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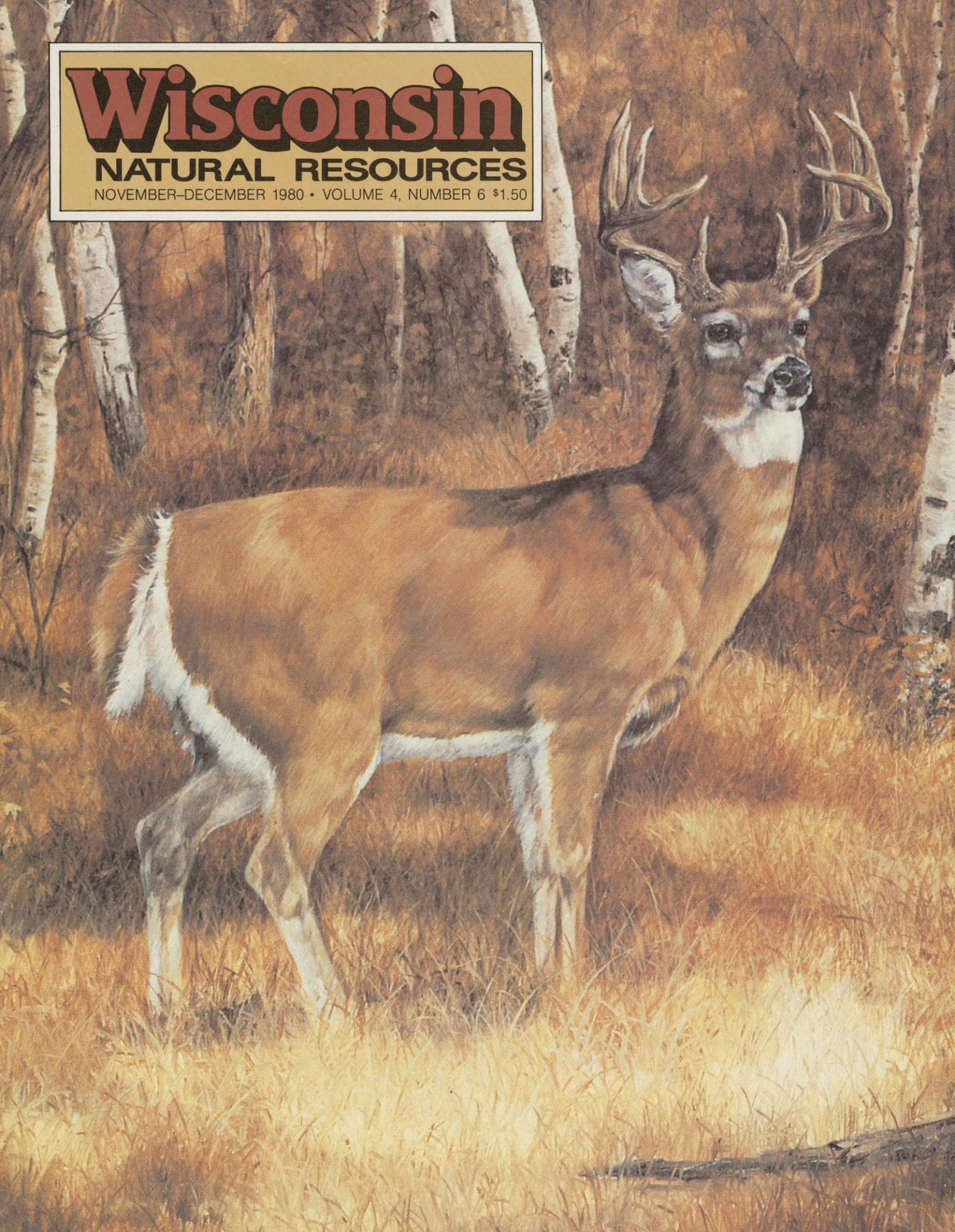

Wisconsin NATURAL RESOURCES

NOVEMBER–DECEMBER 1980 • VOLUME 4, NUMBER 6 $1.50

Jack Frost

KELLY REDMOND, UW-Madison Meteorology Department.

Crisp, clear December nights often transform a window into a device to be looked *at* rather than *through*. This beautiful lacework of frost actually has its origin in a thin film of organic impurities which cover most panes of glass. Frost doesn't form easily on squeaky-clean windows.

The patterns start when moisture in a room condenses on the glass. This water can remain liquid even at sub-freezing temperatures but usually freezes to form an ice sheet. On the other hand, the water droplets sometimes evaporate slowly. When they do, the molecules migrate toward the impurities and form small ice crystals. The subsequent growth of these crystals, guided by both their molecular structure and the distribution of impurities on the window, creates the intricate patterns of hoarfrost we admire. Once in a while, the kind of highly symmetrical patterns we see in snowflakes will form very slowly on a very clean surface.

This picture, taken through close-up lenses at F16 for six seconds on Ektachrome 200, is a small portion of a window lit from behind and below by a flashlight lying outside in the snow. The flashlight created the golden tint. It makes the window glow with a winter scene of its own, enhanced by the real one outside. There's a certain irony in the warm images we associate with the holiday season coming from the stark and delicate beauty of these frozen designs.

Photo by author

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GIVE A BOOK FOR CHRISTMAS
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Wisconsin Natural Resources
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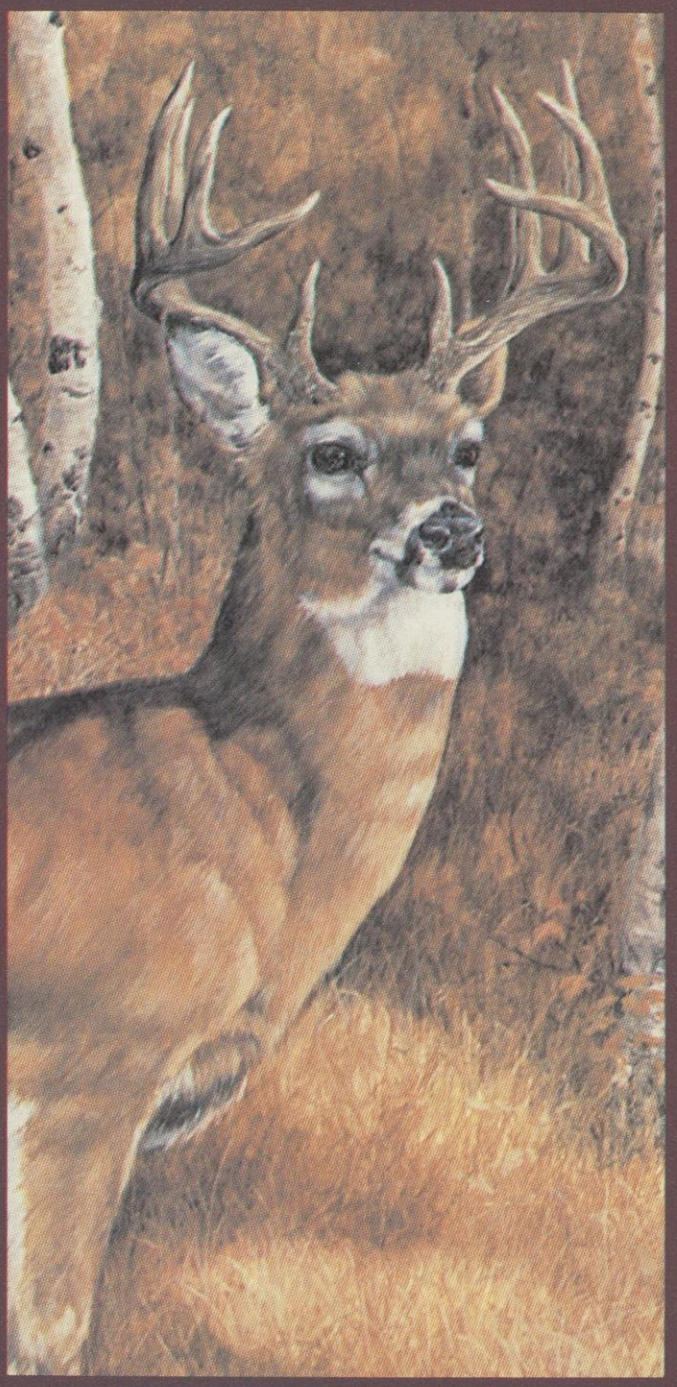
Front cover:
Autumn Shadows—Whitetail deer by Artist Lori Nass. For more on deer hunting see page 4. Art courtesy of Northwind Publications, Box 249, La Crosse, WI 54601.

Back cover:
One of 19 entries honored at Wisconsin State Fair last summer in a wetlands poster contest for youngsters. This is by Jill Johnson, a fourth grader at W.T. Sherman School in Milwaukee. The posters are currently on display at the MacKenzie Environmental Education Center at Poynette.



10 Bucks

To get one like this (or any other kind) every hunter will wear blaze orange during the gun deer season Thanksgiving week. A new Wisconsin law designed to save lives sets the fashion. It also sets the fine — up to 10 bucks if you wear anything else, including red. Only exemption is for waterfowl hunters. The idea is to see and be seen. The law specifies that 50% of the outer clothing above the waist must be fluorescent orange.

WISCONSIN DEPT. OF NATURAL RESOURCES


DEANN DEVRONDE WILDE 9-79

The last hunt

Do you hunt to bag or bag to hunt? Research shows that ritual and tradition help make days afield memorable whether you bag game or not. This is especially true in deer camp. The last hunt reveals all.

ROBERT JACKSON and ROBERT NORTON, UW-La Crosse

"If you knew you had only one more hunting day in your lifetime, how would you spend it?"

That was the final question used in our Wisconsin Hunter Performance Study. The nearly 1,000 waterfowl and gun deer hunters who answered it had just gone through a two-hour home interview that probed their deepest motivations, values and satisfactions. Each response summed up a lifetime of outdoor experience. Each revealed a unique personality and a set of significant values that guided conduct during the hunt.

Answers were thoughtful and often thought-provoking. One hunter immediately blurted, "I would break every law in the book! No matter what I did, they couldn't hurt me." He went on to describe a hunt where he would take birds and deer far beyond the legal bag limits and by any available means. For him this would truly be the measure of the last "perfect" hunting day.

Fortunately, he was very much the exception. Many hunters told first about the large number of important experiences they would like to cram into one last day in the field. But when they summed it up, the talk was mostly about *companionship* with a family member or valued partner, *esthetic qualities* say of an October day or of a float trip for ducks or perhaps a *shared experience* with a hunting dog.

In particular, hunters frequently described sights, sounds, and odors of the outdoors, the woods, marsh, or wildlife, an early morning frost or some other memorable impression. The majority never mentioned bag as primary but most thought seeing game was a prerequisite for the last hunt.

The idea that hunter satisfaction is measured by game bagged can be traced back to the earliest days of game management in the United States. A big harvest had traditionally meant a successful hunt so it was easy for a full game bag to become the objective of a game manager's effort. Our society often measures success by material acquisition. For hunters and fishermen this sometimes means that not only satisfaction but even personal worth is measured by the amount of game bagged.

As the popularity of hunting increased and hunting opportunity became more limited, fish and game agencies began to count recreation days in the field as the criteria of success. Hunters learned to "handicap" themselves in the field through use of bows, muzzle loaders, or lighter shotgun gauges. Surprisingly, many of these individuals who reduced the likelihood of bagging game talked of increased satisfaction gained from the hunt.

But expectations are high. During the last four years our research teams interviewed almost 600 waterfowl hunters and 1,500 gun deer hunters in the field on the day of the hunt. On a four point scale ranging from excellent to poor we were amazed to find that half the Wisconsin waterfowl hunters contacted declared they had a poor hunt, while only 9.5% judged it to be excellent. Deer hunters were somewhat more positive. Some 17% saw their hunt as excellent while 35.1% said it was poor. Even successful hunters were not always satisfied. We interviewed one deer hunter in Unit 49 who reported seeing 25 deer that morning and who concluded his hunt by bagging a 6-point buck at 10 o'clock on opening day. When asked to describe his most satisfying experience he declared it was the bottle of beer he had that afternoon. Further discussion with him and others helped us find out what it is that satisfies a hunter.

First and foremost, *satisfaction is based on expectation.* The less we expect the more easily we are satisfied. This Unit 49 hunter later admitted he had hoped for an even bigger buck and planned on a full nine days of hunting. He was now faced with the legal fact that because he had killed his deer he had to stop after a hunt that lasted only 3½ hours. (Most deer hunters would

◀ Art by Deann De La Ronde Wilde

▼ Sketches by Deann De La Ronde Wilde, Rt. 2, Belleville 53508, from the forthcoming book, *"White-tailed Deer Population Management in the North Central States,"* to be released in December, 1980 by the North Central Section of the Wildlife Society.

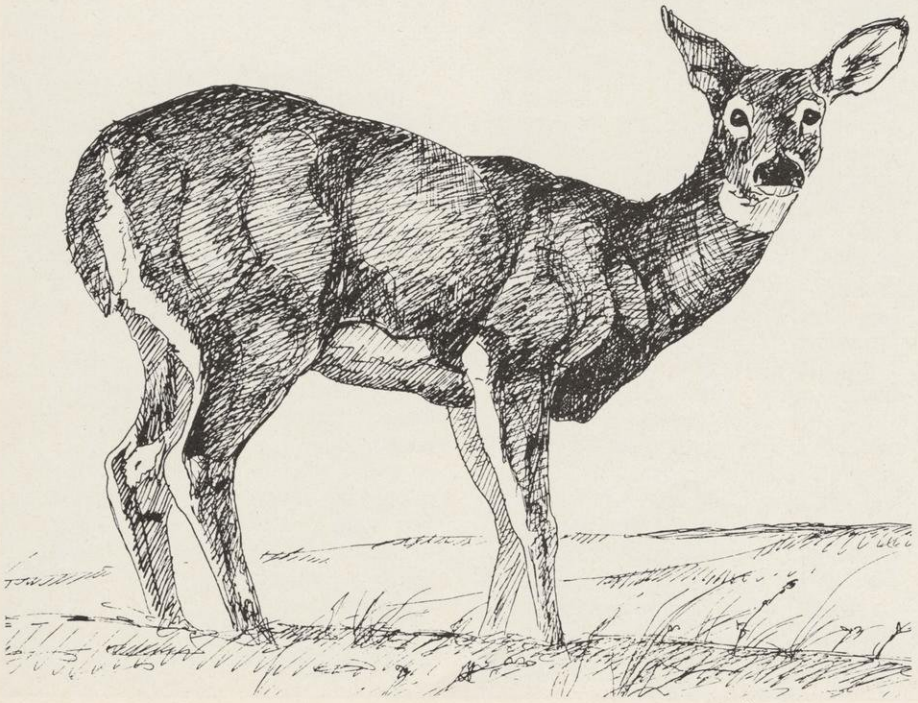


Illustration by Jana Fothergill, Belleville, WI

Miracle at Cherub Lodge*

Deer camp is tradition, camaraderie, and good-natured ribbing. It is also an esthetic experience. The author's weekly column, "Downstream with Cal" captures the different moods.

CAL ERICKSON, Editor, Florence Mining News

My cup runneth over. My brain is filled to the brim. I am the Pine River in flood stage. I have so much to report on this recent memorable deer season I don't know where to begin.

Shall I tell about the miracle Tuesday afternoon which culminated in the first unassisted buck for this riverman in 23 years? Shall I first write about the chairman of the board who goes successively downstream year after year in terms of time at camp and this season stopped in only to say hello? Shall I inform my readers of the fortunes gained and spent in one night and lost the following morning? Shall I talk about the wondrous sights of wildlife we were privileged to view? Should I describe the gourmet menus our cook created on the old wood stove? Does the unbelievable event of a second buck hanging on a hastily erected rack rank top priority? Should the initiation of an eight-year-old son into camp life be of first concern? Certainly the buck that completely outsmarted a group of avid woodsmen deserves some primacy. And my winning the camp-cutting championship cannot be diminished by time.

But taking things according to a sort of mind-blowing index — this riverman's buck is at the top of the list. So that's the story I'll tell.

The first thing that happened was inexplicable. There they were, the two of them. Outside camp at one time. Dressed in their hunting clothes and cradling their rifles as if they were going hunting. It was difficult to believe; the first of several unbelievable events which transpired out at Cherub Lodge on the Pine River this past season.

Walt Dalla Grana allowed as how he might take a walk up the wrinkled face of the old granite bluff that thrusts out of bedrock along the river to the west. Roger thought he might take a stroll down the river road.

"Geez," I pleaded. "As long as we got three hunters out of camp at one time, let's make a couple of drives."

Come to think of it I didn't say "let's make a couple of drives." I sweetened my initial statement with a suggestion for one drive — which I would make while the two of them took stands on the upper river road. Reluctantly and suspiciously the duo finally agreed.

"All you have to do is walk around the upper river road and stand until I come through."

I unequivocally promised deer. I would have promised my soul to get one good hunt out of those two. The last time they went hunting, which was several years ago, Walt carried an empty gun and Roger, as the ammunition bearer, followed in the rear with one shell. Not having succeeded in that hunt, they have since stayed close to the hearth in camp.

I dutifully carried out my drive. I climbed the cliff behind the old camp then worked down it through the rocks, and then around the end of the cliff, up again through the evergreens by Johnson's stand and finally out to the road. I had chased one doe to within 30 feet of my standers. Reflecting now on their version of seeing the doe, they must have been standing together instead of stretched out to cover the greatest length of road. But at least they had been standing and this riverman can forgive them for being afraid of letting each other out of sight. After all, they have not been in the woods very often in recent years.

They were about to quickly head back to camp when I suggested another drive — this time for them.

"It'll only take a few minutes," I found myself pleading again. "It won't be much longer than walking straight back to camp."

I suggested that I go down and stand by the river and they make a little swing to me through a sidehill swamp and then we would all walk the lower river road back to camp.

"But Calvin," Dalla Grana remonstrated, "there are no trails through that swamp."

"Walt," I assured him, "it's like walking through a park going through that swamp. And it's all downhill."

I further promised that Roger would keep him in sight and not let the slightest thing happen to one grey hair on his balding head. He finally succumbed to my arguments and I left for the river where I had found a relatively open spot earlier and which I had picked as the perfect stand for the incipient drive.

It was one of those beautiful days we had for hunting last season. The snow was crispy and crunchy. A brilliant sun in a blue sky flooded the woods with light.

I reached my little clearing, partially cleared by beavers and partially by popple which had grown up, died, and fallen down.

I took a seat on a blown-down tree and waited. Watched and waited.

Continued next page...

* Reprinted from the Florence Mining News, November 29 and December 6, 1978

write a script in which they bagged a buck the last afternoon of the last day of the season.) This individual wanted to hunt every day. His early success had created a dilemma because the hunting activity was almost more important than the bag.

States with much lower percentages of hunter success in killing deer report that hunter satisfaction is greater than that found in Wisconsin. A study conducted in Maryland indicated that 62% of the hunters reported good or excellent hunting. Yet, the success rate was only 3%. In fact, 45% failed to see even one deer. So hunters can be satisfied without killing or seeing deer. With low expectation for a kill, other satisfactions become more important. Maryland hunters described satisfaction in terms of companionship, solitude, food, and nature appreciation. But in Wisconsin many pressures push hunters to expect shooting success. The media tell us there are a million deer in the woods and that over 100,000 of us will probably shoot one. The forecast becomes an expectation and absolute goal. I know both of us have felt almost unbearable pressure to bag a deer in recent years. Even bag limits create expectations. How many times have you heard hunters or fishermen talk about "limiting out?" A limit can become the ultimate measure of the hunting experience. It shouldn't be!

If you want to guarantee satisfaction you have to define the good hunt in broader terms. Do most hunters know that not everyone afield is successful? More than 70% of the duck hunters observed by our study didn't bag a duck. The question to ask is "Did you make a clean kill?" not, "Did you get your deer?" If we stress seeing wildlife or enjoying companionship, it's possible for every hunter to be satisfied. Our preliminary studies indicate that bow hunters are far more likely than gun hunters to cite nature appreciation and solitude as important satisfactions. A number of them told us how bow hunting contributed to change in expectations, and, as a result, in satisfactions. Most bow hunters spend long hours on the stand and have unusual opportunities to appreciate nature. One hunter told us about the superb stand he built. On opening weekend he discovered that this was also home territory for a local squirrel. It chattered, talked and frisked about in a way which was bound to affect deer movement. He described his anger and temptation to kill "that darn thing." But then somehow a close friendship began to develop that continued throughout the bow season. By October he was feeding the animal by hand. He never told us whether he got a deer last season but he did say it was one of his best seasons ever. He also emphasized just how bow hunting had gradually changed his whole set of expectations.

Two other major ingredients in our recipe for a good hunt concern ritual and tradition. Unfortunately Mid-America comes up short in concern for tradition. The "here and now generation" aptly describes our culture and hunting in Wisconsin is probably no exception. Philosophers and psychologists tell us, however, that tradition and ritual can elevate any recurring event from mere play to a meaningful and satisfying lifetime activity. Families and communities are wise to build such things around seasonal, religious, and important family happenings. The same principle applies to hunting or any other outdoor recreation.

A case history of a family that did it will illustrate. The Lisses settled near Pulaski, north of Green Bay, years ago and many of them still live in the vicinity. The father was a small game hunter, but in 1930 and '32 Ed Liss, the oldest son, went deer hunting with some friends and

Gerald Mancheski watches his son Paul symbolically break the stick that was carried during the novice years of training at deer camp. Henceforth, Paul will hunt with a gun.

those experiences changed everything. Back then, the Wisconsin season was open only in alternate years, but by 1933 when it became annual again all the Lisses were deer hunters and had purchased a "hunting 40" in Marinette County. Ever since, for more than 40 years they've used the same camp and the same two room shack every season. During that time the group grew from the initial four brothers and father into a party of almost 20 that spans three generations. Today, new members can be brought into the group only by blood or marriage. We discovered the Lisses through a young family member who had told us about the tremendous satisfactions he got from deer hunting, even though at age 20 he had never shot a deer.

These are some of the rituals he had gone through to establish membership:

First, there was a period of trial and testing. Once he reached legal hunting age (12) he was required to spend two successive seasons in the woods carrying a stick instead of a gun. No tag was purchased for him to be filled by an older member. During this time every certified member evaluated the neophyte in terms of gun safety, ability to sit and stay on a deer stand, and participation in a drive without getting hopelessly lost. So impressed were we that an interview with the four brothers went to the top of our research agenda. When it came off, the magic of deer hunting and good Polish hospitality combined to create an atmosphere of excitement, warmth, and humorous recollection. It was still December but there was already anticipation for next season. Eyes and smiles

Listened and waited. Silence except for the ubiquitous chickadees who soon discovered a stranger in their midst and held conversations about it.

Then I heard them coming. Animals. Their hoofs breaking branches and pounding icy snow. Soon they were in sight, a large doe and what was obviously her fawn making tracks through the edge of the sidehill swamp and headed back for the upper river road. Scared and leaving the country with the velocity of a 30-30 bullet.

Then silence again. I waited and listened until the silence seemed to become deafening. The two were all I would see, I concluded, and started to relax. Shortly my drivers should come blundering through and I should be able to hear them for a half-mile.

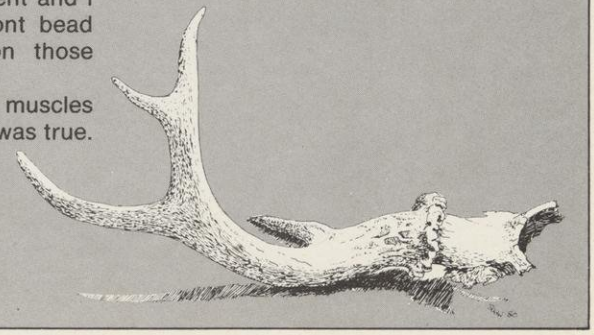
But suddenly the script changed. I could hear a deer coming from my left. Not the pounding of hoofs and snapping of frozen twigs and branches. But more like a ballerina tip-toeing through a hall of broken glass. A few mincing steps at a time. Then a pause. More steps. Closer. I strained my eyes. Tensed. My right hand glove slid off.

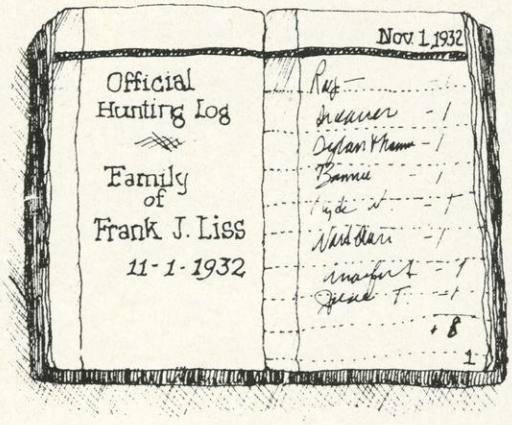
Suddenly a head poked out behind a large balsam and sun glinted off a rack of antlers. A buck. He took a tentative step forward, his head close to the ground, as if sneaking away from something menacing. His front quarters showed and I raised my rifle and with my heart somewhere in the vicinity of my brain, let off a shot. He didn't move and the reflexes of many years came back for a moment and I said, "Erickson, get that front bead down in the notch and on those shoulders."

And for a moment, my muscles obeyed and the second shot was true. The buck dropped from sight, mortally wounded.

I walked up to him gingerly, with shaking legs. Then, quivering like a popple leaf in a spring storm, I raised my rifle once again and found it difficult, standing above him, to make the final dispatch.

And I found it difficult to believe that this riverman with a half-century behind him stood there trembling with an acute case of buck fever. Twenty-three years was a long time. But a good one.

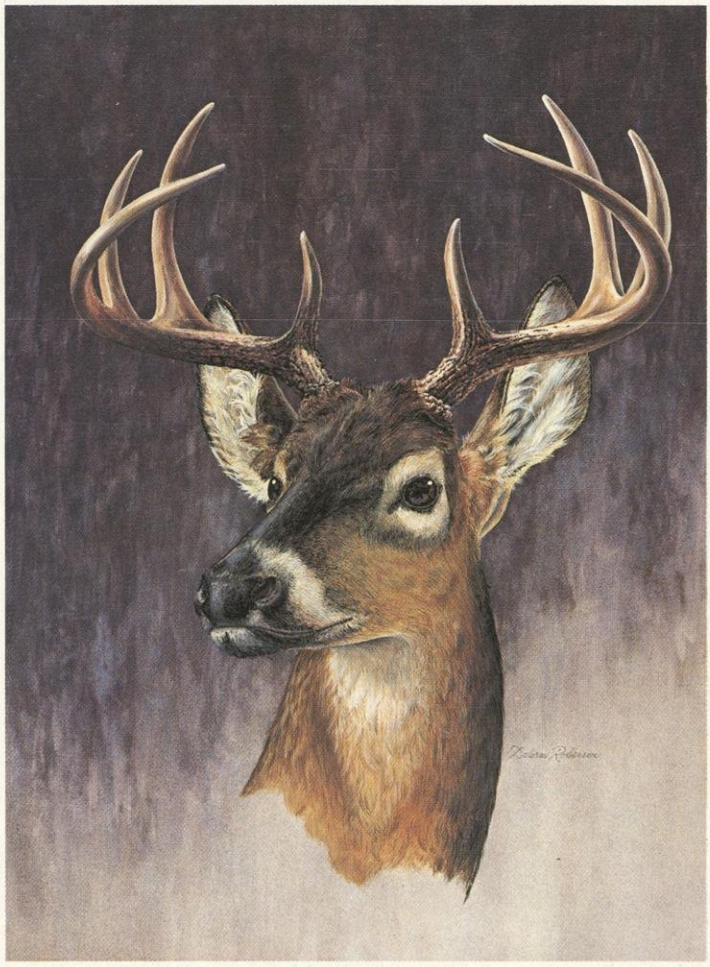




The camp log book. Started in 1932 by Frank Liss, it has recorded the details of every hunt since.

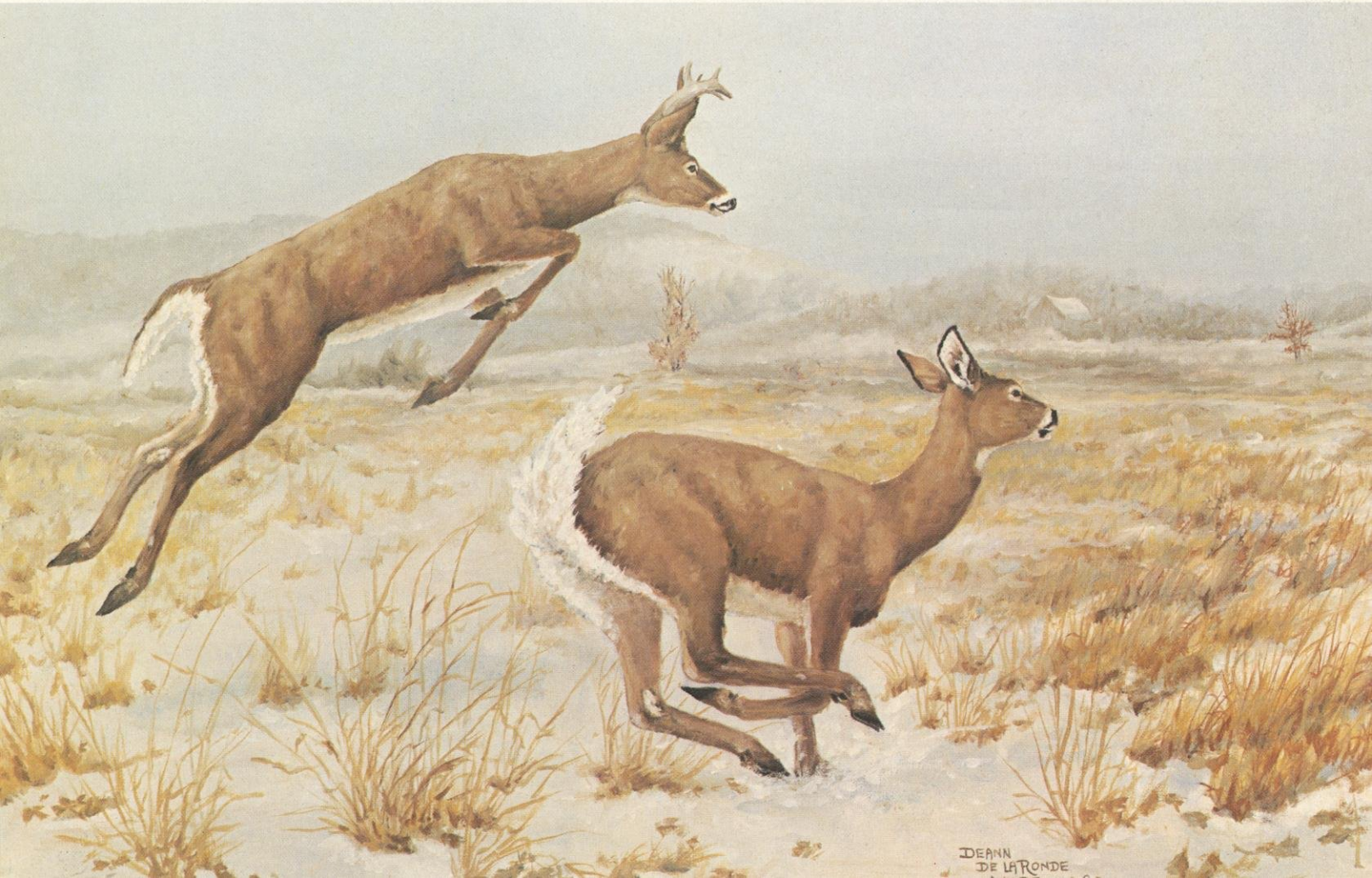
lit up as the men recalled their trophy bucks. Significantly, enthusiasm was just as strong when they described the conifer woods bathed in sunshine, the mystery surrounding the swamp stand, the five gallon crock of Polish duck soup, the card playing and camp chores.

For the Liss clan (remember, blood or marriage!) deer hunting is a year-round activity. Planning for next season begins almost immediately after camp is closed for this one. Education of the



Trophy in Paint by Artist Dolores Roberson, Wears Valley Road, Townsend, TN 37822. ▶

Art by Deann De La Ronde Wilde, Rt. 2, Belleville 53508, courtesy of In the Wild, 127 State St., Madison, 53703. ▼



young is a never-ending process and one of the older men emphasized that they try to "teach the right *expectations.*" Richard said their dad taught them first to identify the game, "then shoot it only if you want it for food, not just for the pleasure of shooting."

Shared hunting skills are important. Frank Liss started an official family hunting log in November of 1932. It records the specifics of every deer kill and other significant aspects of each season for a 38 year period. Family property, the log never leaves hunting camp. Over the years the party has developed almost 40 drives, each with its own strategies that relate to position of standers, routes for drivers, wind direction, geographical boundaries and other details. It is Ed's job as huntmaster to test the wind direction each morning and determine exactly which drives are to be made that day. The party never drives the same area more than twice a season. (One particular drive may not be made for a number of years because it calls for a S.E. wind.) In the area where these men hunt, trees, hills, lakes, and swamps all have an identity. Each has a name and can be recognized instantly in conversation with other members of the party.

Clearly, in this deer camp, play and recreation have become tradition and ritual, something that can help all hunters and outdoorsmen add measurably to the quality and consistency of their satisfactions. "Camp is 60 percent of the hunt," says Ed, the oldest member of the group. When the interviewer asked "What makes a good camp?" by consensus, the first rated item was good food. Beyond this, the men acknowledged that they steered discussions away from politics and religion and had very clear rules concerning drinking. Managing for nine days in two 18-foot square rooms takes tact.

These men were also asked the question, "If you had only one more hunting day in your lifetime, how would

Season's End—Whitetail deer by Artist Robert J. Schmidt. Courtesy of Northwind Publications, Box 249, La Crosse, WI 54601. ▶

Author Robert Jackson talks to one of the Liss brothers.

you spend it?" Ed's response was quick. He would be on a deer stand on a particular hill and the entire gang would be at camp. Ray described a perfect November day: sunshine, with crisp cool air, that would let him really experience the woods. No drive for him. He would go where the spirit moved him.

Then the talk turned to vicarious satisfactions discovered through the experiences of their children. "I would walk 10 miles to put a buck past Paul so he could get his first deer," said Ray. How many fathers feel the same? For Walt too, there were few hopes and expectations to match those that came "when you've got your kids in the woods and you're hoping they'll get a deer."

These men, now all over 50, admitted to a mellowing out with age. Getting deer was less important because they had done it already. For them, it was obvious that turning play into ritual and tradition made the hunt good.

These things help create a broad base of expectation for the hunt. Interviews conducted after the season show that many hunters already anticipate more than just a kill. Over a third of them list nature appreciation as the single most important reason for hunting. Another third cite development and testing of outdoor skills, while one-sixth describe escape and solitude. Only a small minority talk about food, trophy, and game bagged.

One of the Lisses, along with many other hunters, described the ambivalence associated with killing an animal: the elation of a successful hunt mixed with sadness that comes from ending a life. For many, killing demands an answer to the question, "Why do I hunt?" "To get something more than just game," was the way one put it. We agree. We can change and broaden our expectations by building tradition and ritual into taking game and into other hunting experiences. Once we do, we will learn what it means to *bag to hunt,* not hunt to bag.

Photo by Dean Tvedt

Grandmother

An ancient tree knows much and in death it bequeaths immortality.

JUSTIN ISHERWOOD, farmer, Rt. 1, Plover

This tree-told tale is meant more for children's ears and for those who would, for a moment, lean like children into a story, wanting to believe. It is the story of a white pine tree called Grandmother. Grandmother dwells on a slight rise of ground, just up from the creek in a woods, a little beyond the fields.

Grandmother's age is guessed to be one hundred and fifty years. It is a good guess for it takes the arms of two to reach around her. She might be thought older from her size but this is good ground. The earth is deep and free of stones welcoming the slow search of roots. Sunlight comes thick in the morning and the creek, slipped from beneath the near hills, cools the dark feet of her in the long dusty days of summer.

Once this land was part of a great tree kingdom. A land where white pine held majestic dominion. It was a wilderness; a country in its original form, no additives and no domesticated manners.

In the 1830's a treaty relinquished Indian rights to a narrow tongue of land bordering the upper Wisconsin River. Sawyers and settlers soon began working their way up the valley. They prepared the way for subsequent treaties where Menominee, Sauk–Fox, Winnebago, Sioux and Chippewa gave up the last of their tribal lands in Wisconsin.

The territorial temperature soared. Land pulsed and throbbed with axe and plow. Timber rights were bought and sold, logs and lumber went booming down the river, millions and billions of board feet, and in but a moment it was done. What might have lasted a hundred or a thousand years had disappeared in a pall of sawdust, fueled by the awkward thirst of a hundred pineboard prairie towns.

For Grandmother the days of her youth were lonesome days. The parent trees had all been taken, leaving few children and all of them orphaned. From the way her branches grow, she tells she had the place to herself. The limbs of her are many. They grow long, reaching out for sunlight. They begin close to the ground and are the thick, well-muscled arms of a tree in full sun. The sawyers must have seen her. Perhaps they were careful around her, knowing one must be left. Perhaps they knew there would be other days, remembering their own children. Whether by mistake or wisdom she was left alive and alone, the last and the first of her people.

There were other trees, trees the sawyers didn't want. Trees that cast their seed children to a wind that carried them among the stumps whose round memorials testified to what once was.

The birch came, and the popple, and the basswood, ash, oak, elm, balsam, hemlock, blue beech and butternut. They came slowly at first, cautious, timid in the empty haunted outdoors. They crossed the new meadow, getting revenge on the white pine which once held nearly all the good ground. Some were reluctant, they did not like the taste of the earth and did not stay long. Oaks liked the place best and would have had it to themselves were it not for the Grandmother, the patient and stubborn Grandmother.

When my own greatfather came to this place, this place he had heard rumors about, this place called Wiscosee, he came like all the others, thirsty, hungry, near dying for the want of land. A land hunger that churned the dreams of a million immigrant sleeps. When he put down his corner stakes Grandmother was on the back 40 in the new-growth woods. The Menominee still kept camp there in the late summers. They cut white ash for baskets on their way to the wild rice grounds near the river. He liked to sit cross-legged with

TREE RINGS

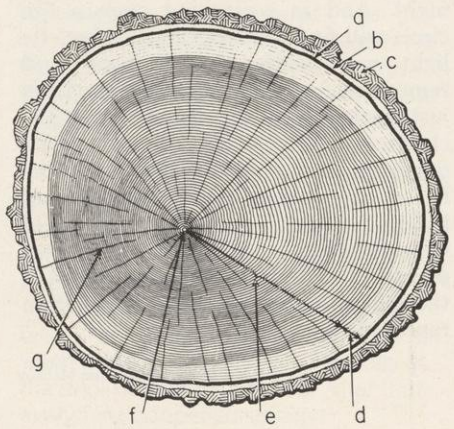
Trees are nature's record keepers. They "write" their life histories in layers of wood.

Annual rings are the result of the way trees grow. New wood forms in a thin, growing zone located just under the bark. This zone extends throughout the tree, from the uppermost branches to the deepest roots.

As a tree's woody parts thicken, the growing zone moves outward. The tree's oldest wood, therefore, is at the center of its trunk. Its newest wood is always just beneath the bark.

Trees qualify as record keepers because the sequence of their annual layers, from the center of the tree outward to the bark, parallels precisely the passage of time.

Annual rings are visible because of wood laid down early in the growing season, when growth is fast, is usually lighter colored than wood laid down later in the season, when growth slows.



a - Cambium
b - Inner bark
c - Outer bark
d - Sapwood
e - Heartwood
f - Pith
g - Pith rays

A tree's historical record lets us estimate how long it lived. A tree is at least as old as the number of annual rings in its trunk. It may be slightly older depending on how long it took to reach the height of the stump we are examining.

Another source of uncertainty is that a few years may not show up in the record — poor growth years can produce rings too small to be seen.

Closely spaced rings tell us that the tree didn't grow much in those years, perhaps because of drought or shading. Incomplete rings may record wounds, perhaps caused by fires, landslides, ice jams or people. We can even estimate when wounds occurred by counting the layers in the wood that grew over and healed it.

A natural history lesson is recorded in every tree.

them and smoke tobacco on Sunday morning, when his woman had gone to meeting.

At the turn of this century Grandmother was a fine tree, well worth cutting. There were barns to build and granaries, cradles and cupboards too, but she was not cut. They may have thought her too knotty, they may have seen her with more than eyes and axe, seen her as the beginning, as another chance. They were farmers and sons of farmers who were used to looking at the ground and so they must have seen the tree-children, the family she was making. Somehow she had words with them and they cut in another part of the woods. The roof boards were elm, the cradles ash, and the cupboards built of birch. Though they had need of her, they were not fools and must have wanted the high flown flags of the white pine to wave again, their branches so high they could be seen at milking time from the barn door across all the fields. They must have wanted the greeting of that hello from the tallest tree in the woods for all the dismal days when work was the worst of all four letter words.

For her kind she was short. The muscle of her was in those long arms which all those years had the sunlight to themselves. In her day there was no need to climb for the sun. Its full light was all around, falling to each hand. She had grown thick in the hips to better dance with the wind. She danced well, knowing all the steps. The winter dance, when snow came in thick horizontal flight and the ice storm hung her with heavy, unwanted jewels. She danced to the spring winds and the summer thunder and was openly kissed by the dusty lips of a prairie wind that whispered the promises and dreams.

But now Grandmother is dead. The green light in her arms has fled, though the dying took a while, which is the way it works; easing on to the old, taking them gently, inch by graying inch, the great hearts failing. The old among white pine have a special look, reduced to the last few flags. Enduring another 20-30-50 years that way, the very figure of what it means to be old, with an earned wisdom. Grandmother would have lived longer if she had not been the first to grow back.

She was no beauty. Not at all what her parents had hoped. They had envisioned long thin children, children with a civil grace and manner that went well with company. Instead she was an only child in a time when that other beauty would have meant an early end. She had what she needed of her parents, a will born of a hundred million generations, a will to survive.

Her offspring are all around her. They have all out-reached her with their tall straight bodies. It is a big family, as with all those who come first to a land with so much space to fill. Most grow close by. A few have drifted into the neighbor's woodlot and some others have gone beyond into the hills. They are scattered all about the township fulfilling the old dream. Fathered by wind they stand like rockets, flight-poised, pointed at and wanting the sky.

Grandmother has other brethren, a shallow rooted kind like us. A kind that came to her on Saturday nights in leaky canvas tents, supping on beans, the smoke of their fire drifting through her limbs, their camp guarded by BB guns. Others that came to her on Sunday walks and giggling talks with girls, holding hands. She had known us all—our cries, laughs and romances, people with stone arrows and others with steel plows. She has known them all. If she judged, she did not say.

There had been talk of cutting her now she is but a frail snag in the woods. A pile of lumber and stovewood might be salvaged before the woodpeckers and insects come. But the idea rejects the past. No blade will be put to her. We came here as strangers to the land, wanting just our own dreams made true. But time and life on common ground has made us strangers no more. Grandmother will stay with the ground whose promises she kept. A debt is owed and she has earned the earth of her ancestors, an earth she gave back to its destiny. She can hold out her arms as long as she wants, drop them when she pleases, lie down when she must and nurse again her children.

And in a hundred or two hundred years other farm children will come to her ground after chores on Saturday night. And in scratching open a fire circle will find a candle knot of her. Its light will pacify the darkness and remove its fear. Comfort will come from just gazing into the flames. And the children will ponder an oft-asked question: Just what was this place like before the tractor, before the plow and before the axe? Looking into the fire of Grandmother, they shall see: Trees practice a perfect religion, knowing there is no death, only the song, often repeated, the kingdom come.

Illustration by Jim McEvoy

The readers write

Just received my first issue of Wisconsin Natural Resources. I find the articles interesting and am particularly impressed with the accompanying pictures. I do have a suggestion, though, which you might consider.

By their very nature, almost all articles apply to a specific location or locations within the state. A map keyed to the articles in each issue would be very helpful, at least to this reader. It wouldn't have to be detailed; it need only show the key name of each article. Or another alternative might be a small map, perhaps only a few inches square, on the lead page of the article, pinpointing its locale.

Although I don't currently live in Wisconsin, I do have a home in Oconto County and am familiar with much of the state. Yet as I read the articles, questions of geography come to mind. Just where is Superior? Or the Straits of Mackinac? I could understand each article much better if I could see exactly where its focal subject is located—words such as "in northern Wisconsin" don't convey the same degree of understanding. I'll bet many native Wisconsinites feel the same way and I'll bet few of them are familiar enough with the entire state to know its geography intimately.

Won't you please consider this suggestion?

LTC EUGENE T. LYONS, USA-Ret., College Park, MD

While paging through several back issues of Wisconsin Natural Resources, I noticed that many articles featured various Wisconsin state parks. I soon found myself searching for a state map in my scramble to locate them.

A suggestion: a miniature outline map of Wisconsin, indicating each featured park's location, would be extremely helpful.

CINDY GLOVER, Milwaukee

Suggestion noted and accepted. Carrying a small map with some stories to locate obscure and not-so-obscure places in Wisconsin is one of those things we always mean to do, but don't always remember. Thanks for the reminder.

Many citizens appreciate your efforts on behalf of the environment and keeping Wisconsin naturally attractive. Wisconsin ranks high in conservation and we wish you the best of luck in keeping it one of America's top outdoors and tourist areas.

W. H. CHISHOLM, Chicago

My family and I find your magazine our best and most interesting source of information on the Wisconsin we love. We appreciate your making us more aware of our environment: its history and changes, its dangers and problems, its grace and beauty. Thank you.

STEPHEN SWARD, Evanston, Ill

"Ice Age Summer" written by Mr. James J. Staudacher, in the July-August 1980 issue was certainly a most colorful article. Most backpackers in a lifetime do not encounter the excitement Mr. Staudacher did in his single extended hike across Wisconsin.

Of most concern, personally, was the bear encounter reported to have taken place at shelter No. 2 in the Northern Kettle Moraine State Forest. That part of the story has prompted a couple of questions.

Some lifelong residents and employees who have worked in the forest since the 1940's are skeptical about the bear incident. It must have been something else. There have been no additional sightings or encounters. With the amount of human development in the area, plus the inquisitive wandering of a black bear, it is extremely unlikely one's presence could go unnoticed for more than a couple of days at most.

In short, I am not sure what Mr. Staudacher saw, but a black bear it was not.

ROGER C. REIF, DNR Naturalist, Northern Unit, Kettle Moraine State Forest

Jim Staudacher was backpacking in Canada when we called him for a response, but we talked to his father. Mr. Staudacher senior said his son first awoke that night to the sound of something scuffling around outside his shelter. When he raised up on his elbows and looked out the open window, he found himself nose to nose with a fair-sized black bear, no more than a foot away.

Subsequently, we received this letter from Jim:

"Yes, I really did see a black bear in the Northern Kettle Moraine State Forest, and yes, I really did spend the rest of that night in a tree. The bear weighed perhaps 180 to 200 pounds and was about five feet long. In the daylight I found the familiar five-toed imprint of a bear track leading off into the woods."

Since that night I have talked with George Knudsen, DNR chief naturalist, about bear sightings in southeastern Wisconsin. He says they are rare, but by no means nonexistent.

"I make it a point to include this bear story in my Ice Age Trail slide show and a surprising number of people have told me that they too have seen bears in the forested areas of the Northern Kettle Moraine."

I have just returned from Peru and barely escaped an Indian uprising—honest! The jungle is nice, but I'll take the peace of Wisconsin's north country any day.

By the way, I've received many favorable comments on the quality of my "Underwater Acquaintances" photos you published this spring. You people do good work.

DOUG STAMM, Madison

Walter Kittleson and his trophy whitetail.
Photo by Joni Kittleson

Your story "The Biggest Deer in the World is a Badger" (November-December, '79) has helped us a lot in our search to uncover antlers of the past hidden away in obscure places.

After the article last spring, you printed a letter from a reader in Barron. He thought his dad's whitetail deer antlers might be of record size. I measured them soon after I saw the letter in your magazine and they were.

The latter was Walter Kittleson, a retired farmer who is still very alert for his 79 or 80 years. Kittleson shot the deer in 1920 at the age of 17, and had it mounted by the late Ole Odegaard of Hayward, at a cost of about $9.

A resulting article about Kittleson's deer in our local newspaper turned up yet another big head in Seeley, Wisconsin, taken 12 years after Kittleson got his. While measuring those antlers, I learned from Mrs. Elof Sjostrom, the widow of the hunter, that her husband and Walter Kittleson had hunted together. Thus, two record heads came not only from the same area, but from the same camp! Kittleson's scores 218 4/8 non-typical and Sjostrom's 178 2/8 typical, both exceptional heads.

You also carried a photo of Dennis Shanks' record archery deer. I was lucky enough to have been the "measurer of record" for that one too and also for Elmer Gotz' state record non-typical which you also had a picture of.

Again, your coverage has helped us greatly—Thank you.

PETER HAUPT, Hayward, Northwest Wisconsin Representative—Wisconsin Buck and Bear Club, Official Measurer for the Boone and Crockett Club.

I don't think hunters and anglers should have to bear the whole brunt of fish and wildlife conservation in Wisconsin. The responsibility should lie with all the people who live in this state, not just the person who hunts and fishes. The fees for licenses are getting to be just too much. We just have to get more of the population involved in wildlife conservation, not just sportsmen.

NELSON G. EVENSON, Oconomowoc

I'd like you to know how much I appreciate Michael Mossman's perceptive article on the turkey vulture (July-August issue). The photos alone tell a remarkable story.

Clearly, this bird deserves to be treated with dignity and respect, and Mossman's text makes it seem almost handsome—further proof that "beauty is in the eye of the beholder."

HARRIET LYKKEN, Defenders of Wildlife, Minneapolis

I was glad to see the article on Ernie Brickner's woodlot ("A Place to Put Some Trees," July-August, '80). We, too, are deeply concerned about cutting hardwood trees for fuel without replanting. When standing hardwoods—alive or dead—are cut for firewood, birds, small mammals, reptiles, amphibians and even insects lose valuable habitat. Planting hardwoods instead of evergreens for landscaping, wildlife cover, and windbreaks has many advantages: higher oxygen production, better water storage, greater air purification, more valuable lumber, and an assured future fuel supply. Hardwoods also add color to fall beauty and enhance the tourist trade in states fortunate enough to have them.

What can people do?

Mix hardwoods with existing evergreen plantings, or landscape exclusively with hardwoods.

Encourage town, city and county governments and local organizations to plant hardwoods wherever possible.

Leave dead hardwoods standing (where not hazardous) for nesting sites, den trees, and winter shelter.

Help educate and inform others about the value of hardwoods and the need to replace them.

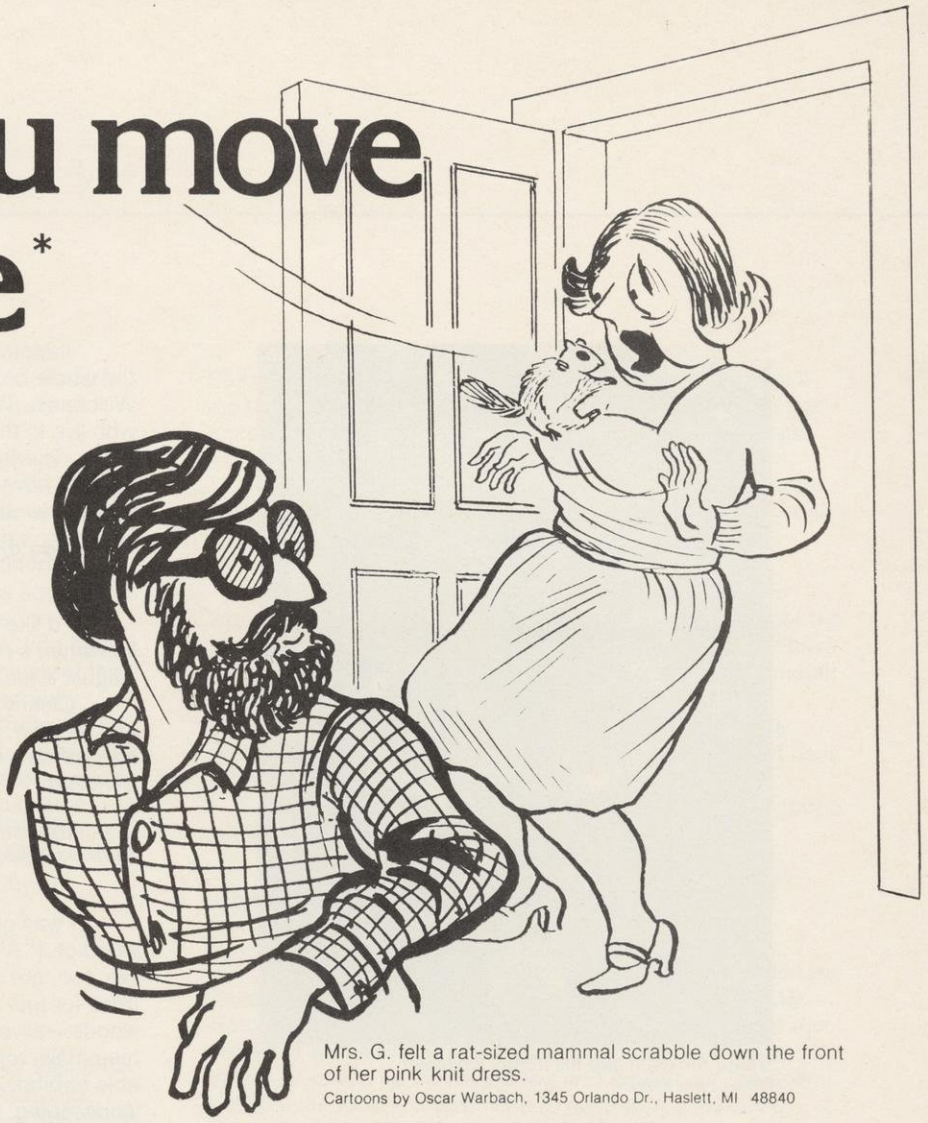
Plant a hardwood tree on Earth Day, Arbor Day, or whenever the mood strikes!

ROBERT AHRENHOERSTER, Kettle Moraine Audubon Society, Hartford.

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.

Don't you move a muscle*

For more than 20 years DNR's internationally acclaimed project to save the prairie chicken in Wisconsin was headed up by an intrepid husband and wife research team, Fred and Fran Hamerstrom. Their work won the coveted National Wildlife Federation Award for Distinguished Service to Conservation. Operating out of an old farmhouse near Plainfield, the pair enlisted the help of thousands of volunteers to help observe the chicken's vital "booming ground" ritual every year. Now Fran has written an entertaining book about those experiences. Reprinted here is chapter 21 from *Strictly for the Chickens* published by the Iowa State University Press, Ames, IA 50010; price $11.95.



Mrs. G. felt a rat-sized mammal scrabble down the front of her pink knit dress.

Cartoons by Oscar Warbach, 1345 Orlando Dr., Haslett, MI 48840

*FRANCES HAMERSTROM, Plainfield**

Ordinarily one writes a lot of letters to solicit help when something has gone wrong. In the spring of 1950 we were faced with a major crisis because everything had gone so well. We, with the help of Os and Mary Mattson, had put numbered colored bands on 298 prairie chickens! There was no earthly way that three project members, even with Mary's help, could possibly cover all the booming grounds on the study area to see where the winter-banded birds might turn up.

A few graduate students and friends had helped us in spring for years when we were on our first shoestring study, but this was the Big Time. We needed more eyes to read band numbers. I put ten thin pieces of paper and nine thin sheets of carbon paper into the typewriter and wrote a sort of "To whom it may concern" letter. It ran something like this: "Dear _____. We have an emergency. We have banded so many prairie chickens that we need help. Come if you can. We live in an ancient, somewhat primitive farmhouse without modern conveniences, but we have lots of room and, if need be, can supply food."

I ran this communication, complete with nine carbon copies, through the typewriter several times, stuffed the letters into 3-cent envelopes and mailed them to just about everybody I could think of who might come.

Over 100 people came. One flew in from New York and stayed six weeks. People came in trucks and Cadillacs, they arrived on motorcycles, and two boys hitchhiked from Illinois.

At any rate, there was never again a need to invite anybody to come and help with the prairie chickens: the word was out that it was exciting, demanding, and an experience not to be missed.

I agreed. I wanted everybody to get a chance to watch the prairie chickens boom; there is nothing like it.

Frederick agreed too, but he soon said, "I don't want more than ten observers at a time, and I want the best ones at the peak of the season when the hens come in."

Little by little I developed a fair knack for segregating the best observers from the others: professional wildlifers tended to be very good, veterans of World War II were better than bird-watchers, high schoolers were mostly too young; and some ancient individuals of both sexes, wearing trifocals, kept good notes and read bands accurately.

On the other hand, not all presidents of big companies had a knack for reading bands, for example, Allen Slichter, membership chairman of the Society of Tympanuchus Cupido Pinnatus, one of the foundations to save prairie chickens. He flatly stated, "I'll get you plenty of the right sort of members, but I absolutely refuse to get up early in the morning to get into one of those blinds to watch the prairie chickens." His contributions to the Society were invaluable.

In some respects the Society of Tympanuchus Cupido Pinnatus reminds me of President Truman's daughter's wedding: she invited only 600 intimate friends!

(Not everybody can get into the Society. Somewhat diffidently, but eager to buy more land for the prairie chickens, I once proposed a chap who was said to have lots of money, but gangster connections. My suggestion was turned down with a resounding "No.")

But I digress from the selection of good observers for peak seasons. They were selected in January each year. People had asked throughout the year for booming season dates so I soon let it be known that reservations would not be made earlier. In January I placed a large calendar on my work table and sorted out the letters. (I always felt rather a fraud, as the calendar was still empty.) I started with Mrs. G. whose daughter-in-law has a hummingbird feeder, and who is looking for a home for her darling kittens, and who wants to come. Her stationery is pink and strongly scented (prairie chickens can't smell) and she says she would like to bring a camera.

"Hum," I said to myself, looking at the calendar. "She is plainly old, or she wouldn't have a daughter-in-law, and I'm not at all sure that she can take cold weather well. It would be heartless to put her into late March or early April. Making observations in early May is not apt to be demanding" I write:

Dear Mrs. G.,

Fortunately we have an opening on May 4 and would be delighted to have you come to watch the prairie chickens and help with our observations. Please bring a sleeping bag, warm clothes, and hip boots. We will expect you at 7:30 p.m. on May 3. Please let me know promptly if this is not satisfactory.

That accomplished, I write "Mrs. G." on the calendar. The first "boomer" of the season has been assigned.

The next letter is from the chief of the Research Section of the Wisconsin Conservation Department, our own bunch. I don't even have to think. They are the very best, and I put them down for April 19-20, the most important dates of the season.

Bill Brooks wants to bring a class from Ripon. He brought an unruly city-type boy once, but only once. I check the calendar again. April 17 and 18 are also important dates.

Then I pull out a scribbled note: "Fran, I have a bunch of Cub Scouts and I really want them to see the chickens." Harry Croy has conned me into letting children in again. He is a good Scout leader, and the kids can take the cold well.

Dear Harry,

You and your scouts may come on April 2. They will need plenty of warm clothes. Tell them it's going to be colder than sitting in a duck blind.

So it went. Year after year I wrote personal letters to each applicant.

When Mrs. G. finally came she was much younger than I expected a mother-in-law to be and also far plumper than I had envisioned her. She arrived the year that we had a pet flying squirrel.

Dan Berger, the new project assistant, our daughter Elva, and I had captured a flying squirrel coming out of a hole in a popple, and I'm sure we only managed to catch it because it was a bit slow and very pregnant.

She gave birth to young in Berger's mother's garage. One of the young squirrels grew up in our house. This endearing pet was terrified of company. It had several hiding places and it was always at home on a member of the household, to whom it would glide from tops of doors or bookcases to hide beneath a warm shirt.

Mrs. G. came earlier than she was supposed to. As it happened I was cooking supper and I saw her legs cross the cracked, tilting cement of our back stoop: well-turned calves and somewhat swollen ankles in nylon stockings. She was short and wearing high heels.

She knocked on the back door and I continued frying onions with canned tomatoes to pour over the hamburgers, for the hungry crew was assembling. I just shouted, "Come in."

Mrs. G. opened the door with that falsely timid smile that most of us put on when nobody welcomes us correctly at the door of a strange house. After that everything happened quickly.

Mrs. G. took one step into the kitchen. The flying squirrel, atop the kitchen cabinet, panicked at the sound—or possibly the scent—of a stranger. Mrs. G. felt a rat-sized mammal scrabble down the front of her pink knit dress and claw its way inside her bra.

Mrs. G. yelped, then screamed. She started to beat and claw at her chest with both hands. Berger and Socha, both sturdy outdoor men with big black beards, jumped to save the squirrel. Mrs. G. felt herself seized and pinned against the door of the refrigerator. When she was satisfactorily immobilized, Berger, who was wearing a hideous pair of yellow sunglasses that made his six foot three inches even more sinister, commanded, "Stand perfectly still. Don't you move a muscle."

Mrs. G. yelped, then screamed.

He tapped the base of Mrs. G's throat with the pecan.

Berger has a way with animals. I stopped cooking and got him half a pecan. He tightened his grip on Mrs. G.'s shoulder, roughly commanding, "Don't you dare move." Suddenly his voice was gentle. "It's OK." He made soft clucking noises by gently clicking his tongue against the roof of his mouth and simultaneously he tapped the base of Mrs. G.'s throat with the pecan. "Cluck, cluck, cluck, tap, tap, tap." In a moment the squirrel scratched its way upward and dove inside Berger's shirt with the pecan.

Leaving Mrs. G. to her own devices in the vicinity of the refrigerator, we all followed Berger into the living room and watched anxiously as he checked the squirrel over for possible injuries.

At last I went back to my cooking. Mrs. G. was still standing by the refrigerator, holding on to it with one hand.

"It's all right," I said pouring tomato and onion sauce over the hamburger, "You didn't hurt it at all."

The following January, I received a nice letter from Mrs. G.—again on pink, scented paper. "Please give me a date to watch the prairie chickens and if not too inconvenient for you, I would like to bring two friends."

Great gray owls

They weren't supposed to be here, but nobody told them. These big gray birds bred in Wisconsin at least once . . . will they do it again?

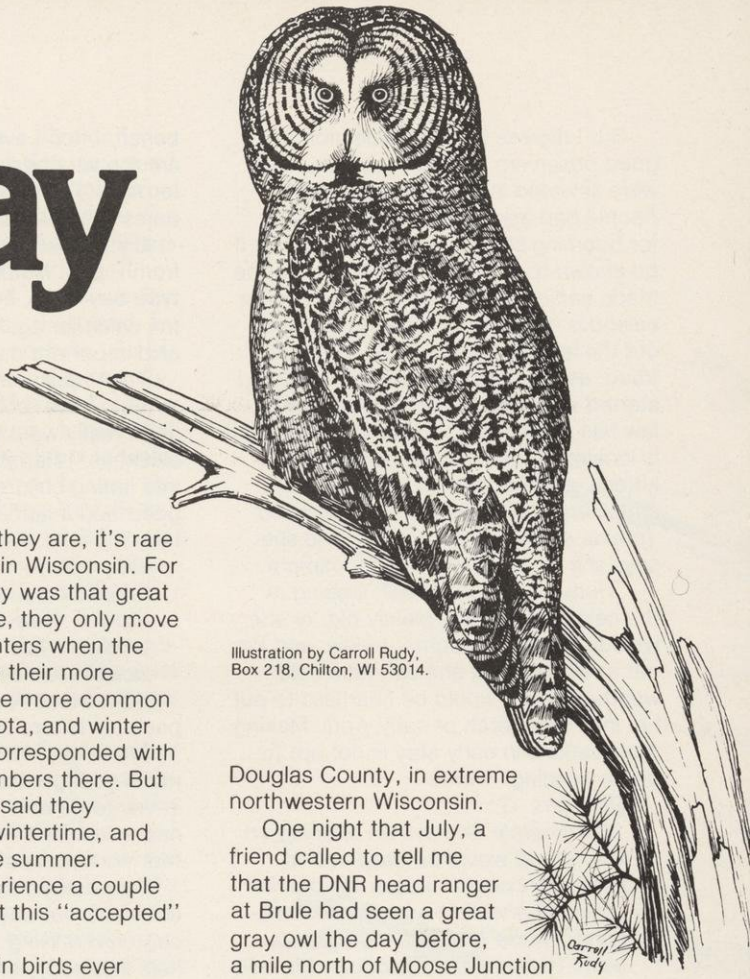


Illustration by Carroll Rudy, Box 218, Chilton, WI 53014.

DON G. FOLLEN, SR., Route 1, Arpin

If you're lucky enough to get within 100 to 150 feet of this big rare bird, there's no mistaking it. North America's biggest owl—more than two feet high, with a five-foot wingspan and a head that looks the size of a basketball. But although it looks huge, a great gray owl actually is little more than a three-pound bundle of feathers.

It's the eyes that clinch any "great gray" sighting. Those big yellow globes could stare down a hypnotist. They seem to look right through you. If it weren't for those eyes, you could mistake a great gray for a barred owl, which is somewhat smaller (about 14 inches) . But barred owls have nondescript brown eyes, nothing like the great gray's glaring yellow beacons. Great grays also have a droopy, "Pancho Villa" mustache unlike a barred or any other owl.

They don't even sound like other owls. Both males and females make a long, low, resonant "whoop" or "whoot"! It's an exclamation, not a question. Females and young also utter a shrill "shreek, shreek" sound in the summer.

A CALL FOR HELP

Of all the owls in North America, none is so docile—or so big—as the great gray owl. Generally shy and retiring, lean winters sometimes bring them out of the spruce and tamarack bogs and into the open close to settlements and people. Virtually unafraid of humans, it's often possible to get within as little as 10 feet of them.

Though protected by law, hawks and owls are still being shot by thoughtless or uninformed hunters. Help conserve all birds of prey by letting others know that they are protected and that killing them is irresponsible and illegal.

If you see a great gray owl or a large nest of any kind, whether occupied or not, please call the nearest DNR office or Don Follen, Route 1, Arpin, Wis., 715-652-2510.

As unmistakable as they are, it's rare to see a great gray owl in Wisconsin. For years the accepted story was that great gray owls don't live here, they only move in during occasional winters when the food supply gives out in their more northern habitat. They're more common in northwestern Minnesota, and winter sightings here usually corresponded with invasions of greater numbers there. But the "textbook" version said they showed up only in the wintertime, and never nested here in the summer. However, I had an experience a couple summers ago that upset this "accepted" applecart.

I've been interested in birds ever since I was a kid. My dad used to chew me out for monkeying around with robin and sparrow nests out in the barn when I should have been doing chores. In grade school, our teacher made us see who could spot the earliest returning birds each spring, and I got pretty good at it even then.

In the '60's I helped out on a team doing some "ground-pounding" for a survey to locate bald eagle nests in Wisconsin. In 1965 we trapped the first hawk owl—another northern immigrant—ever banded in the state. By then, I was already "into" owls and starting to get interested in great grays. I got even more interested after I met Dr. Robert Nero of Winnipeg, Manitoba—perhaps the world's foremost authority on great gray owls. But what really did it was when I saw my first great gray owl in the wild. It caught me utterly breathless—and I knew I was hooked!

For years now, I've been collecting whatever information I can find and keeping a record of great gray owl sightings. Great grays invaded Wisconsin from Minnesota and farther north in great numbers during the winter of '65-66, the year I saw my first. During the winter of '68-69, Wisconsin observers reported seeing more great grays than in any other single year—but always in the winter, never during the summer. The winter of '77-78, the great grays moved in again and apparently at least one pair hadn't gotten the official word. When summer arrived they stayed to nest in Douglas County, in extreme northwestern Wisconsin.

One night that July, a friend called to tell me that the DNR head ranger at Brule had seen a great gray owl the day before, a mile north of Moose Junction and seven miles east of the Minnesota border. A July sighting was exciting news—it suggested the possibility of nesting, something I had been thinking about and hoping for ever since meeting Bob Nero.

As luck would have it, my wife and I weren't able to get to Moose Junction until a month later, about 7:30 p.m. on August 18. But we hit the jackpot anyway! As soon as we stopped the car and opened the window I could hear young great gray owls calling from nearby. I had studied a tape of female and young owl "food-begging" calls and I was sure I was listening to great grays. I played the tape and my wife agreed that the sounds we could hear out in the woods were identical, no doubt about it.

I grabbed my stock-mounted, 60-power zoom telescope and jumped out of the car. Only about 100 feet up the road I saw two juvenile great gray owls staring at me from approximately 40 feet up in the top of a spruce tree. Through the scope they looked to be six or eight weeks old. Their plumage was incomplete and dappled with ragged-looking down. Then, from off through the woods I heard two *more* birds calling in the same way. One of the calling birds—I'm pretty sure it was the adult female—flew across to my side of the road, and then right back again. The two young birds I had been watching followed her out of my sight, but I could still hear their voices.

I listened to the birds until pitch dark,

"A July sighting was exciting news. It suggested the possibility of nesting."

Photos by Robert R. Taylor from the book *Great Gray Owl: Phantom of the Northern Forest,* by Robert W. Nero, Smithsonian Institution Press. $17.50.

then returned to the car for the tape recorder in hope of luring them out with the same begging call they were giving. I walked along the highway, playing the recording and listening, playing and listening, but nothing happened. I even tried making squeaking sounds of my own. To my delight, I heard excited, warbling sounds in response, the same kind of noise young owls give when being fed. It sounded like four birds were calling all at once, all from the same place. Once I heard an adult's low, distinct "Whoop!" but it was so dark all I could do was tie a strip of my red bandana to a bush at the roadside, to mark the spot for further exploration in daylight.

I continued mimicking and trying to "call up" the young birds. I heard one making feeding noises and I again squeaked a response. Almost immediately I heard a swooshing sound like a large bird taking flight. A few seconds later I felt the air beating about me and could just make out a large owl hovering about two feet over my head! It hung there a moment, then flew around in a tight circle and landed on a utility pole about 20 feet away. With fumbling fingers I switched on my battery lantern and there, staring right at me, sat a beautiful, big, yellow-eyed great gray owl! I stood gaping at it for some long moments, but when I tried to take a few steps toward it, it flew off.

I stayed at the site for several hours longer, listening to the birds until almost 11:00. When I left, they were still vigorously calling back and forth.

The next day my wife and I were up at 6:00 a.m. and on our way back to see what we could find in daylight. We located my red bandana marker, then headed through the woods toward where the birds seemed to have been calling the night before. We both got soaked to the knees walking through the wet grass, but didn't see an owl. We did, however, find an old stick-nest about 20 feet up near the top of a tamarack. I think this may have been the very nest the owls used.

Later that evening we returned once more and while it was still light enough to see well, the birds began to call again. We walked into the woods and

No owl in North America is as docile or as big as the great gray owl, but lean winters sometimes bring these shy, retiring birds out of the tamarack bogs and into the open near people.

Painting by Artist Elva Hamerstrom Paulson, 2194 N.W. Watters, Roseburg, OR 97470.

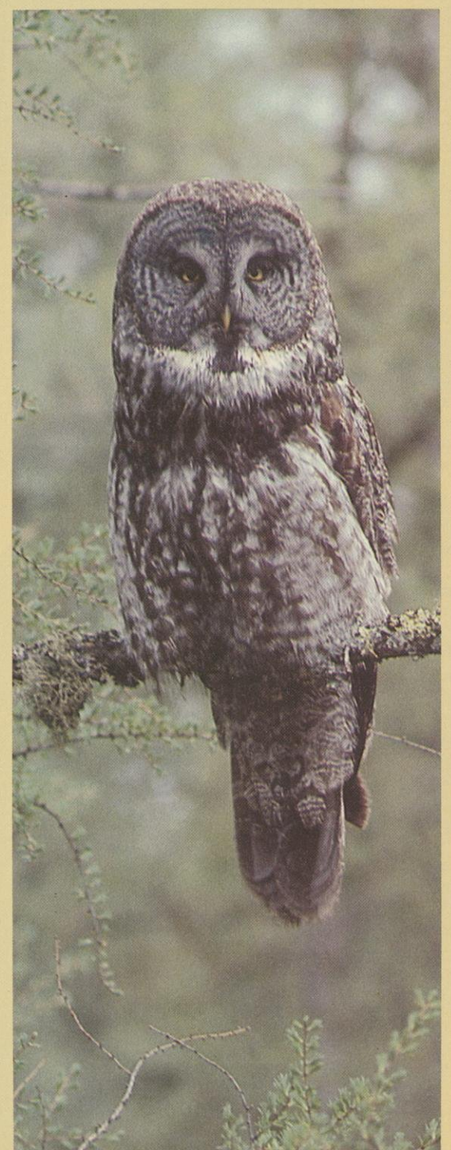
In flight, great gray owls have a five-foot wingspan and a head that looks the size of a basketball. Painting by Artist Elva Hamerstrom Paulson

spotted three young and the adult female (a larger and browner bird than either the male or the young). They flew out to the road where we followed and watched them feeding until dark. They stopped calling around 10:30 and we left for home.

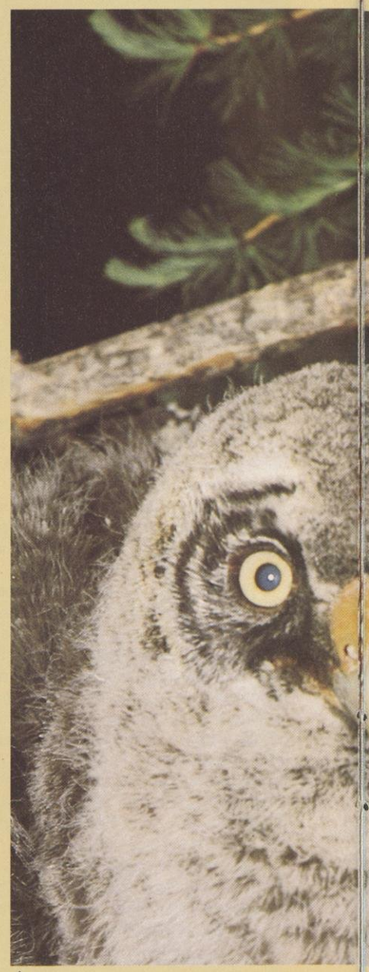
I suppose it's possible this family of great gray owls—three young and both parents—could have nested in Minnesota, then moved seven miles across the Wisconsin border. But I don't think it's likely. Great grays usually stick close to home, staying within a mile or less of the nest as late as September or October. As long as prey is available, the family remains on their breeding territory. I'm convinced this owl family nested in Wisconsin and I'd like to think the nest I saw them near in August was the actual nest they used.

Others have spotted great gray owls since this summer of two years ago, but not during nesting season, and only adults, no young. That's not unusual, these huge gray birds can be remarkably inconspicuous. They're seldom seen even when nesting within a hundred yards of a road, so perhaps great grays have nested in Wisconsin many times before and since 1978. I think the family we saw probably nested here following the previous winter's invasion, but it's possible they may have been here for years. I'll be interested to see whether great gray owls come back in summers to come—and I hope I get the chance to see them again.

Adapted from *The Passenger Pigeon,* Summer 1979.



"It's the eyes that clinch any 'great gray' sighting. Those big yellow globes could stare down a hypnotist." ▶



▲ "The old nest I saw in August was empty, but I'd like to think it was the one they actually used that spring."

"The fledging owls' plummage was incomplete and dappled with ragged-looking down." ▶

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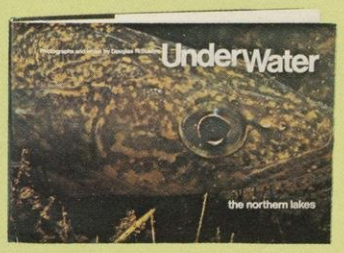

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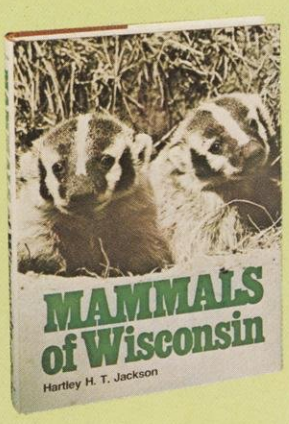

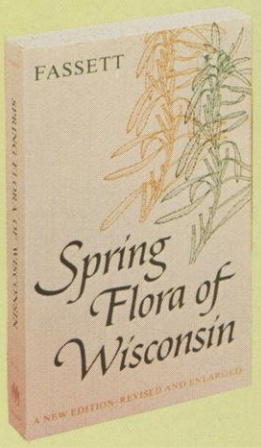

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Public, where are you?

All the complicated techno-scientific computerized processes that guide resource decision-making turn the public off when we need them most. Here's an idea that may help.

LAURIE MANN, Water Quality Planner, Madison

The idea behind public participation in resource management is a good one: let the public help make decisions that affect the resources they own! To be informed, interested and involved is as American as apple pie: indeed it is a rephrasing of the democratic process we are so fond of.

Yet giving life to the philosophy of public participation is often a frustrating, almost hypocritical process. To see how, and find out why, we must look first to the assumptions underlying the belief that all public participation is good and can work.

Consider, for example, the phrase "informed and interested public." We know that unless the public is "interested" in resource management issues they won't take the trouble to be involved. We know, too, that these issues are fairly complex, sometimes controversial, and often technical. And that means the public must also be "informed" if their response is to have any use or validity.

So, to make public participation work and work well, we must have an "informed and interested public." And here comes one of the problems with public participation: *Public participation assumes that either the public is informed and interested or we can make them that way.*

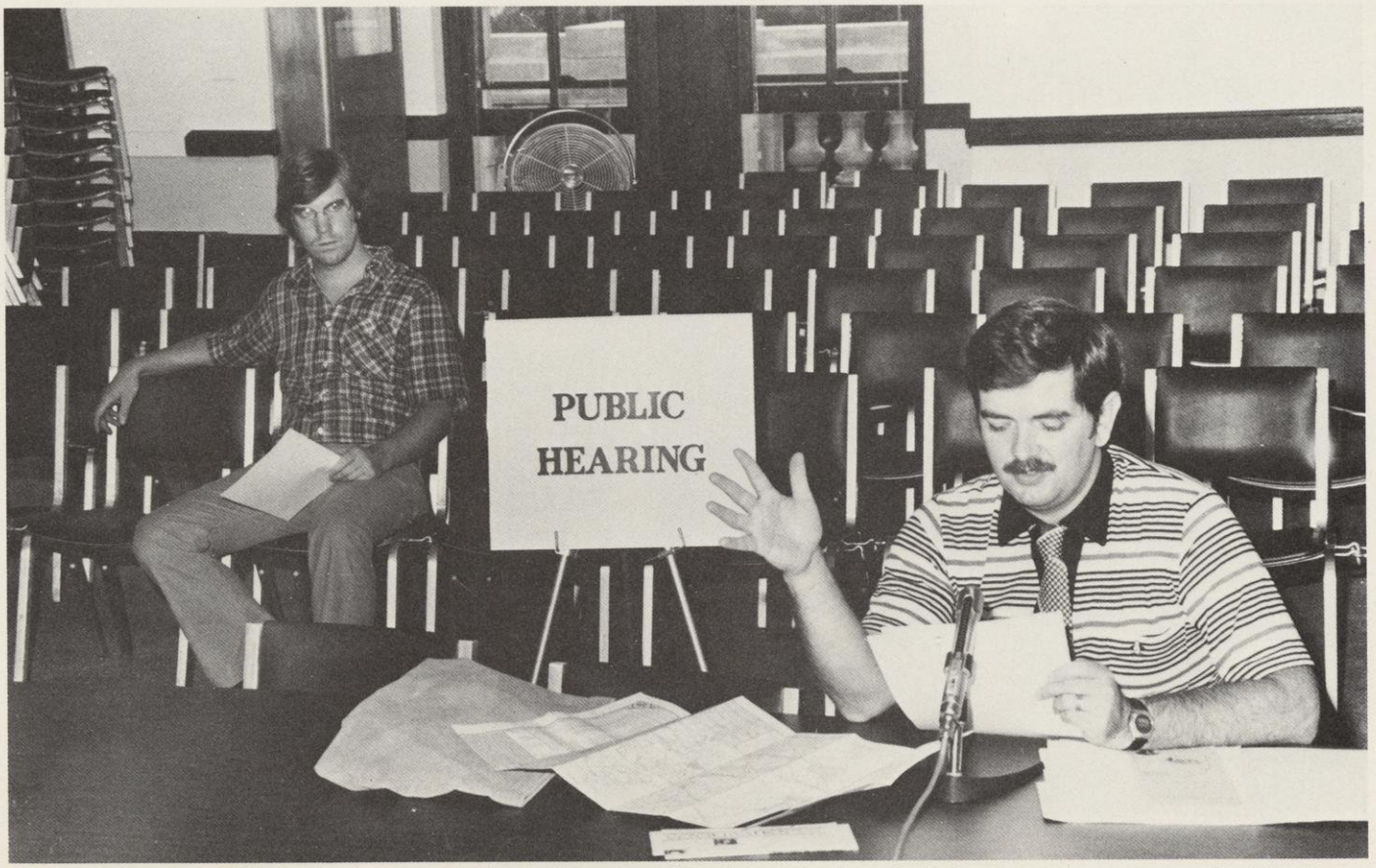
> The theory behind public participation assumes that the public **is** interested and informed, or can be helped to be.

If the flaws haven't occurred to you yet then you probably aren't aware that the turnout at public hearings on environmental issues can sometimes be woefully sparse. The Bureau of Air Management held a hearing in Beloit last year to review the state air pollution control implementation plan and 15 people showed up. The Bureau of Wildlife Management held a hearing in Green Bay on new rules for the program on wildlife damages claims and nobody at all showed up to comment. Interested public? Where?

You might be thinking—all we need do is make these opportunities for public involvement better known, that the public really is interested and wants to be involved. Perhaps. But perhaps not. And since the assumption public participation makes is that the public *is* interested, or can be made that way, it's a critical question to ponder.

But, for the sake of argument, let's accept that we have an interested public or that by a motivation campaign we can make the public interested. We still are left with the other part of the assumption—that we have or can make a public that is "informed."

Let's look a little deeper at that claim. First, do we have an informed public? The truth is, the data we base decisions



This sort of scene at a public hearing is not unusual. Lack of interest and knowledge about complicated resource issues means empty chairs.

on in resource management are very technical. We decide on air quality issues by looking at things like total particulates, sulfur dioxide and ozone. We make water quality decisions by looking at things like acid, alkalinity and dissolved oxygen. We use complex mathematical modeling, advanced monitoring techniques, principles of engineering, biology, physics and chemistry. And so on. These are the parameters.

It's safe to say that the public is not informed on all these technical items. It's also safe to say that they *can't.* In fact, why should they be? The public has, in effect, hired resource managers to do the job for them—to be informed on the current technology. But, of course, this is not public participation. It's technically trained people making technically-based decisions. This is the technological age.

The point is that the public is not informed. Trying to make them so is very difficult. The information is technical and they may not be interested.

If you still think public participation is a good idea even in the context of highly technical issues then a massive, well-planned educational campaign is vital to your program. This is not simple. It means competing with hundreds of other items for the average citizen's time and thought; it means translating "technocratese" and "bureaucratese" into plain English in costly educational materials; it means opening up a bureaucracy that sometimes doesn't like to commit its ideas to public scrutiny.

Recently the Bureau of Water Quality ran into the problem at full speed. The bureau wanted help from the public in selecting target watersheds to receive cost-share funds for nonpoint source pollution control. Nonpoint source pollution is complex: it comes from diffuse sources; direct links between observed water quality problems and specific land areas are hard to define; and ways to control it are the subject of heated controversy even among the experts. And yet, since the program to control nonpoint source pollution depends on the voluntary participation of landowners, the bureau (and the federal government) felt public help in selecting the areas to receive grants was a natural.

So conferences were scheduled, Educational Telephone Network programs arranged, packets of materials prepared, and follow-up phone calls made—all designed to enhance the public's interest in and understanding of nonpoint source pollution. During those phone calls, the one thing heard most often was, "Why do you send me all this stuff—I don't have time to read it and I don't understand it." These are not the words of an interested informed public.

The point is that the public is not informed. Trying to make them so is very difficult. The information is technical and they may not be interested.

If only technical things are involved in making a decision, asking the public to help is like trying to put a round peg in a square hole: it doesn't fit.

We keep on soliciting their opinion anyway, though, because public participation, in theory, seems like such a good idea. Then, in a sort of catch-22, we make the same technically based decisions we would have made without public input *because the public is not informed.*

For a bureaucracy claiming to be responsive to public opinion, this is dangerous. People become mistrustful. They suspect that the time and effort they spend trying to understand the issues is wasted on an unyielding bureaucratic beast. And the bureaucrats

Technicians and the public often talk a different language.

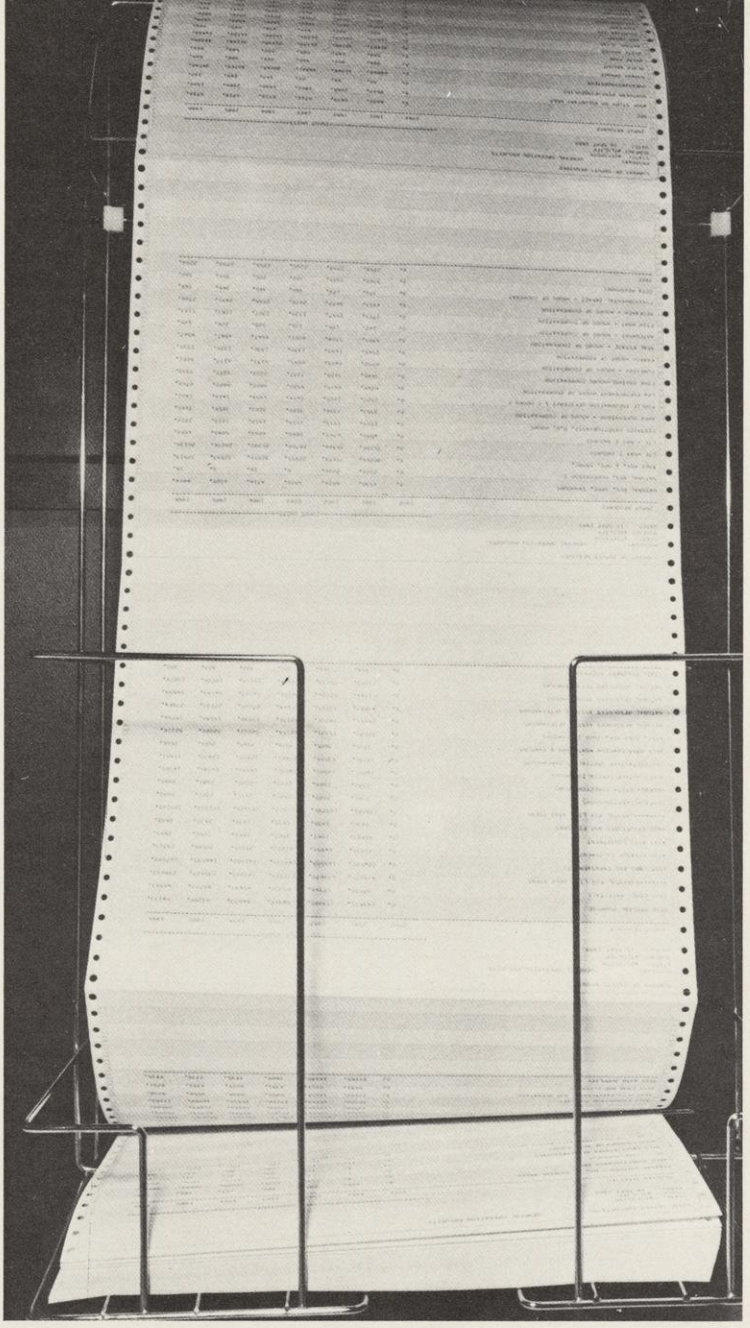
aren't much happier. This kind of public participation becomes just more "red tape" to go through before a plan or a program can get off the ground. It can be an Achilles' heel to an otherwise powerful, independent organism. One Department bureaucrat was even overheard comparing public participation to civil disobedience.

Clearly the marriage between public participation and resource management decision-making needs work. How can we get the relationship back on the track? How can we get resource managers to value and use public input without having to educate the public to the point of technical expertise? Here's an idea:

Of the data used to make decisions on resource management, identify those that can only be measured meaningfully by public opinions. For example, if the question is, "What passes for clean water in Wisconsin?", the decision will involve things like suspended solids, pH, dissolved oxygen and other technical measurements. Technicians establish standards for these and take samples to determine if we have clean water according to their definition. If these are the only things involved in the decision, asking the public to help decide where water is clean is like trying to put a round peg in a square hole: it doesn't fit.

The idea is to identify decisions that can be accurately measured only by public opinion. Don't expect the public to be technically informed. Leave that to the technical people.

But say one of the quality guidelines is "the way the water looks" or "the way the water smells." Now we can set standards that require water to look or smell "good" before we can call it clean. How do we evaluate water to see if it's meeting these standards? We ask people to tell us what they think. Does it look good to you? Does it smell okay? And so on. Then we can use the answers to evaluate whether we are meeting the standards. This would give public opinion a useful place in the world of technology. Of course, it means that technology would lose its standing as the only way to get answers. But we would have incorporated public participation into resource management and probably have improved our management decisions at the same time. The idea is to identify decision items that can be measured accurately only by public opinion. Don't expect the public to be technically informed. Leave that to the technical people.



Computer data is essential for monitoring pollutants and analyzing environmental information. But it's an exotic business and can turn the public off.

Of course, this doesn't mean we don't need public education. The public should know something about all aspects of resource management decision-making whether they're asked for opinions or not. It also doesn't mean technically qualified people in the private sector shouldn't have access to technical documents or opportunities to comment on them. They should. Neither does it mean that all resource decisions should always be based entirely on popular opinion. Good ones are sometimes hard to make and very unpopular.

What is being said is this: if resource management decisions are supposed to be based, in part, on public opinion, then make the guidelines for judgment suitable to public opinion. Public participation can then take its place as a legitimate, purposeful, useful component of resource management decision-making.

Wisconsin's Christmas past

Fort Howard in an 1842 lithograph. Courtesy State Historical Society of Wisconsin.

Every year Heritage Hill State Park near Green Bay relives the history of Christmas in Wisconsin from the primitive days of the first French fur traders to the elegant festivity of the Victorian Cotton house.

NICK CLARK, Manager,
Heritage Hill State Park

Close your eyes and try to conjure up the spirit of Christmas past in Wisconsin — say the 1800's when life was harder, but slower and simpler, too. Friends, relatives, children, falling snow, horses and sleighs, warm fires, fine linen, china, candles, hearty food, good drink and carolers. Something like 1980 really, though of much different quality never experienced by most of us alive today. But not gone forever: Each year at Heritage Hill State Park near Green Bay, Wisconsin's Christmas past lives again.

Heritage Hill is a tie to the state's pioneering, fur-trading days, where historic structures are preserved and early Green Bay and Wisconsin history is recreated. Every holiday season, park personnel and local volunteers celebrate Christmas past in the park's 15 carefully preserved historic buildings, decorating each according to its time and original occupants.

In the French fur trader's cabin, circa 1820, Christmas is scarcely festive. Perhaps the food on the midday table is a little more "special," the mood a bit more subdued, but no holiday colors or greenery adorn the rough-hewn walls. Christmas to the early French was an important occasion, but a sombre and religious one often spent in quiet meditation and perhaps capped off with midnight mass, if a priest was wintering in the settlement. Not likely, for in 1820 the population of this struggling settlement at the mouth of the Fox River hovered around only 300 hardy souls, mostly trappers and traders. The French celebrated and exchanged presents not on December 25th, but on January 1st. On New Year's day they went visiting, stopping here and there to share holiday cheer with friends and relatives.

Life was severe during frontier winters, especially for the soldiers at Fort Howard. The fort was built in 1816 by four companies of the Third Infantry Regiment to guard the entrance to the Fox River. It wasn't unusual for the garrison commander to suspend all passes and work the men long hours to batten the fort down for winter. But by December, the community was virtually locked in until spring and there was time for frivolity. Most of the year, the fort was more or less "off limits" to civilians, but not on Christmas.

In 1823 post commander Colonel James McNeil described the situation this way: "As a hard winter is at hand and we are shut up here, cut off from the great world, it behooves me, as the guardian of these people to make them as comfortable as I can. I hope to make them happy as well, at least as far as practicable in this distant wilderness."

In December McNeil allowed weekly dances. He also decided the fort needed "private theatricals" and by his order plays were produced with all parts, both male and female performed by his young lieutenants. The first theatrical was "She Stoops to Conquer," said to have been a great success.

One of McNeil's Christmas parties was described by writer Albert Ellis, who attended. It started at 4 p.m. and was followed by an evening ball. About 100 guests came from every segment of local society.

"The variety of costume would have engaged the study of an artist: belles and beaux, men and women were attired in all grades of dress from the Parisian gown down to the buckskin coat, pants, petticoat and moccasins of the aborigines."

The food was venison, bear, porcupine, geese, ducks and a variety of fish, "headed by the king of all the fish tribes, the sturgeon."

After dinner, dancing continued until early morning. "In the soft glow of the candlelight, the party was as colorful as a masquerade."

Years later, a woman who was there, Mary Ann Brevoort recalled that her gown was "brocaded lavender satin

Christmas dinner for the enlisted men in the Fort Howard Hospital scullery was austere, but festive.

dress, trimmed white silk lace, long white kid gloves, red slippers and white silk hose."

By 1836 Green Bay's population had swelled to about 3,000, including 700 or 800 soldiers at Fort Howard. Christmas then was described as almost "civilized" by a diarist, Mrs. Elizabeth Baird:

"We soon found that Christmas was considered the high feast of the season and no pains were spared to make it as good as possible. The cooking was all done at an open fire. I wish I could remember in full the bill of fare, however I will give all that I recall. We will begin with the roast pig; roast goose; chicken pie; round of beef, a la mode; palte d'ours (bear's paws called so from the shape made by the pastry and chopped meat) sausage; headcheese; souse; small fruit preserves; small cakes. Such was the array . . . Christmas was observed as a holy day. The children were kept at home and from play during the day until nearly night-time when they would be allowed to run out and bid their friends "Merry Christmas," spending the evening, however, at home with the family . . . All would sing. There was no particular songmaster. It was the sentiment that was so pleasing to us all. The music we did not care so much for and yet we thought we did.

"As soon as la Fete de Noel, or Christmastide had passed, all hands (young and old) were set at work to prepare for New Years, which was a joyous and special holiday. Christmas was not the day to give and receive presents. That was reserved for New Years when "les atrennes" or New Year's gifts were exchanged. As there were no fancy stores to select gifts from, and doubtless had there been the child might not have had the money for the purchase, (children not having money in olden times as they do now) so it was that each one had to exert themselves and call upon all the ingenuity they possessed to make what they could for presents."

A decade or two later, other immigrants began to supplement the ranks of the now-established early French settlers, bringing along their Old World Christmas customs most of which are the ones we still celebrate today. Christmas was a big affair to the Germans; they brought the custom of decorating their houses with ribbons and boughs and candles—and the first Christmas trees.

Otto Tank was a Norwegian and came to Green Bay in 1850 as a Moravian missionary. He and his wife moved into what is now called the Tank Cottage. Built in 1776, it's the oldest remaining building in Wisconsin. The Tanks were wealthy people for missionary settlers. Madame Caroline Albertina Louisa Van der Muelen Tank, Otto's wife, was a Dutch baroness who sold off her estates in Holland to come to America with her devout husband. But she couldn't bear to part with all the finery—her furniture, art, china, and linens made the long voyage to Green Bay with her.

When Mrs. Tank died in 1891, it took two auctions—one lasting a week and a half in Chicago and one lasting three and a half weeks in Green Bay—to settle her estate. At the sale in Green Bay, the auction bill for her linen alone covered 66 pages! Many of the Green Bay locals whose families bought the Tank possessions have returned them to

This year, Heritage Hill's Christmas will feature sleigh rides, storytellers, children's theatre groups, woodwind and string quartets, choir services in the newly-completed Moravian Church, and other special events. At several stops around the grounds, artisans will give craft demonstrations, local volunteers and park personnel will prepare and serve hot chocolate, cider and old-time Christmas goodies. Admission is $3 for adults, $1 for children 6 to 16. No park sticker is required. Dates for the celebration are November 27 (the day after Thanksgiving) to December 14, from 10 to 6 o'clock weekdays and Sundays and 10 to 8 Saturdays. For exact times of specific performances, contact: Heritage Hill State Park, 2640 South Webster Ave., Green Bay, WI 54301. Phone 414-497-4368.

Blowing snow and gray winter clouds outside the Tank Cottage belie the warmth and holiday cheer within. Photo by Nick Clark ▶

their rightful resting place. Now every December is Christmas 1871 at the Tank Cottage—sometimes Norwegian, honoring Otto, sometimes Dutch, in honor of Caroline.

On the front door outside the Tank Cottage hangs a "jule neg", a shocked bundle of wheat put out so the birds might also join the season's celebration. Inside, an Advent wreath hangs by brightly colored ribbons in the dining room window and a cast iron kettle of nuts warms in front of the stone fireplace. Miniature straw ornaments and tiny paper flags adorn a small tabletop Christmas tree. Traditional Scandinavian delicacies group around it—rosettes, marzipan and "spettekaka" or "cake on a spit." Madame Tank's service awaits, her Delft china, fine silver, and pewter tea set.

At the Cotton House, Christmas is an 1875 Victorian affair, reflecting English influence on early Green Bay. Captain John Winston Cotton and his wife built their Greek Revival structure as a retirement home in 1843. Everything within is as the Cottons would have done it. Garlands of pine boughs, holly, and mistletoe are everywhere—on tabletops, mantles, bannisters, windows and window seats. The tree is decorated with strings of popcorn and cranberries, tiny candles and tasty sugarplum cones. Beneath it are the children's Christmas gifts—a tiny sleigh, wagon and baby buggy made of birchbark by the fort's soldiers. A brimming wassail bowl awaits arriving guests and a sprig of mistletoe is tucked slyly into the crystal chandelier above to catch the unsuspecting.

These are all the Christmas past in Wisconsin—from fruitcake and wassail at the Cotton House to glogg and krumkaker at the Tank cottage plus hot cider at Ford Howard. It is the history of Yuletide come alive. Everyone is invited.

Opposite page:

Top:

Children present a Christmas play in the old Town Hall. Heritage Hill features choirs, concerts, and other special events throughout the holiday season.

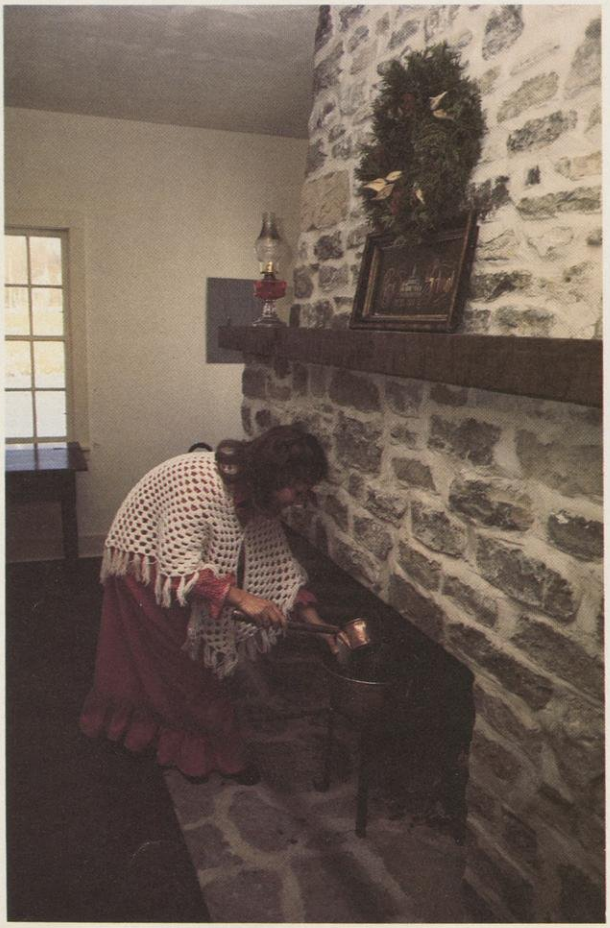
Bottom left:

The fireplace in the Fort Howard dining room. Photo by Dave Crehore

Bottom right:

Christmas Eve in the Tank Cottage is time for an elegant Norwegian buffet. The towering, spectacular "spetakakka" (cake on a spit) in the center of the table took more than seven hours to bake. Other delicacies include marzipan, rosettes, "krumkakka" cones, and "jul hog."

Each year in the Cotton House area school children adorn a 20-foot Victorian Christmas ▲ tree with popcorn and cranberry chains, sugar plum baskets, bows, candles, and old-time ornaments. Photo by Dave Crehore



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