-share to landowners who use the Continuous Conservation Reserve Program's Bottomland Hardwood Tree Initiative to plant trees.

The DSC is setting aside \$250,000 for the incentive, which is available to landowners on a first-come, first-served basis. The incentive is in addition to the \$100 sign-up incentive already being offered by DSC.

"These new incentives are really great news for Iowa landowners. When combined with the 50 percent cost-share available from the Farm Service Agency, a landowner's out-of-

pocket expense for first-year tree planting projects will be \$50 an acre or less," said Paul Tauke, supervisor with the DNR's forestry bureau.

To qualify for the Conservation Reserve Bottomland Hardwood Tree Initiative, a landowner must own cropland that is within the 100-year flood plain of a river or stream. If the property qualifies for the program, landowners receive 50 percent cost-share for the establishment of trees plus an annual payment for 14 to 15 years from the Farm Service Agency and 25 percent cost-share plus a \$100-per-acre sign-up bonus from the Iowa DSC.

For more information on the Bottomland Hardwood Tree Initiative, go to www.iowatreeplanting.com, or contact Tauke at 515/242-6898 or paul.tauke@dnr.state.ia.us.

NWTF Offers Tree Planting Reimbursement

The Iowa chapter of the National Wild Turkey Federation (NWTF) has money available for tree planting projects.

To be eligible for the assistance, landowners need to complete a Habitat Improvement Project Application with the approval of a DNR forester or wildlife biologist, and be a member of the NWTF. Application forms for habitat improvement projects can be found at www.iowanwtf.com/news.htm#Habitat.

The Iowa chapter will reimburse approved landowners 75 percent of their costs up to \$600.

The NWTF funding could be used in conjunction with other state or federal cost-share programs to lower a landowner's out-of-pocket expenses for habitat improvement and to purchase tree and shrub seedlings from the State Forest Nursery.

For more information on wildlife habitat packets and planting designs, go to www.iowadnr.com/forestry/specialty.html or call the State Forest Nursery at (515) 233-1161.

Applicants must be NWTF members to be considered. For more information on NWTF membership, go to www.iowanwtf.com/, or www.nwtf.org/.

Grade School Takes Class Project To New "High"

To several hundred central Iowa grade school students, the sight of a bald eagle will forever hold special meaning, especially if that raptor answers to T.J.

T. J. is the adoptive "classmate" of Thomas Jefferson Elementary School students in Newton. The injured eagle was nursed back to health and released to the wild in March, 2005 — to the delight of the entire school body.

T. J. was adopted through SOAR (Saving Our Avian Resources), a nonprofit organization dedicated to saving avian resources through rehabilitation, education and research. T.J. originally came to SOAR, suffering from a pulled ligament in one wing, a missing talon, a nasty bone infection and elevated levels

of lead in its system.

Every year students at Thomas Jefferson undertake a fund-raising project. Because the school's mascot is, ironically, the eagle, guidance counselor Sandy Motta decided adopting an eagle would be the perfect project.

As T. J. recovered at the SOAR rehabilitation center in Dedham, students worked to raise funds to cover the \$300 "adoption fee." A \$150 donation from the school PTA covered half, while students held monthly snack sales to come up with the rest.

Whether or not T. J. remains a constant fixture at Red Rock remains to be seen. But Kay Neumann, executive director of SOAR who gave a program at the school and facilitated the release, has little doubt the raptor will remain in the hearts and minds of the students.

Should they forget, they need only look at a forthcoming SOAR DVD, "Soaring Into The Future." The DVD celebrates Iowa bald eagle success stories, including footage of T. J.'s release.

For more information about SOAR and the DVD, go to www.soarraptors.com. For information on eagle watches and other wildlife diversity events, go to www.iowadnr.com/wildlife/files/divevents.html.



Kay Neumann, executive director of SOAR, holds T. J. while some 350 students look on.

Upcoming NRC and EPC Meetings

The dates and locations have been set for the following meetings of the Natural Resource Commission and Environmental Protection Commission of the Iowa Department of Natural Resources.

Agendas are set approximately 10 days prior to the scheduled meeting date. For additional information, contact the Iowa Department of Natural Resources, Wallace State Office Building, 502 E. 9th St., Des Moines, Iowa 50319-0034.

Natural Resource Commission:

- February 9
Des Moines
- March 9
Honey Creek, Rathbun
- April
No meeting
- May 11
Waubonsie/WaShawtee

Environmental Protection Commission:

- February 20
Urbandale
- March 20
Urbandale
- April 17
Urbandale
- May 15
Urbandale

WARDEN'S DIARY



Nature's Medicine

by Chuck Humeston

Sometimes you have an encounter with what's wild in the outdoors that is entirely unexpected.

And maybe that's what makes it so good. I truly believe when you're bogged down in your job, the minutiae of life, or whatever else it may be, it's the outdoors that can refresh you. And, I believe, sometimes it's the wild that can help one find perspective.

It was late October, an opening weekend for waterfowl hunting and the closing of the early muzzleloader deer season. The weather had been unseasonably warm, but suddenly the temperature was taking a nose dive. I was cruising down the Iowa River valley to look for deer hunters. I sipped on my coffee, trying to get used to feeling like a cocoon in a jacket for the first time of the year.

The sun was just starting to rise, but its glow was dulled

by the clouds that had blown in during the night. I could feel the wind rock my truck from time to time and thought, "Well, I guess better to be in here for now."

As the sun began its climb in the east, I suddenly started seeing the drops hit my windshield.

"Well, isn't this great," I thought. "I got up early to come out and watch it rain."

The drops changed to rivulets running across my windshield, to the point where I had to turn on the windshield wipers. Then I noticed something else. I shut off the wipers.

"Oh, no, these drops are getting solid. Great. This is getting better and better every minute."

In my headlights I could see the white flecks mixed with the rain as they flew across the beam of my headlights.

I continued down the river. The rain being piled up by the wipers on the corners of my windshield was looking whiter and whiter.

"I crawled out of bed to see the first snowfall of the

year. Well, aren't I just the lucky one," I muttered to myself. Talking to yourself becomes a phenomenon of working alone so much, I guess.

I turned onto a winding road running below the brow of a ridge above the river. Over my shoulder, I could see the glow of the sun getting brighter. The snow in the dawn's building light was definite now. Wind-driven white flakes were filling my growing field of view.

I started to think about the Halloween snowstorm years before. I remembered being at Big Wall checking duck hunters as limbs literally crashed around us from the burden of the thickening ice.

"Going to have to get up pretty early to get me into one of those again," I thought. Then I remembered, "You ARE up early. Uh oh."

I was just taking another sip of my coffee when it happened. I looked off to my right. There was a line of maple trees on the ridge framing the view of the river winding away below the valley. They were at the peak

of their fall color show. In the open space framed by their swaying branches, I saw it.

At first it was hard to make out. Something was rising up from behind the brow of the ridge about 50 feet from my pickup.

"Those are deer antlers!"

I could just see the tips of the beams as the buck climbed from the other side. They continued to rise into view, tine by tine. It was a rack of such magnitude that I slammed on the brakes, put down my coffee cup, and stared.

Then its head appeared. To this day I can still vividly recall the image. The buck climbed to the top of the ridge, at the very moment the sun broke from below the horizon. The clouds were high enough to permit the light to explode across the valley. At the moment the light crashed against the golden leaves of the maples, the buck stopped, turned broadside, and turned its head to me.

There it stood, framed in

the vista between the golden maples that were now glowing in the sunrise. The snow falling across the open space was framed between the beams of its antlers. It was like a painting. It was like the artist's rendering of the stag on the Matterhorn. But this was better than any painting.

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This was for real, created by the Great Artist. It was in colors no palette could ever faithfully reproduce.

Suddenly, the deer looked right at me. It stood there, steam rising from its nostrils in the cold. The snow swirled around him then dropped away to the river far below. We locked eyes.

I don't know how long we stared at each other. I'm sure

it wasn't long, but it seemed like time had stopped for a moment. It stood there powerful and majestic. In that moment it represented everything wild and free.

Then he turned. Not suddenly, as if in a panic at seeing me. It seemed to be more a statement of "You're

of no concern to me." Just as quickly as the picture appeared, it was gone. He descended back into the valley. And at that moment, the sun climbed behind the low lying clouds. All that remained was the snow filling the dull empty void between

the trees.

I wish I could have grabbed my camera from behind me. But, you know, some things are better remembered in the mind's eye, captured in the context of the moment's feelings and experience.

I drove away rejuvenated by that glimpse into the wild. I'll see it for a long time to come.

State Library Of Iowa
State Documents Center
Miller Building
Des Moines, Iowa

