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SPECIAL REPORT: 50 years of wildlife & Pittman-Robertson

WISCONSIN NATURAL RESOURCES

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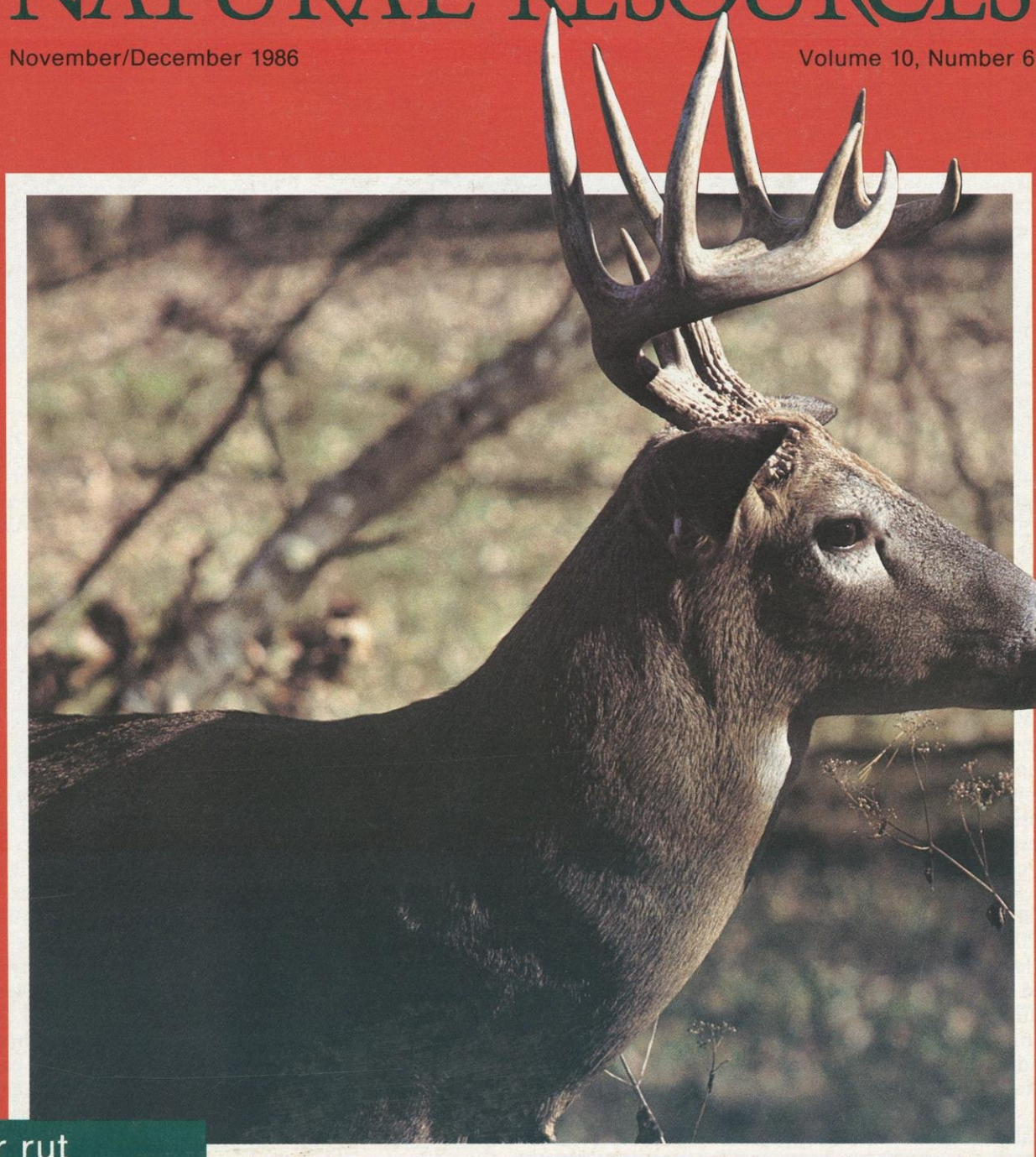

The deer rut

Counting stubs

The D.U. auction

Ice fishing

Canvasback

J. Wolfred Taylor, Editor

Featured on Wisconsin's Waterfowl Stamp this year is a pair of canvasback ducks painted by Artist Donald Moore of Monona. Every fall, between late October and early November, up to 250,000 of these birds gather on the Mississippi River from La Crosse to Pool 19 in central Illinois. From here they migrate to wintering areas on the Atlantic or Gulf coasts. This Wisconsin-Illinois staging area contains about two-thirds of the entire eastern population of canvasbacks, a dangerous concentration in the event of virulent disease or massive pollution. To avoid such devastation, biologists are looking for ways to restore historical fall migration patterns in the state. Once canvasbacks spread out in large numbers across central Wisconsin on lakes like Puckaway, Butte des Morts, Winneconne, Poygan and Koshkonong. The birds abandoned these waters when wild celery and other aquatic plants and animals they fed on disappeared. Causes of these changes are not precisely known, but biologists are looking at water levels, wave action, siltation, destruction of vegetation by carp, and the agricultural impact of chemical fertilizers, pesticides and herbicides.

The dependence of canvasbacks on wild celery is so close that the bird's scientific name, *Aythya valisineria* means diving duck that eats wild celery. Other favorite foods include arrowhead, various pondweeds and in Chesapeake Bay where habitat deterioration has been especially severe, mollusks, crustaceans and mudcrabs.

Despite Wisconsin's big canvasback concentrations on the Mississippi River every fall, hunting has been severely restricted for about the past 20 years. This season it is closed completely. Habitat deterioration has caused a chronic population decline as breeding grounds are drained and wintering areas like Chesapeake Bay degraded or polluted. The current breeding population is only 442,000 birds, seventh lowest on record.

Ready to breed when they're one year old, canvasback start to pair off as early as December. Pairing reaches a peak in April or May with paired birds arriving at the breeding grounds ahead of the unpaired ones. Springtime migration consists of small flocks of only four to 20 birds in contrast to the flocks of several thousand that move south in fall.

1986 Wisconsin Waterfowl Stamp by artist Donald Moore, 6102 Sylvan Lane, Monona, WI 53716

In courtship, male canvasbacks utter a distinctive call with a special headthrow. Neck stretching and sneak and threat postures are part of the ritual. Females perform inciting displays that include preening of the dorsal region. The sex act lasts only several seconds and as the male releases the female's nape, he typically utters a single courtship call, then swims away in a rather rigid posture with the bill pointed nearly vertically downward. The female usually begins to bathe immediately.

Males usually stay with the female until she picks a nest site and starts to lay eggs. Then he deserts her for his postnuptial molt. Nests are built close to open water in emergent vegetation and a female may abandon one or two sites before selecting a final location. Not all females build nests. Some lay eggs in other canvasback nests and redheads too often lay eggs in canvasback nests. When such parasitism occurs, high rates of nest desertion have been observed. The main predators on eggs are skunks, raccoons, crows and magpies.

Clutch size averages about 10 eggs. Females line their nests with down and usually lay one egg each morning. Incubation takes place in from 23 to 29 days with hatching success ranging from 35% to 91% depending on predation, parasitism and changing water levels. Average brood size is six ducklings. It takes anywhere from 18 to 47 hours for the young to break out of the eggs. After the hatch, females immediately take the brood to open water and start to feed heavily. Before the young have learned to fly, the mother will have abandoned them to start her post-breeding molt.

Main canvasback nesting areas in the US are the prairie potholes of eastern Montana and the Dakotas, and the Sandhill lakes of Nebraska. In Canada they breed on the prairies of Alberta, Saskatchewan and Manitoba. Canvasbacks are common summer residents of Alaska and even occur north of the Arctic Circle. They rarely nest in Wisconsin.

Front cover: A Wisconsin buck.
Photo by Herbert Lange

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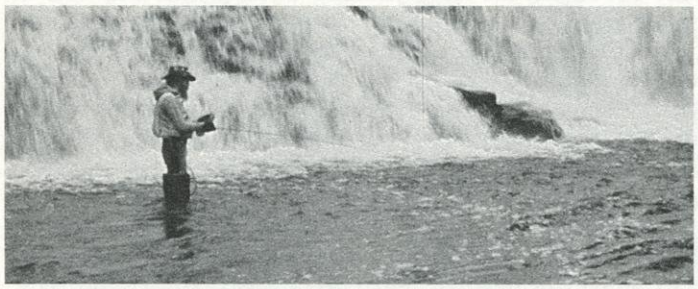

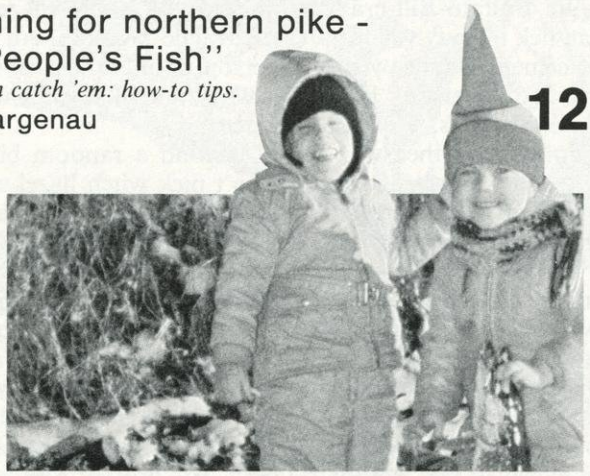

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FEATURES

SPECIAL REPORT

The last flower

When it comes to flowers spring is too well-loved. At April any bloom will do. A crocus amid snow charms beyond all reason. With May it's trilliums and bloodroot, dutch breeches and violets. By June the deluge has struck, all photosynthesis is at rues and roses. For one long passioned moment from June to tardy October not a meadow or hedge is without. Were they not flowers, something other than delicate, less lace than malice, we might consider flowers an infection.

Which is the last flower? The query is for those who would be tramps and gain the grip of a vagabond stick, a slouch hat and put the world on a shelf. Today's grail is the last flower. In this short autumn moment let a flower lead our hearts and a question born of neither logic or service. Which is last?

Still we must have rules. Do aliens count? I mean hoary allysum and sweet clover, vetch and scrambled eggs? Probably not. Sorry no, allysum can't enter, neither dandelion, cinquefoil or chickweed. They have no breeding when it comes to decorum. Or do I mean they have no decorum when it comes to breeding? Demure they are not. For season these sorts have no respect. Soon as the thaw is loose, they're out making flower and folding lovenotes. My suspicion, flowers should be restricted to adult audiences. We delay when we should be afield.

So what's on the far side? Joepye-weed and blazing star? Prairie sunflower and purple asters do try. Yesterday I found at the last week of October asters amid a collapsed woodpile. Where the chidput cord fell and kept earth in a temperance of September the while longer. The stray voltage of blue asters tore right through that woodpile.

Chicory is late but also alien. Still I doubt the premise. What is not alien? No human beings live in their rightful place on this planet. Why should flowers be so honor-bound? Nothing glories the creosote stains in the rail yard like chicory gone Buffalo-Bill-crazy. Chicory can lick the oily water off the top of cement where twisted Kenworths and Peterbilts bleed their last mortal fluids. We tarry when we should be farther off.

I know the last flower and the way to it. Down the townroad, then starboard at the burr oak. Cross the headlands of the cornfield and there, a forty over, gain the long woods. The last flower is right on the logging trail. Right where I first saw it in a November of my youth. Raining miserably as I remember. I would have been miserable anyway at this, another Saturday slugging logs and stovewood to heat that monster farmhouse. Took more wood to heat that trap of habitation than it did to build forty houses like it.

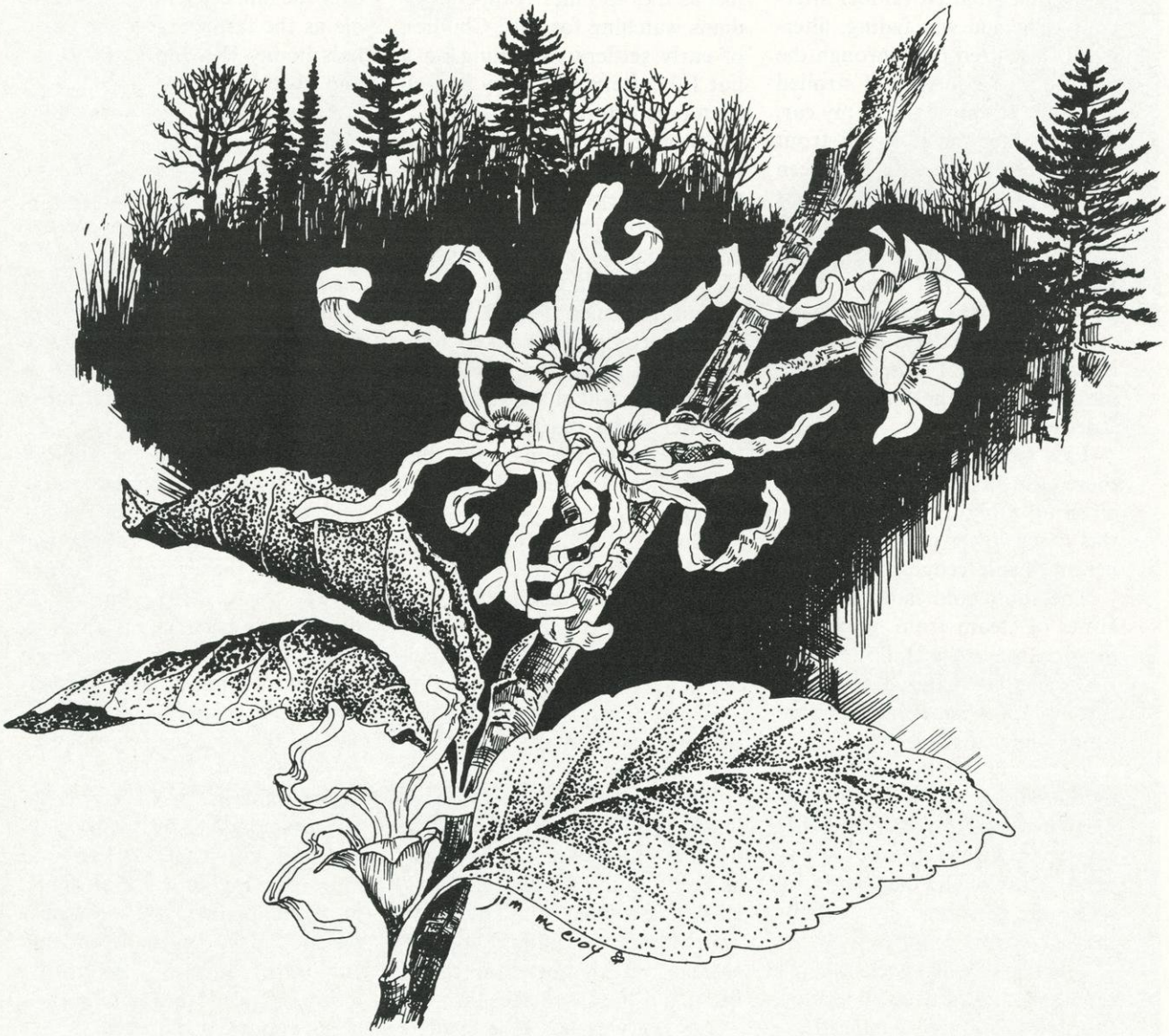
But here at the low end of the woodlot, the third logging trail west, due across the pine knoll, then north at the first chance is the last flower. I have witnessed but a shilling of moments. The first in that dreary November past, wet unto my socks, sodden to my armpits, and clammy to my soul, and there in the middle of this ridiculous compulsion of civilized farmers to heat enormous houses, swelled the last flower. Ain't called witch hazel for nothing.

Witch hazel doesn't grow in groves, masses or committees; rather in covens, scattered celebrations of invocated powers. In November, dark and chill as November can get, there, right in the middle of it, is witch hazel offering the fragile blossom. An ordinary person doubts their sense, which is why they call it witch in the first place.

Beyond a random blossom, I won't pick witch hazel and don't think you should either. Any flower as can punish November needs a wide clearance. My grandfather cut branches of witch hazel and steeped them in country liquor then washed the amalgam over his rheumatia. A year later he was permanent crippled. "Cause it was witch hazel dontcha see?" His brother told him afterwards, which is the despicable habit of brothers. He shoulda picked the blossoms from the ground instead of the tree.

Witch hazel is the last flower.

JUSTIN ISHERWOOD, Plover Farmer



Line drawing by artist Jim McEvoy

"Ain't called 'witch hazel' for nothing."

Reflections on a Steelhead stream

It was quiet that November afternoon. The sun was fading, filtering its last tired rays through the tall cedars behind me. I strolled along the stream back to my car, remembering the lake-run trout that earlier in the day had been enticed by my drifting fly. I was lucky—and grateful.

A flock of Canada geese flew far above me and would have gone unnoticed had not the wind carried their restless call down from the clouds. I sensed their determination as the final cadence faded off.

Last spring by that rock over there, the fast, dark water had given up a big trout. The stream was much lower now in November, but I still recognized the spot.

The sun's gold faded to blue. Hints of steam from my breath disappeared in the Halloween air. Brittle leaves canoed past me, turning, spinning, eventually vanishing under the current.

I remembered the ladyslippers by the hillside last spring and the mother wood duck hiding her seven ducklings in the weedy bend. Most of the plants and insects were gone now, cut down by the heavy frost.

I scanned the flat rocks where I often stood at the deep pool below the rapids. Those rocks must have enticed others at an earlier time, just as they did me. Trappers? Indians watching for fish? Children of early settlers swimming on a hot July afternoon? They had all been here before.

I stopped by the fence row and recalled the old fisherman I met there. "My legs won't make it another season," he said. We talked and he gradually shared the humble secrets of a lifetime on the stream. I listened, feeling a touch of immortality. I thanked him. His secrets are a part of me now and I, too, will share them with another when the time is right. I've never seen him again, but sometimes, I swear, I feel his presence.

Thinking about this stream and how my life is interwoven with it, I realized that it offers considerably more than fish—that success can't be measured in numbers and pounds, but in quality and experience. I have learned that fishless days are just as important as the lucky ones. If catching steelhead was consistently easy, it would quickly lose its lure and mystery. Often now, as I ease a fish into the net, I realize that keeping it would destroy a part of what I need and appreciate. So I return more trout than I keep, and the chase goes on.

My body casts a long shadow now. An old farm tractor putters over the hill, crunching corn stubble as the farmer races the darkness home. His dog barks at me and I wave.

Fifty yards from my car now, no more.

I'll remember this place, the water, wind and sky, shadows and showers, colors and movements, the smell of forest stillness, and the life it allows me to enter. And although I leave, much here comes with me, especially the old man and his timeless stories. I hope all these things remember me as well as I do them.

It's night as I slam the trunk of the car. One last glance over the bridge. It's too dark to see the water now, but I can hear it and feel it through the bridge as I drive slowly away. More important than having been here is knowing I can return. Trout and salmon imprint to a specific river. A reunion with its unique water becomes part of their makeup—their calling—their reason for living. Some anglers, likewise, are uncontrollably summoned to a stream.

People often tell me there are more exciting sports than mine, more competitive and more fast-paced. I don't even defend my choices or question theirs anymore. I'm just glad they have their arena and I have mine.

John Beth, Reedsburg

Photo by author

Certain water can imprint itself on an angler just as surely as it imprints the fish.

Duck talk from the DU auctioneer:

"Going once, **twice,**

SOLD,"

Members who contribute $200 or more this year can receive the Ducks Unlimited Sponsor Print, *In Spring Pursuit - Green Wings* by Artist Jim Foote.

Ducks Unlimited volunteers in Wisconsin developed a successful fund-raising format that was picked up by the national organization. Now 50 years and millions of dollars later, DU looks proudly back at its multi-million acre habitat accomplishments and ahead toward millions more.

Daniel G. Olson
Southeast Wisconsin Regional
Director Ducks Unlimited

All photos courtesy of Ducks Unlimited.

"I got $350, do I hear $400, $400 over there, do I hear $450, now $450, give me $500, $500, do I hear $550, $500 once, $500 twice, sold for $500."

The familiar chant will be heard at nearly 300 Ducks Unlimited (DU) events in Wisconsin during 1986 with a beautiful framed print sold to an excited bidder at an animated auction. The buyer is pleased because he got what he wanted, and the DU Committee is pleased because it has just raised $500 for a cause it believes in — preserving habitat for wild ducks and geese on the North American continent.

In the background you can hear the raffle committee selling tickets for a Browning over and under, a trip to Las Vegas, 10 wildlife prints and a goose hunting trip to North Dakota. At the microphone, the M.C. calls off another door prize — the winner walks up and receives a Holofil sleeping bag and a gift certificate from the local sports shop. Along the wall, several people race from silent auction item to silent auction item, trying to outbid a friend before the time is up. The entire room is filled with loud chatter and some stand at the bar trying to gain the bartenders' attention while the M.C. endeavors to lower the decibel limit so the auctioneer can be heard and everyone can be out by midnight.

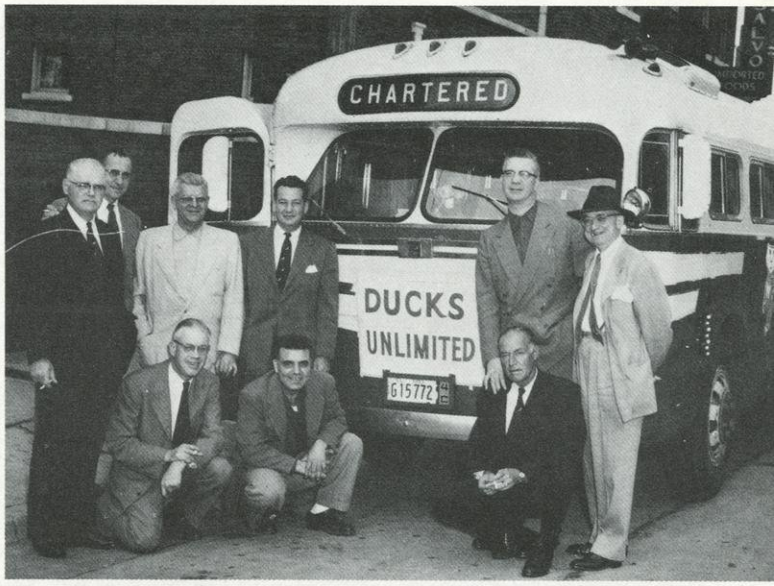
By the time the evening is over, the sold-out membership dinner of 233 people has raised $18,630 for waterfowl conservation. By the time the year is over, Wisconsin DU members will have raised around $3,000,000 for this international conservation program and approximately 600,000 members across the country will have raised $50,000,000 to keep waterfowl on the wing — not to mention the hundreds of other species which benefit from DU projects.

This international organization's successful fund raising format got its start right here in Wisconsin. According to Toby Sherry of Madison, Past State Chairman, Regional Vice President and currently Trustee Emeritus, the first traditional fund raiser got started in Madison in the late 1940s. Toby, a DU member for over 40 years, recalls the "good old days" with fondness — especially one of the first fund-raising dinners when a local hog farmer donated five feeder pigs for the event and one got loose midway through the evening's festivities.

While Madison lays claim to being the first membership dinner, Milwaukee probably held the first DU dinner with no membership included. The late Norm Ott, Wisconsin's first State Chairman and National Trustee, would sell a table at a local restaurant and raise $200 to $300 through pledges. Green Bay followed right behind under the leadership of C.A. (Snick) Gross, Dexter S. Hastings and Allan Ross. Gross later became President of DU.

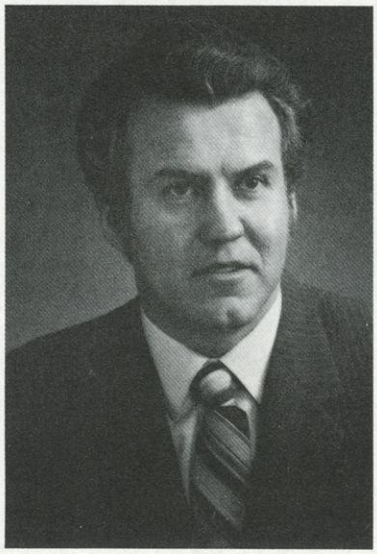
The fund-raising format was improved upon by other DU pioneers in the state who made the whole country sit up and take notice. There were men like Ken Harley, Stan Johnson and Woody Bissel from Madison, Charlie Morgan from La Crosse, Fred Pinkerton and Al Fuller of Oshkosh and Sam Johnson of Racine. They gathered together a variety of good folks, business and community leaders, conservationists with strong interests in waterfowling and others just plain interested in helping ducks. The successful system they developed to collect dollars for ducks is unmatched today.

In 1951-52 the dollar goal for the entire state was $17,500. Today, The Winnegamie Chapter alone raises $106,000. The DU National Convention, which was held in Milwaukee in 1966 had 78 attendees. This year's convention in Orlando drew 1,200 volunteers.



In 1953, DU pioneers rented a bus and hit the road on a membership drive. At far right is C.A. "Snik" Gross of Green Bay, late president of the organization. Standing fourth from left is the late Norm Ott of Milwaukee, former state chairman.

A foursome of DU leaders in the early '60s, left to right: Fred Pinkerton, Jr., Oshkosh; the late Norm Ott, Milwaukee; Ded Bergstrom, Neenah; and Toby Sherry, Madison.



DU State Chairman Gene Henry of Mc Farland.

DU auctioneer Fred Gage of Madison sold live feeder pigs in crates, among other things, at an early '50s fund raiser. Once a pig got loose and caused pandemonium.

In 1985, Wisconsin DU auctions like this one raised $2.7-million for duck habitat work here and in Canada. Some 46,000 members contributed.

DU has been successful because through all the years there has been a singleness of purpose. That purpose is to raise money for developing, preserving, restoring, and maintaining waterfowl habitat on the North American continent. Dinners are still held as they were 30 years ago, but the number of attendees is way up. They have made DU big business and big business is what is needed to be effective in the management of waterfowl.

Bill Brauer of Fond du Lac, State Chairman from 1984 to '86, brought Wisconsin from number four in the nation to number two in dollars raised and maintained the state's top position in membership. Gene Henry of McFarland is the present State Chairman. He's helped by 2,700 volunteer committee people who work directly with the organization's 46,000 Wisconsin members.

In the past, all of DU's habitat work took place on the critical Canadian breeding grounds, but today a new program is underway to improve conditions in the US. It's called MARSH, which stands for Matching Aid to Restore State's Habitat. Under MARSH, more than $1,000,000 will be earmarked during the next five years for Wisconsin alone. Add to this the Wisconsin Duck Stamp dollars, all the state and federal money, plus contributions of other organizations and waterfowl's future here is far from bleak.

A unique, space-age piece of hardware used by DU in its effort to preserve waterfowl is a Landsat 5 satellite, 438 miles high, which is leased from NASA. Critical wetlands across the duck production areas of Canada and the US are mapped to identify places most vulnerable to drainage and destruction. The satellite also plots future wetland development projects where habitat for waterfowl production can be created.

As an organization in the duck business for 50 years, DU has racked up a host of impressive achievements. They include:

A roster of 4,000 committees that each hold at least one DU event annually.

More than $320 million dollars raised for waterfowl conservation — $46,000,000 in 1985 alone.

Agreements to protect over 3.6-million acres of wetland habitat in Canada.

More than 40 high-grade projects in the US.

A $3-million fund available to 50 states for habitat improvement through the MARSH Program.

The largest single grant, over $1 million, to the US Fish and Wildlife Service raised by auctioning off 1,000 specially produced Ruger over-and-under shotguns commemorating DU's 50th anniversary.

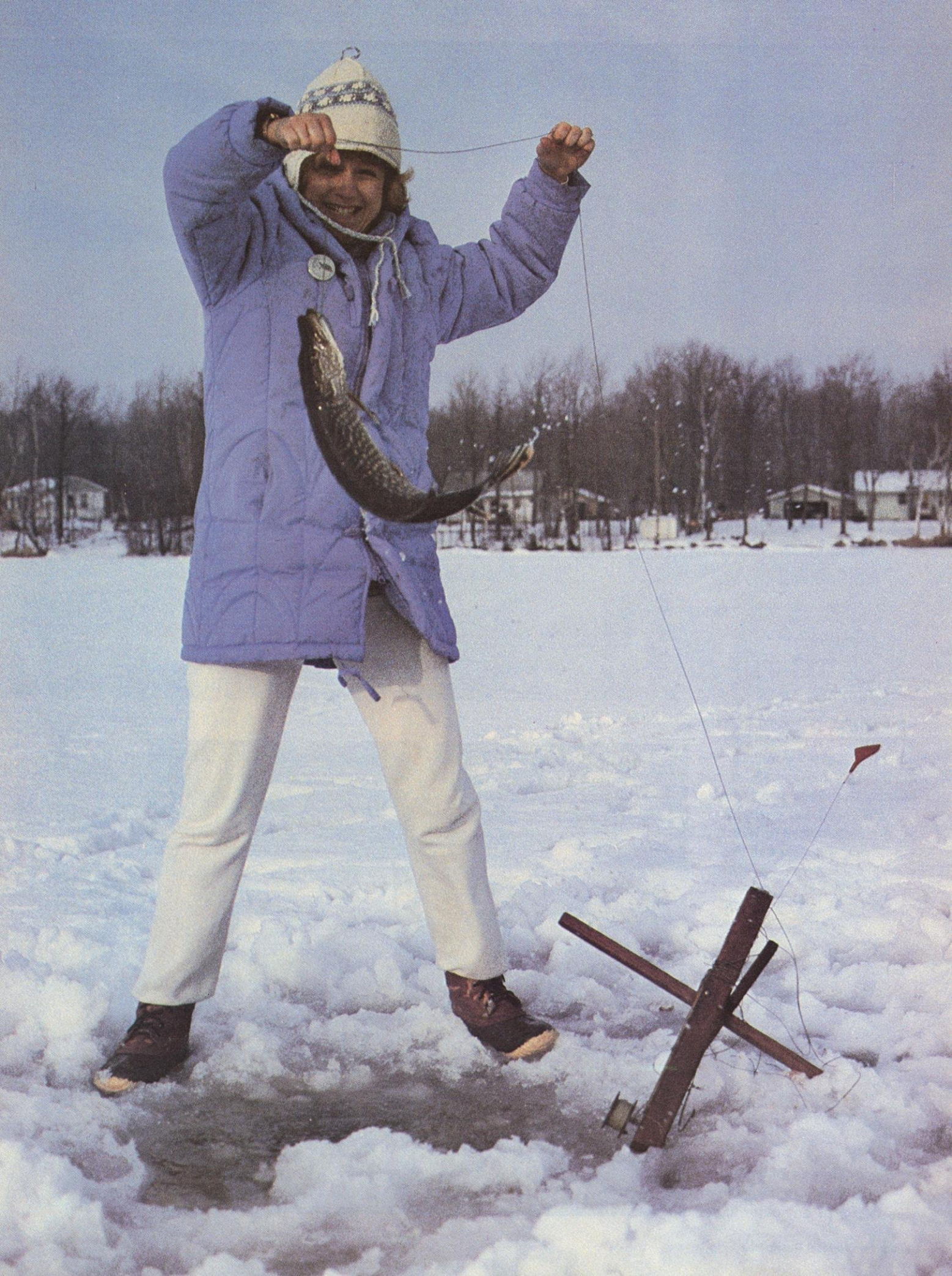
While most dollars for wildlife programs come from license sales, DU raises significant funds from non-hunters. To emphasize this point, Wisconsin leads the nation in women's DU chapters — with the greatest majority of attendees in the non-hunter category.

While most anniversaries celebrate accomplishments of the past, DU and its supporters are eagerly looking ahead 15 years toward a commitment to raise $550-million that will bring more than 6-million acres of wetlands into waterfowl production.

Now, that's really something to celebrate.

DU protects waterfowl breeding grounds. It has raised $320-million to save 3.6-million acres of Canadian habitat, has started 40 high grade projects in the US, and will earmark $1-million for work in Wisconsin during the next five years.

Wisconsin has 34 women's DU chapters, more than any other state.



Ice fishing for northern pike - "The People's Fish"

Photos by author unless otherwise indicated.

Tip-up. When the flag flies, there's a northern on.

Every winter anglers leave their warm homes to fish Wisconsin's frozen waters. Walleye, bluegill, perch and other panfish lure them out. So does the hero of this article, the northern pike. Even beginners catch them and here's how.

Terry Margenau,
DNR Research Biologist, Spooner

I like to call northern pike "The People's Fish" because they attract ice-fishing people from all walks of life — and just about anyone who fishes for them in winter has a good chance of success if they learn a few details. What makes the northern so popular in Wisconsin is that the 'small' ones are as important as the big ones. You probably know what I mean if you've ever seen a 6-year old child pull in a two-pound northern. To the trophy angler that two-pounder is just another "hammer-handle," while to the child that fish is a trophy. That's what makes the northern so unique — it undoubtedly has trophy potential in many Wisconsin lakes, yet the smaller pike provide unlimited memorable experiences for vast numbers of anglers.

The label "People's Fish" couldn't be more suitable. Wisconsin is blessed with over 824,000 acres of inland lakes and rivers inhabited by this fascinating critter, not including the Great Lakes and Mississippi River. So if you live in Wisconsin, or even if you don't, you shouldn't have to travel far to find some good northern pike water. A trip to your local sport shop or DNR office can generally point you toward the action.

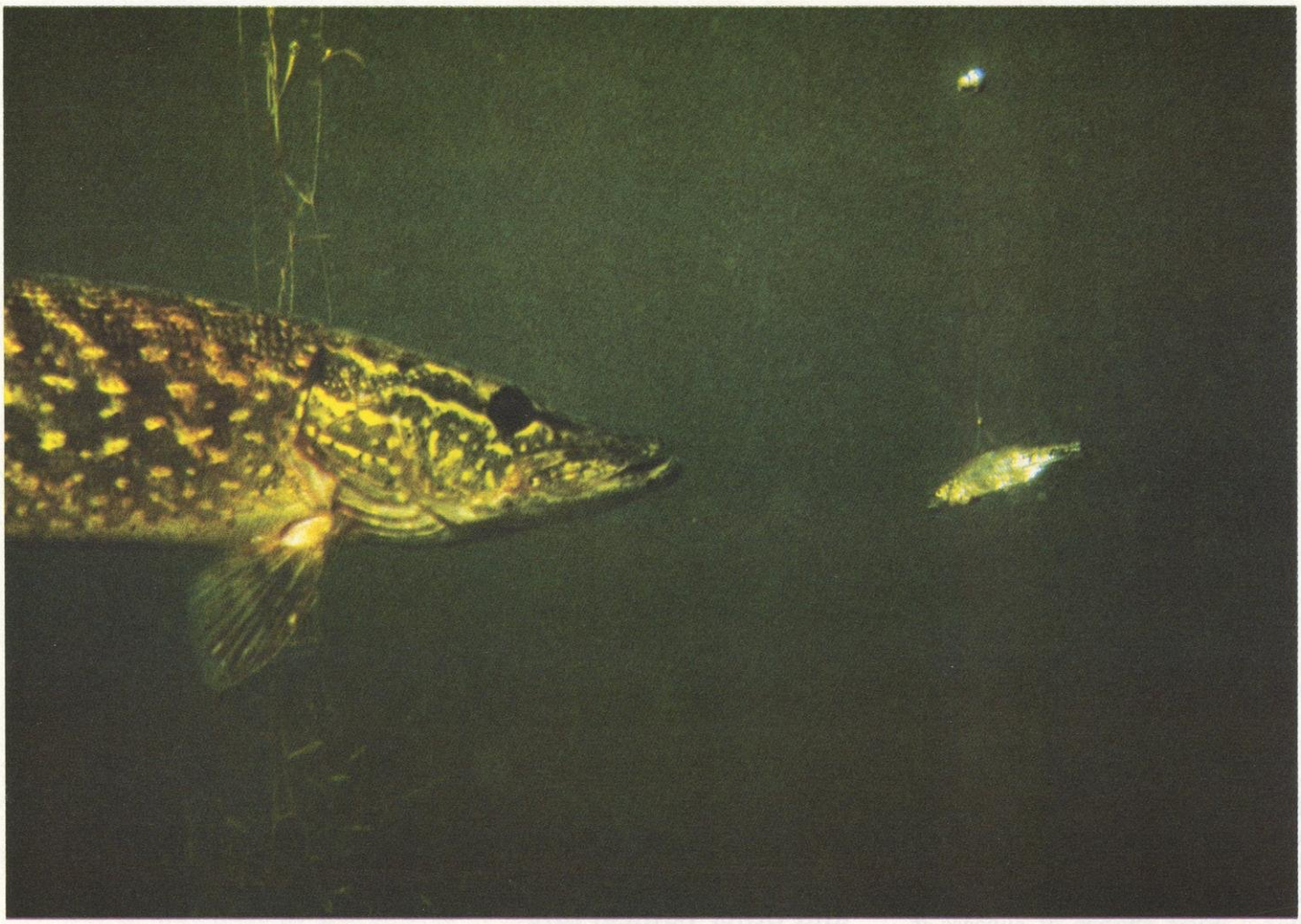
◀Catching northern pike through the ice is fun on all 824,000 acres of inland water they inhabit in Wisconsin.

Stay Warm

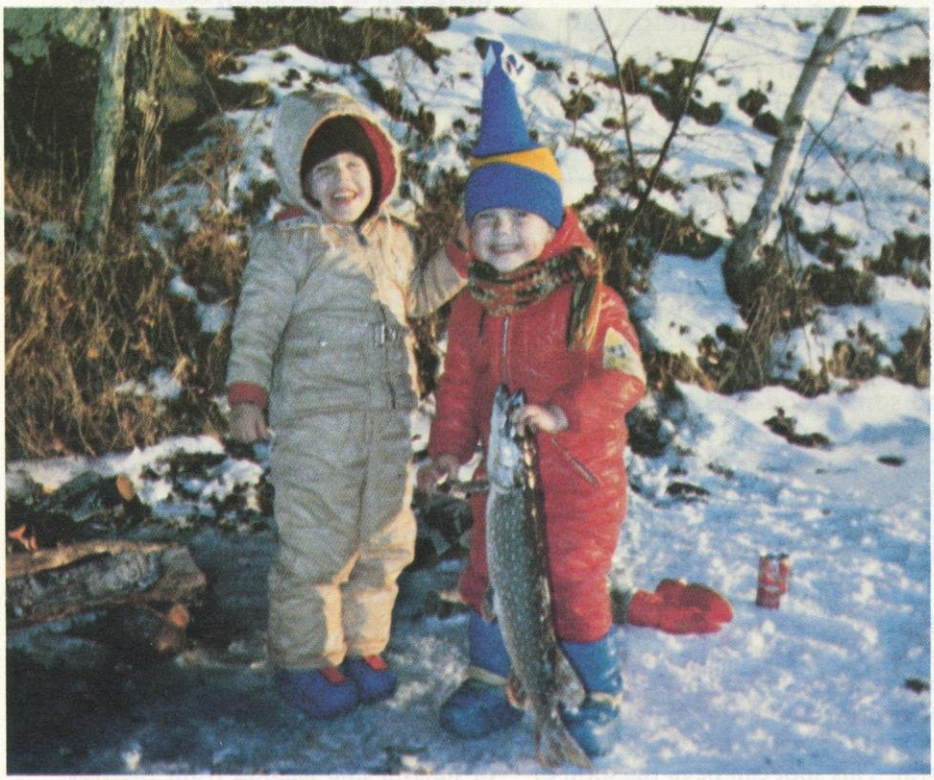
In my book, the top priority for ice fishing equipment is someplace to be warm. If there's one thing I've learned, it's that if you plan on staying longer than a half-hour, you better have a place where everybody can get warm. This spot can be in the form of an ice shelter, wind break, or vehicle (when conditions permit safe travel on ice). I generally prefer a shelter, which along with a small Coleman camp stove makes things nice and toasty while you wait for a tip-up. Plus, the stove is convenient for cooking up a few hot dogs for lunch. I'm a firm believer in keeping warm when ice fishing and with a few preparations, things can be downright comfortable.

The Rigs

Tip-ups are the bread, the good bait is the butter in northern fishing. I've seen numerous kinds and styles of tip-ups, but one thing holds true for all; when the flag goes up you have a bite. Of course, that doesn't mean home-made rigs won't work just as well — sometimes better. For instance, a friend told me a story while we were fishing last January of a time about 20 years ago when he and a friend (both young and aggressive) encountered an elderly fellow while they were out ice-fishing for northerns. The two young men were confident that their tip-ups, without a doubt, would out-fish the old gentleman's crude fishing set-up. They snickered to themselves as they watched him prepare his lines. The old man simply had a tree limb stuck into the snow above his hole from which he hung his line. On the ice next to the hole was a pile of dacron line leading from the tree branch, neatly placed, so that when a northern grabbed his bait, the line would feed out as the fish ran.



A dead golden shiner is a good bait.



In early and late winter when weather is mild, the whole family can enjoy being out on the ice.

Photo by Bob Gothblad

Surprisingly, before long, the young anglers noticed the old man walking toward his hole and within a few minutes he had pulled a nice northern onto the ice. A short time later, the scene was the same as the old man iced another. After he had done it for the third time in an hour, the two frustrated onlookers finally humbled themselves enough to approach the old man for a closer look at his unorthodox rig. They curiously watched as the line unraveled from the pile and suddenly stopped. "That's the first run" said the old man as he intently gazed at the now dwindled pile of line.

"Now he's swallowing it."

Moments later the line began to unravel again. "That's the second run. Now he's got it," said the old man as he set the hook and proceeded to pull in another northern.

Meanwhile, the young men were still waiting for their fancy tip-ups to fly a first flag.

Within two hours the old man had five northern pike, wrapped up his gear and headed for home. The moral of the story is that tip-ups are preferred, but creativity will produce.

The Bait

Most people prefer a live bait like golden shiners, or suckers; or dead bait in the form of smelt or cisco. I prefer dead bait for two reasons. First, with dead bait, when you get a flag, you're pretty certain you have a bite. Using live bait (especially suckers in the six-inch range), you can spend a lot of time resetting flags which were tripped by over-zealous bait. This creates what I call the "Cry Wolf" syndrome so that after a while rather than approaching your tip-up in eager anticipation, your reaction becomes, "Not again!" Finally, when a fish does show up at the other end of the line you miss it because you were expecting only the sucker.

Secondly, dead bait is more convenient because you don't have to keep it alive. When you want to go fishing, just take some bait out of the freezer, let it thaw, and you're ready to go. Anybody who has used live bait has probably experienced the foul odor of shiners or suckers which perished for some reason and have been decomposing in a covered minnow bucket for two days. Another classic is when you leave your bait outside to keep the water cool only to wake up the morning of the big fishing trip to find your minnow bucket turned into a solid ice cube.

Preparing dead bait to give it that 'alive' look is an art. Numerous rigs are available. Probably among the most popular are "Swedish hooks," quick-strike rigs you can make yourself, or just a plain treble hook with a leader. I like the philosophy behind the quick-strike rigs because they let you set the hook immediately after the flag is tripped. This often prevents the northern from swallowing the entire bait and then the hooks can be removed more easily from fish you want to return.

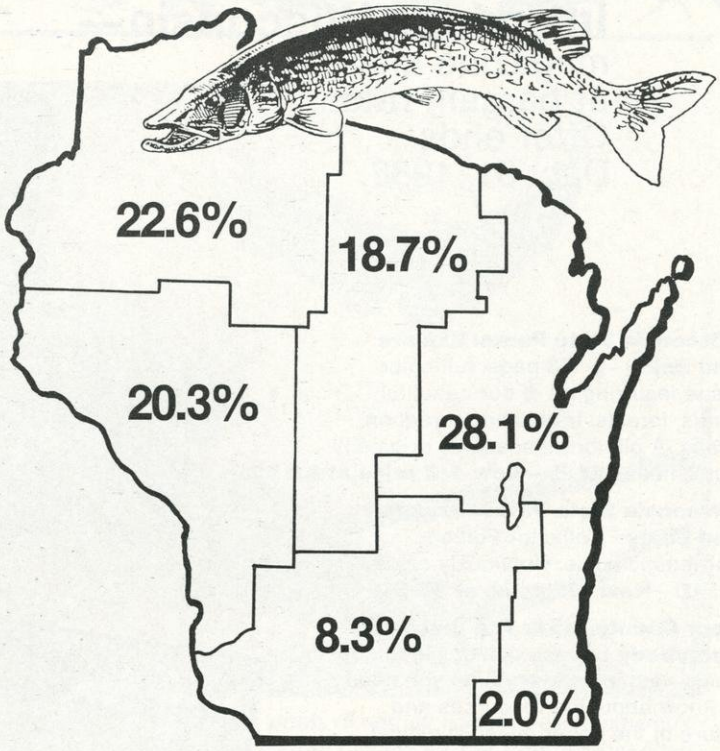
But don't get too carried away with dead bait presentation. At times I've had more luck with a ragged bait that had the head half ripped off than with a totally intact, well-presented bait. Sometimes when a northern is going to attack, its going to do it regardless of what you do to your bait.

The only problem I've encountered with dead bait is that because I like to keep the freezer stocked with a good supply of smelt, cisco, or suckers, sometimes there's no room for the food. It can lead to family encounters, but nothing bad.

Best Times

December and late-February have always been the months you can expect the best success, but northerns can be taken throughout the winter. They generally actively feed during early ice-up and then again as spring approaches and they prepare to spawn. These periods are also when the weather is mildest, which makes fishing more enjoyable for the kids. Also, you can catch more northern pike in winter than at any other time of year and that's enjoyable too. The People's Fish has established its reputation in Wisconsin as being as American as baseball and apple pie. So get the family into its thermal underwear this winter, grab the tip-ups, and get out on the lake. Waiting somewhere under all that ice and snow is a hungry northern pike ready to fly your tip-up flag. And eating it will just add to the pleasure.

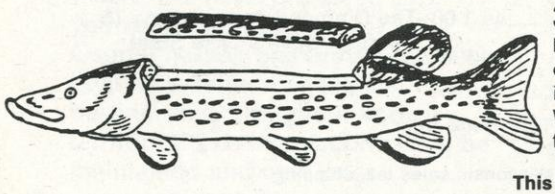
Percentage of Northern Pike Water in Each DNR District



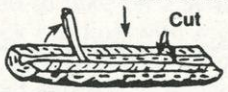
Boneless Northern Pike Fillets

1 Make vertical cut behind head down to, but NOT through, backbone.

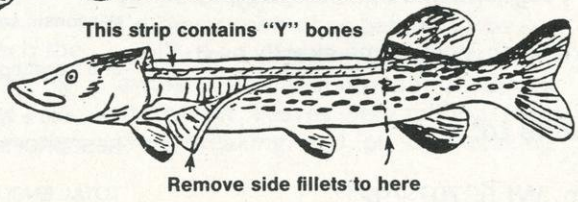
Turn knife horizontally and cut backward along top of backbone. You should be able to feel the blade "clicking" along the top of the "Y" bones.



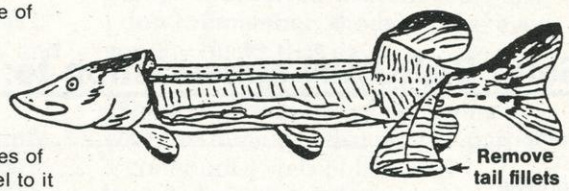
2 There is a row of small bones down the center of this fillet. Remove them with a V-shaped, lengthwise cut along each side of the center bones.



3 With the backbone exposed, a series of bones will be observed running parallel to it on either side. Make a cut down and slightly inward along the outer edge of these bones. Work down and over the ribs and remove the flank fillet. Repeat for other side.



4 Cut fillet free from each side of dorsal fin back to tail. There are no "Y" bones here.



5 Skin each fillet. You now have five **bone-free** fillets.

Drawings and narrative — Jerry Perkins — Fish Management Technician — Barron

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Special Report

Endangered Resources '86

A species rollcall

Concerned citizens donated more than $441,000 to the Wisconsin Endangered Resources fund last spring through the state income tax "check-off." The contributions will help assure a future for 107 endangered or threatened plants and animals and more than 500 other nongame species.

Besides the income tax check-off, separate donations by individuals and groups for specific projects have amounted to $30,300 in the past year. Most popular project is "Adopt an Eagle Nest" which alone inspired $26,000 in donations. The money came from individuals and groups who gave $100 apiece for each nest adopted. Other contributions were made to promote timber wolf recovery, peregrine falcon restocking, natural areas preservation and general endangered resources work.

A principle responsibility of DNR's Bureau of Endangered Resources, which administers the program, is to develop and carry out "recovery plans" for species in need of help. Recovery aims to bring back populations, improve habitat and eventually remove the plant or animal from the threatened or endangered species list. Seven plans are slated for action in 1987 on timber wolves, trumpeter swans, peregrine falcons, pine martens, bald eagles, ospreys and barn-owls. Here are some highlights:

Osprey: 1986 aerial and ground surveys located 235 active territories in the northern half of the state where 152 nests produced 273 young, a 7% increase over 1985. Osprey nesting platforms have been built by wildlife specialists at likely nesting sites throughout known territories. Existing platforms will be maintained and new ones constructed as necessary to reach the recovery goal of 300 active breeding territories by 1990.

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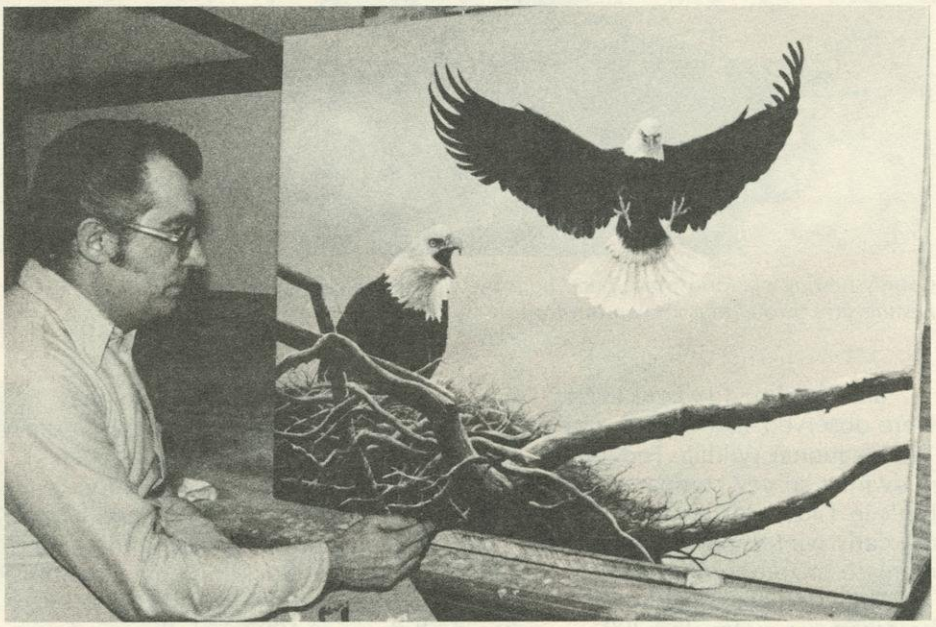


Wildlife artist Richard Van Order has donated prints of nesting eagles to each individual or group adopting an eagle's nest. This is the picture painted for the 1986 season. He is already working on a picture for the 1987 eagle nest "adoptive parents". Photo by Don Bragg

Why save the threatened?

Ron Nicotera, Director, DNR Bureau of Endangered Resources

Those who enjoy the out-of-doors build an appreciation for wild things of all kinds. This often happens over a period of time or can be generated by an experience or group of experiences. I believe that both time and events probably combine to shape our feelings for the out-of-doors.

I'll never forget my "first" experience. As a small boy, I was allowed to take off a school day and go duck hunting with my father. We stood quietly in a blind on the wooded shore of a Bayfield County lake anticipating a swift teal or fat mallard. Suddenly several hundred feet in front of us three otter emerged from the water, dove, then surfaced again, rolling and playing. I'd never seen otter before. I was spellbound. Suddenly I became aware of an equal amount of activity at my feet. Leaves were rattling, twigs were breaking, and lots of squeaking filled the air. Then out of the corner of my eye, I saw a deer mouse come into view. It came straight toward me, and ran right over my foot. An instant later, a much longer creature ran over the same foot. I'd never seen a weasel before, either. It all happened in a twinkling of an eye — yet I remember it vividly today even though it occurred over 40 years ago. I don't remember, though, if we ever got any ducks that day.

All of us have had similar experiences that brand our being with the reminder that we are part of a continuous web of life. This knowledge alone is enough to spark concern whenever a single strand of that web is threatened. That's what the Endangered and Nongame program is all about and why all of us involved in it feel such a sense of dedication. It is a good cause to support, something I hope each of you will do.

Osprey nesting platforms have been built by wildlife managers and technicians at likely nesting sites throughout known territories.

Bald Eagles: 133 bald eagles were observed statewide during the 1986 National Wildlife Federation midwinter survey compared with 211 birds in 1985. Harsh weather during the early winter may have caused many to migrate further south.

The 1986 aerial bald eagle breeding survey located 290 territories that produced 294 young compared with 214 territories that produced 282 young in 1985. All young eagles in known nests in the state were banded. Injured or orphaned young were rescued, rehabilitated and sent to other states for release. Six young birds were sent to Indiana for release as part of that state's recovery program.

Feathers and unhatched eggs are being analyzed for contaminants and heavy metals. From January first, 1985 through August 31st, 1986, 18 eagles were found injured and 39 found dead.

The bald eagle recovery plan goal calls for 360 occupied breeding territories by the year 2000 that would produce at least one young per nest.

Adopt an Eagle Nest: The program totally funds annual survey and banding projects. The $26,000 in contributions came from 150 individuals, 43 organizations and 43 schools. They adopted 236 nests. Each eagle nest "parent" was given a bald eagle wildlife print donated by Artist Richard Van Order, photographs of the eaglets, an "adoption" certificate, a booklet entitled *Birds of Prey of Wisconsin* and nest information.

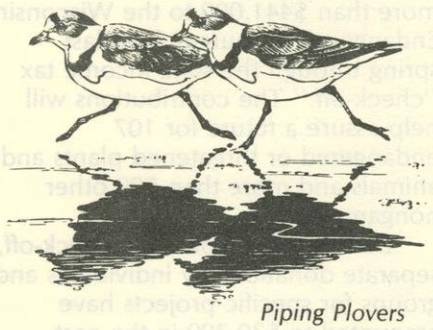
Peregrine Falcons: Peregrines had been extirpated from Wisconsin since 1964 until 1986 when seven birds appeared at three locations: two at Devil's Lake State Park, a breeding pair near Alma, and a pair near Maiden Rock in Pepin County.

A peregrine falcon recovery effort will begin in 1987 with the purchase of a number of chicks which will be released at three sites with suitable habitat: Devil's Lake, downtown Milwaukee and the Mississippi River bluffs. The goal of the recovery plan is to establish nine breeding pairs by the year 2000.

Peregrine Falcon

Piping Plover: Only one adult returned to a nesting site in Wisconsin in 1986: at Chequamegon Point in Lake Superior. The last plovers nested in Wisconsin in 1984. Their status is critical in the entire Great Lakes area where nesting populations have declined from several hundred pair in the 1920s to only 18 in 1986 — all in Michigan.

All-terrain vehicles, boaters, picnickers, dogs and other recreational uses continue to destroy plover habitat. A federal recovery plan is being drafted by the US Fish and Wildlife Service and DNR will work with the federal recovery team to restore and protect this species. In addition, federal legislation has been passed adding Long Island, which is critical piping plover habitat, to the Apostle Islands National Lakeshore.

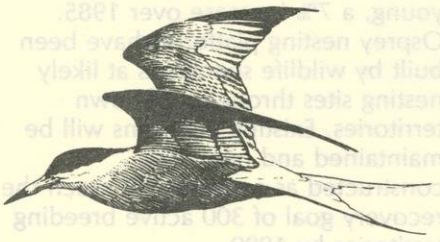


Piping Plovers

Forster's Tern: 395 pairs nested in eight colonies in Wisconsin in 1986; 289 artificial nest platforms were installed at seven sites in the east central part of the state. Other pairs nested in natural habitat at three southeastern locations. The statewide population declined again in 1986 for the second year after a steady increase between 1979 and 1984. This decline is probably due to deterioration of nesting habitat caused by high water levels.

One hundred new nesting platforms have been constructed for use in 1987. Volunteers will be needed to help install these next April.

Common Tern: 738 nesting pairs occupied four colony sites in 1986. That spring, through cooperation of the Apostle Islands Sportsmens' Association, Ashland Pier was rebuilt and 142 pair nested there. Although severe weather virtually wiped out the nests in July, some successfully renested and biologists think the site will be successful in 1987.



Forster's Tern

Timber Wolves: Only 13 were known to exist in the state as of the fall of 1986. Biologists have continued radio-tracking surveys and the parvo virus study to determine exact numbers and disease impacts on wolves throughout the state.

Three packs are known to exist: one in Lincoln County and two in Douglas. This past summer one pup was captured and vaccinated against parvo virus. Two wolves died in the past year from disease.

In September '86, nine public forums were held to hear views of citizens on timber wolf recovery. This information will be tabulated for use in a detailed timber wolf recovery plan due in the spring of '87.

The Timber Wolf Recovery Team through the Bureau of Endangered Resources is working with the Neville Public Museum in Green Bay in preparation for the "Wolves and Humans" exhibition, Jan. 23 — May 3, 1987 at Neville. Members of the team will be present for the grand opening of the exhibit and will co-host a symposium, "The Wolf in Perspective" on Jan. 24. The public is invited to this symposium. Registration costs have not been determined. Anyone interested in symposium information may write to the Bureau of Endangered Resources at DNR.

Pine Marten: Recovery activities will begin in 1987. The primary goal is to re-establish a self-sustaining population in as much of its former range as is still suitable. The 1990 objective is to have 300 marten in the Nicolet National Forest and restock 100 in the Chequamegon National Forest. A population of approximately 150 exists today in the Nicolet as a result of restocking between 1975 and 1983.

Pine Marten

Grassland Birds: Several species are rare or declining including the harrier hawk, upland sandpiper, short-eared owl, bobolink, eastern and western meadowlark, and the grasshopper, vesper, field, sharp-tailed, LeConte's and savannah sparrows. Agricultural practices like short-rotation hay cutting, row cropping and reduced acreages of permanent grass hay and pasture are blamed for the decline. Breeding bird and habitat characteristics surveys were conducted at more than 150 sites statewide during 1985 and 1986.

Frog and Toad Surveys: Volunteers and cooperators have conducted the third annual auditory survey on approximately 70 routes throughout the state as part of a long-term monitoring program.

In cooperation with the Milwaukee Public Museum a herptile "atlas" project has been initiated in seven southeastern Wisconsin counties where development may threaten populations of several rare and endangered species including the queen snake, massasauga rattlesnake, western ribbon snake, Blanding's turtle and Butler's garter snake.

Bluebird Restoration Association of Wisconsin: This was formed in the spring of 1986 to improve bluebird populations by building nest boxes, to establish statewide nest box trails and monitor nesting success. The organization is guided by a board of directors and hopes to attain non-profit status in 1987. There are already more than 3,000 members.

Bluebird

Endangered species report available

A complete annual report detailing all Bureau of Endangered Resources activities is available from the Bureau by calling (608) 266-7012 or writing to Bureau of Endangered Resources, P.O. Box 7921, Madison, WI 53707.

Bring back a bird

Donate to the Wisconsion Endangered Species Fund

The **Peregrine Falcon** has not successfully nested in Wisconsin since 1964. Reintroduction expenditures will be $50,000 to $70,000 per year for five years. Young birds cost about $2,000 each, plus, food, care and stocking.

The native **Trumpeter Swan** disappeared from the Wisconsin scene in the 1800s. Eggs will be obtained from wild birds in Alaska, incubated here and the young released in the wild. Cost of bringing them back will be $50,000 per year.

The **Bald Eagle** is recovering in Wisconsin. Every known nest is surveyed; 95% of the chicks are banded. Nest trees are protected and injured eagles rehabilitated. The cost is $30,000 per year.

None of these programs can be carried out without substantial donations from the public. You can help by filling out and mailing the gift blank below. Your generosity will save a bird.

I would like to give a gift of cash to help restore any or all of the following endangered birds to Wisconsin skies:

Peregrine Falcon $_____

Trumpeter Swan $_____

Bald Eagle $_____

Name_____

Address _____

City•State•Zip _____

Mail to: DNR Bureau of Endangered Resources
Box 7921
Madison, WI 73707

Natural Areas

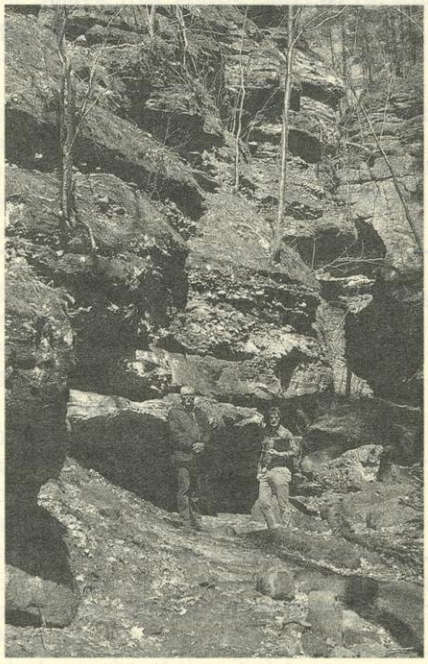
Wisconsin's 200 State Natural Areas (SNA) preserve examples of all biotic communities and significant natural features for use in education and research. They also serve to give long-term protection to the genetic diversity of Wisconsin plants and animals for the benefit of future generations. Here is a summary of various activities in the past year:

Match-grant: The entire natural areas program was given new impetus in 1985 when the legislature authorized using state funds to match private donations made for acquisition of prime sites. Lands donated under the law are given long term legal protection.

By October of 1986, The Nature Conservancy had dedicated 254 acres on six sites and provided $50,000 in match grant funds. At Bark Bay State Natural Area, a gift of 20 acres came from a private individual.

All told, in just one year, 822 acres were added to the natural areas system.

Management: Facility development included construction of two parking lots, erection of 10 large informational signs, construction of two gates and fences and major trail repair at Parfrey's Glen.



Parfrey's Glen, near Devil's Lake, is Wisconsin's first natural area. A number of rare plants are protected here. Photo by Clifford Germain

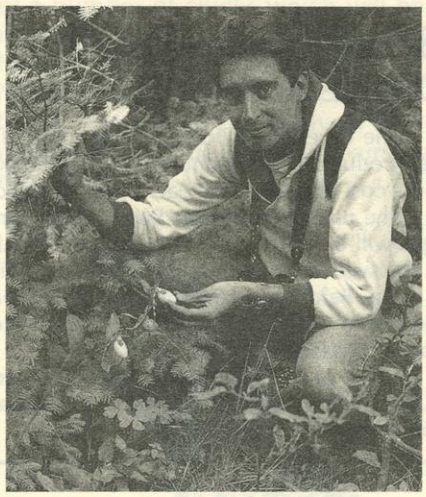
Vegetation management required 10 prescribed prairie burns, removal of brush on 23 acres and of weedy species such as purple loosestrife and wild parsnip at 12 sites. Major tree removal projects were undertaken at Kohler Dunes, Ipswich Prairie, Dewey Heights Prairie and Eagle Oak Opening. A major project involved removal of 2,000 railroad ties from the La Crosse River Trail Prairie by volunteers and youth crews from conservation camps.

Use: 39 research projects are underway on state natural areas. Two involve acid rain.

A 1986 survey revealed that more than 45,000 individuals visited 96 state natural areas on classroom tours. More than 500,000 visited for nature appreciation.

A brochure on Wisconsin's natural areas has been published and is now available to the public.

Natural Heritage Inventory



Natural Heritage biologist Thomas Meyer examines lady's-slipper orchids during an inspection of a Door Co. boreal forest this past summer. Photograph by Mary Greenlaw-Meyer

A special section maintains information on numbers, location, and distribution of rare or declining species and communities in Wisconsin.

In fall 1985, a computer system was designed and installed that almost instantly retrieves essential information about the state's rare species or natural communities. This makes it possible to respond immediately to queries on how development such as landfills, dredging, gas and sewer pipelines or telephone cables will affect various species. About five to 10 such queries are received each week.

Eric Epstein, Natural Heritage ecologist, dwarfed by swamp white oaks while surveying Wauzeka Bottoms, a lowland forest along the Wisconsin River in Crawford Co. Photograph by Michael J. Mossman

The Natural Heritage Inventory Section was formed in 1985. Since then the section has:

- coordinated statewide botanical surveys of rare species by volunteers.
- collected Fassett's Locoweed and Kittentails seeds for the Holden Arboretum in Ohio to use in propagation studies.
- sent Northern Monkshood seed to the National Seed Storage Laboratory in Fort Collins, Colorado.
- through a volunteer, identified a new site for Ram's Head Lady's Slippers which is the second largest population in the state.
- surveyed and identified new sites for Hill's Thistle.
- discovered a new population of Rough White Lettuce, thought to be extirpated from the state.
- discovered a new population of Prairie Bush Clover and relocated an old one.
- discovered an exemplary population of Dotted Blazing Star that is threatened by development.
- completed numerous statewide natural area surveys.

Wisconsin Natural Areas

& Natural Divisions

New Legislation

The Wisconsin legislature, recognizing the urgency of protecting natural areas, established the Natural Areas Match Grant Program in 1985. This legislation was developed by The Nature Conservancy with Department concurrence and built on the existing state natural areas program. The program has four major components: (1) an improved natural heritage inventory program; (2) provision for improving long term protection through legal dedication of public and private sites; (3) a new match grant fund to match private donations for preserving natural areas; (4) stewardship funds for monitoring and managing sites in the state natural areas system.

Prairie White-fringed Orchid
By Mark Martin

Wisconsin Natural Divisions

The map of Wisconsin Natural Divisions shows divisions of the state based on major soils, vegetation and glacial and bedrock geologic features. Within these regions, 32 plant community types including forests, savannas, prairies and wetlands will be protected. In addition, 26 types of aquatic features including lakes and streams of varying physical and chemical conditions have been identified as preservation targets. Especially significant geological features and habitats of threatened and endangered species or other species of special interest are included in the state natural areas system.

Wisconsin's state natural areas are shown on the map and listed below with county.

Natural Heritage Inventory Program

In 1980, several southern Wisconsin counties inventoried 10 years earlier were resurveyed. The follow-up revealed a loss of 10 percent of the natural areas previously identified and another 10 percent seriously damaged.

In times of rapid development, a tool to identify natural areas and the many plant and animal communities that may inhabit them is critical to preservation of rare species statewide.

In 1985 the Natural Heritage Inventory program was established to provide an on-going, up-to-date storehouse of ecological information for botanists, land use planners, land managers and landowners. Access to such information is invaluable during early planning stages for new highways, utility corridors, drainage ditches and other development projects.

This inventory system was established in cooperation with The Nature Conservancy, a private conservation organization responsible for developing the inventory process now active in 40 states. Preservation begins with the information furnished by these comprehensive inventories of natural communities. All the data collected during the inventories is cataloged in an integrated system of maps, computer databases and paper files.

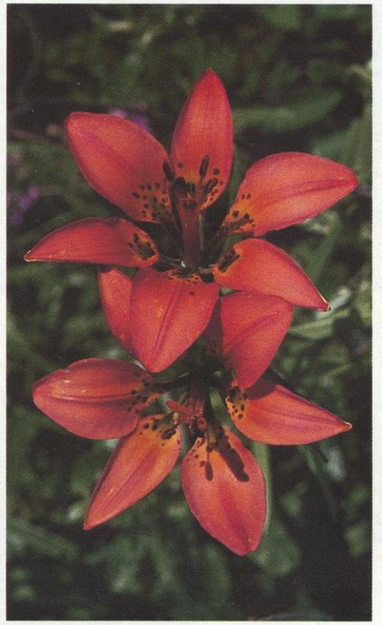
The Natural Heritage Inventory program has three primary goals:

- continually identify the state's rare or unique plants, animals and communities;
- rank them according to how severely endangered they are in Wisconsin and worldwide;
- map their geographical occurrences including quality and viability;

Those natural communities and species that are most in danger of disappearing or even becoming extinct can be saved, but first they must be located and identified. A program to inform private landowners of their preservation options has been initiated by The Nature Conservancy in cooperation with the DNR. The inventory information is used in developing a registry of sites and maintaining landowner contact.

Site Establishment

Over 85% of the current 200 sites have been secured by cooperative agreements on public lands, especially DNR controlled parks, forests, and fish and wildlife areas. Natural areas controlled by universities, counties, federal agencies and private groups are also part of the natural areas system. Designations are made by signed ''memorandum of understanding'' with property administrators and managers. These documents are long term, formal (but not legally binding) commitments to maintain the sites as natural areas.



Prairie Lily
By Mark Martin

Acquisition

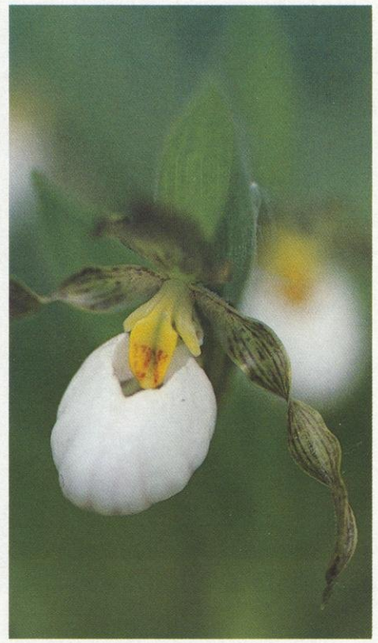
High priority sites on private land are acquired by purchase or through donation and help fill gaps in the natural areas system. A portion of the DNR land budget is devoted to purchase of state natural areas. Though limited, these funds have been important in the acquisition of small isolated natural areas not suited for purchase by other public agencies. Thirty new natural areas encompassing 3,000 acres have been added to the system by direct purchase or donations of land. These purchases are sometimes supplemented by other public and private agencies that also purchase and manage areas with high natural area quality.

Legal Protection

Articles of Dedication provide the strongest long-term legal protection for natural areas in the state. Legally dedicated sites are protected in perpetuity for natural area use and may not be taken for other uses without a finding of urgent and greater public need by the governor and the legislature. The 1985 state legislature gave DNR this tool. Legal dedication agreements are being developed for as many previously established areas as possible.

An additional feature of this legislation is called the Match-Grant Program This provides additional State land acquisition funds to encourage and match-dollar for dollar-donations of cash, gifts of natural areas or partial conservation easements by private individuals and organizations.

This new match-grant opportunity stimulates more private involvement in preserving choice natural areas. By the year 2000 at least 290 state natural areas encompassing 55,000 acres should be established. This represents an addition of 90 new sites and 24,000 acres during the next 15 years. The Match-Grant Program is critically important in preserving choice sites threatened by development on private land.



White Lady's-slipper
By Mark Martin

The buck in rut loses his normal caution. Photo by Charles Fonaas

The deer rut

Patrick D. Karns, Minnesota Forest Wildlife Research, St. Paul*

Over the years much folklore and myth has grown up about deer behavior during the rut. This sets the record straight.

The word "rut" comes from an old French word that means "roar" and is related to another that means "wild." While bucks don't roar during this period of sexual excitement, they certainly act wilder than usual at the beginning.

The controlling factor that brings on the rut in a buck is day length or hours of sunlight, not the moon or a frost. For some eight months of the year, a buck has little or no mating urge. Beginning with the shorter days of late summer, however, his metabolism begins to change. The shorter days activate his hormonal system to produce increasing amounts of testosterone, the male hormone that provides the drive for the breeding season.

The testosterone level — low at first — governs this change in the buck's behavior. One of the first indications that it is increasing is the drying up and shedding of antler velvet in late August. This is followed by other developments — the enlargement of the testicles and swelling of the neck — which peak in early November.

All these changes are carefully orchestrated by the sun. The buck receives the signals through his eyes which transmit them to the brain, which in turn puts the breeding cycle into motion.

Bucks are most active just before the breeding period not during it. This prebreeding period is akin to adolescence. The deer is fully charged with testosterone hormone and has to make his presence known.

He advertises himself with antler rubs on small trees and bushes, scrapes in the ground and travel to size up other bucks in the neighborhood. The testosterone

*Abridged reprint from the Minnesota Volunteer

peak helps explain why bucks act so foolish during this period. Running around showing off isn't conducive to survival in the deer world. Fortunately, this behavior lasts only a few days. It's part of the selection process that provides the population's genetic strength.

Bucks can lose more than 20% of their pre-rut weight during this period because they don't eat. Most of what they lose is fat. This means they have lower reserves going into winter and depend on day-to-day feeding following the rut to stay alive. Does, on the other hand, continue to gain weight through December, after which they coast through January and February.

Once prebreeding antics end — and they do end abruptly — the bucks settle down to servicing does ready to breed. By January, most of the sex drive has diminished and the buck resumes his place in the deer hierarchy, which, except for the rut, is not at the top.

Basically adult does, those 2 1/2 years old or older, run the show.

When it comes to getting the best food or cover, you can be certain the doe comes up with it, even to the exclusion of her fawns if need be. And therein lies another secret of deer survival: The adult doe is the best equipped to get through rough times to perpetuate the species. Bucks are kind of disposable when things get tough.

Does come into heat or estrous for only about 24 hours at a time. During this period, they are receptive to the buck, can breed successfully, and seek out the buck to mate with. Actually, they are somewhat choosy in the process.

The does' breeding cycle is also determined by day length in the same manner as the buck's. Most does are bred during the first estrous, which in Wisconsin generally occurs between the 10th and 20th of November. In the unlikely event that she is not bred, another estrous will occur about 28 days later. In our northern latitudes, unbred does can go through five such cycles. Younger deer — fawns or yearlings breeding for the first time — may be bred in December. How many fawns and yearling does are bred and how many fetuses they carry is largely a matter of nutrition the first six to 18 months of life.

Over 95% of all the adult does are bred each year. This number is not affected by the number of bucks taken during a deer season. And despite a consistently high harvest of bucks, the genetic makeup of the species remains undisturbed. There is little of an inferior nature about deer in the wild. This genetic diversity is one attribute that makes the white-tail such an adaptable animal.

Bucks do not move out of their home range during the rut. If hard pressed by hunters, bucks generally prefer to hide, simply by not moving, rather than striking off for unfamiliar territory. It's much safer for them to stay where they know the turf than go off into strange territory and be at the mercy of whatever lurks there. Deer are masters at hiding. Once they've successfully eluded a hunter or two, they adapt a strategy for living at home. Their home range during this period is about one-half square mile.

These two trophy bucks died together after their antlers locked during a pre-rut showdown.
DNR photo

It was once both a popular and a scientific notion that deer are color blind. Using an electron microscope, researchers have found cells in the retina of the deer's eye capable of color perception. Subsequent behavioral studies have confirmed the fact that deer can discern color. Now, the unanswered question is how deer perceive color.

The growth cycle of antlers generally begins in April with small nubbins on top of a buck's head. These then elongate and branch. A vascular material, called velvet, covers them during growth. Growth ceases in August and the velvet is shed. The antlers are then polished as part of the rut ritual and serve to identify the social status of the animal. Antlers are shed anytime from December through March, generally earlier in the northern part of the state. Some southern deer shed the old antlers in spring when the new growth begins and pushes the old ones off. Shedding distinguishes antlers from "horns." Horns are bony growths on the heads of cattle and sheep and are not shed annually. Antlers are and this is true for all male members of the deer family and for the female caribou.

Antlers have the same general structure every year, unless their growth is interrupted by an injury. Thus, the shape of the buck's rack and the number of points is determined genetically. With the exception of size, they remain much the same throughout the life of the owner.

The number of antler points on a buck's rack has little to do with his age. Age can be determined by the wear patterns on the teeth in the lower jaw or, better yet, by the annual rings in the roots of front teeth. These annual rings develop in the cementum layer of the teeth. The rings are the result of a deer's reduced metabolic rate in winter.

On the average, deer are shortlived. Bucks are "old" when they reach six or seven, although a few may live to the ripe old age of 12 or 14 years. Most die before the age of five. A buck is in his prime at 3½ to 4½ years, after which signs of old age show up. The "swamp buck" is just like all the others, except that it's a dark-haired critter in full rut. Deer come in different hair colors like people do.

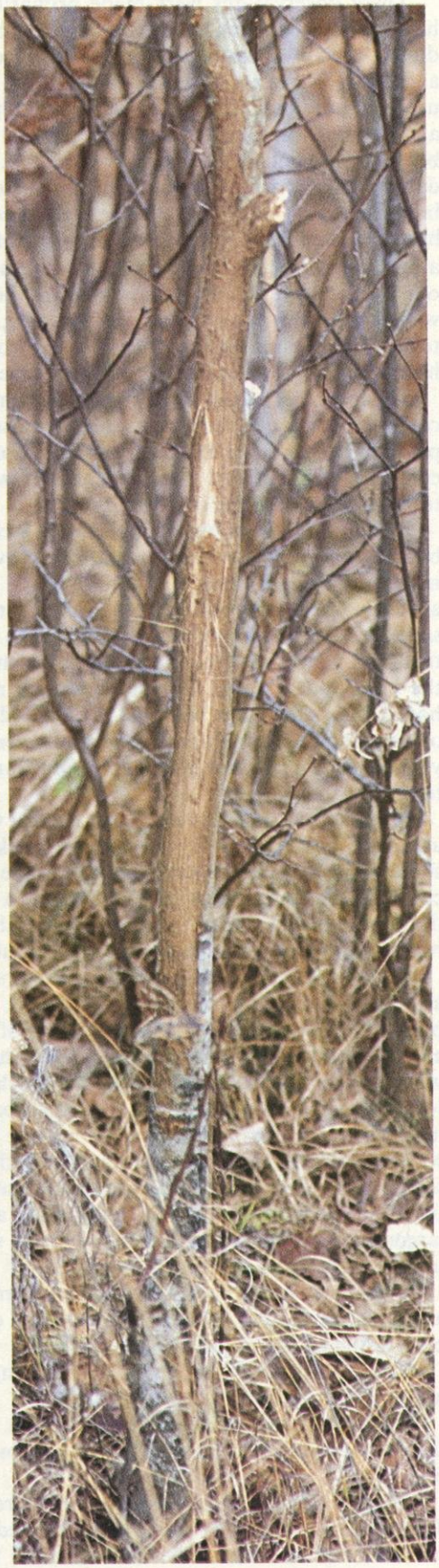
Some bucks take on a strong odor during the rut. Some does do, too. The odor comes from pheromones, the perfumes of the animal world. Deer use the chemical scent to communicate their presence and readiness to breed. Strictly external, the odors have little bearing on the quality of a well-cared for carcass.

Some deer described as having a rotten smell during the dressing out process have an old injury that has become infected, or may have a bacterial condition about which very little is known.

Bucks taken during the rut often have enlarged or swollen necks. This is one of the thickest muscle areas on the deer and will spoil quickly, especially during warm weather if the hide is not removed.

In Wisconsin, the rutting season begins in late October, peaks in mid-November and gradually declines during mid-December. This year it will have mostly subsided by the time the gun-deer season opens.

During the rut, whitetails sometimes make visual markers by breaking branches from trees above their scrapes.
Photo by Herbert Lange

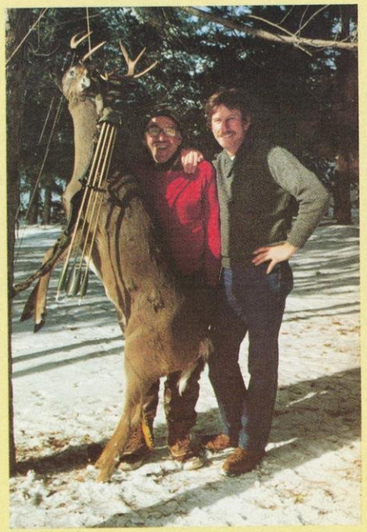


A buck rub. Charged with testosterone, deer shadow box with small trees or bushes to remove velvet from their antlers. Bucks may mark trees in the same area year after year.
Photo by Patrick D. Karns

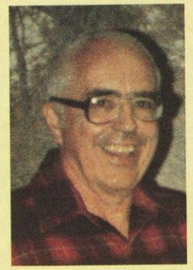
Rubs, scrapes and bleats

Observations during the rut.

HOWARD COOK,
Veterinarian, Dousman



Hunting partners Jim Connell and Dave Bickel with a buck shot by Bickel. Photo by author



The author has hunted whitetails in Wisconsin for 45 years.

Painting by Artist Gijsbert van Frankenhuyzen, courtesy of Michigan Natural Resources Magazine.

These observations were made primarily in the Tomahawk, Wisconsin area while bow hunting from a tree stand during the rut. I have hunted deer in Wisconsin with gun and bow for the last 45 years. However, in the past 15, I've used only the bow. Each year, several old hunting partners and I go out for 10 to 14 days from the first part of November until the end of the early bow season. We hunt every day, no matter what the weather, enter the woods at daybreak and stay until dark. When we get cold and stiff we hunt our way to a different blind. Most of the time we're alone, often five to 10 miles apart, but we know which blinds our partners are in. We seldom see another person in the woods and enjoy the hunting, the watching, and the chance to clear our brains by being alone in the woods. In total, I have spent more than 365 actual days observing the rut.

In November, most deer groups are small and usually composed of a doe, her fawns, and occasionally what appears to be her fawn of last year. These family groups are creatures of habit, and unless frightened, will use the same trails at the same time of day.

I had thought that buck rubs on trees were a result of the buck rubbing the velvet off its antlers. However, bucks do not rub; they fight, slash at the tree and the ground, and act as if in combat with another buck. Bucks mark trees in the same area year after year, and often make a new rub on a tree right next to last year's rub. In one such area, we found the same spot marked for five years in a row. We always hoped it was the same buck who outwitted us through another season and was now bigger than ever. However, this year he did not re-mark his area, so some hunter may finally have outsmarted him.

Most rubs are made in middle or late rut when the antlers are clean. Sometimes they are done by bucks whose antlers shine white from previous rubbings. Some of this activity could be to release sexual tension. There is a definite correlation between the size of the tree rubbed, the height of the rub and the size of the animal doing the rubbing.

A buck making a scrape will dig up an area one foot wide and three feet long, urinate in it, and mark it with his hoof prints. He will sometimes make five or six of these in a small area. He hates to leave these scrapes when they are fresh and will wait there. Occasionally, a younger buck will wait there, too, but on the outside of the large buck's perimeter - seemingly afraid of him, but hoping for a piece of the action. I watched a four-point buck sniffing and checking a buck scraping, when suddenly there was a loud snort behind him from the swamp; he took off like a shot. In a few minutes, a larger buck walked out and stood near the scraping watching the path taken by the smaller buck.

A buck scraping must be an announcement that he is available for mating because I have seen a doe approach a buck while he is waiting at his scraping.

Only once have we seen two deer mating, and this was about eleven o'clock in the morning.

The buck in rut loses his normal caution. While scouting the territory for gun hunting, I have been followed by a buck.

Driving down a logging road in McCord Country near Tomahawk, my partner and I were greeted by the largest buck we had ever seen. The buck stood in front of us and tossed his head threateningly. He would move just ahead, turn back and shake his head. Ultimately, he came to his senses and took off. We found fresh scrapings nearby, spaced about every 10 feet.

Younger bucks seem to walk aimlessly through the woods sniffing and looking at every bush in the morning. Unless running a doe, bucks seem to feed alone in late afternoon, and seem a little confused by the rut. One morning while climbing my tree I had a young buck come running over and look up at me, his antlers just below my feet.

Wise old bucks will check their scrapes from cover downwind, like a trapper checking his traps.

We know of one large common scrape which is used every year by several bucks and ends up looking like a small plowed garden.

When a buck smells a doe in heat, he will trail her while making low grunting noises.

My partner watched a buck chasing a doe with the fawn running behind, bleating and complaining.

Old bucks bed in the thickest cover in their area, and that small area will have many old rubs where the buck has cleared off his velvet. His trails will have rubs on them particularly in the rut, and during the rut he will make scrapes in areas where he wishes to advertise his presence.

Later in the rut old bucks will travel into new territory, on main trails during the day, apparently looking for unbred does.

Some older bucks will not tolerate other bucks during the rut.

Another time my partner was almost trampled by a six-point buck running down the center of a small road in apparent fear. A few minutes later a second larger buck came tearing down the same road apparently chasing the first buck.

Some bucks tolerate and travel with other bucks. I watched a doe run under my blind followed by a grunting forkhorn. In a couple of minutes a larger more cautious buck followed them both. This older deer did not seem to mind the young buck's presence or competition.

One morning I watched a large buck and a forkhorn walking together and making scrapes together side by side. They would rub their heads on the same overhead branches. They looked as happy as two old human hunting buddies planning the next year's hunt. There was the sound of a shot (grouse season was on) and the large buck disappeared in a flash. The smaller buck kept right on improving their new scrapes and ignored the shot.

Does, when they are in heat and in the presence of a buck, will run like crazy, often in large circles. Early in the rut, car kills are high when the does in heat and the bucks following them lose their customary caution.

Later in the rut, the pregnant does become more wary and move around less than normal, as if afraid to attract a buck's attention.

My partner shot a doe that was traveling with two others. Her ovaries showed she had been in heat the day before. I wonder if, being out of heat she had quieted down and the bucks had lost interest in her.

The doe's scent when she is in heat seems to be the primary signal to the buck that she should be bred. I watched a buck chase a group of four does, run right past two of them and follow one at high speed back into the brush.

Last year we shot a nice, fat doe. Her body had a strong musklike odor, offensive to both my partner and myself. Her ovaries showed she was in heat. We hung her in back of our cabin, and two hours later at midday a forkhorn buck was in our yard underneath her, smelling her. Maybe it was the blood, but I think it was the odor of heat that attracted him.

We have tried commercial buck scent near a blind with no luck. When a buck smelled it, he seemed more afraid than usual and would not come near. A deer call attracted the animal's attention, but it kept its distance and would not approach the blind. We tried clanking antlers together, but only managed to call up a coyote.

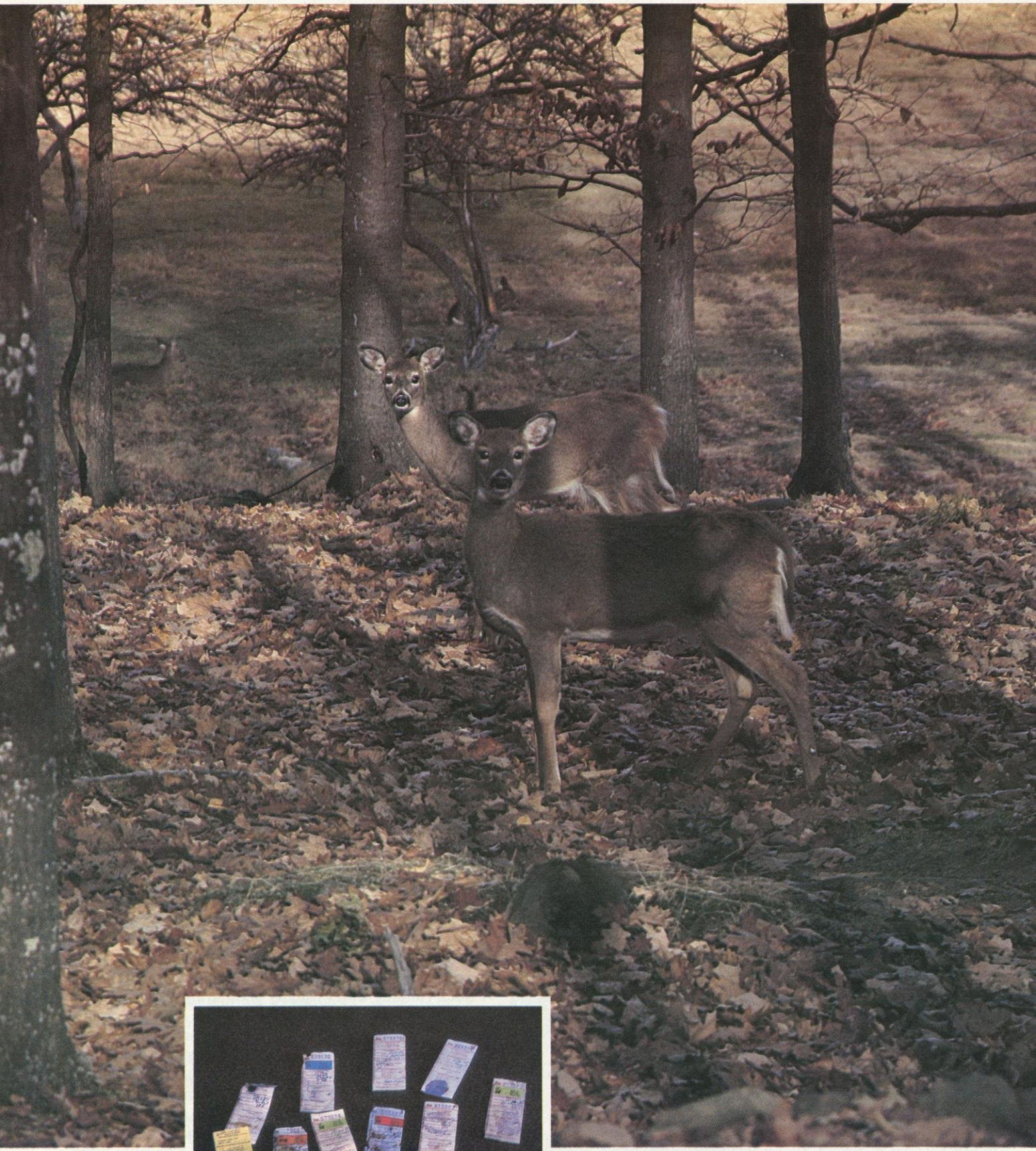
One day a doe ran past my blind at full speed. I wondered what had frightened her so terribly. Shortly behind her came a four point buck with his head low, making a continual low bleating sound. I shot at him and missed and then noticed a larger buck following him. I wondered about them following the apparently unreceptive doe, and why the larger buck allowed the younger buck to precede him.

A buck running away usually goes straight as an arrow with his tail down tight, but when a doe runs away, she bounds and waves her tail and will occasionally snort.

After the first snow of the season, deer lay very quiet for a day, even during the rut. One wonders if they are afraid of the different view. White has always been an alarm color to them.

One morning I was sitting in my tree blind near a fresh scraping. I knew a buck was close by and was fully alert. Sudddenly, I heard a twig crack just below and there, looking up at me from under the tree, stood a six point buck. The unbelievable ability of a buck to appear out of nowhere is a constant marvel to me.

I believe there is a sixth sense and that deer can feel you looking at them. They are a wonderful animal to hunt and observe, and unless something happens, I will continue to do it until the day I die.



▲ Photo by Herbert Lange

Inset: These small, crumpled, data-packed slips of paper are the foundation of the Wisconsin deer management program.
Photo by Don Bragg

Hey DNR, how many deer?

Doris Rusch, Madison,
DNR Wildlife Specialist

"Hey DNR, how high's the harvest?"
.....one hundred thousand and rising!
.....two hundred thousand and rising!
.....one quarter million and rising!

Nine days in November! Nine short days when 650,000 people pursue the same end; when television, radio, and newspapers pay homage to the most popular activity in Wisconsin; when conversations everywhere revolve around the deer hunt; when attention is riveted upon the number of deer in the annual harvest; when phones ring off their hooks in DNR offices!

The deer harvest! Everyone wants to know how many deer were killed during the gun-deer season.

This number generates more suspense than the Packer-Bear score. It's more in demand than tickets to the Badger hockey game and more sought after than Cabbage Patch dolls just before Christmas. To many Wisconsinites, it's a more important number than the annual budget figure. And, it's generally a number to cause more "oohs" and "ahhs" than the 4th of July fireworks.

So, why doesn't the DNR produce this number by season's end? What's so tough about counting a few dead deer? Is there an ulterior motive? Is it secret stuff? Is the DNR just darned inefficient? Nay to all of the above. The vast majority of deer harvested during the nine day gun season are counted within two weeks of season's end. This number is no secret. However, neither is it final. It is not until late January that a final report of harvest can be made with confidence. Why should it take so long to produce the final number when the season ends in November?

First, it is not deer which are counted but "registration stubs". Every hunter is familiar with the registration stub; that small perforated end of a license. It measures only 1.5 by 3.5 inches but represents a deer and serves as a record of deerkill. It is stamped with the hunter's license number, has a place for a hunter's choice sticker, and space to record the date of kill, the management unit where the deer was taken, the county, type of deer, registration station, and the signature and address of the licensee. Needless to say, the license stub, albeit wee in size, is a mighty document.

Secondly, we don't just "count" the stubs. We use all the information provided on it. Wildlife managers need to know the number of deer harvested in each particular management unit, in each county, and in each county portion of a unit. Managers need to know the age and sex (composition) of the harvest within each unit, the proportion taken under hunter's choice permits, and the percentage of bucks taken under hunter's choice. The date of kill yields the chronology of harvest (the percent of the total that occurred each day of the season).

In recent years, added season complexities have increased information needs. Antlerless permits, bonus permits, extended and either-sex seasons have been used to manipulate harvest in some management units. All this extra data must be analyzed to determine the effectiveness of the various harvest structures. The registration stub is the foundation of the Wisconsin deer management program.

Hunters, as we all know, are not prone to delicacy when handling this fragile bit of parchment. Seldom are their hands immersed in soap and water between field-dressing the deer and arriving at the registration station. Neither are they generally equipped with desk or fine-tipped pen. An old stub of a pencil might be found somewhere among the hunting paraphernalia and a knee can serve as a writing surface. Using such an instrument upon the delicate bit of paper is somewhat akin to whittling a toothpick with an ax. Nevertheless, the job gets done and we appreciate the hunter's ingenuity.

Registration attendants also often leave their insignia on a stub. A service station employee may stop in the middle of an oil change or grease job to register a deer. Stubs seem to be magnets for grease and grime. Registering deer is an outside job and snow, sleet, high winds, and rain are common weather phenomena during the deer season. Pencil lead smears and ink runs on wet stubs. Despite these problems, the information gets recorded and we appreciate the efforts of registration stations.

Stubs are usually mailed from registration stations to DNR headquarters. Although neither sleet nor snow nor hail can halt the US Mail, such things can certainly delay it. Bad weather and heavy snows in the north during the 1985 season raised havoc with mail trucks and by-gosh and by-golly delivery was the rule. Envelopes full of stubs have been known to hide in mail trucks or mail rooms for weeks before being discovered.

NOTHING but the TRUTH

George F. Hartman,
Cross Plains

An almost perfect prediction and a near deer count deception is foiled by accuracy.

I decided that I had to lie. That decision was made early one morning in March 1969 while I was shaving. I had to do it for feasibility's sake. The truth just wouldn't be believed by our hunting public. I had to lie.

Later, as I was eating breakfast, Marge asked, "What's bothering you?"

"Nothing."

"I sure will be glad when you get that report of the deer season finished."

"So will we," said one of the kids.

They knew.

I heard their comments, but my thoughts were centered on the lie I had to tell. I had already decided I would inform no one of my decision. I would carry my cross alone.

I was coordinator of the big game program for the Wisconsin Department of Natural Resources, a job I held for five years. Big game management in Wisconsin consists almost entirely of deer management. The present program is excellent, complex, and spread statewide. Initiated in the 1950's it is largely based on mandatory registration of all deer shot.

I liked my job. I understood my work and knew we were making progress. Statewide the deer herd was increasing. So was the annual kill. Local deer populations were being patterned to fit range conditions. However, many of our hunters and other citizens did not agree. Years ago one of our sage department employees described deer management as 60% people management and 40% deer management. Our people problem was usually with those individuals who did not shoot deer. They refused to believe our statistics on deer harvested. They accused us of lying.

In the preceding year, following the 1967 hunt, the Milwaukee Sentinel audited our kill data. Their findings showed a greater harvest than that claimed. On review, we were able to show them where they had erred.

A vast amount of planning goes into formulating a deer season. Though complex, it is simple complexity. The kill records of previous years, age data on deer harvested, hunter concentrations, deer wintering losses, illegal hunting, and a few other variables are considered and plugged into the recommendations for the season.

Using the foregoing information, I had predicted a statewide legal gun kill for the 1968 season of 120,000 deer, plus or minus 5,000 animals, based on weather conditions. This figure was used in the department's pre-season news releases.

My harvest predictions for the three previous seasons had been within 5% of the final figures. Yes, we had, and have, an excellent deer program. I admit the accuracy of these predictions made me a bit vain about my forecasting abilities. My estimates for a few of the management units were off by as much as 25%, some too high, others too low. But for a statewide kill figure, the wrong estimates cancelled each other out.

The 1968 deer season was a good one; the weather was favorable, deer populations were good. We did have some departmental problems that hampered our job of totalling the season's gun kill. Field people were tardy submitting registration stubs which were tallied in my office. Some stubs are temporarily lost in transit. Computers were not available so all data were hand-tallied. The biggest problem was that Mavis, the account examiner, who had done most of the deer kill statistical work the previous three years, had been promoted and given other duties.

Because my job with the Bureau of Wildlife didn't give me much office time to work on the deer count, I'd take my big mechanical calculator home and work on the report evenings and weekends with Marge and the kids helping. At times while I worked on the narrative, they would be on the statistics.

We did fairly well at home, but then I had to spend a long weekend touring the deer lands of the far north with our Citizens Deer Committee. I took my troubles to the office and expressed them to a lot of people, including Mavis. She felt sorry for me and volunteered to take the unworked data and calculator home to work on it over the weekend.

When I returned to the office Monday morning the completed statistics were on my desk. The state total gun kill was 119,984 deer. I crossed checked all ways. Yes, the total was correct, but I couldn't quite believe it. Still, I used it in completing my narrative for the report. I finished my writing at quitting time and went home. A nagging feeling still told me something was wrong, but I said nothing.

I awoke early the next morning thinking deer harvest. I remembered the exact figure — 119,984. Then I remembered we had had an early season gun hunt on the outer Apostle Islands. Sixteen deer had been taken. That, added to the 119,984 tally equalled exactly 120,000 deer — a highly unlikely round number. Worse than that, it was the exact figure I had predicted in my pre-season estimates. No one would believe it!

So it was, that while shaving that morning I decided that for the good of the department, and for me too, I had to lie! It would be just a small one — but still a lie.

I arrived at the office before my coworkers and reviewed the data.

Mavis, bless her, had not forgotten to include the Apostle Islands deer in her count—119,984 was really right. I could remain honest!

To avoid such delays, wildlife managers and technicians make a great effort to visit every registration station throughout the season and soon after to collect unmailed stubs. Each manager has one or two counties to traverse and up to 20 stations to visit. Since managers can't be everywhere at once, transfer of stubs to headquarters isn't instantaneous.

Oddities sometimes slip into the system and require special attention. Stubs that indicate a possible illegal kill, such as an antlerless deer taken from a unit without a permit, are held awaiting investigation by wardens. Bow stubs used for gun deer registration or stubs from a previous year also require investigation and are not available for tally for days or weeks.

Late stubs turn up from some unexpected places...under a cash register, inside a hat brim, in the lining of a coat. A sheepishly grinning registration attendant may discover a few, or a few hundred, tucked away in some odd corner and forgotten in the press of business. An embarrassed wildlife manager or conservation warden may find a wayward stub in a coat pocket, under a car seat, or stuck to a notebook.

Though late-blooming stubs may not count for much in the total harvest, they can have a real impact within a management unit or county. A few hundred stubs from one registration station may account for a significant proportion of the harvest within a particular area.

Back at the DNR offices, business is booming. Something must be done with all the stubs collected. As thousands pour into the headquarters, many hands are waiting to receive them and make order from the jumble. All available DNR personnel, whether foresters, fish managers, fire control specialists, environmental protection specialists, and others, help out. Whole rooms are dedicated to warehousing and sorting stubs. There are stacks upon stacks, piles upon piles, mountains and mountains of stubs.

It's hard to imagine the volume. The human mind, that wonderful information processor, is limited to envisioning only seven digits at a time. That's why phone numbers are seven digits long. You may remember your nine digit social security number, but it's broken into three pieces. The mind sees each piece separately before putting it together.

To visualize large numbers, we have to paint pictures in the mind. For example, even though each stub is only 3.5 inches long, lined up end-to-end, a quarter million stubs would stretch out over 14 miles. Stacked up one upon the other, a quarter of a million stubs would reach 74 feet into the air. A quarter million deer, lined up nose-to-tail, would stretch out over 1,000 miles — from the Mississippi River to Denver, Colorado.

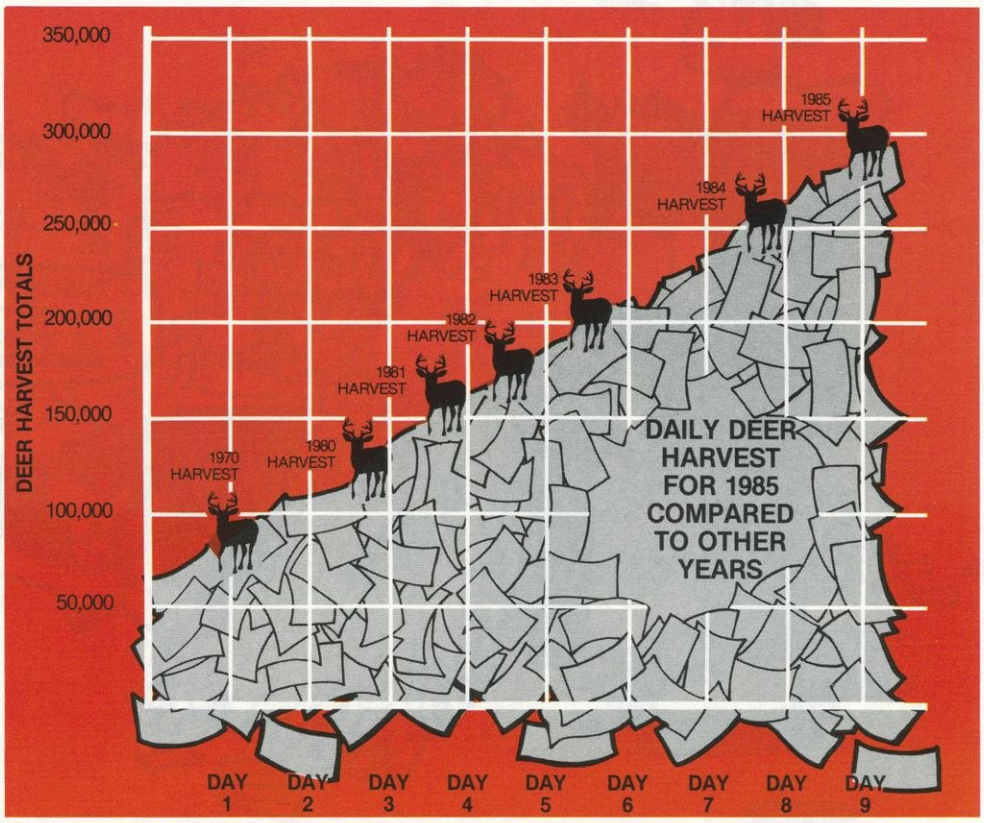
So, how many is a quarter of a million? The answer is: a lot! A quarter of a million stubs are a lot of bits of paper to handle. To speed computer entry and reduce keying errors, stubs are sorted into piles by county, management unit and whether from a permit or regular license. Sometimes they are also sorted by type of deer and by date of kill.

Sorting registration stubs can be extremely challenging. Information is often either barely legible, almost invisible, or obscured by blood or grime. Close scrutiny (50-50 eyesight and a magnifying lens), a little science (degreasers, scrapers, and dusting powders), and lots of art (guesswork combined with judgment) are needed to decipher handwriting and determine proper categories.

Categories can be very complex. For example, the West Central District encompasses all or parts of 20 deer management units. Each unit involves all or part of from three to five different counties. All in all, there are about 80 unit-county combinations within the West Central District. Within unit-county combinations, stubs are separated on the basis of hunter's choice permit, thus providing 160 categories. Hunter's choice permit categories may then be broken into antlered/antlerless categories. At this level of sort, each stub must be placed into one of 320 piles. When stubs are sorted by day of kill, the number of categories in the West Central District alone can reach 2,880! If bonus permits are issued or if categories for "missing data" are needed, the number of categories multiplies.

Similar sorts are made in each of DNR's six districts within Wisconsin before the data is keyed onto a computer. The computer integrates, tabulates, analyzes, and stores the deer records. Speed of data entry is related to the fineness of the sort. If the data keyer does not need to scrutinize each stub to determine the appropriate data to key, a skilled worker can enter about 5,000 records per work day. If the keyer must make decisions or turn an illegible stub back to wildlife personnel for clarification, the entry is slow going.

Each of the six DNR districts is responsible for entering registration stub data into computer files. These are then



Graph by Jeanne Gomoll

electronically transferred to the Madison central office. Here the computer checks the validity of management unit-county combinations, dates-of-kill, codes for license type and deer type and combinations of permit and deer type. Erroneous records are sent back to districts for correction. Good data from all districts is integrated and summarized by all variables.

A quarter million records is even a lot for a computer to handle. The computer sometimes "thinks" it knows better than the operator and has a tendency to abort in the middle of an execution. A message might flash across its screen saying it has neither the space nor time to deal with such a magnitude of data. Special commands must be used to convince the computer to make room for the data.

The districts all make special efforts to get the data to the Madison office as soon as possible. The sheer volume of stubs and information precludes instantaneous turnaround. And when late stubs arrive they are added to the tally. Although DNR wants to know the numbers just as urgently as the public, we'd rather know the true harvest than settle for an early, but incomplete figure.

So, this fall, when you are patiently waiting for THE NUMBER, understand that the deer tally involves a lot of paper and a lot of people; it's going to take a little time. If you're lucky or skillful enough to bag a whitetail, remember the statistics you provide are valuable. The little extra time you take to fill out that mighty important bit of paper means a whole lot to the deer management program. And to all those people involved in processing it.

Thanks!

Deer registration: counting the stubs.

Cartoon by Jeanne Gomoll

Readers Write

HISS!

■ I'd like to clarify an item in Don Blegen's interesting article on snakes in the July/August issue. On page 26, he states there are four species of garter snakes in Wisconsin. Actually, there are five: Eastern garter snake (*Thamnophis sirtalis*), Eastern plains garter snake (*T. radix*), Western ribbon snake (*T. proximus*), Butler's garter snake (*T. butleri*) and Northern ribbon snake (*T. sauritus*).

It was good to see an article in defense of snakes. These animals are terribly misunderstood and needlessly persecuted. The author is to be commended for sharing his thoughts with us.

Kennth I. Lange, DNR Naturalist, Devil's Lake State Park

■ I was somewhat dismayed by the tone of the snake article, dwelling as it did on myths and danger to man. I think this approach only reminds people and perpetuates the myths and misinformation. It would have been more appropriate to simply list the false beliefs and then write about the snakes in reality. In my opinion, the article abounds with poor word choices and inappropriate emphasis, for example urging readers to "fear" venomous snakes. Should we fear cars and knives too? They are more deadly. Respect and caution are the appropriate attitudes, not fear.

Gary S. Casper, Section of Invertebrate Zoology, Milwaukee Public Museum

■ ***Herpetologist Dick Vogt, a former DNR employee and expert on Wisconsin snakes wrote us from Mexico:*** "The article by Blegen was well written, beneficial and informative in educating people about protecting snakes." But, Vogt said, it was "writhing with blatant errors."

"The food habits of some species were different from any data I have seen. Smooth green snakes feeding on salamanders? Massasaugas feeding on fish? Also, there has been only one reported instance of massasaugas ingesting birds in over 91 food items. The queen snake feeds almost exclusively on crayfish. Blue racers eat lizards, too. Massasaugas feed predominantly on warm blooded prey, not cold blooded.

"Green snakes are absent from southwestern Wisconsin. Bullsnakes occur only in the southwestern part of the state, not statewide. Dekay's snake is absent from extreme northwestern Wisconsin. The two species of ringnecks are not statewide in distribution."

Regarding Blegen's comments about pine and bull snakes, Vogt wrote:

"The idea that the 'habits, size, reproduction and diet of the pine snake are identical to the bull snake' is totally without regard to the ecology or life history data that are known for these forms. If Blegen found a pine snake in Wisconsin, it most likely was an escapee."

Several individuals, including Vogt, wrote to complain about scientific names used in the snake article. Unfortunately, these changed in the recent past and the author unwittingly used an outdated source. Here is the correct nomenclature:

Black rat snake—*Elaphe obsoleta obsoleta*
Milk snake—*Lampropeltis triangulum triangulum*
Bull snake—*Pituophis melanoleucus sayi*
DeKay's or brown snake — *Storeria dekayi*
Northern ribbon snake (garter snake)—*Thamnophis sauritus septentrionalis*
Western ribbon snake—*Thamnophis proximus proximus*
Queen snake—*Regina septemvittata*
Northern watersnake—*Nerodia sipedon sipedon*
Ringneck snake—*Diadophis punctatus*
Redbellied snake—*Storeria occipitomaculata*

■ For more information on snakes, the following books are recommended: *Natural History of Amphibians and Reptiles in Wisconsin* by Richard Carl Vogt (Milwaukee Public Museum, 1981) and *A Field Guide to the Reptiles and Amphibians of Eastern and Central North America* by Roger Conant (Houghton Mifflin, 1975).

PHOTO FUNK

■ ***Numerous letters from our sharp-eyed, well informed readers pointed out a whole series of caption errors. We hang our heads and say "thanks." Here they are, with corrections:***

From July-August:

The photos on pages 25 and 29 labelled "Black rat snake" and "Blue racer" are reversed.

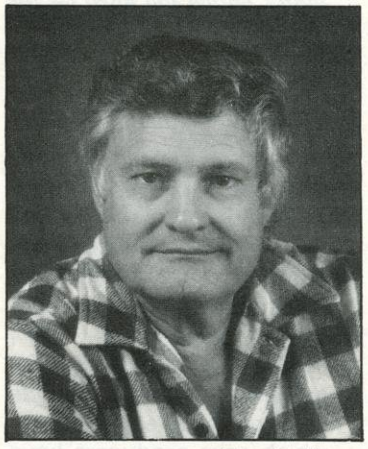
On page 22 of the Devil's Lake State Park special report is a photograph of a snake identified as a Bull Snake. It is more likely that the snake is a Black Rat Snake.

On page 30, the photo labeled Western diamond back rattler is actually a Prairie Rattlesnake (*Crotalus viridus*), not a western diamondback

Among those who sent us back to the darkroom for snake corrections were: James F. Drought, Naturalist, Wehr Nature Center, Franklin; Gary S. Casper, Milwaukee Public Museum; Richard C. Vogt from the Instituto de Biologia in Mexico; and Kenneth I. Lange, Naturalist at Devil's Lake State Park

From September-October:

The man checking the mastodon bones (page 14, Kettle Moraine) is not the author, John Dallman but the author's long-time colleague, Frank Iwen.



John Dallman

So much for snakes. Then there was this:

■ I enjoy your magazine very much. The variety of articles shows what a wealth of various assets nature has bestowed on the state and the importance of wisely maintaining these resources.

However, I have some criticisms about the article "Hatch Your Own" in the July/August issue. The lower

left photo with the caption "A Cecropia moth emerges from its cocoon" is not correct. The moth is a Promethea, and appears to be a male. The other point of contention is in the second paragraph, "You can easily distinguish females by their large, feathery antennae." I think the male has the large, feathery antennae, because it is the receptor of the pheromone, the chemical which is the attractant for the male moth.
Tony Carrera, East Troy

You are correct—the male moth has the larger antennae. The photo on page 12 is a* female Promethea *moth emerging from her cocoon, not a Cecropia. Another error has also been brought to our attention: the lower photo on page 11 is not a Polyphemus caterpillar, but a Sphinx moth caterpillar—we didn't notice the horn on the tail.

SHIITAKE

■ First of all, let me compliment you on your publication. I love the format, the color and the choice of material. I usually read it from cover to cover the day I receive it. Good work!

The July/August 1986 issue had an excellent article on the Shiitake mushroom which says producers have an association called SHII-GAW, Shiitake Growers Association of Wisconsin. I own a Tree Farm in Iowa County and am constantly working at timber stand improvement. Accordingly, I am interested in culture of the Shiitake. However, the article fails to indicate how one may become a member. I would appreciate it if you could shed some light on this matter. I would also be interested in buying a few of the actual mushrooms to see for myself how they compare with other mushrooms for table use. Some indication as to where they might be purchased would be helpful.
Charles Lloyd, Madison

■ What an interesting article on "Shiitake" in your July/August issue and what an opportunity to supplement our retirement! We purchased 35 acres of woods in northern Wisconsin a few years ago and plan to retire up there soon. The primary trees are sugar maple. Could you please send more information on shiitake culture?
Mrs. Elsie Bloom, Lansing, IL

Instructions and supplies for growing shiitake mushrooms may be obtained from Field and Forest Products, Inc., Rt. 2, Box 41, Peshtigo, WI 54157, phone (715) 582-4997.

For more information on the Shiitake Growers' Association of Wisconsin, write SHII-GAW, c/o Carol Schnell, Rt. 1, Eleva, WI 54738.

GLACIAL FOSSILS

■ I would like to correct any erroneous impressions about Wisconsin Pleistocene animals from the painting on pages 12 and 13 in the Kettle Moraine issue. There are no finds of horses, camels, saber-toothed cats or wolves reported for Wisconsin. Even though one could argue the possible existence of these animals, the camels and saber-toothed cats, in particular, don't belong near the glacial front. I would have preferred not to emphasize the human presence that early either.

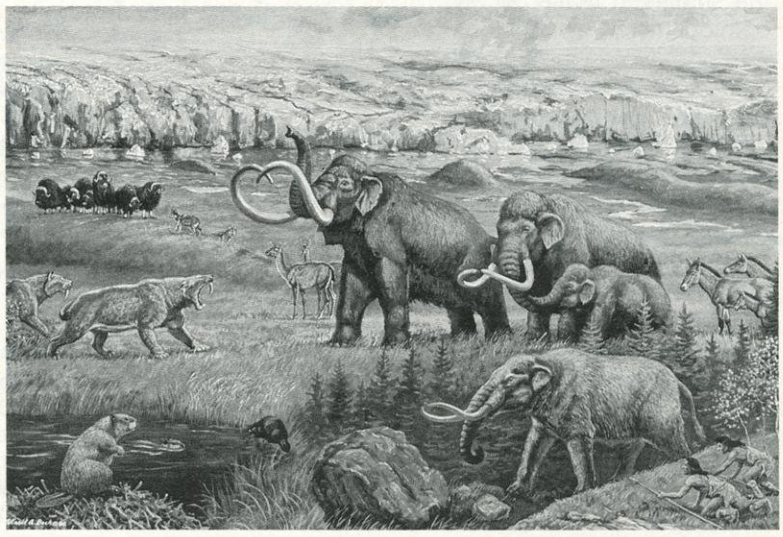
One portion of my story that was omitted dealt with the very significant giant beaver discovery on the Fred Witte farm near Hope in 1968. Also omitted were paragraphs noting the degree to which human activity may have contributed to extinction and the ways in which mastodons contributed to their own extinction.

I cited the discovery of a projectile point found in the same *stratum* with the Dosch mastodon bones, not *strata* as printed, which implies more than one level in the bone deposit.
John E. Dallman, Curator of Paleontology, University of Wisconsin Zoological Museum

"Animals of the Pleistocene" is a composite reconstruction of many of the wildlife species living during the Pleistocene epoch. The Chicago Field Museum told me that even though fossils of all of them have not actually been found here, it could be inferred they were in Wisconsin.

Bob Purdy, Museum Specialist in the Department of Paleo-biology at the Smithsonian Institution, assured me that it was possible for all of those depicted to be present at some time during the Pleistocene. He said the* Smilodon *(saber tooth) and* Tanupolama *(camel) were more likely to be here during a warm, interglacial period—that it would be "hard to say" they were definitely not here during the summer in a glacial period.

***In my research, I found Blue Mounds, Wisconsin cited as a Pleistocene wolf location prior to 11,000 years ago by Roberta L. Hall and Henry S. Sharp in their book* Wolf and Man: Evolution in Parallel.**
Virgil Beck, Artist/Naturalist, Stevens Point



Painting by Artist Virgil Beck

Whose Deer was it?

Does the hunter who draws first blood get the trophy? Last deer season a reader faced that dilemma. Maybe you did too. We asked subscribers and others for opinions. There were plenty, some four pages long.

Chris Dorsey, Editorial Intern

It all started about 9 AM on opening day while Jim Preuss was hunting near his home in southwestern Waupaca County. Afterwards, in a letter to the magazine's Readers Write column, Preuss said "I have had an experience that is giving me mixed feelings on deer hunting, human nature and doing what is right."

While standing in the middle of his woodlot, Preuss heard five shots to the west, then saw six does and a fawn run down a wooded hill.

A buck followed the does, sneaking around the hill Preuss was situated on. The buck lingered a couple of minutes below the crest, out of sight. "All of a sudden, he rounded the hill at a run. He ran just north of me, seemingly not noticing my presence. Up with the gun! I shot! He dropped immediately."

Preuss checked on the downed deer, found he had hit it in the back, so administered a killing shot to the neck. "The deer now dead, I decided to walk the 30 yards back to my stand for my thermos. I had an urge for a cup of coffee. Picking up my thermos, elated that I had the good fortune to see and kill a buck, I went back to dress it out."

When he returned to the deer, another hunter was there who claimed he had gutshot the animal only 75 yards from where Preuss had been standing. Preuss calculated, however, that the other hunter had actually been between 325 and 350 yards away. But the stranger claimed ownership of the deer.

"He then told me of the unwritten law that the first hunter to put a killing shot into a deer owns the deer...

"It kept going through my mind that this jasper sat nearly on my fenceline and was claiming a deer in the middle of my woods—one that he had gutshot, but that I had dropped and finished off. There he was at the deer's belly, pressing for an agreement that it was his deer."

Finally, after many misgivings, Preuss reluctantly agreed to let the stranger have the deer.

But he wrote to Readers Write, "I've mulled all this over in my mind since that day and cannot honestly say whether I made the right decision or not...Who's deer was it?"

One reader, John Look of Chippewa Falls applauded Preuss' ethics and offered this careful analy-

Coffee time.

Cartoon by Virgil Beck,
Box 66,
Stevens Point, WI 54481

sis: "It is my understanding that there are really only two widely accepted philosophies pertaining to possession of game. Sadly, these philosophies are contradictory. One states the person who "draws first blood" is rewarded with ownership. The other popular belief is that it goes to the one who "puts the game down for keeps." But after reading your account, I find a deeper, more important question than mere right of ownership. Whose conduct was proper? Hunting is a unique sport. We play for the most part by self-imposed rules. There really is no referee to tell us how to act back in the woods or out in the field. Hunting is a sport of gentlemen and ladies. There are hunters, there are slob hunters (outdoor outlaws) and there are sportspersons. Congratulations sir! You are a gentleman and a sportsman."

Many others praised Preuss, but opinions came in on both sides with plenty of criticism for the untimely coffee break.

Said John Stewart of Oshkosh, "While the other hunter displayed a minor case of greed or meat hunting, Jim Preuss handled himself a lot better than most would have. Me, I would have tagged my buck immediately before I had my coffee."

Dave Pook of Brooklyn put it this way: "Preuss made a mistake by going back for coffee instead of tagging and field dressing the dead deer right away.... The next time, Jim, tag your deer when you kill it." Pook said he admired Preuss' common sense for letting the issue slide. "If anyone wants to argue, call the warden."

Joe Cerro of Madison agreed. "Preuss' first mistake was failure to tag his deer immediately upon killing it as it states one should do on page 19 of the regulations." Cerro went on to say this: "Hunter ethics and common sense dictate that the person who administers the killing shot should be the legal claimant. Since it is common knowledge, among those who know, that a gutshot deer does not die for at least a couple of days or longer, the stranger's argument is totally ridiculous. Mr. Preuss should have kept his deer. The issue of whose property it was shot on is irrelevant."

"A gutshot may be a killing shot in some people's minds, but not mine. In my mind, Jim Preuss deserved the deer!" Those words came from Emmett Keller of Chippewa Falls. Said Keller, "Eight years ago, on a drizzly, darkish, opening day with no snow, I hit an eight-point buck just before closing time. I trailed the deer, but didn't find it until the next morning—dead from a gutshot, bloated and spoiled. How I wish another hunter had "finished off" that fine deer. He could have had the venison, and the animal wouldn't have suffered a slow death."

But opinions differ. The first blood philosophy has its supporters.

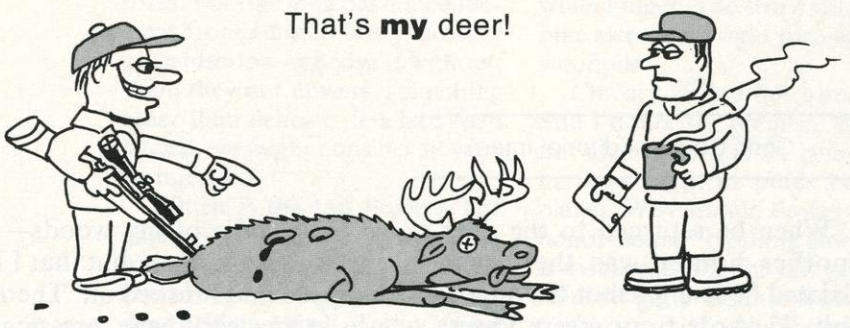
"If the deer in question was shot in the guts or anywhere else before being killed by Preuss," said Bill Kahlenberg of Land O'Lakes, "it belongs to the hunter who first wounded the animal and was sportsman enough to follow-up his shot. Only greed, certainly not sportsmanship, would make a hunter tag another person's cripple. The owner of the deer is the one who drew first blood."

Mike Janssen of Wrightstown agrees. "If the deer was gutshot by the other hunter, the deer absolutely belongs to that hunter. A gutshot deer is a dead deer. The fact that it was in the middle of Jim's 18 acre woods and still moving when Jim shot it means nothing. Many heart shot deer can run across 18 acres before succumbing."

Janssen told his own story: "On opening day in 1985 I also knocked down a nice buck with a bullet through both lungs. I climbed down my tree the happiest guy in Oneida county. But another hunter appeared on the track saying he had hit the buck 20 minutes earlier. Inspection showed he was right. I shook his hand and walked away. I'll admit I felt pretty low the rest of the day, but by nightfall I felt pretty good about it. At 11 o'clock the next day I got my own buck. I just hope any future bucks I hit that don't drop immediately run past someone who feels the same way I do."

Janssen also commented on the shooting. "Jim seemed miffed that the other hunter made a poor hit. Bad hits happen. The fact remains that the other hunter's shot was no more off target than Jim's own first hit which was high and too far back."

Norm Hanson of Renville, Minnesota concurs. "I agree with Preuss' code that hunters should take only good shots. Unfortunately, good shots do not always result in good hits." Hanson sympathized with Preuss' "frustration, irritation and uncertainty," but wrote, "I still think he made the right decision and thank him for telling us about it. He sounds like a man I would enjoy deer hunting with."



Cartoon by Virgil Beck, Box 66, Stevens Point, WI 54481

Photo by Herbert Lange

Kenneth Von Hofmann of West Allis gives the buck to Preuss. "The other hunter claimed the deer lay down three times. Any deer that is shot and lays down three times to plug its wound does not get up and run. Jim Preuss however, shot a running deer. I would say from the information I read, Jim gave away a deer."

An opinion also came in from a non-hunter, Michael J. Paul of Oshkosh. He wrote, "The evidence is conclusive in my mind: 1. Jim Preuss owned the land he was hunting on and he fired the mortal shot. 2. The other hunter was trespassing, and he could not prove his gutshot was mortal. Therefore, the deer was Jim's to keep."

But Paul went on to make this observation: On the other hand, with heated arguments and loaded guns, Jim's decision was reasonable and prudent. He is to be congratulated and I wish him a 14-point (I hope that's a big one) buck next season."

Dan Shaske of Plymouth showed no uncertainty at all in awarding the buck to Preuss. "The stranger, who considered his gut shot as claim to the animal, had better go back to square one and reevaluate his ethics. If Preuss had not killed the deer, that animal would have found a safe place to lie down and proceed to die a long, painful death. Yes, a gut shot is a killing shot, but death comes slowly and inhumanely, usually after several days."

Shaske also commented on the property lines. "If the stranger was trespassing, it compounds the situation. A wounded deer is not a license to enter private or posted land without the owner's permission."

Paul Ferris of Pound, Wisconsin, wrote this, "In an article by Dave Otto of the Green Bay Press Gazette that I clipped about 10 years ago, there appears to be a definite, legal answer to Jim Preuss' dilemma: "According to the State Bar of Wisconsin, a wounded animal belongs to the person who brings it under control in a way to make actual possession practically inevitable. Such control gives that person a vested property interest in the animal that cannot be divested even if someone else intervenes and kills the animal."

For an official response, we went to DNR attorney Jim Christenson. He offered these words: "Mr. Ferris correctly quoted the law of this state respecting the taking of wild animals. The Wisconsin Supreme Court ruled on the question as early as 1914...Wisconsin statutes, however, provide that a deer must be immediately tagged upon taking it. Failure to tag the deer as required by statute relieves the hunter of any vested property right in the animal. Therefore, it appears that in this instance, the hunter who ultimately tagged the deer has ownership."

Christenson went on to give this advice: use common sense afield. Since opinions often differ on what a "mortal wound" is, don't let such disputes ruin a good hunt; upon taking a deer, tag it immediately to preserve your possession right!

As a parting thought, Christenson made this point: "Department regulations require that hunters make all reasonable efforts to retrieve a wounded animal. Those regulations, however, do not authorize trespass."

Jenny Rusch is one of a growing number of woman deerhunters in Wisconsin.
Photo by Doris Rusch

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