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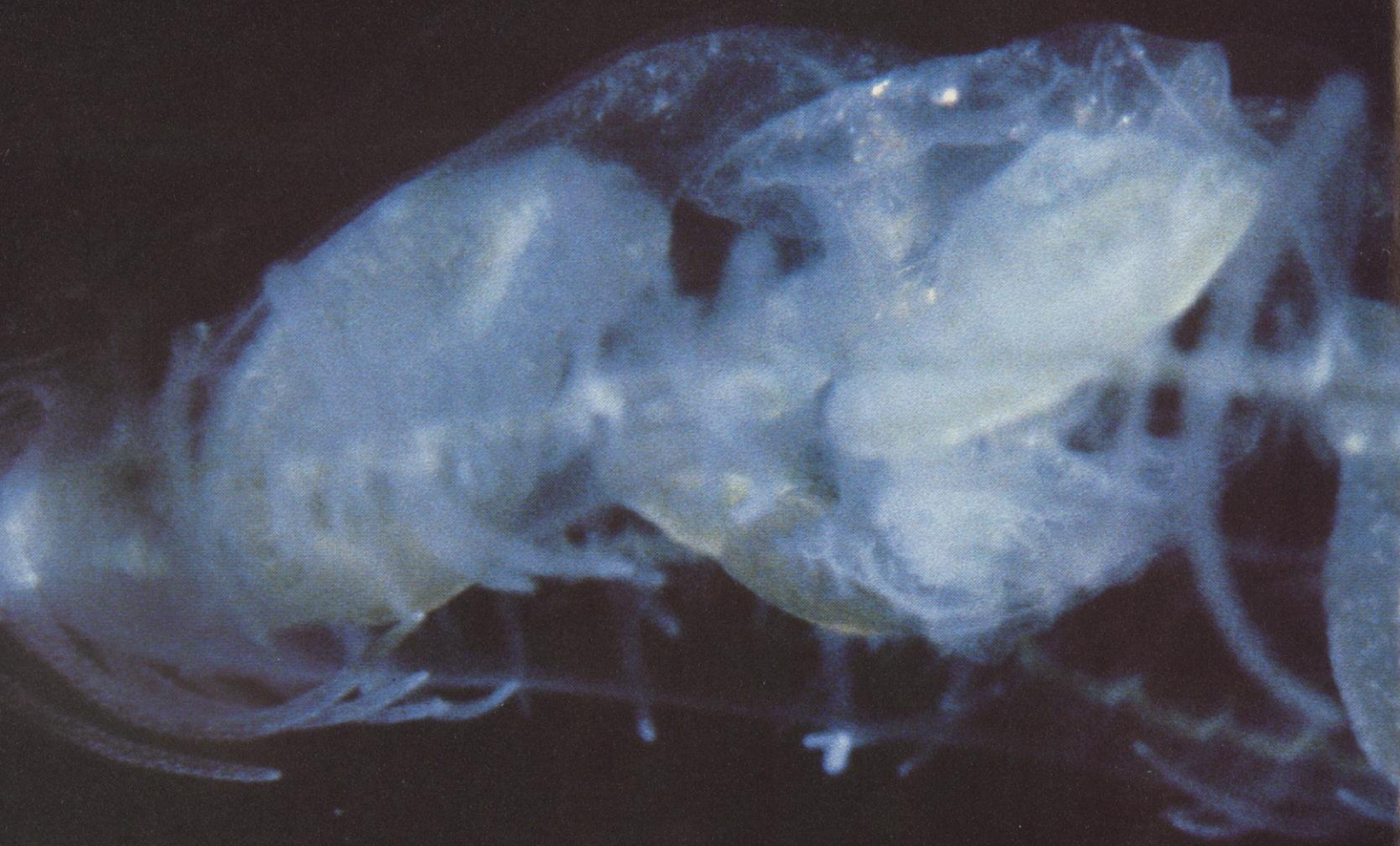
Wisconsin

NATURAL RESOURCES

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Freshwater jellyfish



BOB KORTH
Scuba Diving Teacher, Neenah

The textbooks say there isn't anything like it in Wisconsin. But here it was, undulating through the water at Redgranite Quarry right before my eyes. A freshwater jellyfish, mini-version of the salt water kind! The first I'd ever seen in 16 years of diving.

Taken to the marine lab at Lawrence University, it was identified as *Craspedacusta Sowerbyi*, a true jellyfish and the only known freshwater species in America. Hardly anyone, including professional limnologists even knows they exist. And no wonder! An on-again, off-again critter with a weird life cycle, *Craspedacusta* may show up in a pond once and never be seen there again. Or it may reappear only after many years. Asking around revealed records of freshwater jellyfish in seven Wisconsin spots since 1973. They include Mendota, Half Moon, Leesome, Devil's, White Sand and Pine lakes.

Upon searching, we found thousands in Redgranite Quarry in depths up to 10 meters where water temperature was 68 degrees F. Deeper than that, where readings dropped to 59 in the thermocline, jellyfish were absent. Feeding on zooplankton, they rose to the surface, then dropped through the water column swimming actively up, down and sideways in a dancing sort of movement. Size ranged from about a fifth of an inch to nearly an inch.

This jellyfish form is the mature medusa stage of

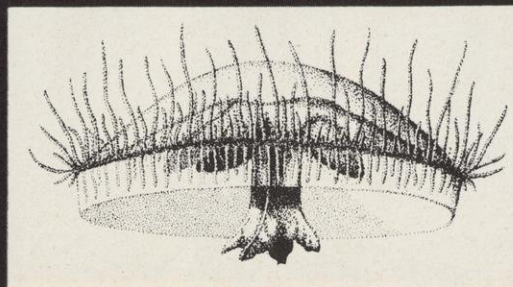
Craspedacusta's life cycle. It is shaped like an umbrella or an upside-down soup dish and can release sperm and eggs into the water where fertilization occurs.

There are also asexual ways of reproduction and many freshwater jellyfish populations are either all male or all female. At Redgranite Quarry they're both.

When the fertilized egg falls to the bottom, it develops into a tiny polyp or hydroid. The hydroid sends out branches something like the runners on a strawberry plant and develops into a colony of two to 10 individuals. These often break off and start new colonies. Hydroids also sprout buds which drop off and grow into new individuals. Budding also produces the jellyfish or medusa form which is almost microscopic in size when it drops from the parent.

For many years the hydroid was thought to be a separate species called *Microhydra ryderi*. Because they're tiny, covered with debris and live on the bottom hardly any of these have been found. It was not until 1924 that scientists learned the hydroid was a stage in development of the freshwater jellyfish. *Craspedacusta* itself was first discovered in England in 1880 and in the US in 1908. It has been reported in nearly all states east of the Mississippi River but not in New England. There are related species in China, Africa, India and Trinidad.

Photo by author



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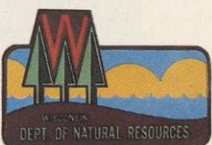
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Wisconsin fishing escape

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Redruff-red: a hunting tale

Sometimes losing a bird means more than shooting it.

ROBERT A. McCABE
Wildlife Professor, UW-Madison

The partridge hunt planned the night before did not get off to the hoped-for early start. Hank and the station wagon stopped to pick me up late that morning. Our destination: the unglaciated hills of southwestern Wisconsin known as the driftless area, some 30 miles due west of the idling station wagon. With boots still to be laced and shirttails flapping, we hastily loaded our gear and were off.

An Indian summer sun cut obliquely through the side windows of the car and warmed our shoulders as we watched the countryside slide by. The sun must have warmed the dog's compartment too. Rip, Hank's Brittany spaniel, in his private drawing room in the rear, became restless long before we came to any gravel road that by dust, bumps and pebble-clatter indicated a stop was close at hand.

The highway followed the old military-ridge road that once connected the state Capitol in Madison with Fort Crawford at Prairie du Chien on the Mississippi River. The precaution of our military strategists that kept the road free of ambush on either side was now providing a pastoral panorama of exquisite beauty. Wisconsin's picturesque dairyland fell away on both sides, but our eyes had little chance to savor the view. Hank is not known for dawdling, but the loss of scenic pleasures was leavened by talk of dogs, partridges and other hunts we shared.

A sharp right at a gas station, a tire-testing bounce over railroad tracks, a left, another right and the little town was behind us. Before I could comment on the changing landscape or the long descent that brought us into a narrow valley cradling a small but lively stream, Hank brought the car to a halt and

Art by Charles Pearson, from the collection of Dale and Patricia Fredell, Lindstrom, MN, courtesy of La Crosse Printing Company



proclaimed, "Here we are!" Rip began scratching the paper on the floor of his compartment.

We climbed out of the car, stretched, scratched and undertook a few anemic calisthenics to warm up for our battle against gravity in this hilly hideaway of the American partridge or ruffed grouse. The dog was freed and promptly fouled several prominent plants along the roadside and then waded into the watercress of the stream for a drink. Uncased guns were snapped to shoulders as front sights followed imaginary birds to their rewards. The last click of the breechlock signaled that the hunt had begun.

Two main draws opened into the head of this little valley at the point where we planned to hunt. Each gave added strength to the creek with a tiny sinew of clear water. I was to hunt one draw and Hank and the dog the other. A long ridgetop was to be our eventual rendezvous.

We jumped the creek with the benefit of solid footing afforded by an old stump and before I could clamber up the opposite bank, Hank was off in hot pursuit of Rip, whose gyrating hindquarters signaled that the tip of his frontquarters had detected game. Hunter and dog were soon swallowed up by the cover and the terrain of the draw. No shot followed. It must have been a squirrel or a woodcock that recently vacated a feeding site for the comfort and seclusion of an aspen thicket. It was not a rabbit that tantalized Rip, for we saw none on this or any other hunt we made in the driftless area that fall.

I paused for a moment at the mouth of the draw to let my eyes feed data about the best route to travel into the organic computer under my hat. Similar calculations made in other years on other memorable fall days had produced the proper strategy for a hunt. So it did again this day. Barely a stride was lost in the cautious advance up the draw. The first clump of gray dogwood had lost half its crop of white berries, but I knew that time and a rattling wind had merely transferred this grouse delicacy to the ground below. It would be here under the gray dogwood that a grouse might crouch behind its feather camouflage, hoping

that an intruder would pass by to its own festive board elsewhere. I halted a short distance from the dogwood cover. All was silent except for a distant, disgruntled jay complaining of squirrels, men and other jays. With only my eyeballs in motion, I contemplated the escape options a grouse would have on the several approaches to the thicket that were open to me.

I perceived in rapid succession: the proper footing on the slope; the screening vegetation; how the bird could be forced to fly to the left; where a second shot was possible; where a bird would fall for ready retrieval; where the pellets would likely fly and fall and so forth. How many of these assessments were divided between my subconscious and conscious mind cannot be known.

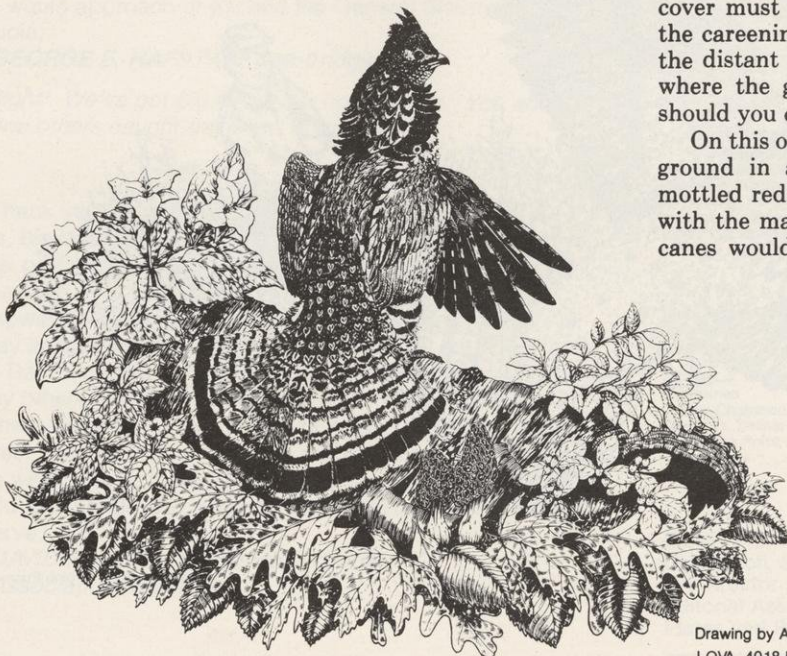
The next ten yards were covered slowly, to minimize the crackle of dry oak leaves underfoot. Maple leaves would cushion a footfall. At the crucial point of no return just within range of the 16 gauge, I brought my gun up to the alert position, part way to shooting stance, elbows bent, reflexes alert and eyes wide to activate peripheral vision. I smiled, for if the grouse was here I had outsmarted it.

The next two slow cat-like steps were steeped in anticipation. As I raised one foot for a third step toward a cluster of gray dogwood, a roar of wings on the far side sent leaves flying and a very large (undoubtedly male) red phase grouse powered its way up the draw to the left.

I leveled my gun automatically. The red bird and the bead on the barrel joined for a split second. I squeezed the trigger and the gun barked, but the grouse was no longer there. He'd fainted uphill to the left, executed a perfect half-roll and continued straight up the draw. The gun followed, but even before I could get back on target I knew a second shot was hopeless.

I learned long ago that cussing, complaints and alibis are fruitless exercises once a grouse leaves you with a look of disbelief and empty shells to extract from your gun. Unkind words muttered about atypical bird behavior, shells, weather or peculiarities of cover must be replaced by sustained observation of the careening grouse until it fades into oneness with the distant landscape. Your mark will then tell you where the grouse intends to avoid you once again should you continue in pursuit.

On this occasion I saw the bird in question come to ground in a clump of red-leaved blackberry. Its mottled red feathers would now harmonize perfectly with the mantle of red foliage and the tangle of red canes would enhance the confusion. A gray phase



Drawing by Artist Louise O. Van Antwerpen,
LOVA, 4018 N. Richland Ct., Milwaukee, WI 53211 ©1981

grouse, however, would be only slightly less camouflaged.

I removed the spent shell and inserted another to be spent more profitably. Then wiping my perspiring left hand on the left leg of my hunting pants, I regripped the gun forearm and continued in pursuit.

I had taken only a few cautious steps when my grouse flushed again, well out of range and again uphill. This time my mark was less precise since the grouse disappeared somewhere at the top of the draw. It was unlikely that another bird could be flushed in this draw, but I hunted the "grousey looking" places in a quick march up to my vague mark in order not to give the bird too much time to move from its landing point.

At the top was a narrow field grown to tall grass and several irregular rows of unkempt trees that had at one time been an orchard. It is usually pointless to look for grouse in tall grass, but as I straddled the old barbed wire fence that contained the ancient orchard, the red bird flushed from the grass well within range of my helpless gun. This time he flew to the left, over a small ridge and into the adjacent draw. Just as I completed my crawl through the now slack and rusted barbed wire, I heard a shot. It was not loud and it was not distant. It was not a rifle shot and yet it didn't sound like a shotgun either. It was summarily forgotten.

The blackberry brambles had untied one of my boots and since I now had only a general direction to mark my bird, I retied the boot laces and set out in the direction he'd taken.

At the ridge top I surveyed the cover of the adjacent draw and then moved downhill toward the only heavy brush in the crease of the draw. With Indian-like stealth I approached the only potential hiding spot. In the last ten yards before anticipated action, I was startled to see a boy of about fourteen rise to his feet from the base of a very large oak directly in my line of travel. He apparently had heard and seen me,

but I was unaware anyone was nearby.

The lad said hello and lowered the muzzle of his single-shot .410 to the ground. I broke the breech on my gun and removed the shells.

The vestiges of cow dung on the welts of his ankle-high shoes and the baggy levis and blue shirt said he was a farmer's son. His green, sweat-stained, well-wrinkled hunting hat was the only accoutrement, apart from his gun, to classify him as a hunter . . . and there from a belt loop on his battered jeans, hung by a length of bailing twine, was one of the biggest grouse I had ever seen. This big male bird had a large red ruff and a broad uninterrupted red main-band across the base of its tail. Our conversation centered on the red-ruffed grouse. My admiration for his prize was second only to his elation on bagging his first bird, about which he talked with great excitement. It seems that he had been sitting quietly and unsuccessfully hunting squirrels when suddenly, in a rush of wind and wing-beats, the red-ruffed grouse landed on the edge of the thicket. Before its halting gait could carry it into the dark recesses of the prickly ash copse, the boy's .410 tumbled it over.

Surely this was my elusive quarry dangling from the boy's belt loop in the October sun. The hunt, nonetheless, had ended vicariously successful for me and I relived with the farmer's son the thrill of my first grouse long ago. I was about to make my way back to Hank and the dog, when I glanced back at the young farm boy. He was watching me with the smile of a successful hunter. The boy waved and I returned an unmilitary salute. As I turned away, I even imagined a faint smile on the avian face of that big red-ruffed grouse. We were all three happy and I never did tell Hank just exactly what happened.

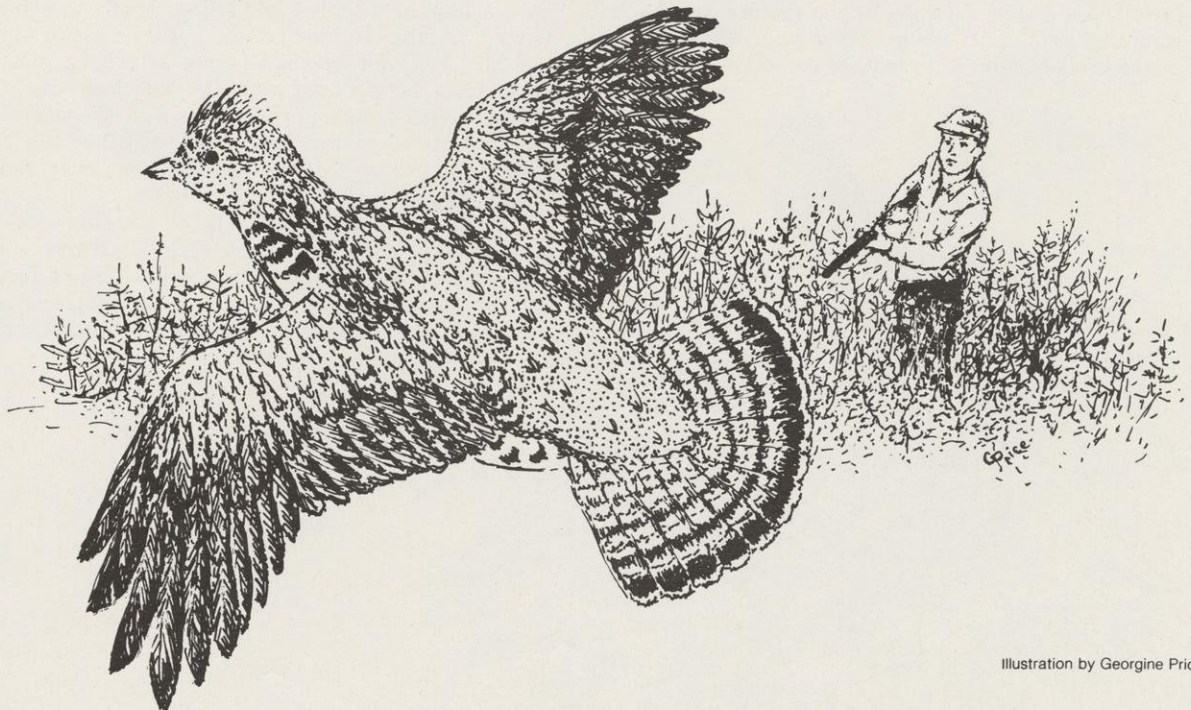


Illustration by Georgine Price

Dust off the earth

Dust is both devilish and felicitous. One of humankind's many responsibilities is to keep it grounded. Dust helps us survive. We could succumb to its loss.

*FRANCIS D. HOLE, Soil Scientist
UW-Extension*

"Dust!" The word conjures up thoughts of housework and raging storms or winds that carry sand, snow and stinging mist. It calls up thoughts of stars, stagnation, dirt and drudgery.

"Dust" means both the crumbled remains of the human body and the soil with which we mingle in the final resting place. Hamlet referred to the human being as the "quintessence of dust." Poets seem to have an easier time writing about dust than about soil, possibly because there are so many good, easy rhymes . . . trust, must, just, lust, bust. To illustrate: *Dust, dust, ubiquitous dust! Dry breath of soil, exhaled with each gust, Coating the land with light brownish stain And dancing in air until washed out by rain!*

Dust may start as a granite cliff, beautiful to behold. It pleases the eye and in no way irritates. But once rock is powdered by age-long weathering, it

becomes a dust that is both devilish and felicitous. Most of the dust we meet is ground up rock, with an admixture of organic particles. Environmentally speaking, dust in the air may become dust in the eyes and lungs . . . a blinking, coughing matter. But moistened dust in soil or forest floor is called productive soil.

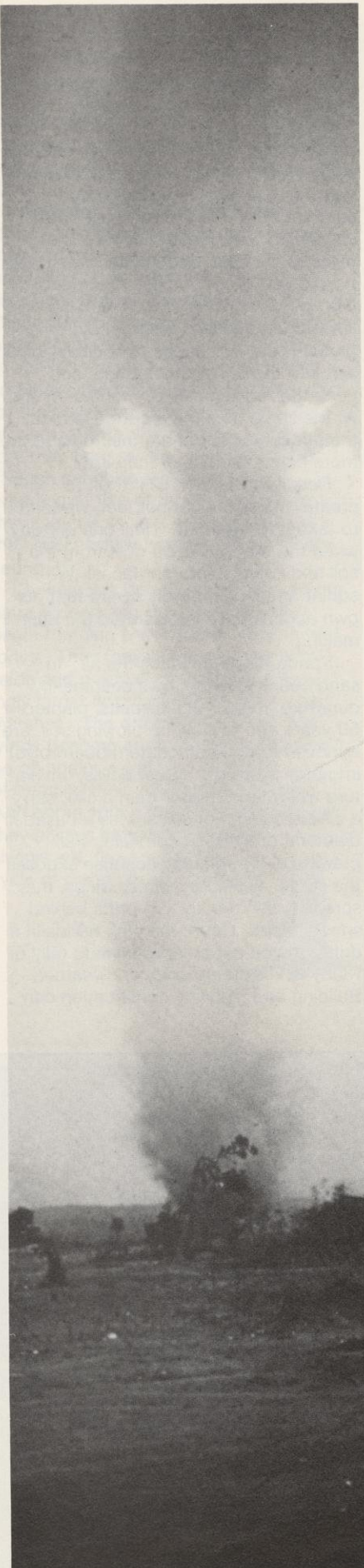
When nature pulverizes a cubic foot of granite (175 pounds) it brings the rock to life. The rock's nuclear energy power would have the potential of blowing away a whole hill. But this is the slow powdering of the granite which simply increases surface area enormously. Eroded into grains of dust by time, wind and weather, a single cubic foot block of rock expands to a square mile — 28 million square feet. It is a slow spectacular as compared to fission and in this process, new clay minerals are born.

Just how does 175 pounds of dust behave after it has turned into 640 acres of surface? It becomes a rooting medium for vegetation, a refuge for microorganisms and many kinds of animals, a water filter, storage facility and reservoir of plant nutrients. What was once a handsome rock outcrop slowly becomes productive soil.

This process may take thousands and thousands of years, unnoticed by us short-lived human beings. Yet the effects of soil-building are enormously

◀ Dust devil. Photo by Roland Stull

Drifting sand from an agricultural field piles up at a fence line. Photo by F. T. Thwaites, Geological and Natural History Survey





Volcanic ash from the eruption of Mount St. Helens as seen by an electron microscope. Each grain will become part of the soil. Photo by Edward N. Glover

beneficial to us.

Ten thousand years ago, before dairy and corn farmers and before the Ojibway, on countless dry days southwesterly winds laid a blanket of new fertile soil material, called loess, across more than half of Wisconsin. Our productive agriculture owes an enormous debt to those winds, and to the great glaciers that had slowly ground the

rock to dust in the first place. Melt waters from the wasting ice sheets spread the silt out on the floodplains of the Mississippi River valley and those of its tributaries. Each autumn, flood waters subsided. In dry times, on windy days and nights great clouds of dust must have been lifted up from the flats to spread across the state. A useful deposit of dust is a felicitous thing, espe-

cially if it happened in the distant past. Natural ecosystems have been throwing up dust across the continents for ages. As long as the prairie dog has built and the rhinoceros wallowed, soil has been blowing. Much farther in the past — about 400 million years ago — when Wisconsin lay under a shallow sea, volcanic dust showered down and settled to the bottom. Although the volcanoes were located hundreds of miles to the east, enough ash was transported and dropped here to form six-inch layers between the ancient ocean's limestone deposits. Even today, on a global scale, volcanoes periodically blast ash into the upper atmosphere and generate red sunsets for months on end. At the same time the great deserts of the mid-latitudes donate their dust to the more humid regions of the earth.

Despite the millennia it took to create the soil under our feet, we tend to take it for granted. Until one dry day when the wind picks up dust from the soil and blows it into our faces! We squint and laugh, hardly aware that our own actions have accelerated the dust-making.

Spring plowing clouds the air. In sand country, fence rows become low dune-like ridges. Shelterbelts, planted 50 years ago to slow up blowing soil, are removed to accommodate modern pivot irrigation systems. "Dust devils," miniature whirlwinds shorter than a silo, carry a visible column of soil across a baseball diamond or a spring cornfield. Fall plowing in the red clay counties exposes the clods. Ticked by winter winds, they spread a thin red layer in drifts behind snow fences. Count the pink bands in a drift and you get an approximate tally of windy spells during cold, dry weather. Building and highway construction can

WINDBLOWN \$\$\$

DAVID PELZER, Editorial Assistant

STEVENS POINT — Wind blows away more than 500,000 tons of topsoil each year in Wisconsin's central sand counties.

In Waushara County alone the annual erosion rate is up to 10 tons per acre on more than 20,000 acres, according to Dan Chelmo of the US Soil Conservation Service (SCS). Portage County's statistics are eight tons per acre on more than 30,000 acres. For soil fertilizer valued at \$5 per ton, that's \$2.5 million blown away in the topsoil.

Any amount greater than four or five tons an acre is more than the land is capable of reproducing.

Wind erosion on sandy soils abrades young crop seedlings and

shreds the leaves. Areas where small ridges rise over surrounding flat areas may become "blowouts" and not yield any crops.

The amount of soil erosion from wind depends in part on what crop is grown and the nature of the soil itself. Another important factor is what soil conservationists call "unsheltered distance," or how far the soil is from windbreaks such as high grasses or trees.

Soil conservationists blame much of the wind erosion problem in central Wisconsin on modern irrigation pivot systems. The traditional windbreaks which had kept soil in place have been removed because they blocked movement of the central boom.

Some growers are starting new shelterbelts with low-growing woody

shrubs such as dogwood, ninebark or autumn olive, available from DNR nurseries. One Waushara County grower, Norm Eger, is planting nine miles of perennial grasses as a barrier for his 2.5 million pepper plants.


Many growers still feel it's too costly to plant what could be productive farmland into trees and shrubs. Soil conservationists, however, argue that farmers shouldn't have to make a choice between economics and soil protection. They would give a tax break for lands left in vegetative cover, or for other conservation practices such as minimum tillage.

Meanwhile, the growing danger of heavy crop losses might help persuade even the most reluctant growers to save their soil.

stir up dust any time of year when the surface soil is dry.

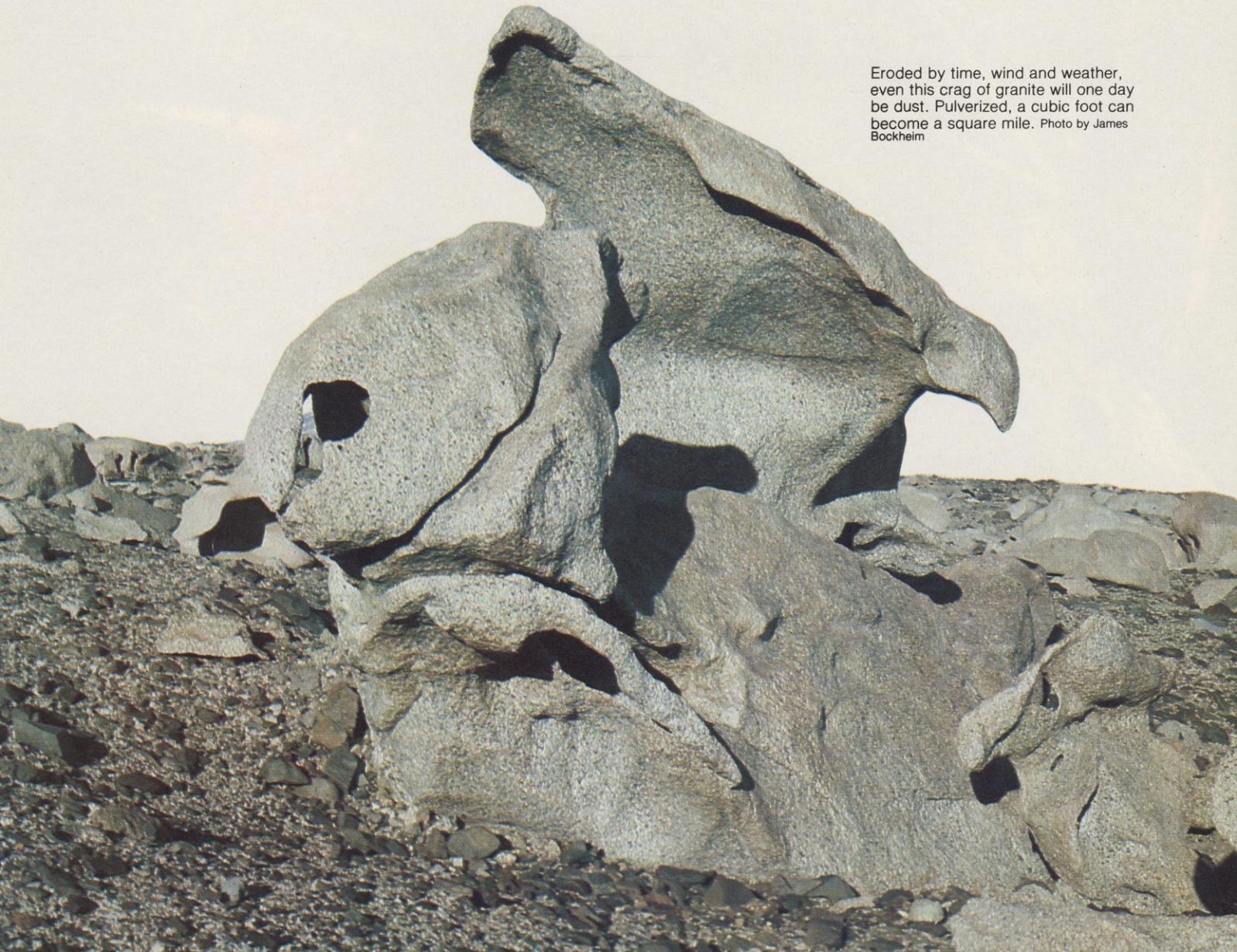
This accelerated wind erosion — people-perpetrated — should concern us. The earth's atmosphere is becoming dustier each year. Soil, left increasingly bare by human activity, succumbs to the vagaries of weather such as drought and sudden rain. Atomic bomb tests have added to the problem, contributing radioactivity to soils and living organisms around the world.

If worse came to worse, we might be forced to wear masks to keep the dust out of our lungs. But before that happens, we'd better shield the soil resource from further wounds and bind the hurt already done.

Appropriate vegetation and mulch can protect it. Responsibility for keeping our soil grounded is yours and mine. "Ashes to ashes and dust to dust" is a term of finality for humankind. Let's not be in a hurry to reach it. 



A dust storm blows across Highway 51 in Waushara County. Photo by Dave Curwen



Eroded by time, wind and weather, even this crag of granite will one day be dust. Pulverized, a cubic foot can become a square mile. Photo by James Bockheim



Rubies of the bog

ALICE AND JOHN LYONS, Phillips

A mat of sphagnum and heather spread over the bogs, and like pillows, the hummocks spring beneath your feet as you walk. We avoid the deep holes filled with black water and proceed carefully using our long walking sticks for support. Labrador tea, swamp laurel and sedges grow in abundance. *Continued...*



Woven through and over the mosses are tiny, grassy stems of wild cranberry (*Vaccinium oxycoccus*). Strung on its thread-like vines are the bright red berries that develop from a waxy flower which looks like a tiny shooting star. The red jewels are firm and ripe and beautiful. They say it is called "Crane Berry" because, on the stem, it resembles the neck of a crane. Others say it is because the flower resembles the beak of a crane.

After a frost, the sugars of the cranberry are released, and the color is heightened. Then they look polished and seem to glow as they lay there on the pale-green sphagnum moss. We call a certain hue of red "cranberry" because the color is so distinctive.

Odors of fall and swamp add to the delight of color. Berries we buy in cellophane bags have the same flavor, but deny us the privilege of enjoying them lying there in ruby brilliance on cushions of moss. We smell the odors around us, feel the resilience of the bog. There is quiet.

A Canada jay follows among the spruce and tamarack. Carrying the cranberries home we think of Thanksgiving and Pilgrims. Indians introduced cranberries to the Pilgrims who found them good with venison.

A raven circles overhead as we come to the road. The wind here in the open has a chill and the red and yellow leaves of fall drift downward to become a part of the ground's colorful mosaic.

At home, I pick out a few handfuls of berries, wash them, add a little sugar and water and place them on the stove. We both watch as they swell and burst. The water turns red, and when all the berries burst, I take them from the fire.

I slice cheese and homemade bread. Cranberries never tasted so good. They have the untamed taste of the wilderness where they were found. ☞



Mark, score and hew: how to build with logs



Log builder's tools: hand axes, builder's square, cant hooks, board or hewing axe and chain saw. Smaller tools including wood scribes, compasses, and other items are in the small box. Photo by author.

LYNN ENTINE, Program Coordinator UW-Extension

Over the years fashions change. The log cabin which was a snug home to immigrant settlers became a sign of poverty to their children. These days log cabins are again a source of pride and sign of self-sufficiency.

"There's a lot of misinformation going around about log cabins," says Jim Palmquist of Brantwood, Wisconsin. "At almost any tavern you can hear somebody say: 'There's nothing to it!' or 'Don't ever build one of them, you can't get the doors and windows open!'

Most of those folks' experience is limited to eating in a log restaurant." It's not simple, by any means. But a log home can be warm and well made.

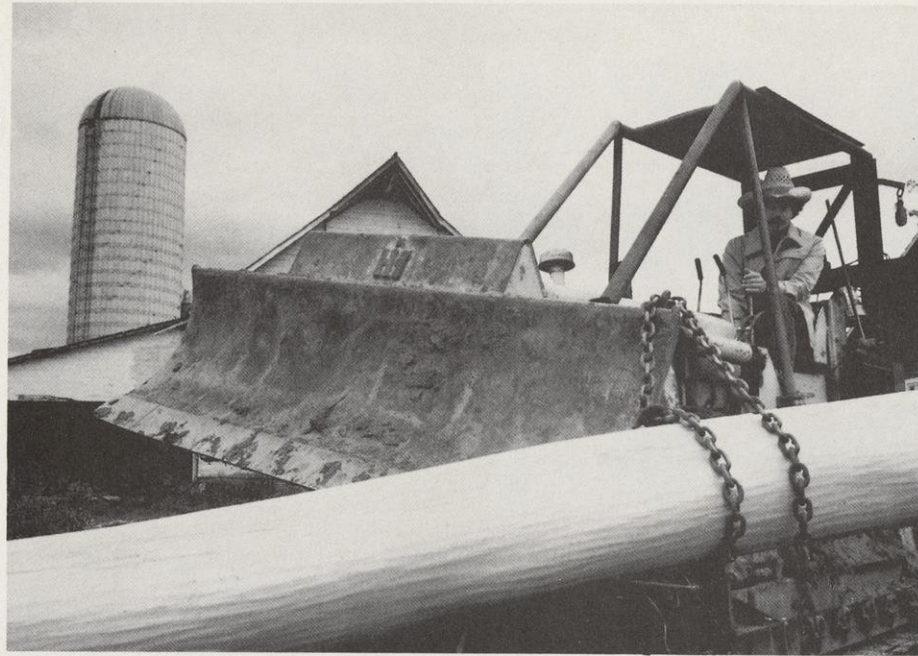
Palmquist has built two log buildings and six post and beam buildings on the 800 acre dairy and beef farm he shares with his brother, his parents and hundreds of guests each year. "The Farm," as it's called, hosts cross-country skiers, horseback riders and participants in classes on building with logs.

To get started in log building, think small. Build a sauna or a tool shed, or even a dog house, while you learn to use

the tools and handle the logs. "It's better to spoil a small log than a nice forty-foot one that you might have paid \$100 for," says Palmquist. He also suggests that it helps to have a little bit of a sense of humor when you tackle the project.

People attending his classes often ask about where to get logs, what species to use and what they cost. Ideally the logs are straight Norway or red pine, free from defects, with few limbs and only a slight taper from butt to top. Also ideally they are growing just a little uphill from your cabin site.

But any species will do, though some



Jim Palmquist uses a crawler tractor to lift logs onto the walls. Photo by author

Scoring and hewing are two parts of the process for removing wood from the log. Palmquist does 95% of this work with a chain saw, adapting modern tools to the traditional Finnish log building secrets he learned from Harold Maki, a 75-year-old immigrant who learned them at school in Finland. Specialized hand tools are also needed: scribes, log dogs, a good axe. These can be expensive, but they can also often be found in tool sheds and barn lofts of many northern farms.

Traditional Finnish builders favored "fully dovetailed" corner notches. These produce a flush joint which sheds water in every direction. The Finns also hewed their logs square. "That's for people who have lots of time," says Palmquist. He favors a round joint which is both strong and forgiving to the inexperienced builder. The logs are peeled but remain round. A lateral trench or groove is cut in the log to fit it over the one below and fiberglass and



Class participants Bob Sarah and Rhonda Christianson try their hands at hewing a notch and a trench. Photo by Cedric Vig

woods are harder to work than others. Tapers of up to six inches can be accommodated, and defects can be worked around. After a while, according to Palmquist, you learn to judge how many problems make a log more trouble than it's worth. Jim finds green wood easier to work and prefers to cut logs in January and begin to work them in spring. This means accounting in your design for up to six inches of settling in your cabin.

Logs are not free, even if they are growing on your own land. There are costs involved in cutting, bucking and hauling to your site. To buy logs, which currently cost from \$1.75 to \$2.00 a running foot, consult a local DNR, UW-Extension, private or industrial forester about a potential seller in your area.

The traditional "secrets" of log building, which were often jealously guarded by professional builders, are willingly revealed to Palmquist's students. More important are the skills needed to maneuver one-and-a-half ton logs, mark and cut them accurately, and accommodate the inevitable variations and defects of natural building materials.

There are three main steps to building with logs: marking, scoring and hewing. Marking the notches at the corners and the trench (the lateral groove that allows the log to fit over the one below) is crucial. Accurate marking is almost an insurance policy for a good fit, according to Palmquist.

"The old builders," he says, "they could eye a log and mark it out free-hand. But those of us who have built less than 20 buildings, we're still not that good."



Palmquist demonstrates scoring a notch with a chain saw. Photo by Cedric Vig



"Log dogs" hold a log in place while Palmquist marks a notch with a compass. This large compass with a two-way level helps ensure accurate markings since "the trick is to keep the point exactly plumb or perpendicular." Photo by Cedric Vig

oakum are stuffed in the chinks between.

The hydraulic blade of a small crawler tractor lifts the logs into place on Palmquist's buildings until the walls reach six feet. Then a neighbor supplies a hydraulic log loader on a truck. "Use whatever you've got to hand," says Palmquist. Logs can be moved with quite simple mechanical devices like ramps, winches or block and tackle.

Logs may be underrated for their insulating value, according to Jim. The "r-factor" rating for wood was measured using boards. Logs with their concentric rings and cambium layer are different, he thinks. In any case, his own log home, which has 12" of fiberglass in the roof (r-factor of 40) is easy to heat with wood in winter and stays cool in summer.

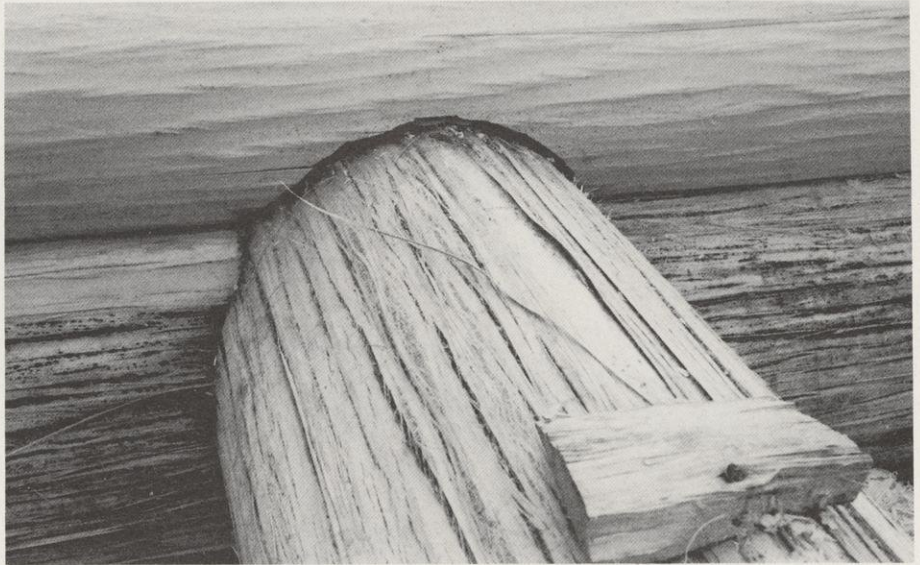
There's a lot of wood in a log building — enough to build several conventional homes. In some ways this might seem a waste of natural resources. "But, if you think about it," says Palmquist, "trees grow back. And these logs don't go through a mill. They don't have to be stored. And they don't have to be transported all over the country. It's probably a good thing not everyone wants a log home. There wouldn't be enough logs to go around. Besides, if you don't do the work your-

self, they would cost much more than a conventional home to build — they've got so much hand labor in them. But for the right people in the right places, they're something extra special."

To get started in log building there are tools and tricks and books that will help. And Jim Palmquist will demonstrate the skills to start you on your way.

Two Log Building Workshops will be

offered this fall: Sept. 19-20 and Oct. 10-11. The instruction fee is \$77.50 per person, food and lodging additional. For information contact: Palmquist's "The Farm," Rt. 1, Brantwood, WI 54513, (715) 564-2558. The programs are offered in cooperation with the Environmental Resources Unit, University of Wisconsin-Extension.



The round notch at the corner. Photo by author.

Palmquist and his wife Helen live in this log home he and friends built. Made with 16-inch logs and insulated to an "r-factor" of 40 in the ceiling, the cabin is easily warmed by wood stove in winter and stays cool in summer. Photo by author.



Catch-all

DNR cuts \$2.4 million

Madison — The newly enacted State Budget has good and bad news for DNR.

The good news is that the Legislature reaffirmed its support of many environmental and conservation programs, including expanded efforts to control runoff pollution and make better use of our forest resource.

In addition, the popular Wisconsin Fund sewage treatment facility funding program for local government was continued with a \$156 million appropriation for the 1981-83 budget years.

The Legislature and Governor also authorized continuation of the Outdoor Recreational Action Program (ORAP). Some \$21.5 million was appropriated.

On the other hand, the overall austerity situation facing state government also affected DNR. So DNR was forced to cut operations by \$2.4 million in this year alone.

The cuts will affect operations and staffing in

almost all divisions within the department. A total of 57 full-time employee positions will be phased out. Secretary Buzz Besadny says most of the job reductions will come in the central Madison office. Many will be upper-level administrative positions.

To achieve other economies DNR will:

Close Bearskin Campground in the Northern Highland-American Legion State Forest.

Cut back staffing and/or operations at Roche-a-Cri, Nelson Dewey and Council Grounds State Parks.

Reduce new development for fish and wildlife management, parks, natural areas, research, information and education, and roads on DNR lands.

Cut back testing of non-community water supply wells by one-third.

Reduce water weed control programs and training sessions for sewage plant operators.



Members of a Racine sportsmen's club recently built and installed this stainless steel fish-cleaning station at a restroom and boat ramp near the city's downtown.

The 12-14 members of the Insinkerator Sportsman's Club of Racine cleaned and wrapped angler's catches at 50¢ per fish to raise the \$11,000 needed to

build the facility. Club members and area contractors donated labor and Insinkerator Corp. contributed a large garbage disposal unit.

Magazine discount rates

Madison — The Natural Resources Board has approved special discount rates for this magazine. The new rates will apply to multiple gift and bulk subscription purchases, as well as agent sales.

Anyone buying 10 or more prepaid subscriptions to *Wisconsin Natural Resources* will now be eligible for a 10 to 20% discount, depending on the number purchased. A rate of \$5.00 per subscription will be available to businesses or organizations buying 500 or more subscriptions delivered to a single address. This is a reduction of nearly \$2 from the

regular price of \$6.97. Organizations marketing subscriptions in magazine-sanctioned subscription drives will earn a cash sales award of \$1.00 for each prepaid sale.

The discount rates are in response to a Natural Resources Board directive to get *Wisconsin Natural Resources* into the hands of as many state citizens as possible. It is hoped the discount rates will encourage businesses and organizations to consider buying the magazine for employees and clients.

Carefully researched before being offered, the discounts reflect actual savings in postage, record-

keeping, and promotion costs.

Plans are nearly complete for a fall Future Farmers of America-Wisconsin *Natural Resources* Magazine fund-raising subscription drive. If successful, the sale will help get the magazine to more readers and at the same time raise funds for FFA chapters statewide. Watch *Catchall* for news of the drive.

For more information on discount *Wisconsin Natural Resources* rates contact: *Wisconsin Natural Resources*, Discount rates, P.O. Box 7921, Madison, WI 53707-7921.

Firewood permits

Madison — This fall, for the first time DNR will begin charging for permits to cut firewood on state-owned lands. In the past, demand for firewood on state lands was almost non-existent, its value nearly nil, and firewood permits were issued free. But increasing demand for wood fuel has driven up the value of the available firewood.

Since state law requires DNR to charge for all forest products which have a value, says Bureau of Forestry Director Milton Reinke, firewood permits must now carry a fee.

The new permits will go on sale September 1st. The price statewide will probably average \$3.4 per full cord.

New Natural Resources Board Members



Donald R. Haldeman,

Norwalk, farmer and President of the Wisconsin Farm Bureau Federation since 1971. Replaces Ardell Ladd of Lone Rock. Term ends in 1985.



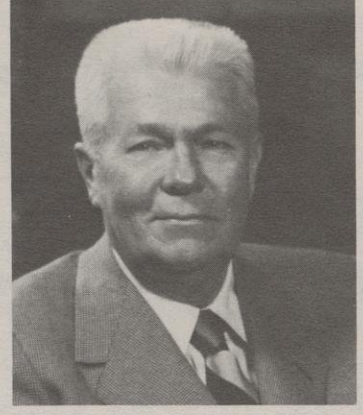
Raymond V. Klescewski,

Rhineland, Vice-President and Regional Director of Region X of the United Papermakers and Paperworkers Union. Serves a six year term that expires in 1987. Succeeds Daniel Flaherty of La Crosse.



Joseph M. Decker,

Green Bay, President of School Equipment Supply Company since 1972. Serves until 1987. Replaces John C. Brogan, Green Bay.



Collins H. Ferris,

Madison, President of United Banks of Wisconsin, Inc., and chairman of the Board at United Bank and Trust of Madison. Term ends in 1987. Succeeds Clifford Messenger, New Berlin.

VOLATILE BEER CANS Miller helps

Milwaukee — That glossy finish on your beer or soda can may be adding to the ozone in the air.

Solvent-based coatings on beverage cans, the Environmental Protection Agency has warned, are an important source of volatile organic compounds (VOC's), which in turn help produce ozone. And ozone, as southeastern Wisconsin is well aware, adds to the summertime discomfort of many persons and to the ill health of some of them.

Several years ago, states with ozone problems began aggressively tracking industrial sources of VOC's.

One of the southeastern Wisconsin industries that has cooperated in this effort is Miller Brewing Company's Milwaukee Container Plant.

Miller began experimenting with water-based instead of solvent-based can coatings in 1979 in an effort to find finishes with minimal VOC's. **One such experiment cost the company about \$50,000 when it failed and some 2 million defective cans had to be scrapped.**

Now, many trials later, Miller has developed durable water-based finishes for two parts of its

aluminum beer cans; the exterior of the color-printed cans and the base.

Still to come, this year or next, is conversion of the interior can spray to a water-based product, at a cost of about \$70,000.

The new processes have reduced VOC's from coating operations from 162 pounds per hour in 1979 to 109 pounds/hour in 1980. To this extent Wisconsinites are breathing cleaner and easier.

Environment still a force

Madison — The environmental movement is alive and well and living in Wisconsin.

According to a recent survey by the UW-Extension Environmental Resources Unit, a startling 99% of all respondents expressed an interest in at least one environmental or nature topic.

Three-quarters of the people who answered the survey said they were most interested in energy conservation in the home. Half or more expressed interest in water quality (61%), energy sources (e.g., nuclear, coal, solar, etc.) (55%), flowers, plants or trees (52%), and trash or sewage disposal (49%).

25% burn wood

Tomahawk — Well over a quarter of all Wisconsin households met part or all of last winter's heating bills by burning wood, according to a recent DNR survey. Altogether, approximately 486,000 homes use firewood to meet at least a part of their winter fuel needs.

A study found that wood is the primary source of heat in about 8% of all Wisconsin residences. Another 12% use it as a secondary source, while 9% burn wood mostly for aesthetic reasons, such as in a fireplace.

In all, the nearly two million cords of firewood cut

and burned in Wisconsin last winter contained enough heat to replace 125 million gallons of imported fuel oil. This is 6% of all the energy consumed by households in the state.

DNR foresters estimate that this winter, wood will be burned in more than a third of all Wisconsin homes. Eventually, firewood could supply 10 to 15% of Wisconsin's energy needs without making a dent in the state's forests or its logging industry.

What will the Upper Mississippi River Basin Commission (UMRBC) recommend on building a second lock and dam at Alton, Illinois? Will the commission say "Go!" or "Stop!?" The decision will affect Wisconsin's river shore forever. Read "In Your Hands" on the next page, then look for another special report in November-December, "Latest on the Master Plan." That report will give details on UMRBC recommendations. It can also be used as a reference paper for the Wisconsin public hearing on the Master Plan which will be held in La Crosse November 5th. See your local newspaper for the location.

Catch-all

Hunting outlook

Deer — 1981 is expected to be excellent with the possibility of a gun harvest in the range of 150,000. The past winter was exceptionally favorable. Winter losses were negligible and fawn production high. The previous winter was also favorable.

Central and part of southern Wisconsin carry the highest deer densities, but the north, which periodically suffers from effects of severe winters, should show a noticeable improvement.

Bear — Harvest should be similar to the 855 registered last year. About 90% of successful bear hunters use bait or dogs. Special regulations are involved and hunters should check them before going afield.

Ducks — Reports from U.S. and Canadian prairies continue to be bleak with the word "DRY" extensively used. In the prairies only the deeper, permanent ponds still hold water and they are low.

Wisconsin is in a much better position. Spring habitat was good and rains maintained adequate brood waters to get newly hatched ducklings on the wing. The state's breeding mallard count was the second highest since 1973—116,000 counted this spring. This is down slightly from last year's record of 137,700 but well above the 8-year average of 92,600. Breeding blue-winged teal recovered dramatically from last year's low of 82,500 with 223,000 counted this year—well above the average count of 149,000.

Pheasants — Pheasant hunting prospects for wild birds this fall are the best they have been since 1977, according to Ed Frank, DNR's farm wildlife staff specialist. The number of stocked birds on public hunting grounds, however, will be down because of disease losses at the state game farm.

Spring breeding populations of wild pheasants this year were the highest since 1978, Frank said. And preliminary observations of broods this summer indicate good production.

Wild populations will again be supplemented with stocked birds. About 30,000 roosters will be released on 100 public hunting grounds in 39 counties in the state. This is down from 40,000 that had been planned before disease struck.

Added to these will be about 60,000 roosters raised by cooperating sportsmen's clubs. DNR supplies chicks and feed under the program.

Quail — Bobwhite breeding populations were double those of last year. Populations are the best Wisconsin has experienced in 20 years.

Ruffed Grouse — Numbers equal to or higher than last year. Cycle is at its 10-year peak.

Hungarian Partridge — Populations unchanged or slightly improved.

Rabbits and Squirrels — The good acorn and nut crop last year and the mild winter mean good to excellent hunting opportunities for both species this fall. Better than last season.

Geese — Down from last year because of poor breeding success at Hudson's Bay. This fall's quota is 20,000 as compared to 30,000 last year.

Hunters choice permits

DNR will issue 108,430 Hunter's Choice Permits this year as compared to 93,930 in 1980. Permit holders are expected to take nearly 58,000 deer. Applications must be postmarked no later than October 2nd. Permits are free.

Crackdown on drunk boaters

Madison — DNR conservation wardens are initiating stepped up patrols to reduce accidents that stem from drinking while operating a boat. **Incomplete figures compiled recently by DNR reveal that roughly one-third of those who drowned during 1980 after a boating mishap were either intoxicated or under the influence of drugs.**

"In our society, drunk driving on the roads is not allowed, while on the other hand boating and drinking has somehow become a (socially) acceptable form of recreation," says Henry Kern, law enforcement staff specialist.

Harland Steinhorst, recreation safety specialist, thinks drunk boating can be even more hazardous than drunk driving.

That's because high speed pleasure craft common to inland waters generally don't provide the structural protection found in motor vehicles.

"You're never thrown clear, so to speak, in a boating accident. You may escape injury during a collision, but drowning presents another peril after impact or if your boat flips," says Steinhorst.

Steinhorst has no concrete data on the incidence of accidents, deaths and injuries resulting from intoxicated boat operation other than his own experiences drawn from investigating numerous boating mishaps.

"But I've seen enough to know that a high percentage of boating accidents stem from excessive alcohol consumption," says Steinhorst.



Photo by Ray Weinkauff

Land gift at Big Rib River

Madison — Governor Dreyfus recently accepted the gift of a 720-acre parcel of land bordering 4½ miles of the Big Rib River in Lincoln and Marathon Counties. The land was donated to the state by American Can Company through the Wisconsin chapter of The Nature Conservancy, a conser-

vation group which acquires and protects outstanding natural, scenic and scientific lands.

The Conservancy in turn deeded the land to the state to "be managed in perpetuity as a natural area." The area will contain no roads, campsites or other development, and will be open for hunting, fishing and other public use this fall.

Small scale sewage project saves \$

Westboro — Faced with orders for sewage treatment, this Taylor County community decided to try an alternative especially designed to save small towns the heavy expense of a full-fledged treatment plant.

Called a "cluster" system, it features individual septic tanks and a central dosing chamber to handle the liquids. Solids settle out in the septic tanks and liquids flow to a lift station where they are siphoned to the dosing chamber. **One third of the town's septic tanks will be cleaned each year.**

UW Sanitary Engineer Dick Otis, who helped design the system says it is not only less expensive, it can also help control community growth. This is because conventional sewers often attract unwanted development, according to Otis.

He also foresees uses in urban areas not connected to public sewers.

Great Lakes stamp

Madison — A Great Lakes trout and salmon stamp has been proposed to replace federal cuts in hatchery funds. Assembly Bill 92 has passed the Assembly and is now in the Senate Agriculture and Natural Resources Committee.

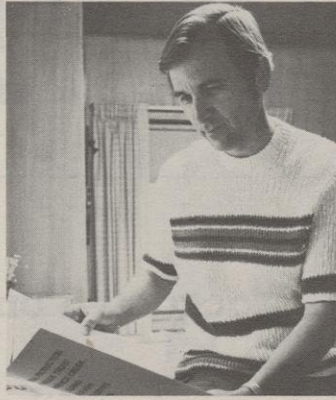
The bill would require a \$3.25 stamp to fish trout and salmon in outlying waters. Revenues would be used to stock and rear Great Lakes fish.

Federal dollars had contributed as much as \$263,000 a year to Wisconsin's fish propagation program. This helped stock thousands of chinook salmon, walleye, brown, brook, rainbow and lake trout as well as splake. **Unless new support money is found, these programs will be cut.**

A public hearing on the stamp has been held in Brule and another is planned for south-eastern Wisconsin early this fall.

The Senate is expected to vote on the measure in October.

Ducks Unlimited award



DNR Researcher Robert L. Hunt has received Trout Unlimited's highest scientific honor, the 1981 Trout Conservation Award.

Hunt heads the DNR Cold Water Research Unit at Waupaca. He is the author of 20 technical publications, numerous articles, and he has assisted in filming five TV documentaries about trout stream improvement.

Surprise, surprise!

Ladysmith — Conservation Warden Gerald Carow of Ladysmith got a note from the Sheriff's Office one evening last April. At the time, Carow was conducting the annual Conservation Congress Hearing. The message stated that someone had just poached a 30 pound sturgeon from the Chippewa River near Bruce, Wisconsin. Carow immediately turned the meeting over to the Congress Chairman and went to the suspect's home. Along the way, he picked up the local sheriff.

After arriving at the suspect's home they could see through a window that he and an accomplice were cleaning the fish in the kitchen. When Carow called to the man, the startled suspect looked up and said, "How come you're not at the (Conservation Congress) meeting?" Meanwhile, the accomplice grabbed the fish and fled into the basement. He later returned after the warden shouted to him that hiding was useless. The men finally gave themselves up. The suspect was fined \$379.00 and forfeited his hunting and fishing privileges for three years. Warden Carow returned to his meeting.

Bird art exhibit

Wausau — The Leigh Yawkey Woodson Art Museum in Wausau will present its annual bird art exhibition September 12 through October 25. Paintings and carvings by 100 wildlife artists, the largest number ever in the exhibit's five-year history, will be featured.

This year's Master Wildlife Artist is Arthur B. Singer of Jericho, N.Y.

Whitewater canoe race

Wausau — About 160 paddlers from across the country recently braved bumps, bangs, and bruises to compete in the first national canoe and kayak competition ever held in Wisconsin. The National Whitewater Slalom Races took place on a normally placid branch of the Wisconsin River below the Wisconsin Public Service Corporation power dam. The utility opened the dam's floodgates to create fierce whitewater conditions downriver.

David Hearn, of Garrett Park, Maryland, took top honors in the one-man canoe competition, running the tricky, winding slalom course in just over 210 seconds. The next closest time was 292 seconds.

Hearn, considered one of the two or three best paddlers in the world, also teamed up with fellow Marylander Paul Grabow to win first place in the two-man canoe class.

Homeless eagles transplanted

Eau Claire — Last June 15 a windstorm blew down a bald eagle nest near Cornell in Chippewa County. Three young eaglets were recovered and taken to the Raptor Rehabilitation Center at the University of Minnesota.

Now one has been successfully released in the Sandhill Wildlife Area in Wood County, while the two others are at home in wildlife refuges near the Missouri-Tennessee border. Eaglets once thrived in the border area and this is an attempt to reestablish breeding populations there.

Forest tour

Rhineland — Drivers this summer have been able to take an 11-mile, self-guided tour of an industrial forest near Rhineland.

Sponsored by Consolidated Papers, Inc., visitors tour the company's pine seedling greenhouses in Monico and the 93,000-acre aspen, hemlock and pine forest.

Tour booklets are available from Consolidated's offices in Rhineland and Monico, the Rhineland Chamber of Commerce and various tourist information offices in the area.

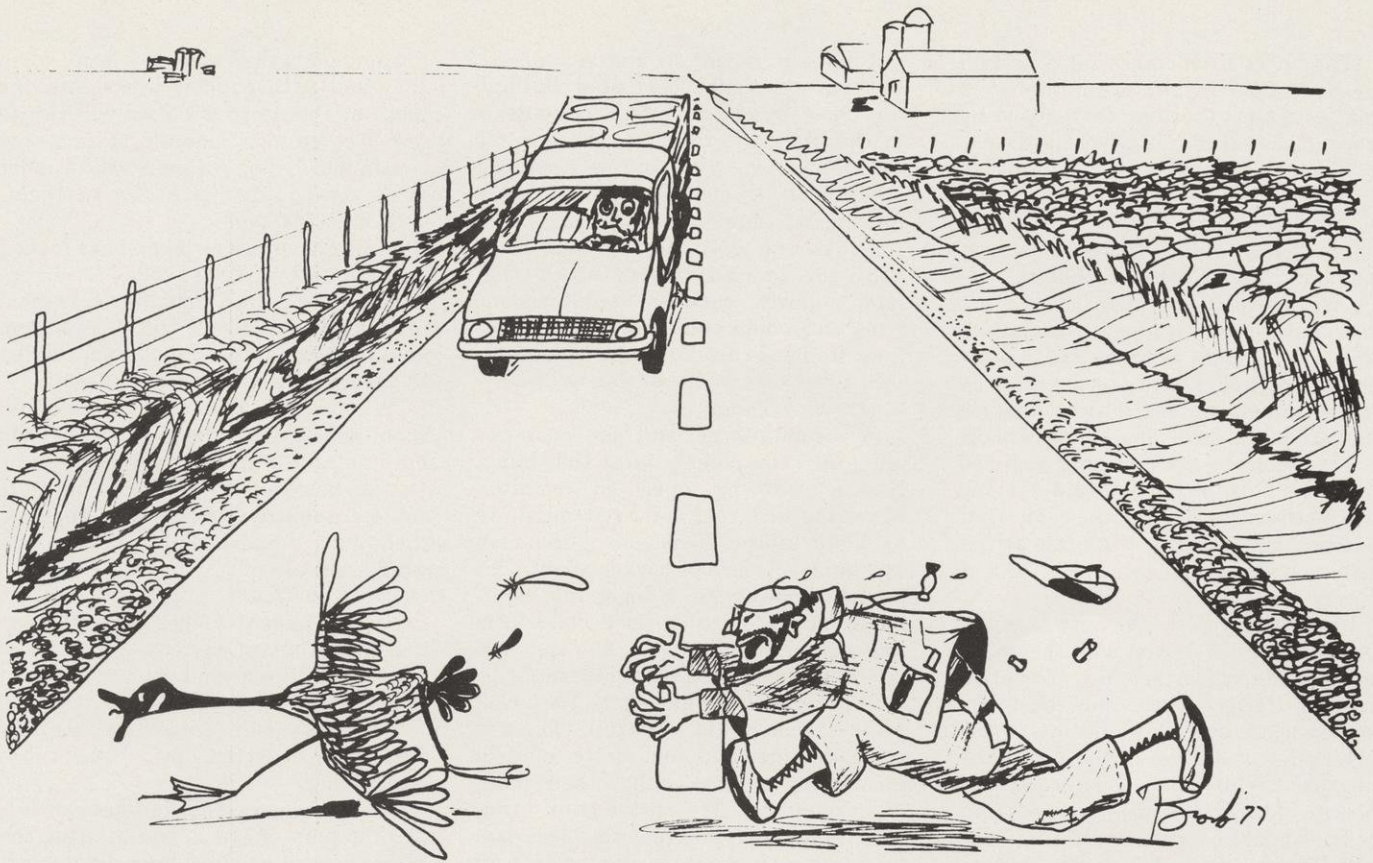
Visitors are welcome through October. The tour takes about 1½ hours.

Coming attractions

In the November-December issue . . .

- *** A special 16 page supplement on Hunter Safety and Responsibility.
- *** Wisconsin's position on the Master Plan for the Upper Mississippi River.
- *** An update on the Wisconsin Fund, how it helps change dirty water into clean, gives your town dollars to build sewage plants.

- *** Birds and snags. Those stark dead trees can be life or death.
- *** So long spring. A report on the death of a traditional natural community drinking fountain.
- *** And stories about the deer hunt.



Wild goose chase

The adventures of two intrepid waterfowlers who somehow didn't meet *Sports Afield* standards.

DON BRONK, Wausau

Time: 5:17 a.m.

It is November 4. We (my cousin Gene and I) are goose hunters, surveying the bleak plowed field near Horicon where we are about to hunt.

It is COLD. Snow and frost blanket the frozen ground. We study the sky — the sun absolutely refuses to rise. A north wind fresh from the Arctic Yukon whips over the field, driving all sensible creatures to shelter.

But Gene and I don't mind. We don't mind the knife-edged cold and permafrost, or the discomfort, deprivation, savage elements and hostile landscape.

We don't mind because we're dressed warmly and ruggedly in layers of wool and down and windbreaking canvas. We don't mind because we haven't left the car yet, and the heater is running full blast.

Time: 5:18 a.m.

Gene pours a couple cups of coffee.

We study the frozen gloom through the windshield. We do not silently think our own thoughts to ourselves. In *Sports Afield* articles, the two intrepid hunters always sit dramatically beside the campfire before the hunt, thinking silent thoughts to themselves. Gene and I are blabbermouths. We've never had a silent thought in our lives.

"We're gonna freeze our blankety-blanks," he says.

I nod. We're in for it, all right. I have an alcohol-fueled heater-seat, but will that be sufficient? Will modern technology save me? I don't know. I shiver involuntarily and wait.

Time: 5:20 a.m.

Gene's sparkling white four-wheel-drive Bronco (which I have secretly dubbed "The Great White Hope") is parked in the farmyard. Dawn is breaking. We are waiting for the farmer to wake up, get dressed and direct us to our blind, which is cunningly hidden somewhere out there in that blowing, sub-zero desolation.

Maybe the farmer will oversleep. Maybe the farmer's wife will ask the farmer to delay his rising. Maybe the farmer will die in bed (may our souls rest in peace).

Luck is not with us. The house lights

flick on, and Gene and I shudder. We're gonna have to hunt now. We mutter uncomplimentary things about Canada geese and how unworthy they are of all this suffering. In dread, we wait.

Time: 5:25 a.m.

The farmer smilingly directs us to the blind in the middle of the plowed field. We will drive out, unload our equipment, and I will set up decoys while Gene takes the Bronco back. It is a good plan.

The farmer has made a path for us to the blind with his tractor. Gene takes one look at the path, and prepares the Bronco for combat. Hubs are adjusted. Banks of gears are shifted into low range. When he is done, every wheel on that vehicle is driving except the spare. The motor screams softly and we inch forward.

The tractor track unfortunately does not quite match ours. The huge, hilly cornfield has been deep chisel-plowed, and looks more like ground zero at White Sands. We are grinding up a steep sidehill, at an angle to the frozen furrows. Each two feet the wheels climb a crest, and jarringly drop 18 inches into a trough. Inside, we flop from side to side like wig-wags on a railroad crossing signal.

The short drive takes on a certain rhythm. Crash-ouph, crash-ouph. I splatter against the door when my wheel drops, and against him when his drops.

"This is high adventure," I say to Gene.

Time: 5:39 a.m.

The vehicle almost tips over on us at one point, but we make it. Before us is our forlorn blind, a construct of snow fence and burlap, flapping in the keening wind. Equipment is unloaded. I start setting up decoys, and Gene turns the Bronco around for the return trip. He will park in the farmyard and walk back.

I pause from my task to watch the Great White Hope bobbing and weaving back to the farm. I recall the comfort of its seats, the warmth of its fan-driven heater. A tear forms in my eye. But it freezes.

I bend to my task. We have 54 goose decoys to set up. I start with the dozen decoys made by Herter's, Inc. The president of Herter's, Inc., once shot 109 Canada geese over those decoys in the parking lot of a drive-in theater in the suburbs of Whitehorse. It says so in his catalog. The president of Herter's and his friends always get several times the limit of whatever they're hunting or fishing every time they use Herter products. The catalog also states that President Herter is a quiet, unassuming man. I trust President Herter. I will set up his decoys first.

Easier said than done. The decoys have been cunningly designed to go together in the field — all you need is five hands, a torque wrench, a blueprint, floodlights, and four to six hours of leisure time. I get three decoys together and behold — my hands disappear. My arms end in blue-white objects with stiff finger-like projections. I exert my willpower to the utmost — reluctantly, the projections bend. Finishing the remaining decoys with these hands is like performing brain surgery with ten fudgesicles.

Time: 5:55 a.m.

A white patch of ground fog lurches over the horizon, moving toward the blind. It is Gene, moving in a cloud of frozen breath.

"The ambient temperature and current wind speed combine to produce an environment hostile to our bodily needs and threatening a moderate degree of physical discomfort," he says. Actually, this isn't what he says. What he says is earthier and more pungent. What he says is kind of heavy on the blankety-blanks.

I agree.

We survey the blind, the decoy set-up and our equipment piled outside. One thing is clear. There is no room for us in the blind if we put our equipment in. We hadn't planned on that. We could

put the equipment in and sit outside, but that seems silly. If we sit in the blind and leave the equipment out, the outside of the blind will look like the opening day of a garage sale. And we need that equipment — alcohol heater, stools, binoculars, supply bags, shells, raincoats, knives, calls, lanyards, our lunch (ah, our lunch — more about that later), gloves, cameras, handwarmers, guns, rule books and the portable calculator we need to validate the computerized goose tags we have been issued.

Time: 5:59 a.m.

We compromise, and jam ourselves and the equipment into the blind. Season will be open in minutes. Shivering with cold and excitement, we load our guns. Gene jams three-inch magnums the size of corncocks into his portable howitzer. I finger my hand-loaded shells lovingly. They look a little like wilted candle stubs, but they are potent. I have put love into those shells. Plus lots of powder and shot. They look a little swollen, but beautiful. There is the satisfying clank and clatter of steel on steel as our guns swallow their quota of ammunition. We set the guns down, rub frozen hands and scan the bleak sky. Last year we had our two geese within 20 minutes of opening.

Time: 6:01 a.m. Season is open.

Time: 6:05 a.m.

Time: 6:10 a.m.

Time: 6:20 a.m.

Where are those stupid geese anyway? Not a honk in the sky, not a feather on the wind. I began to panic. Did they fly south? Was my pneumonia in vain? An image jumps into my mind of a lonely tombstone in the middle of this wasteland with the epitaph:

This frozen body

Has no name

He hunted geese

That never came

Time: 6:30 a.m.

Finally! The geese are in the sky, pouring off of the nearby marsh in waves. I poke my cousin in the ribs. "They're coming," I exclaim. "Millions of geese, coming our way."

"Yeah," he mutters, "But they're a mile high."

"No, no," I whisper, getting excited, "Not more than 3/4 of a mile high. Maybe only 5/8 of a mile high."

Gene just looks at me.

We have our plan. We have decoys out, and I will call the geese in. No high shots for us. We will take only shots in the area of 40 yards. We will wait until some geese get curious about our decoys, then I will begin calling. With my Herter's goose call I will sing to them, converse with them, lull them and persuade them. With subtle variations in my honk, I will invite them, promise them banquets of shelled corn and

exotic delights. When they drop, when they sail with cupped wings into the teeth of the north wind we will rise to our feet in one smooth motion, my cousin and I, and our guns will thunder in the dawn. Just like in *Sports Afield*.

Time: 7:00 a.m.

Geese have come. They have looked over the decoys. I have called until I am out of breath. Each time the flocks seem interested, cruise over the decoys, then split as they approach the blind, veering to the right or left, well out of range.

We watch hunters in the next blind, shooting merrily at the high flyers. They have no calls or decoys.

"Skybusters," Gene mutters contemptuously. We watch them shoot, their guns making white puffs on the wind. A goose falls.

Time: 8:02 a.m.

"Hey," I say to Gene, trying to keep the alarm out of my voice. "There's something strange and cold and foreign in my boots."

"Them's your feet," he mutters through frost-bitten lips. "I can't feel mine either."

I'm sitting on an alcohol-heated seat, so that part of me is warm. But the heater is hard to adjust, and right now it seems a little too warm. I can hear a soft, frying sound. I stand up, and the north wind does its thing. The frying stops.

My goose call is finished. It's full of spit, and the spit has frozen. The flapping of the burlap in the 20 mile-an-hour gusts is spooking the geese, we decide. Not one goose has come within range. Oblivious to the geese, we leave the blind, adjust the decoys, stamp our feet.

Back in the blind, Gene and I suffer loudly to each other. We've hunted and fished together for 20 years, my cousin and I. We look at each other, and without a word, we know what we have to do. Silently, he reaches for the lunch.

Time: 8:11 a.m.

I have in my hand a believe-it-or-not hot, steaming barbecue. Gene's wife has filled one thermos with hot barbecue, and Gene pours this on the plentiful supply of buns packed in the lunch box. I wait a moment until the barbecue thaws out the bun, then eat quickly, before the meat freezes. There is an air of desperation around our meal. We have no napkins, and barbecue drips, forming a greasy gum on fingers and splotching on pant legs and coats, forming little frozen brown nuggets. Rock-hard sweet rolls sugared with ice crystals are dessert. Finally, Gene pours coffee with shaking hands into cups with crusts of brown ice in them. We hug those cups to thaw our fingers. It's starting to snow.

Time: 9:00 a.m.

Our four hunter-neighbors leave their distant blind and trudge back

toward the farm. They have four geese. We haven't fired a shot.

"Well," says Gene, fingering his three-inch magnums, "we know what we have to do."

"*Sports Afield* won't like this," I protest.

"Blankety-blank on *Sports Afield*," he says.

For awhile we can't bring ourselves to shoot. Then, after a decent interval, we direct fire at the closest geese, and only when directly overhead.

But they ain't none that close.

In fact, they're a bit far.

We shoot. We shoot again.

And look reflectively at our dwindling shell supply.

Time: 9:42 a.m.

Should we head for home? No!

A loner drifts overhead, honking a challenge. I'm busy reloading, but Gene answers the challenge with a three-round salvo from his magnum.

I hear a crash. I spin around. The back wall of the blind has disappeared. Gene's two feet are up in the air, his gun smoking. Firing overhead, off-balance on frozen feet, he has tumbled over, taking the blind with him. I help him to his feet.

"This ain't safe! I've got to get a gun I can handle," he says philosophically.

Honking derisively, the goose flies off.

Time: 9:53 a.m.

Six geese come over.

"They look like they're a little over 40 yards out," I say with concern.

But we come up firing. Six shots — aha — Gene's goose slides out of formation.

"Just like *Sports Afield*," I shout. "The goose will now plummet majestically to earth."

The goose does not plummet majestically to earth. The goose goes majestically into a long glide, loops and lands in the center of the field of the neighboring farm.

Gene looks with dismay at the distant speck.

"Go get'em tiger," I laugh encouragingly. "Remember the regulations. You're not allowed to take your gun, shells, compass, survival kit, thermos bottle or wife with you out of the blind. You must chase the goose on foot, in a dignified manner. And remember — you are subject to arrest if you fail to retrieve that bird. Got your computer-coded tag?"

But he's off and running.

Time: 10:07 a.m.

I'm watching my cousin through binoculars as he wanders through the fields of the neighboring farm, looking for all the world like a mobilized scarecrow flapping in the snow-flecked gusts. He hasn't spotted the goose yet. Neither have I. I grow concerned. As per the

law, he has left his gun in the blind. There are clumps of brush that could conceal a vengeful goose. At any moment the enraged bird could leap out with a snarling honk and attack, catching my cousin unarmed and full of congealed barbecue.

The tension builds. Mentally, I compose the first several paragraphs of the *Sports Afield* article that will document this adventure. There's my cousin — panicking now, his head turning from side to side — while somewhere lurks the angry goose, eyes glazed muscles bunching for the attack, its beak — that could strip a corn cob of its kernels in a second — gapes hideously open ...

He's seen it!

The goose has surfaced.

It's running.

And now the narrative takes a turn. Gene cannot catch the goose. He zigs, it zags. He runs, it dodges. He pounces, it slithers. And all the while, it is gaining on him. It is getting away. I watch my cousin running through that field on frost-bitten feet, his face a mask of agony and desperation as he gulps frozen air, forcing himself to move, his legs like lead, his muscles exhausted, weak and sick and faltering under the strain.

God, it's funny!

I snarf back a chuckle, and mentally rewrite those first two paragraphs. This isn't quite *Sports Afield* material. More like the *National Enquirer*. A little snowdrift builds up on my binoculars as I watch the little drama in the distance.

But wait.

Gene has paused.

From the rapid little puffs of breath, I can see that he's thinking.

Gene stops, picks up frozen clods of dirt, piling them in his left arm. The chase begins anew, but now Gene is armed and dangerous. He throws clods on the run, and little puffs of dirt erupt around the goose like artillery bursts.

Whomp! The goose disappears in a cloud of dirt and crud. Direct hit. Gene leaps for the stricken bird like an attacking bullfrog. The goose is bagged.

Still laughing, picking frozen tears off my cheeks, I wait for him.

Time: 10:31 a.m.

Gene finally makes it back to the

blind. I step out to admire his goose, and tell him how er — noble he looked chasing it.

"Look," he shouts pointing upward.

A single goose is drifting overhead, undoubtedly curious. I step calmly into the blind, chamber one of my few remaining shells, lead the bird by 18 feet and fire.

"You got it!"

The bird begins a long majestic glide into the distance.

"Your bird, I believe," says my cousin gleefully. He's always had a mean streak in him.

"When's the next bus due?" I ask.

And now, oh Lord, it's my adventure. Setting down the gun, I contemplate my journey. I shall have to leave the comfort of my rickety blind and face that antarctic wasteland. Alone.

Time: 10:33 a.m.

"You must make every attempt to get that goose," my cousin reminds me quietly. "Otherwise, the warden must make every attempt to get you."

"I ain't going," I reply. "That goose landed somewhere near Sheboygan."

"You could get two years for this," Gene says.

"It will take me longer to find that goose," I say.

"In the Federal Pen," he continues.

"It's warmer in the Pen," I continue.

What's the use? I know what I have to do. I swore an oath on my duck stamp. It's signed in my blood.

"I'm going," I say resolutely. "Don't try to stop me." Hitching up my collar, I step from my blind into the teeth of a howling gale. For a half-mile before me is an unbroken stretch of snow-sprinkled plowed wasteland. There is a hill in the distance. Beyond that — somewhere — is my goose.

Time: 10:35 a.m.

I try to compute time, but my frozen brain is sluggish. I figure it will take two, maybe three days of hard walking to cross that hill.

My feet are frozen again. "Mush," I shout at them. "Mush, you dogs. Onward."

It seems like hours have passed. My skin is blue, turning a sickly white. I turn around.

"You're doing fine," my cousin says.

I've walked maybe 20 feet.



Time: 10:35-1/2 a.m.

Biting my lip, I trudge forward, slipping and sliding on the broken clods. Feverish thoughts slip through my mind — thoughts of fireplaces, fires, furnaces, Bermuda. Thoughts of golf carts, jeeps, trains, trucks, public transportation.

There's the hill before me. I trudge up the slopes, alone. My ascent becomes perilous — I gasp in the rarified air. I claw my way up, heedless of safety ropes and avalanches. The crest is guarded by bleak walls, crevices, precipices. Should I have a flag to plant at the top? I don't have a flag. I have a Canadian nickel. I can't plant that — the hill would belong to a foreign power. It could provoke an international incident — perhaps a preemptory nuclear strike.

With a hoarse shout of triumph, I gain the top. Spinning dizzily, I survey the distant, miniature specks in the valley nine feet below. I've made it.

And before me, waiting patiently, is — the goose!

We look at each other for a long moment. The goose is rested, alert, confident. I don't know how I look to him. But I would feel at home in a coffin.

Whistling nonchalantly, I casually stroll toward the bird. Honking nonchalantly, the goose strolls in the other direction. Whistling unconcernedly, I break into an unobtrusive trot. Honking casually, the bird launches into a flapping hop. Whistling good-naturedly, I slam into a surreptitious dead run. Honking provokingly, the bird accelerates into a full gallop.

We're off!

Down the hillside, through the frost, over the clods, in a shower of frozen dirt and in a wake of dust we go. The goose is gaining. Ahead is the highway. The goose is heading for the highway. There's no stoplight, no crosswalk. You fool," I shout. "You'll kill us all!"

"Honk," sneers the goose.

I follow the crazy waterfowl down the embankment, across the shoulder, onto the concrete slab. I plow after it, but I'm handicapped; at the shoulder I have to stop, look both ways. There's a distant truck coming, that's all. I decide to chance it. I cross, but the goose has gained valuable ground.

But now the tables have turned. On the other side of the highway is an embankment, and the goose can't climb it. His goose is cooked. I hit him with a flying tackle in a shower of feathers, honks and frozen barbecue nuggets. The beast is mine.

Time: 11:30 a.m.

We are on our way back home. Gene and I are discussing the important parts of the trip. We discuss the lunch. We discuss where we should stop for dinner. We extravagantly heap praise on the Bronco's soft cushions and heater.

"I'm going to write this up," I tell him. "I'm going to create a tale of drama, pathos, mystery, suspense and high adventure out of this trip."

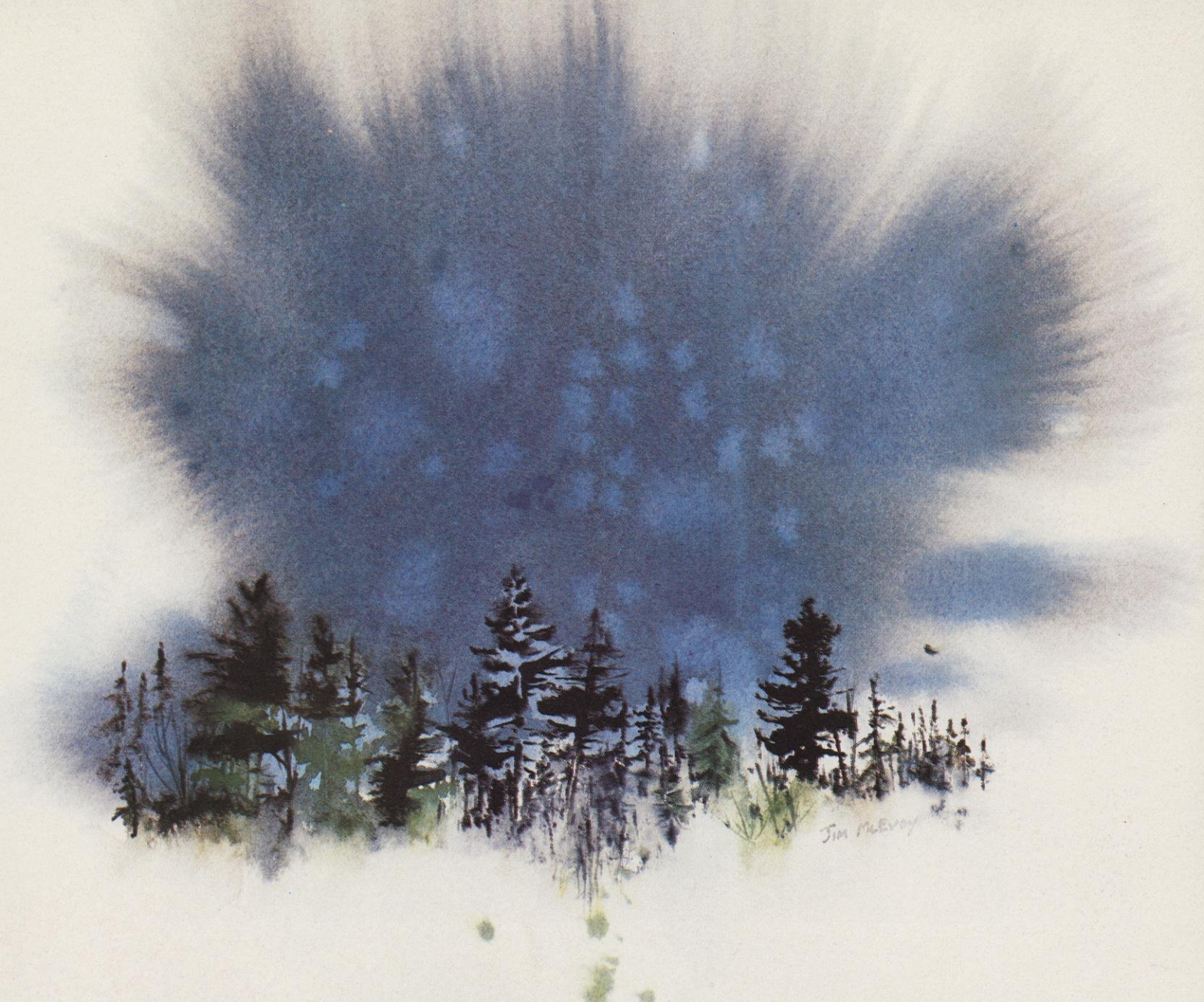
"Just one thing," Gene begins.

"What's that," I ask.

"Nobody will be crazy enough to publish it." I agree.

Cartoons by Author





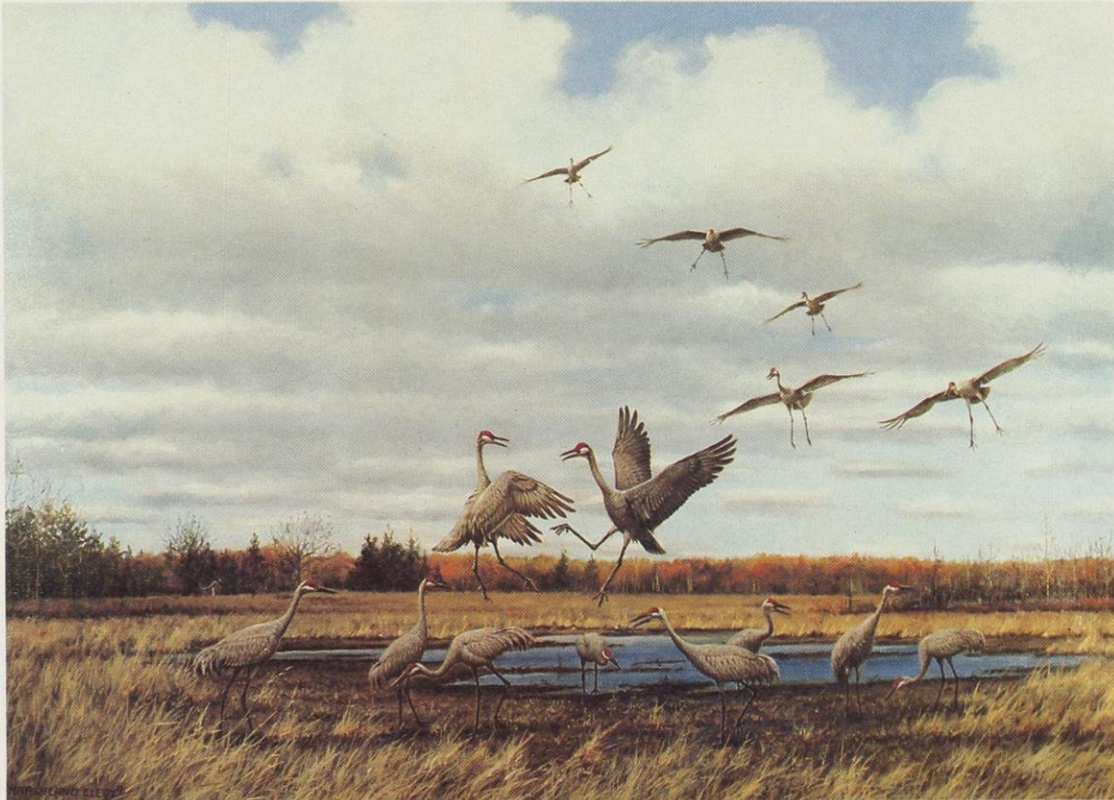
Voices of creation

CLIFFORD F. MESSINGER*

Some nights the wilderness is a stereo of sounds,
Reverberations engulfing the entire darkened forest:
A chorus of frogs in urgent mating call,
The saddened cry of a far off loon,
The monotonous chant of the whippoorwill in duet with a hunter coyote's wail.
A solitary bass breaks water for a morsel in the placid virgin lake,
Two horned owls carry on long distance conversation.
Other darker nights there is only a consuming silence,
Our straining ears altogether unaccustomed to the total quiet.
But always there is the overwhelming Presence of God,
Magnificent and caring,
Yet perplexed by man's destruction of this, His greatest work.

*Clifford Messenger is a former chairman of the Wisconsin Natural Resources Board.

Greater sandhill cranes in Wisconsin



Marshland Elegy by Artist Owen Gromme, courtesy of the Leigh Yawkey Woodson Art Museum, Wausau

KAREN S. VOSS
*Wetlands Education Specialist ,
Madison*

They stand, a hundred or more of them, like gray sentinels of a gray dawn, their bugling calls rising in puffs of mist above them. They are scattered among the mud flats and shallow water expanses of a huge marsh in central Wisconsin. It is a chilly fall day in mid-September, and the sandhill cranes have gathered, as they have every year for millenia, in preparation for their long flight south. A pair calls, and is answered here and there; suddenly the marsh is ringing with clamorous, rattling cries, echoing from every direction. It is a salute to the dawn, and every bit as ancient as it sounds.

Cranes have danced in Wisconsin's marshes for millions of years. Back in the 1800's when millions of acres of prairies and wetlands swept across Wisconsin, cranes were abundant. But the cranes declined with the steady westward march of European settlement

and land cultivation. They must have been near their lowest numbers in Wisconsin in 1929, when Aldo Leopold reported only five breeding pairs. The dance had almost ended.

Then came the Depression with its drought and crop failures. As farms reverted to wild lands and more state wildlife areas were acquired, the numbers of cranes gradually increased. By the early 1960's significant increases in crane numbers in Wisconsin could be attributed to the acquisition and development of large waterfowl projects by DNR. Today, Wisconsin's population of sandhill cranes stands between 3,000 and 4,000.

The sun is a bit higher now and takes the chill edge off the marsh. The cranes begin to preen, and will soon be off to find choice feeding grounds. One day soon a combination of cool weather, northwesterly winds, and the internal ticking of some infallible biological clock will send them spiraling skyward on their southward journey to Florida, by way of

Jasper-Pulaski Fish and Wildlife Area in northern Indiana. The entire eastern population of greater sandhill cranes will funnel through Jasper-Pulaski; it is the single major stop-over point for all twelve thousand or so Florida-bound cranes from Minnesota, Wisconsin, Michigan and Canada. They pass through Jasper-Pulaski in a steady stream from September through November, each individual or group making a stay of only a few days to several weeks. Then it's off to Florida and the wintering grounds.

They spend the winter in small to medium flocks of a dozen or more in the marshes, fields and prairies of Florida and southern Georgia. Youngsters remain with their parents through the winter, and often accompany them on the northward migration come spring. Much remains unknown about the wintering habits of the greater sandhills. The obvious problems associated with studying a secretive bird in remote habitats are compounded by the presence of



Since 1973, over 200 greater sandhill cranes have been captured and marked with neck collars, wing tags or radio transmitters. Observations of tagged cranes reveal information about migratory behavior and wintering grounds.

a nonmigratory and nearly identical subspecies, the Florida sandhill crane.

In late February or early March our sandhills begin their northward trek. Their flight again takes them through Jasper-Pulaski and back to staging areas in Wisconsin's larger marshes. Individual flocks are likely to be smaller than in the fall, and their time together briefer, as pairs depart for their own nesting marshes.

From about mid-March to mid-April crane pairs, with much calling, dancing, displaying and occasional fighting, establish their nesting territories. With the exception of gatherings at fall staging areas, the cranes are now more visible and vocal than at any other time of year. Their vociferous behavior has inspired a unique rite of spring in Wisconsin: the annual crane survey.

For seven years now, hundreds of people — from high school biology classes to retired farmers — have dispersed over Wisconsin marshes to locate and census cranes in their native habitat. These dedicated individuals arise before dawn in order to be present at their appointed areas when cranes greet the day with their calls. They record not only the numbers of cranes present in their survey area, but also note the habitat type and alterations such as drainage or diking. This vital information, collected annually, has permitted long-term monitoring of wetlands, and recognition of alterations as they occur.

This year a record 33 counties were surveyed — an expansion made possible in part by information gathered in the DNR Wetland Mapping project. At dawn on April 4th, more than 500 people were present, binoculars in hand,

Parents share incubation duties. While one parent is at the nest, the other forages, preens and rests. ▶



Photos by George Archibald



This chick's younger sibling will hatch soon, but most likely only one will survive. Only under the best of circumstances will crane parents successfully fledge two young. Within a day or two this youngster will be following its parents through the marsh, constantly begging for grasshoppers, butterflies, mice and other tidbits.

When cranes return to Wisconsin in spring, breeding activities begin almost immediately. Here a pair copulates even before leaving the migrating flock for their own breeding marsh.

at 400 wetlands throughout Wisconsin. Such public involvement is a valuable way to promote wetlands preservation in Wisconsin.

A few weeks after crane watchers troop from the marshes, the birds' serious business of raising a family begins. The time and energy consuming activity of establishing territorial boundaries is done, and nests are built in only a few days. In late April the female lays two eggs, a day or two apart. For the next month both parents will share incubation duties. Day and night they carefully and quietly stand guard, effectively keeping their presence a secret from the casual observer. One day the parents will hear faint peepings from their hatching chicks; first one, then the second two days later. Crane chicks are precocial, and the older chick has often left the nest before the second has hatched. Under excellent conditions, and when food is abundant, one parent may care for each chick. But much more often only one chick survives.

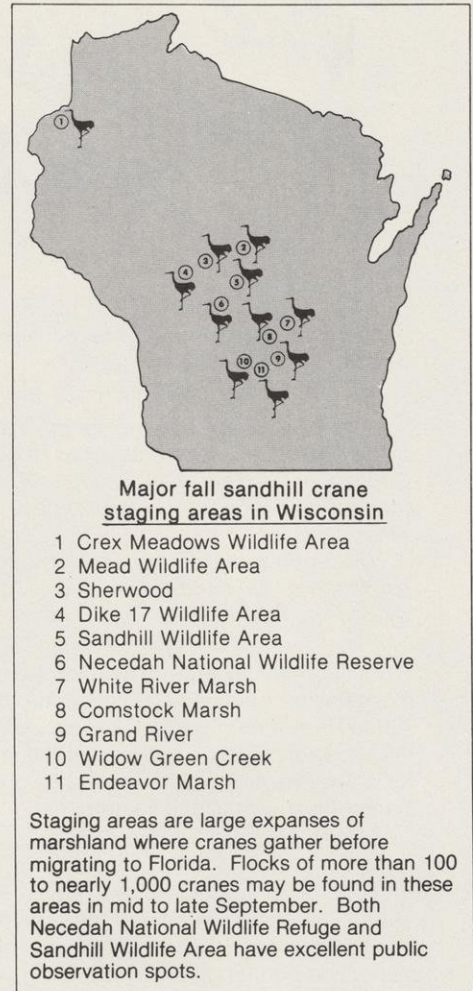
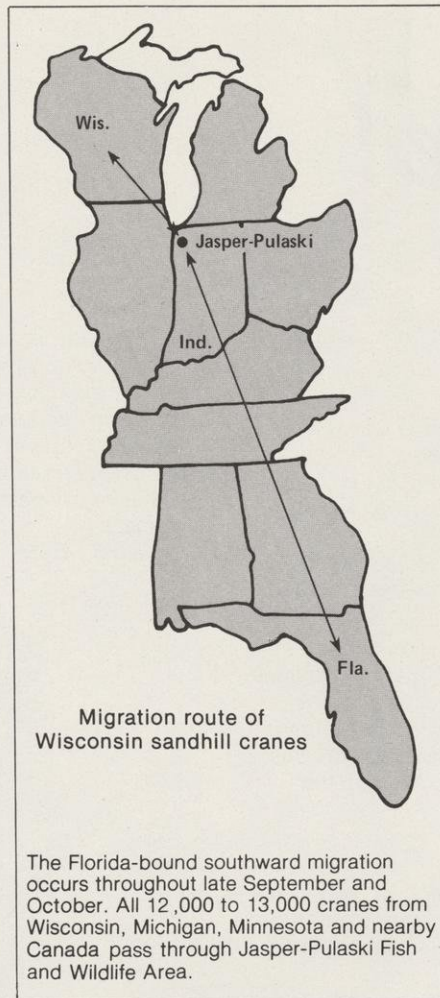
Raising a youngster is a full-time occupation for crane parents. They spend their days catching insects and small vertebrates, carrying them to their constantly hungry offspring, resting only in the heat of the noontime sun. The chicks grow almost visibly day by day, and at 2 1/2-months are nearly adult in size and able to fly. Fledglings may be



distinguished from their parents primarily by their entirely feathered brownish head. The adult has a crown of pigmented bare red skin, which becomes engorged with blood and highly visible during displays. The vocalizations of young will continue to be an incongruously high squeaky “peep” until almost a year of age.

While about half the Wisconsin cranes are breeding pairs and spend their summers raising young, the non-breeding cranes roam the marshes as members of small “bachelor” flocks. These flocks consist primarily of young birds. At between two and three years of age individuals begin to form pairs and leave the bachelor flocks to search for their own breeding territories. The process of establishing a breeding territory may take several spring seasons. Though sandhills are capable of breeding at two or three years of age, they may be several years older before they successfully hatch eggs and fledge young.

By now it is early August. The young have fledged and the crane families begin roaming beyond their nesting territories. They forage in harvested farm fields and gradually gather in increasingly larger flocks on Wisconsin staging marshes. The days shorten, and the winds become crisp. Soon the birds will be off again — off to complete the job of bringing their young to adulthood. And come spring they’ll return again, as they always have and perhaps always will, to continue the cycle of crane life on the marsh.



The long outstretched neck and trailing legs of a crane in flight are unmistakable.

AN AVIAN FRENZY

LEROY LINTEREUR, DNR Wildlife Manager, Marinette

The first sandhill crane I saw on the ground was sneaking through brush and looked so much like a deer, the thought came to me — what’s wrong with that animal? Then it stepped into the clear, and there was this huge brown crane, in those days a rare bird. Thirty years ago, anyone spotting a sandhill crane thought, “Hail and farewell” — it was assumed they were on the way out. But that was long ago. Through a shift in their habits and a certain adaptiveness, they’ve made a comeback and are no longer rare. In some cases, they are almost a nuisance. We still get calls from people, “There was this odd animal. I

thought it looked like a deer, and then it flew up with a hell of a racket.”

Hell of a racket, indeed, and there’s no better term to describe the call of these creatures. You can hear their wild, rattling call anyplace. They nest wherever there are fairly large tracts of brushy marsh and meadow. In the north this can be a leatherleaf bog, and I’ve found at least one nest on the edge of a stand of scrub oaks.

The point is, you can spot them, or more commonly, hear them, anyplace. They have a penchant for corn where they feed like a crow, going after the newly sprouted seed on the end of the shoot. Understandably, there are farmers not at all enthusiastic about sandhills — rarity to nuisance in less than 25 years!

There is something about them, in flight and on foot, very intense and dramatic. They live, it seems to me, on the edge of an avian frenzy, calling and calling, often out of sight and over the far horizon.

Most animals are wild, but there is something profound and impressive about the sandhill’s expression of its own wildness. They live it, more so than most birds, perpetually on the alert and never in repose.

For us, they can symbolize many things — an awesome bird in sight and sound, a member of an ancient group going back to the earliest bird life, sharp of eye and bill, but above all, a wilderness creature, shrewd enough to get along in our world.

The readers write!

Who, or what office (s) make the profit from sale of *Wisconsin Natural Resources* ?

BETTY BEGGS, Plainfield

Wisconsin statutes authorize the magazine and specify that all revenue collected be used to publish it. Consequently, there really is no profit, simply use of funds for expenses incurred — layout, paper, printing, mailing and other costs.

Wisconsin Natural Resources is supported entirely by its subscribers. No state tax monies or license fees collected by DNR go into it.

I will not renew my subscription to the Natural Resources magazine until something is done about cleaning up the Apple River through Somerset and on down to its mouth at the St. Croix River. I always had the impression DNR was for clean rivers. Well, you should be around here in the summertime with all the floaters.

LOUIS MARTELL, Somerset

Your "Free Emissions Test" article (Catch-all, May-June 1981) is a prime example of the work of incompetents who are going to waste millions of taxpayer dollars on a futile inspection boondoggle.

Having been victimized by the corrupt Massachusetts state inspection system, I can vouch for the needless waste that a Wisconsin law will cause. It will line lots of pockets, but won't make one microgram improvement in air quality.

ROBERT C. McBROOM, Franklin

Would you please do an article on ferrets, even if it has to be a short one? It's been my understanding for many years that to own them is illegal.

One day we saw one of these strange little animals in our yard, and I know that several people in Iowa County have ferrets.

CLARA HABEDANK, Avoca

A ferret is a semi-domesticated variety of the European polecat, usually albino with red eyes. Ferrets are much used in Europe to hunt rodents and sometimes rabbits. The only restriction on owning them here is that they may not be used for hunting. Otherwise it's legal to possess one.

The black-footed ferret is the only one native to the US, but may be extinct. It once thrived among prairie dog colonies in the high plains.

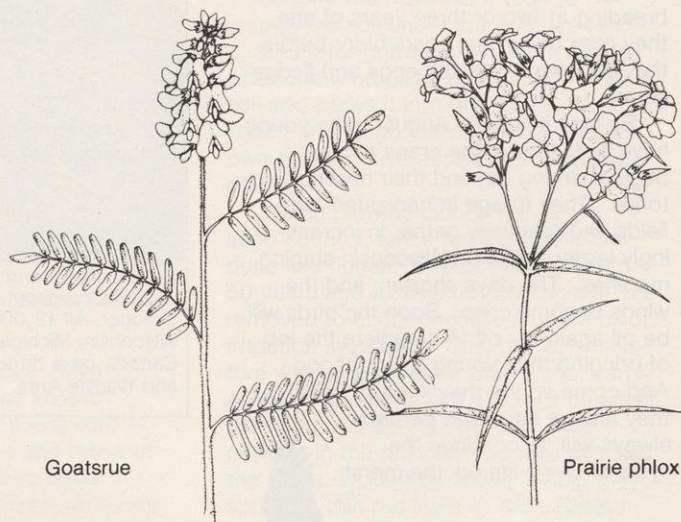
For those interested in more about wooden canoes, there is an international organization devoted to the preservation, history and appreciation of wooden canoes. Address is: The Wooden Canoe Heritage Association, P.O. Box 5634, Madison, Wisconsin 53705.

GORDON ORR, JR., Madison

The article "Wisconsin's Carnivorous Plants" (May-June) was pretty well done! You can and should continue to use the magazine as a teaching medium. Don't be afraid of turning people off by using multi-syllabic words if they expand readers' minds.

One correction regarding the illustrations on page 16: What says Goatsrue should read Prairie phlox and vice versa.

BOB READ, Madison



Goatsrue

Prairie phlox

I greatly enjoyed your May-June issue on prairie plants but would like to hear about others. My hillside is covered with violets — both white and purple with the large (heart-shaped almost) leaves, sweet williams (a phlox you didn't mention), jack-in-the-pulpits, a modest supply of trilliums, shooting stars and columbines.

Our earliest bloom is a small blue flower on grass-like stems. I've been told they are a variation of pasque flowers, but they don't resemble your illustrations, which looks more like the purple-pink "easter lilies" we find up on a rocky cliff area. The lovely bloodroots were unusually plentiful here around the end of April.

HELEN WEINBERG, Stoddard

DNR Botanist Bob Read says your blue flower is probably blue-eyed grass, a member of the iris family. Chances are the "easter lilies" are a color variation of the pasque flower.

I can't help snickering at all of the accolades being heaped on the originality and creativity of the Division of Tourism's slogan "Escape to Wisconsin." This theme was pilfered from the State of Montana, which used it as early as 1968 for the promotion of tourism. The phrase headlined all of Montana's tourist literature and roadmaps a decade ago. I suspect "Escape to Wisconsin" is an effective slogan, but it is hardly original.

JOHN GUEINZIUS, JR., Appleton

I and many of my patients are interested in your magazine. Your pictures and articles are excellent. Who needs to go out of the country or even out of the state when we have so many things right here?

DR. KEVIN C. BERG, Optometrist, Marshfield

The excerpts you published from the Historical Society booklet on the Peshtigo Fire written by Reverend Peter Pernin were an enlightening supplement to my students. His account gave them a concise insight into this Wisconsin tragedy. The paintings by Mel Kishner also helped give them the vivid facts of this hurricane fire.

I appreciate and look forward to the arrival of your publication. Contrary to what some other readers feel, I appreciate learning about snails, snakes and butterflies, and why they are important to our ecosystem. Keep the interesting and informative articles coming.

GEORGE RATHBUN, Teacher, Eau Claire

I have been reading your magazine since moving here in 1978 and cannot recall any significant photographic or narrative reference to black people within the state or region. However, I was pleasantly surprised to see a picture which included a black child in the special supplement to the March-April issue.

It would be refreshing to see the magazine occasionally cover the black perspective.

PHILIP A. BROWNE, Wauwautosa

In the article on Wisconsin's Largest Trees the size was listed as "diameter." I believe it should have read "circumference." An eastern poplar 26 feet in diameter? This would approach or exceed the General Sherman sequoia.

GEORGE E. HAFSTAD, Cambridge

Right! We've got big trees, but not that big. You and several others caught the error. Thanks.

Thank you for presenting the series of articles on arbor days, big trees and arboriculture. Too often the impact of trees, particularly those in the urban environment, is neglected.

However, a more appropriate designation for the last Friday in April would simply be Arbor Day — not Arbor and Bird Day. Judging from the numerous calls I have received, many others are similarly inclined. This feeling is predicated on the belief that the symbolism of Arbor Day should not be diluted. I am of the opinion that arborists and ornithologists alike would prefer independent observances. Separate days would allow birds and trees the individual recognition they deserve.

DAVID P. LISKA, Wisconsin Arborist Association, Madison

As a former resident of Lake Geneva in Walworth County, I much enjoyed the big tree article by Chad McGrath (March-April, 1981). The state's largest ginkgo, at Covenant Harbor Camp, Lake Geneva, is a tree I know well, having spent many a restful moment propped up on its trunk under the shade it offered.

I sincerely hope that the published details of localities don't prompt some would-be "lumberjack" to try out a new saw on Wisconsin's "biggest." I wonder how many such gentle giants perished to the axe and chain during the Wisconsin lumber industry boom years ago?

ROBERT C. KUHMANN, Hayward, CA

Readers are invited to express opinions on published articles. Letters will be edited for clarity and conciseness and published at the discretion of the magazine. Please include name and address. Excerpts may be used in some instances. Letters to "The readers write" should be addressed to Wisconsin Natural Resources magazine, Box 7921, Madison, Wisconsin 53707.

Back Cover:

The Townline Flowage Rookery at Mead Wildlife Area. Last year the rookery produced 525 cormorants, 236 great blue herons and 77 black-crowned night herons. For more on Mead see page 32. Photo by Bruce Bacon.

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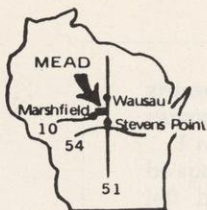
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The George W. Mead wildlife area

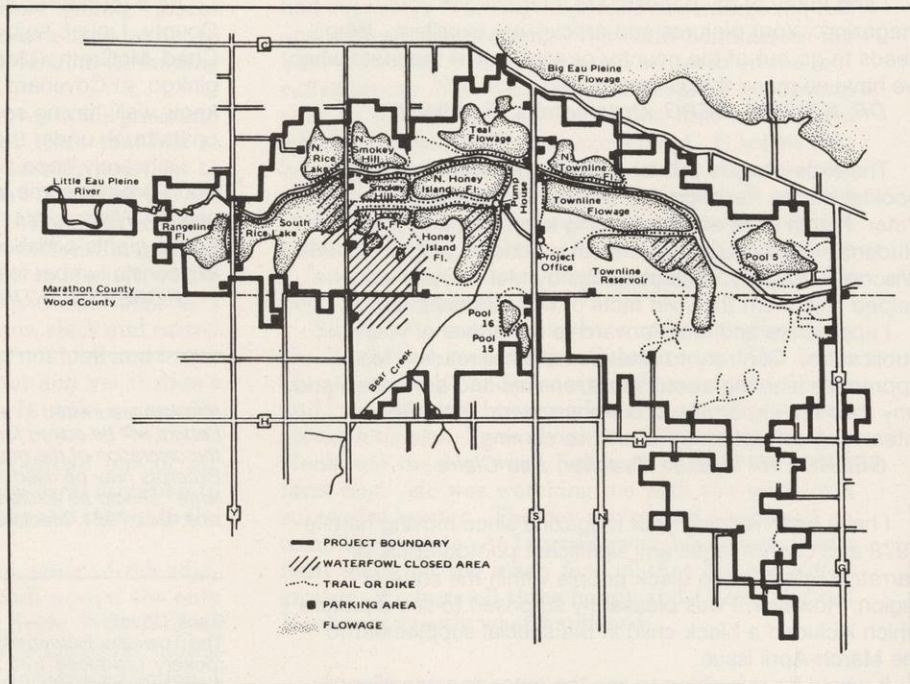
Wildlife at Mead has responded to management in spectacular ways. It is one of Wisconsin's premier outdoor places.

BRUCE BACON
DNR Natural Resources Technician
Mosinee

Mead is a wildlife manager's garden of Eden, a place where natural amenities coaxed along by technical know-how have produced a fur, fin and feather showplace. Waterfowl and deer abound. Other species too. By judicious manipulation of the environment, DNR managers under the direction of the late John Berkhahn have been able to create conditions that attract and hold just about any critter they want.

It all started in 1959 when Consolidated Papers, Inc., of Wisconsin Rapids gave the people of Wisconsin 20,000 acres in the valley of the Little Eau Pleine River. Named the George W. Mead Wildlife Area after the company's founder, the land was presented to the state by his son, Stanton, "to be used for all time for wildlife conservation purposes."

Located near Marshfield, Stevens Point, Wausau and Wisconsin Rapids, today Mead covers 26,576 acres. Plans call for increasing this to 31,862 acres in order for the unit to reach its full



management potential.

In presettlement days, the valley of the Little Eau Pleine consisted of conifer and hardwood swamps. Slopes and uplands to the south and west grew magnificent maple, birch, and other hardwoods while pine grew on the north and east. Wildlife at that time probably included species that are rare today —

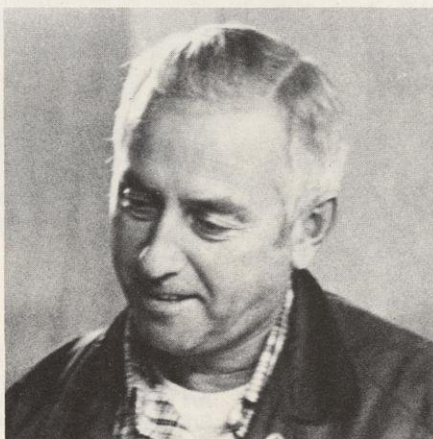
lynx, timber wolf and spruce grouse.

All the virgin timber was cut during the great central Wisconsin logging era prior to 1900. Land speculators and promoters followed the logger. They organized the ill-advised Dancy and Rice Lake drainage districts which brought in huge dredges to slash the oxbows and switchbacks of the Little Eau Pleine and

JOHN BERKHAHN

John Berkhahn was Mead-McMillan's first Project Manager and its only one, until he died suddenly of a heart attack last January 20. Berkhahn guided the destiny of Mead ever since it became a public wildlife area more than twenty years ago.

Born on June 23, 1932, Berkhahn was raised near Clintonville, Wisconsin. Graduated from UW-Stevens Point with a degree in conservation and biology in 1954, Berkhahn joined the old Conservation Department in 1955 before it became DNR. After conducting a study on grouse, he became a conservation aide at Powell Marsh in Vilas County. In 1957 he was promoted



to game manager.

Assigned to develop and manage Mead in 1959, his skills as a planner and land manager turned the area's 20,000 acres of marginal farm and bottomland on the Little Eau Pleine into a major northern Wisconsin waterfowl production area.

In 1967, John Berkhahn was presented "The Grimmer Award" as the outstanding department wildlife manager of the year.

His land management techniques will leave their mark on the central Wisconsin landscape for generations to come.

make it an open canal. Farming failed and the land reverted to open marsh and brush. Regeneration of conifers and swamp hardwoods followed.

Consolidated Papers, Inc., began buying land in the valley about 1935. Ultimate objective was to create a huge reservoir to supplement low flow on the Wisconsin River. But additional land was difficult to acquire and conservationists questioned the wisdom of a flowage there. There were bitter hearings and court cases. In the end, Consolidated realized people preferred the land to the flowage and the company presented it to the state as a gift. This benevolence has never been regretted by either side.

Today aspen and mixed hardwoods occupy much of the upland. Open marsh, which is favored habitat for waterfowl and prairie grouse, parallels and fans out from the river course. More than 38 miles of ditches and dikes, remnants of the drainage districts, crisscross the area. Farms still occupy the better soils.

The Little Eau Pleine basin has great variety in topography and vegetative patterns. Ruffed grouse, deer, squirrel, rabbits, geese, ducks, prairie grouse, woodcock and jacksnipe as well as many important nongame species find a niche at Mead.

Recreational use by sightseers, fishermen, hunters, naturalists, photographers, bird watchers, berry pickers, hikers and others has increased steadily. Even the "back in" areas are crowded during periods of peak activity. Deer hunting generates the largest number of hunting trips. Waterfowl hunting runs a close second.

As part of the management program a series of shallow water areas have been created along the river. Ducks, geese and furbearers use them. Nesting and maximum food production are encouraged by water level manipulation during key periods. Potholes have been added to increase breeding habitat.

Closed areas provide places to rest and feed. Large numbers of migrant ducks and geese are attracted and encouraged to stay because of these safe havens.

Prescribed burning on more than 7,000 acres has eliminated inferior tree and brush growth and improved sharptail and prairie chicken habitat. It has also helped nesting conditions for waterfowl and production of deer browse. Game trails and service roads have been seeded with legumes for the benefit of ruffed grouse and other species. Shallow waters which are favorable for snipe and other shorebirds have been created. Maintenance of lush alder-willow thickets provides ideal conditions for woodcock. Increasing numbers of sandhill cranes have been



Bittern. Photo by Richard Wunsch.

nesting at Mead as a result of marshland management. Sharecropping on more than 2,000 acres results in improved nesting and winter feed for all species. A very active timber sale program provides maximum wildlife benefits. This is especially beneficial to Mead's large deer herd during severe winters.

Vehicular and motorboat travel of dikes, ditches and internal service roads is prohibited. Snowmobiles are allowed only on marked trails during specified times. There are more than 70 miles of dikes and trails for public use.

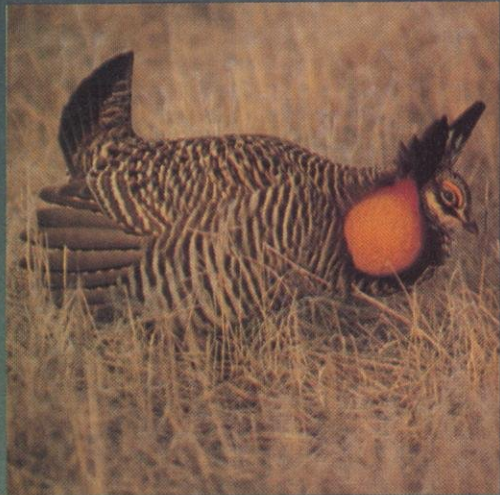
Development and restoration of wetlands receives top priority in the management program. Some 40 miles of dikes and ditches have been constructed, impounding more than 6,500 acres in 17 different flowage basins. The installation of 22 water control structures and a large pumping station allow for efficient water level control which is the key to good wetland management.

Recent management efforts at Mead have been designed to make the project attractive for more year-round nonconsumptive activities. Special regulations are probably in the offing to cope with increasing pressure during peak use periods. Inevitably, the future will bring even broader multiple use. With it will come even more sophisticated management and as the land responds, Mead's importance to Wisconsin citizens will grow. Today the George W. Mead Wildlife Area is an outdoor paradise in almost the biblical sense — a place that was first destroyed then re-created by man. Fortunately, it is a place that is both adaptable and enduring.

Continued...



Dragline constructs flowage channel to improve wildlife habitat at Mead.



Prairie chicken. Photo by author.



Woodchuck. Photos by Richard Wunsch. Sunrise



Cormorant. Photo by author.

• There are 374 wood duck houses. Annual wood duck use is approximately 37%. Other users include kestrels, mergansers, squirrels and common flickers. Starlings also use the wood duck houses.

• Nearly all of the 543 special squirrel nest boxes installed at Mead are occupied.

• More than 600 potholes have been constructed. They measure 30 x 60 feet and act as pair ponds to attract ducks that will hopefully nest nearby. The potholes are near larger flowages that serve as brood water for young ducklings.

• At the Townline Flowage rookery 26 artificial poles have been erected. They hold as many as 10 nest structures each. In 1980, the rookery's 244 pairs of double-crested cormorants produced more than 525 young, the 113 pairs of great blue herons produced 236 young and the 26 pairs

of black-crowned night herons produced 77 young. Night herons nest only in natural trees. The great blue herons arrive first in the spring and occupy the higher nest sites. A large percentage of cormorant nesting occurs on artificial platforms.

• Timber sales help create different age classes of aspen for grouse, woodcock and deer. Average is 10 sales per year (20 acres each). Most sales are clearcut to provide maximum aspen regeneration.

• More than 900 brush openings have been made in aspen-hardwood. Average size is one third of an acre. Grouse, rabbits, woodcock, deer and songbirds benefit.

• Fifty-one bluebird houses were put up in the spring of 1981.

• Common marsh birds are sora rail, sandhill crane, American bittern, green heron, black tern, yellow-headed blackbird, red-winged blackbird, marsh wren and greater yellowlegs.

• Common raptors are northern harrier or marsh hawk, short-eared

MEAD FACTS

owl, kestrel, great-horned owl, red-tailed hawk, roughlegged hawk (winter), bald eagle (occasionally) and osprey (three nests).

• This spring Mead had 194 booming male prairie chickens. Booming grounds are maintained by mowing, burning or spraying.

• Mead has 17 large flowages with 6,500 acres of surface water. There are 35 small flowages that total more than 200 acres. Major flowage construction is complete.

• Hunters bagged an average of 1.5 ducks per hunter on opening day in 1980.

• Anglers catch perch, bullheads and northern out of some of the flowages. The Little Eau Pleine River also produces walleye.

• During migration 22 species of waterfowl have been observed. Local waterfowl nesters include 13 species of ducks plus Canada geese. Most common are mallard, blue-winged teal and wood duck. Others are green-winged teal, pintail, ringneck, widgeon, gadwall, shoveler, black duck, hooded merganser, ruddy duck and redhead duck.

