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CONTENTS

Cover: Trout fisherman on North Bear Creek, Winnesheik County.

PHOTO BY KEN FORMANEK

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Small Streams with B

By Richard Martens
FISHERIES TECHNICIAN

Many people visualize northeast Iowa trout fishing as scenic parks, excited anglers, stocking trucks, and a trout in every hole. These images are often true, yet over half of all trout streams never have crowds, are rarely fished, and contain only brown trout. Only 3 percent of the trout anglers in Iowa fish these members of the put-and-grow streams program. Although small, they offer the angler a challenging fishery with unique rewards.

The put-and-grow program began as an experiment in the spring of 1968 when fingerling brown trout were stocked into 32 streams. The goal was to utilize marginal trout water and to provide an alternative to put-and-take trout fishing. Each year a few potential coldwater streams are added to the program and others dropped. If the trout fail to survive stockings are discontinued. Presently 42 streams receive plants of brown trout.

Small streams are dynamic and frequently change from one year to the next. Dry periods cause springs to disappear and waters to warm. Poor land use such as heavy grazing, clear-cutting of timber, or stream channelization results in warm water, heavy silt loads, and destroyed habitat. Water tables may return to normal and floods may rejuvenate silted stream beds. Unfortunately the overall number of acceptable put-and-grow streams has declined.

Each spring approximately 30,000 3-5 inch brown trout are distributed to the put-and-grow streams. Browns are stocked because of their ability to quickly adapt to life in the wild. Brook and rainbow trout fail to survive comparable environmental stresses. The brown trout is a native of Europe and can withstand high turbidities and summer water temperatures approaching 80°. Instream spawning is seldom successful. Heavy silt loads and a lack of good quality spawning gravel prohibit natural reproduction. Thus, fingerlings are stocked each year to insure adequate numbers to maintain fishing.

After spending several months in streams, browns are no longer the easy catch that hatchery reared fish present. They become wary and are easily spooked. Much of their time during the day is spent near the bottom of deep pools, under log jams, or protected by other cover. Feeding occurs most frequently at night with insects and minnows making up the bulk of the diet. Successful anglers learn the trout's habits and use their skill to fool the fish. More than one angler has left a stream frustrated, having watched a big brown ignore an entire assortment of tackle. Even so good catches of browns are made with some fish weighing five and six pounds.

Specific locations of all put-and-grow streams currently stocked are listed in the Iowa Trout Fishing Guide. Streams are often remote and hard to find. Map and local stream name may not coincide. Access is poor with the majority of streams in private ownership. Once you locate a stream you must receive landowner permission before fishing. The stream bed and in some cases the waters themselves are his property. Don't be surprised if you're turned away, but with courtesy and patience you will discover many streams to fish. The key is to establish good relations with several landowners and guarantee a welcome access.

"Fishing is the chance to wash one's soul with pure air. It brings meekness and inspiration, reduces our egotism, soothes our troubles and shames our wickedness. It is discipline in the equality of men — for all men are equal before fish."

Herbert Hoover

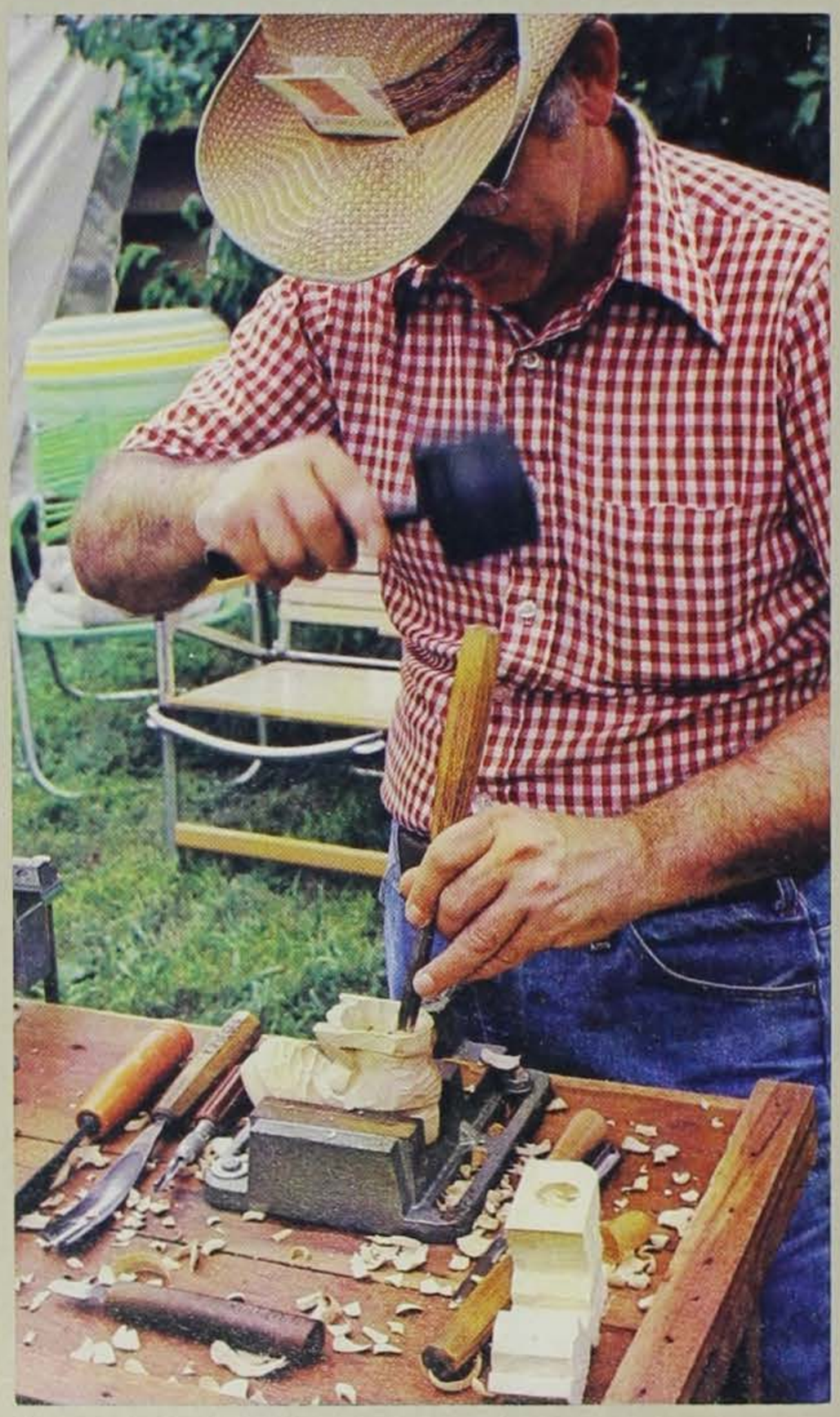
th Big Rewards

Photo by Roger Sparks

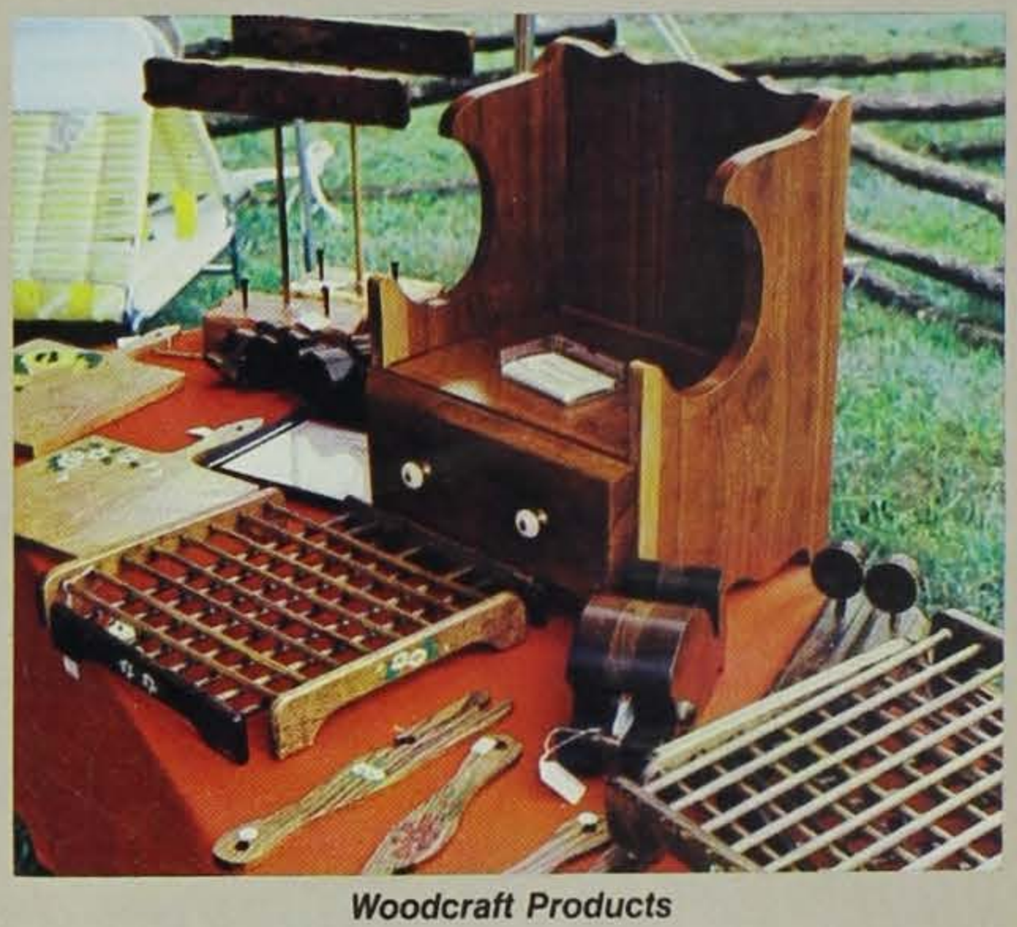
In experiencing the put-and-grow streams you gain more than just fishing. The trip itself offers the value of a day's fishing free from other anglers. Your exploration will lead you through some of the most rugged and beautiful areas of Iowa. You may walk miles of stream and never see a trout, but then you'll come to a pool and see a two pound brown hovering under a bank. Who knows, maybe you'll catch it and even more surprisingly you may find yourself releasing it. If so, you will have discovered the rewards of these small streams add up to more than just pounds. □

Richard Martens is fisheries technician stationed at the Manchester Trout Hatchery. He is a graduate of Iowa State University and has been employed with the Commission since 1979.

Cross Cut Saw Competition



Wood Carving



Woodcraft Products

Showcase of goodim

FOREST CRAFTE

Wood Sculpting Display

The record time for a two-man cross-cut team to saw through an eight-inch diameter pine log was 10.8 seconds! The gals managed to do it under 30 seconds. These were the 'records' that were set at the first Forest Craft Festival, but they will be strongly challenged July 17-18, 1982, at the second annual festival held at Lacey-Keosauqua State Park in Van Buren County. Approximately 7,500 people attended the two-day rain-plagued event, which was sponsored by the Iowa Conservation Commission, Iowa Development Commission, and the Van Buren County Development Association. Although rainy weather was quite persistent, this first festival was judged a success. The second annual Forest Craft Festival, to be held in this picturesque setting adjacent to the Des Moines River, will undoubtedly have even more interesting exhibits.

What is a Forest Craft Festival? According to Gene Hertel, State Forester for the Commission, the festival is designed to show the public the many values of a forest, and offers visual displays of its many useful products. And of course, there are "fun and games" such as the aforementioned cross-cut contests. Over 30 exhibitors displayed their woodcraft wares. Forest products such as homemade clocks, a variety of bird houses, baskets weaved from willow, miniature wildlife carvings, duck decoys, and other unique carvings were examples of the many interesting displays. One exhibitor even carved wood into art objects with a chainsaw. Many of the exhibitors offered their crafts for sale. A steam-powered planer was in full operation shaping logs into beams. Commission forestry and wildlife personnel were on hand to provide information.

How veneer is taken from a log, the difference between a cord and a pick-up load of wood, tree leaf identification and what types of woods are best for burning in your fireplace, were among some of the popular Commission forestry exhibits.

An interpretive trail was designed through the woods, identifying different tree species and poisonous plants. The trail showed benefits of management for wildlife and forest products and also depicted damage that can be done by overgrazing from livestock.

A tree planting machine was exhibited by the Van Buren County Conservation Board and the Conservation Commission displayed various hand tools used for fighting brush and wildfires.

▶

od mber management

FT FESTIVAL

By Sonny Satre

Photos by Ron Johnson

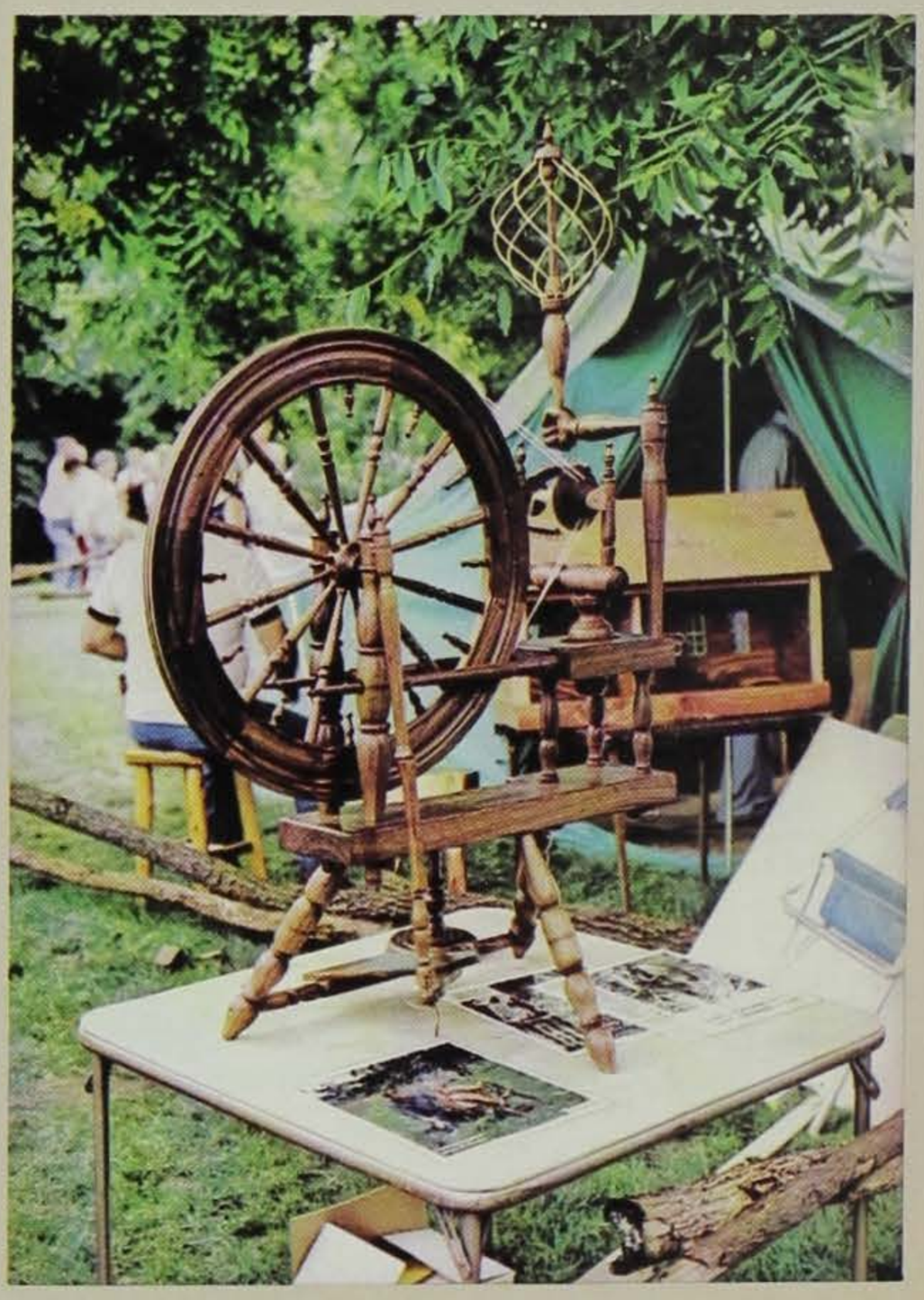
The Commission's Wildlife Section had several educational exhibits which were crowd pleasers. One exhibit explained radio telemetry, a process by which wildlife biologists place small electronic radio devices on an animal such as a wild turkey. The small radio transmitter "beep beeps" a sound to the biologist's radio receiver. This method is used to study animal movements for a variety of wildlife research projects.

A cannon-netting demonstration was another interesting feature of the festival. Cannon-netting is used by wildlife biologists to harmlessly capture different species of wildlife. A net is put in place and the area is baited, the biologists are well concealed in a blind and wait for the big birds to move in. The wild turkeys warily move in and start eating, the trap is activated, there is a large explosion and the net flies over the unsuspecting turkeys. Radio transmitters are placed on the birds and they are released.

The Iowa Wild Turkey Federation offered interesting entertainment by showing the various techniques of turkey calling.

The festival gave visitors a chance to visit one of Iowa's more beautiful state parks. The forested hills and valleys formed a perfect setting for an event related to forests of Iowa. Through the cooperation of Van Buren County people, the many individuals of the Iowa Development Commission and Conservation Commission, this "special event" spotlighted Iowa's timbered lands and their many values and products.

Plans are already under way for the 1982 Forest Craft Festival and indications are that the event will be bigger and better. Mark your calendar now for July 17-18, 1982. Admission is free. □



Cooperative Fish and Wildlife Research:
IT WAS DING'S IDEA

by Robert B. Dahlgren, Leader, Iowa Cooperative Research Unit, and Wayne A. Hubert, Assistant Leader, Iowa Cooperative Fishery Research Unit, Iowa State University

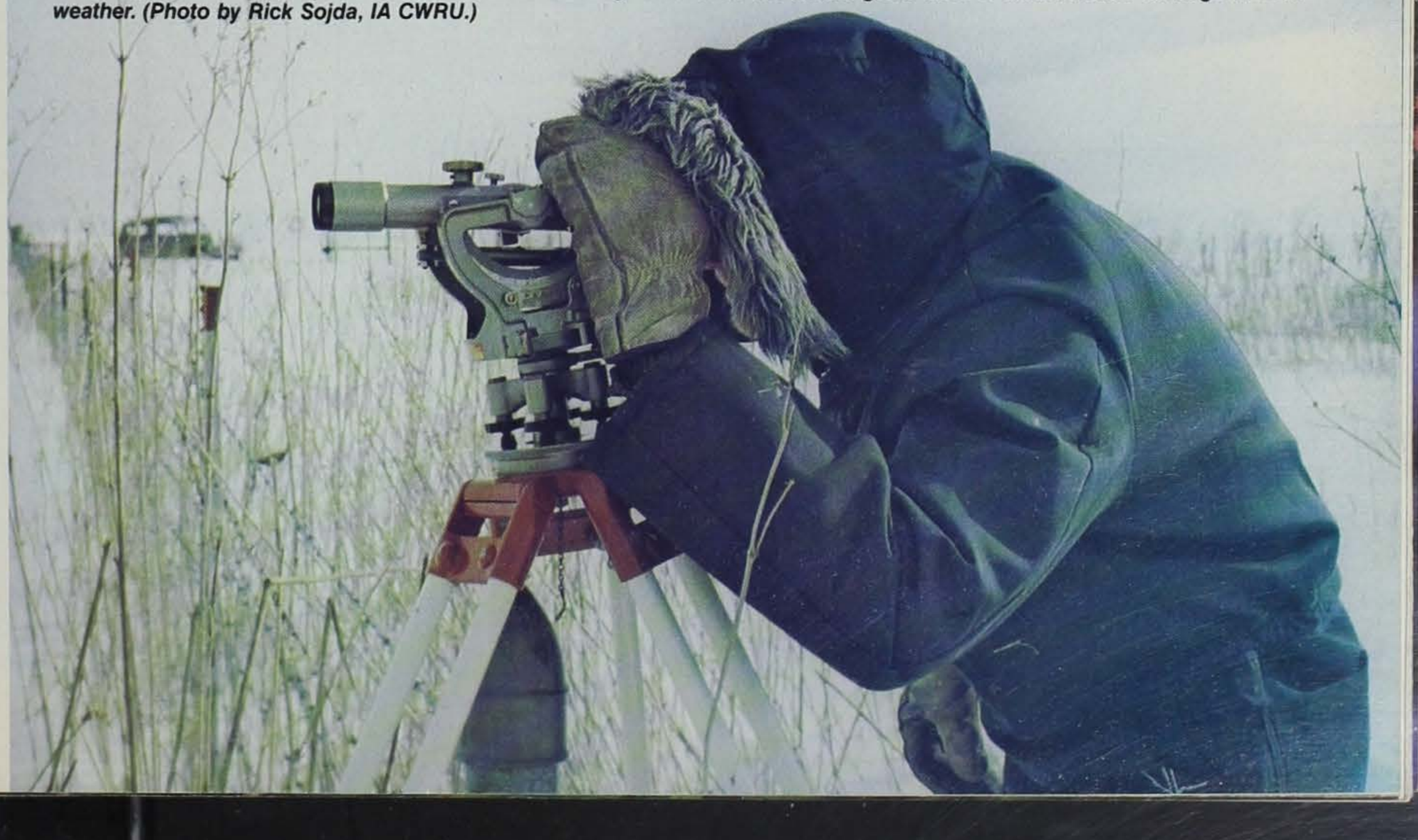
On July 1, 1982, we will have a birthday here in Iowa. Most of those who celebrate will be professional fish and wildlife biologists. The birthday is that of the Iowa Cooperative Wildlife Research Unit, located at Iowa State University.

It all started with a celebrated Iowan, the late J. N. "Ding" Darling, *The Des Moines Register's* famous political cartoonist and a national conservation leader. Twice he won the Pulitzer Prize for his work. In early 1932 he appeared in the office of R. M. Hughes, then President of Iowa State College, and proposed that the college join with the Iowa Fish and Game Commission in establishing a cooperative wildlife research program. Ding was persuasive. The Iowa Cooperative Wildlife Research Unit was established by mid-year. He believed so strongly that research was the backbone of successful wildlife management that he personally provided $3,000 each year to support the operation of the unit for its first three years. There is no question about Ding's dedication, for he could have purchased a 100-acre Iowa farm at that time with the same money.

In 1934 Darling was appointed Chief of the U. S. Bureau of Biological Survey (the forerunner of the U. S. Fish and Wildlife Service), then within the Department of Agriculture. From that position, he persuaded industrialists, through the American Game Association (later the Wildlife Management Institute), to assist in funding a federal program of Cooperative Wildlife Research Units. In 1935 the Iowa Unit and seven others at land grant colleges were established. The mission of each unit was to train biologists who could effectively manage wildlife, to conduct research regarding wildlife management problems, to advise agencies and citizens concerning these problems, and to promote wildlife conservation through writing, presentations, and demonstrations.

The first leader of the Iowa Cooperative Wildlife Research Unit was Paul L. Errington, a Ph.D. student of Aldo Leopold at the University of Wisconsin. Dr. Errington became internationally recognized for his work on the population dynamics of furbearers and game animals. His research led to much of the theory that is the basis for management of furbearers and upland game. His most widely recognized works were the books *Of Men and Marshes* and *Muskrats and Marsh Management.* When the federal partnership was formed in 1935, Errington joined the Iowa State University staff to continue his research. The first leader under the federal-state-university-American Game Association partnership was Logan J. Bennett. He was followed over the years by Thomas G. Scott, Edward L. Kozicky, and Arnold O. Haugen, who all made important contributions to the Unit. ▶

Carefully establishing locations is important when you're locating radioed pheasants in relation to snowmobile traffic. How well wintering pheasants tolerate snowmobile disturbance is important to know when snowmobilers want to use pheasant wintering areas for their sport. Unit students conducting research in the winter get a taste of what wildlife undergo in cold weather. (Photo by Rick Sojda, IA CWRU.)



In 1941 another innovation in natural resource management was begun in Iowa when the first Cooperative Fishery Research Unit was established here. The unit was jointly supported by Iowa State College and the Iowa Conservation Commission. In 1965 the federal government entered the Iowa Cooperative Fishery Research Unit as a third partner in its program.

Reeve M. Bailey, the first fishery unit leader, established a state fishery survey. After his departure, the Iowa Conservation Commission carried on this work and produced the widely acclaimed book, *Iowa Fish and Fishing*. Dr. Kenneth Carlander served as the unit's leader from 1947 to 1965. As a distinguished professor in the Department of Animal Ecology at Iowa State University and cooperator in unit research, he still is involved in unit activities. Dr. Carlander is particularly noted for more than three decades of fishery research on Clear Lake, Iowa. His research identified many fishery management alternatives for prairie lakes (such as stocking of walleye fry) that ultimately benefit anglers, and he has received national and international recognition for his work. In 1965, Robert J. Muncy became the unit Leader when the U. S. Fish and Wildlife Service joined the partnership. During the 14 years he remained in that position the Iowa unit became renowned for the quality of its research and training program.

In 1967 two federal employees were authorized to be stationed at each wildlife and fishery unit. Kenneth R. Russell and Ross V. Bulkley served as the first assistant leaders of the wildlife and fishery units. Today the Iowa Wildlife Unit is staffed by Robert B. Dahlgren and Erwin E. Klaas, and the Fishery Unit by John G. Nickum and Wayne A. Hubert. These men supervise research and the education of graduate students, provide in-service training for practicing fish and wildlife biologists, assist agencies and individuals with fishery and wildlife management problems, and teach graduate courses at Iowa State University.

The wildlife and fishery units serve the needs of the state in which they are located, but they also deal with regional, national, and even international problems. Although most of the Iowa units' work was conducted within Iowa last year, they also conducted research in Idaho, Wyoming, the Dakotas, and Puerto Rico. The research of the units is now funded by several federal agencies, as well as by conservation groups, foundations, and corporations.

The units are governed by a coordinating committee with a representative from the U. S. Fish and Wildlife Service, Iowa State University, and the Iowa Conservation Commission. This committee approves the budget and research projects and guides the direction of the research to be undertaken. Leaders and assistant leaders are responsible for the day-to-day

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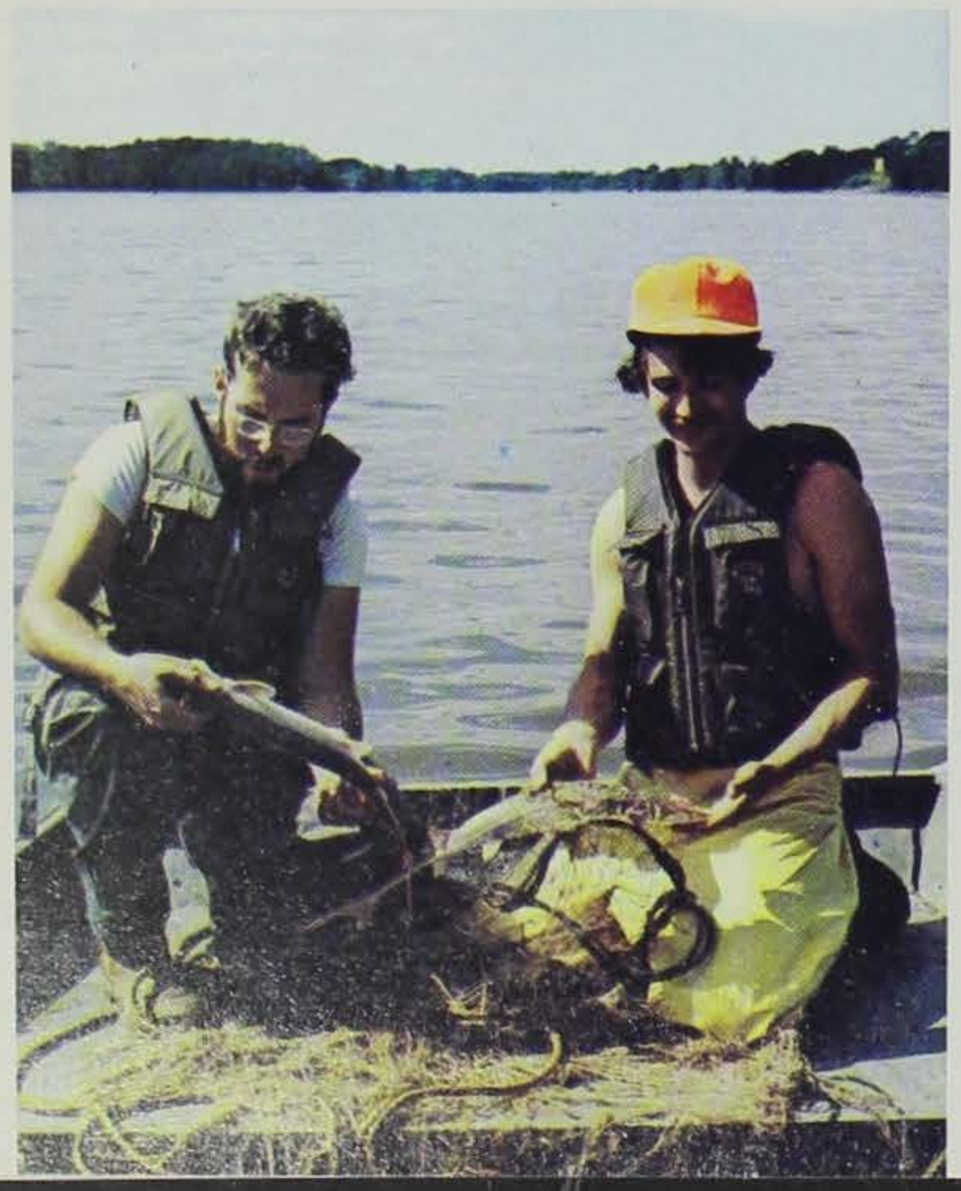


B

A *Paddlefish with surgically implanted radio transmitter.*

B *Shovelnose sturgeon collected by Fisheries Unit research assistants, Pete Southall and Steve Hurley, as part of a project to define the habitat requirements of this commercially important Mississippi River fish.*

C *Placing a radio collar in winter on the doe that gave birth to this fawn enabled researchers to find this fawn shortly after birth.*

D *A bobwhite quail has been equipped with a radio harness and is ready for release. By listening to the radio, researchers can tell what the bird is doing and where it spends its time. Radio telemetry aids greatly in gathering information on wildlife species so that management decisions can be based on facts rather than fancy.*

E *Members of a fishery management class from Iowa State University working on a trout stream habitat improvement project with the Hawkeye Fly-fishing Club and the Iowa Conservation Commission. Course taught by Wayne Hubert of the Iowa Cooperative Fishery Research Unit.*

F *Members of a fishery management class at Iowa State University electrofishing in Saylorville Reservoir during a class exercise on methods for assessing reservoir fisheries. Course taught by Wayne Hubert of the Iowa Cooperative Fishery Research Unit.*

G *Tiger muskie captured in Hickory Grove Lake during a survey of the lake's fishery.*

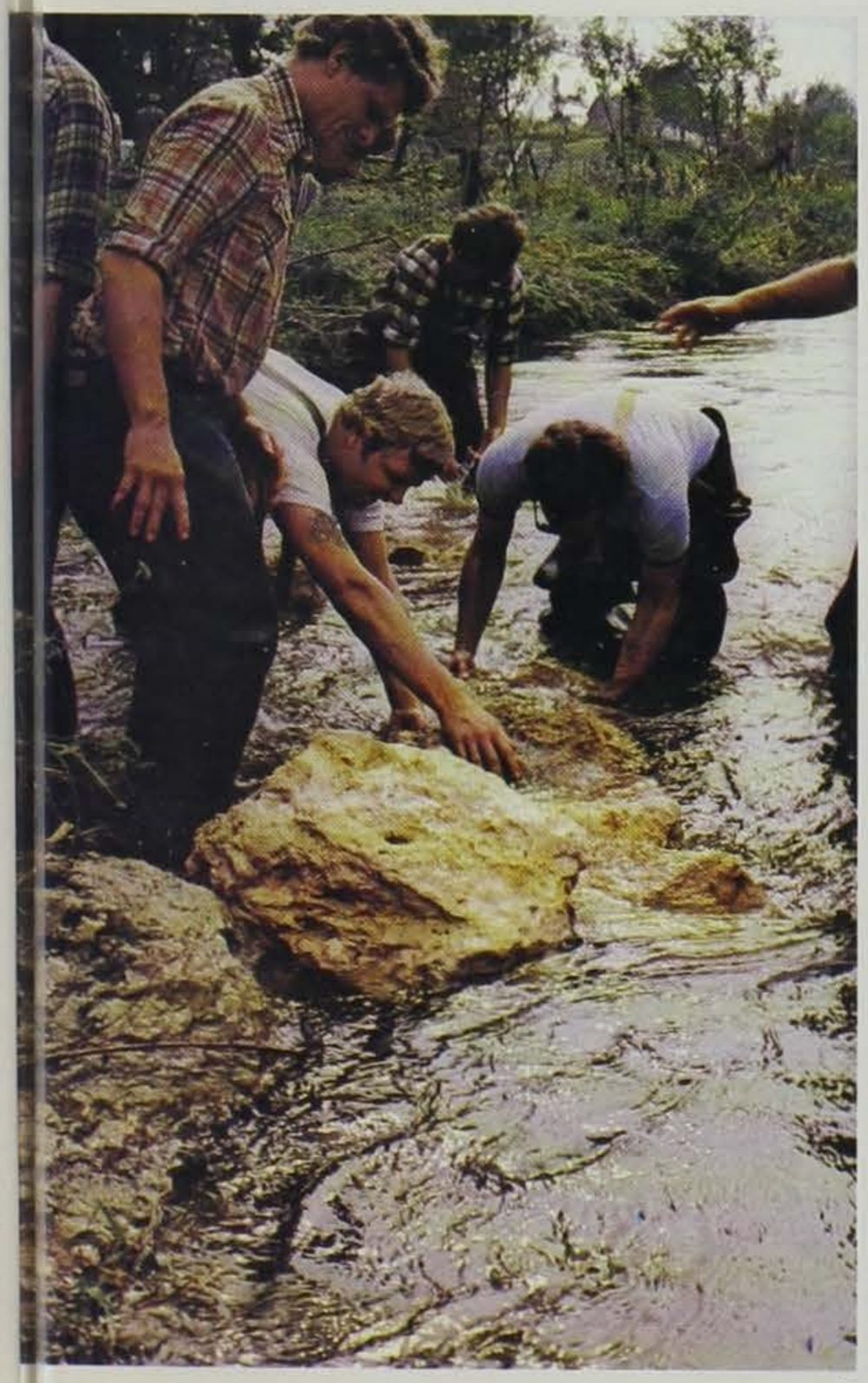
operations of the unit. All of the faculty members of the Department of Animal Ecology, where the units are housed at Iowa State University, as well as faculty members and students in many other departments, share in the units' research activities.

A major strength of the cooperative research unit concept is that research results can be obtained with minimal cost to each cooperator and to those who fund specific projects. The process is similar to a car pool: each rider pays only a part of the cost but gets a full ride. The cooperative research concept has been successful. From the small beginning in Iowa, there now are 21 wildlife units, 26 fishery units, and 3 combined fishery and wildlife units in 29 states.

It is logical to ask, *"Have the units been carrying out their purpose?"* The proof of the pudding in research is whether the results are usable. Game and fish managers want facts, and research supplies them. Nearly all the actions taken by a fish and wildlife agency, except the purely political ones, are based on research results. The rules and regulations governing seasons for both fish and game have been built up over the years on the basis of research. In the same way, biologists can manipulate crops and trees, forest harvests, or even stream habitats to produce more fish and wildlife. The Iowa units do not lay claim to finding all the facts, but they have found enough to profoundly affect the way conservation agencies operate to benefit the public.

Other evidence of accomplishment can be seen by scanning the shelves at the Iowa units' office. There are arrayed scores of graduate student theses and dissertations on fish and wildlife topics. All these students received supervision and research support from the units. The names of the graduates read like a *"Who's Who"* in fishery and wildlife biology. They include top administrators in federal and state agencies and renowned university researchers and teachers, as well as practicing managers in the field. The files of the units are filled with more than one-thousand technical reports, brochures, and manuals published by unit staff, students, and cooperators. These are the primary means by which research results are transferred to practicing professionals and the public.

Waterfowl, quail, pheasant, deer, and muskrats have been among the animals studied extensively by the Iowa Wildlife Unit. In recent years, several wildlife unit studies have concentrated on snow geese at the DeSoto National Wildlife Refuge near Omaha. Snow goose behavior and energy requirements have been studied in relation to the availability of waste corn, hunting pressure, fall plowing, and weather and satellite imagery has been used to measure the food supply in the Missouri River bottoms where the geese feed. A computer simulation model has been developed that can be used to make management decisions, not only at DeSoto, but also at other refuges where waterfowl are concentrated. Better management of bird populations should result. ▶



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The influence of farming systems on wildlife is especially important in Iowa because so much of the land is cultivated. Biological or organic farming is being compared with conventional, chemical-supported farming to determine the effects of each system on wildlife, soils, insects, profitability, and energy use. The effort is a joint one, blending the expertise of agronomists, economists, entomologists, and wildlife biologists. No-till farming also is being studied to determine its effect on both game and nongame animals.

Over the last few years, the Iowa Fishery Unit has been involved in research designed to provide a better understanding of the factors affecting fish populations in Iowa's heavily fished waters; the impacts of man's activities such as intensive agriculture, commercial navigation, water resource management, and energy development on fishery resources; and means to more effectively produce fish in hatcheries to supplement natural production. The effects of commercial navigation and hydropower development on the largest sport and commercial species of the Mississippi River, the paddlefish, have been assessed recently by the Iowa Fishery Unit. Radio telemetry technology was used to monitor the location and movements of several paddlefish over almost 100 miles of river. The results showed the ability of paddlefish to move between pools, the season and extent of their migratory behavior, the habitats preferred by the species, and the unique nature of their spawning areas. The results will give managers a basis on which to make future decisions.

A major thrust of the Iowa Fishery Unit in the future will be the management and preservation of sport and commercial fishery resources in Iowa's largest aquatic system, the Mississippi River. The filling in of backwaters with silt, the increasing levels of commercial navigation, and the development of hydropower at existing dams, as well as other human activities, present problems that must be confronted. The task of the fishery unit will be to help determine how severe losses in fishing quality can be prevented while development takes place to meet the other needs of society.

The fishery and wildlife units have frequently worked together on research projects. For example, the Iowa units have shared research on the impacts of stream channelization and how the impacts can be mitigated, or how damaged habitats can be improved for fish and wildlife use.

The Cooperative Wildlife and Fishery Research Unit program was started in Iowa by an Iowan. With increasing pressures on fish and wildlife generated by man's need for food and shelter, and an expanding technology, the cooperative research units throughout the country are needed more in 1982 than they were in 1932.

Happy Birthday to the Iowa Cooperative Wildlife Research Unit! And thanks to "Ding" Darling who started it all. Cooperative research was his idea, and with the help of many foresighted people, it has resulted in better fish and wildlife management. □

Iowa Conservation Commission biologist addressing a group of Unit students on Spring Branch Creek at Manchester. Commission personnel are valuable in providing field related experience for Unit students.

Drownings — A Frustrating Statistic

by Betsy Malueg

Betsy Malueg has been employed with the Iowa Conservation Commission since 1979. She is safety coordinator for statewide boating and snowmobile programs. She is a native of Madison, Wisconsin and a graduate from the University of Iowa.

Every summer too many drownings are reported to the Conservation Commission. Report after report of victims who found themselves in trouble, and who were unable to make it to safety.

Commission officials have become frustrated over these tragic statistics. More than 50% of all drownings in Iowa occur on private property, either in farm ponds or in sand and gravel pits. The Commission has no jurisdiction over waters on private property and therefore cannot enforce water safety rules and regulations. To make matters worse, people using privately-owned waters seem to think safety messages are only directed to people who use public waters.

What are the prime causes or circumstances surrounding these drownings? Research indicates several factors are present in most drownings.

Two thirds of the persons who drown cannot swim or are poor swimmers. Over half of the victims never expected to find themselves in deep water. Many who drown every year in farm ponds and quarries are young people between the ages of 15 to 21. These young people hesitate to indicate to their friends they cannot swim or over estimate their own ability. They refuse to wear a supposedly bulky and uncool device designed to save their lives — a life jacket. Sad as it seems, some people apparently would rather take a chance than be embarrassed!

Films of actual drowning sequences show that distressed and panicked nonswimmers last only 20 to 60 seconds before going under for good. Friends of the victims say after the tragic event they were unaware their friend was in trouble. This explains why drownings occur even in guarded, crowded swimming pools. People simply do not recognize the three universal signs of drowning.

The three signs of a person in the process of drowning are: (1) An open, but not vocalized mouth. (Drowning nonswimmers cannot call out for help, their first concern is getting enough air to breathe.) (2) Rolled, tipped back head, (3) and a rapid above water breast stroke. This movement is an involuntary action; the arms appear to be flapping the water in unison.

Those who are inebriated may make none of the above signs, but quietly and suddenly disappear under the surface of the water without a struggle. Alcohol and other drugs are a major concern for water safety officials.

Note: Position of a drowning person — she needs help now!

ART BY LARRY POOL

When good to average swimmers drown in quarries and sand pits the reasons are perplexing. Persons are seen diving, jumping or falling into deep water and are never seen again. Several causes have been postulated for their disappearance.

Many of the quarries in Iowa are spring fed, making the water cold. Cold water numbs the balance center of the inner ear, possibly leading victims to swim down rather than up. Cold water also reduces the persons breath holding ability under water. A person perhaps expends his oxygen too early and is not able to make it back to the surface. Another reason victims never return to the surface is that they dive into unfamiliar or shallow water leading to head and neck injuries.

Outlined above are some of the causes for water-related fatalities during the peak summer months. One of the best defenses to protect yourself, your family or friends against a water tragedy is insist they *Learn How To Swim!* If a person is a nonswimmer or poor swimmer it is imperative he or she wear a personal flotation device near water. He should become familiar with his life jacket in shallow water before an emergency begins.

Another common sense water safety rule a person must learn, if the grim statistics will ever be turned around, is to never swim or boat alone. Other people can help even if it is only to throw a life jacket or extend a rescue pole. Some safety rules to remember are: (1) Choose safe places to swim, where the depth is known and the water is clean. Remember, diving into strange waters can be deadly. (2) Know your ability and never showoff. (3) Build a safety station, place on a brightly painted fence post, a coiled 4-foot rope with an attached USCG approved throwable device. Along with it position a 12 to 14-foot bamboo rescue pole. (4) Mark any unsafe places to swim with a sign. (5) And build a fence around the pond, this helps eliminate the chance of small children wandering into the water. In any case, if small children are around water, they should have adult supervision. □

A NEW BREED

by James Heintzman, Naturalist
CERRO GORDO COUNTY CONSERVATION BOARD

Naturalists are conservation workers professionally trained to help people gain an awareness and understanding of their natural heritage. To do this, they need not only a broad understanding of ecological principles, but also a close familiarity with their local environment. That is why naturalists are found in such a wide range of habitats. Their seemingly odd behavior is designed to interest people in experiencing the outdoors, especially in local parks and wildlife areas.

You will often see a naturalist leading children and adults on walks through these areas, pointing out and explaining various features of interest. With school groups, especially, they prefer to use activities instead of lecturing. Naturalists are very fond of "hands-on" and sensory experiences. That's why you will see them using blindfolds, active games and adventurous assignments to get students involved in learning about the outdoors.

Do not be surprised if you see children on a field trip with a naturalist doing such things as hugging trees, imitating animals or sitting quietly for long periods of time absorbing the sounds of nature.

Naturalists will do almost anything to help people learn about nature. They spend many hours producing slide programs, giving talks to local clubs and service organizations, and arranging environmental education workshops for teachers, as well as the general public.

They also design informational brochures, nature trails, scout work projects, natural history displays and exhibits, promote outdoor recreation, and much more.

ART BY SUSAN GROFF

FLOURISHES IN IOWA

Naturalists know that learning about nature means much more than memorizing facts or learning to identify plants and animals by their common and scientific names.

That is why you see people smiling and laughing a lot where naturalists are hard at work. Naturalists feel that learning how nature works should be, above all, an enjoyable experience.

Right now, naturalists are concentrated in the eastern part of Iowa, primarily near major towns and cities. Most are employed by county conservation boards; there are presently 14 full-time and 8 part-time naturalists hired by boards to promote conservation locally. In some cases they are based at nature centers that facilitate their efforts. Other naturalists work at federal, state, and private wildlife areas, historical sites and visitor centers.

Government agencies will never be able to do the job of conserving our natural heritage by themselves. Only a concerned and committed public can accomplish that. That is why you will probably be seeing more naturalists in the future. They play an important role in making people aware of how important our natural heritage is to all of us.

If you can't find a naturalist where you live, contact your county conservation board. Someone there will be able to tell you the present status of naturalists in your area.

They have never been common or widespread in Iowa; but in recent years they have increased their numbers and expanded their range across the state. Once you know what to look for they are quite easy to spot.

I'm talking about naturalists, of course, a different breed of conservationist. To those readers unfamiliar with naturalists, the characteristics listed below may help you identify them in the field.

— Naturalists can be found in almost any habitat, but in the Midwest they are especially attracted to patches of native prairie. You will also see them walking in woodlands, wading through marshes, paddling down rivers or carrying on in classrooms.

— Naturalists almost always have a combination of binoculars, a camera, hand lens, and field guides attached to their bodies — or close at hand.

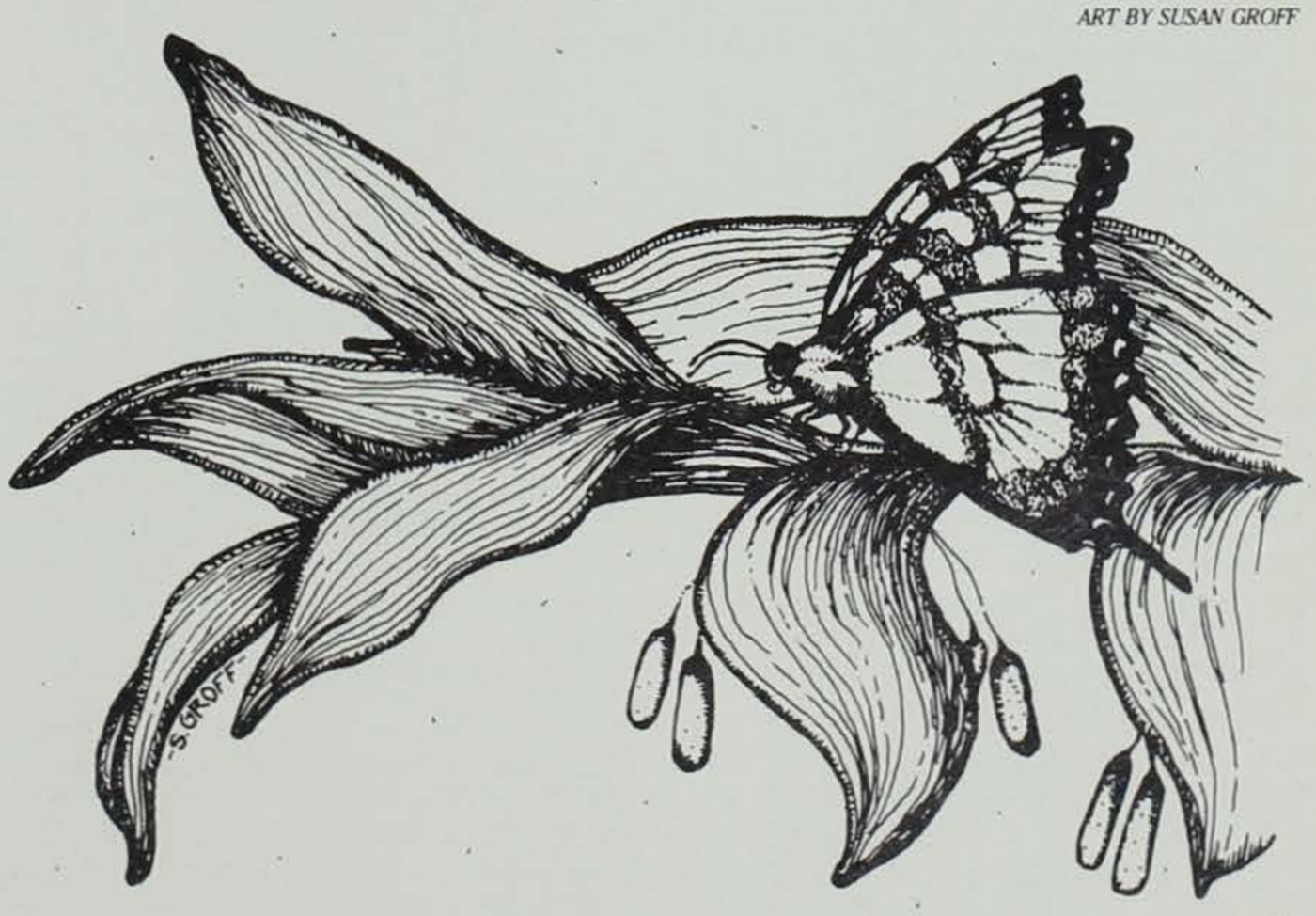
— Naturalists are noted for the unusual habit of picking up natural items such as owl pellets (or worse) and passing them around to perfect strangers.

— Naturalists driving a vehicle often come to a sudden stop along the side of the road. This usually means the naturalist has spotted a hawk or seen a fresh road kill for the specimen collection.

— Whenever possible, naturalists prefer non-motorized modes of travel. Cross-country skis and snowshoes are an adaptation for winter touring of the countryside.

— Although naturalists show a marked diversity of personalities, all of them enjoy nature immensely and delight in helping people experience the marvels of the outdoors. People also seem to greatly enjoy having naturalists in their locality. □

ART BY SUSAN GROFF



CLASSROOM CORNER

By Bob Rye
ADMINISTRATOR — CONSERVATION EDUCATION CENTER

Interviews always attract attention. They are used by television, radio, newspapers, and magazines. Interviews were an educational tool demonstrated during a teacher conservation education workshop at the Conservation Education Center.

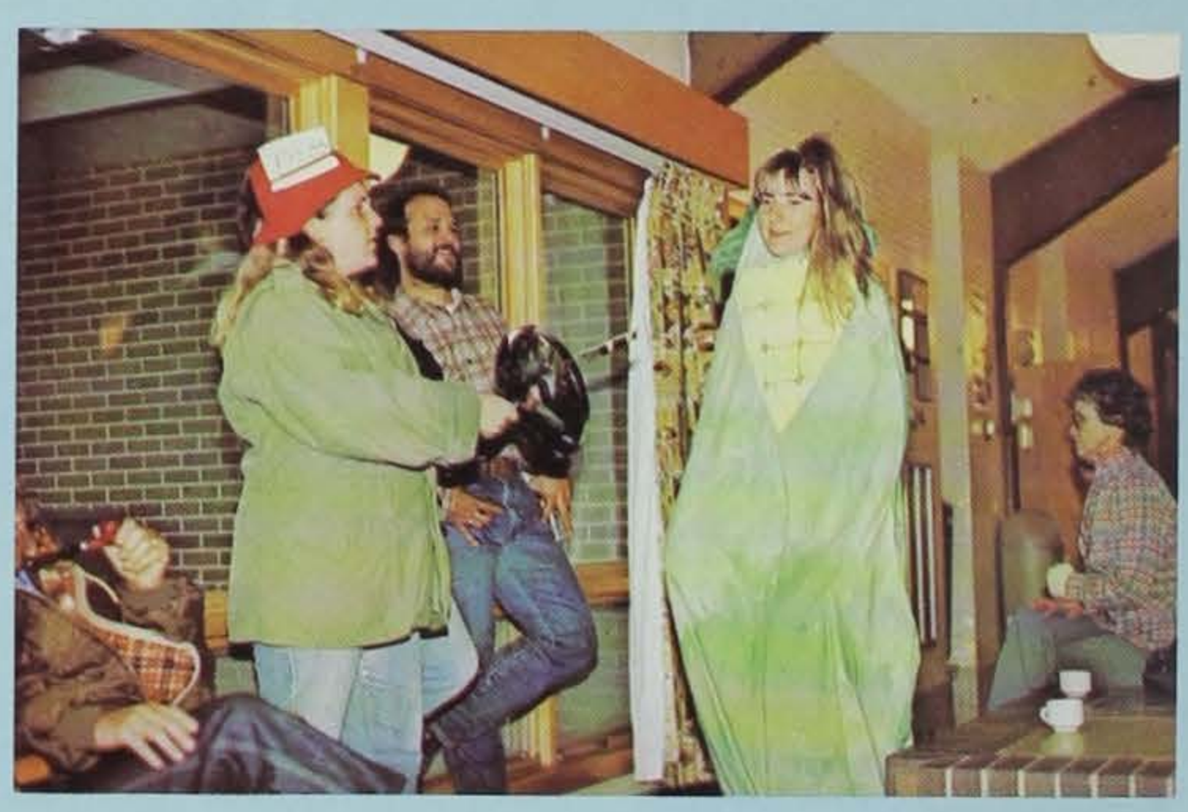
Can you imagine an interview of an energy source — Ms. Sun?; a producer — corn cob?; primary consumer — white footed mouse?; secondary consumer — fox in a box?; and decomposers — the mushroom and maggot? Interviews with these types of characters will hold the attention of most any group.

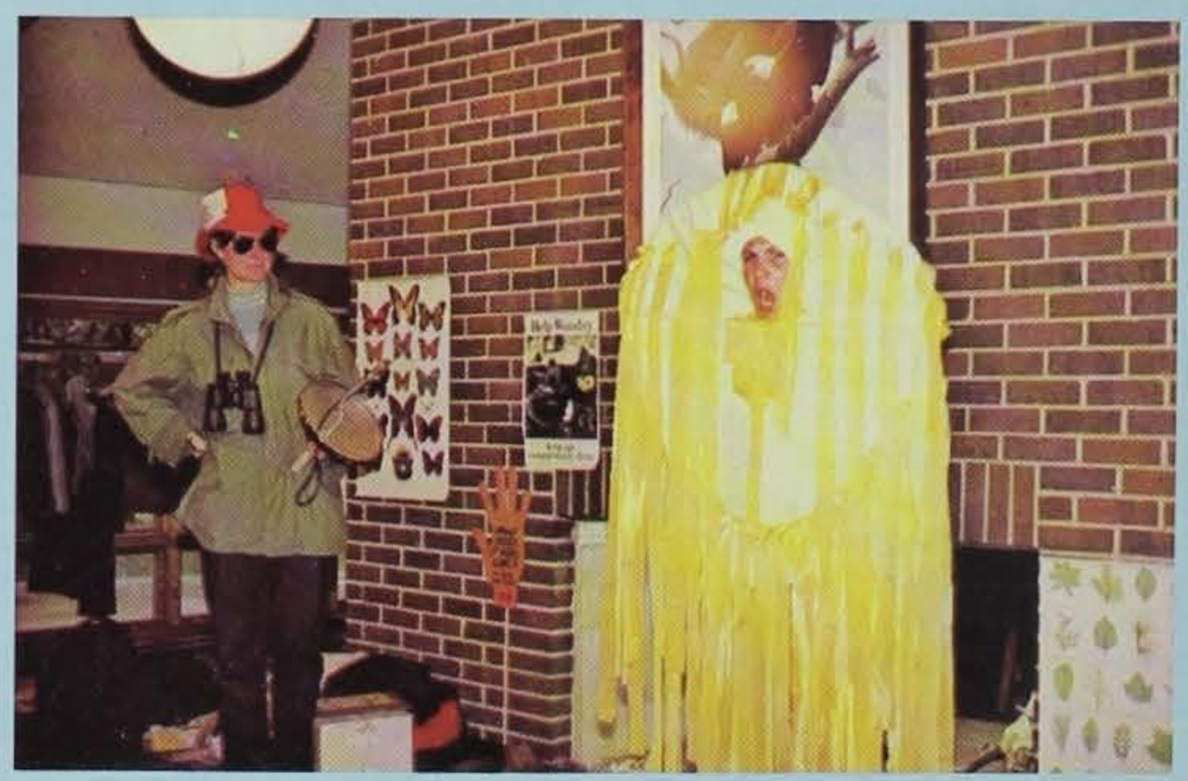
The interviews were conducted by Mary Duritsa and Margaret Kuchenreuther. Both are naturalists from Black Hawk and Warren County Conservation Boards, respectively. These interviews were developed and used with their past Environic Explorers Programs. They were a summary activity for each of the five days of the program.

For the interview there is a selected vocabulary. This list is used and stressed throughout the conversation between the interviewer (press) and the particular subject. For example, the decomposer interview has decay, hyphae, spores, decomposers, food webs, cycle of life, and enzyme decomposition. The role players, mushroom and maggot, make the words understandable to third graders by referring to their daily activities.

The role players appear in costumes to assist the youngsters in comprehending the situation. Some of the costumes are extremely simple items which we all could construct. The best example is the fox. The main item needed is a large box — say a stove or washer size. The fox is addressing the interviewer from a hole in a tree (which is the box). The rest of the costume is a glove — representing the paw of the fox. Be sure and fasten the toe nails to the end of each finger of the glove. It does a lot of pointing throughout the interview, acting like a puppet.

The initial interview in the series is with the Energy Source — Ms. Sun (see photo) using a more complex costume. There are many staples holding the rays on the outfit. There is a hoop which is held and gives the round appearance. The vocabulary covers the large overall picture and includes such words as solar system and solar energy for earth. The questions addressed include the age of the sun, what does the sun (through its energy) do, what are the problems with man's energy uses, and what should be done in the future.





The interview with the corn cob features a costume made out of old cot covers. You will also notice that the feature performers have changed roles (see photo). This interview does a lot of interrelating. How the corn is related to the sun (the process of photosynthesis), the food chain, conservation measures, and soil, and how man fits into the production and use of corn. This interview, like the others, will last 10-20 minutes.

The white-footed mouse develops the topics of being eaten, parasites, hibernation, and adaptations. The mouse scratches throughout the interview to show some problems of parasites, and is very fidgety as it watches for cats and other predators. The topic of food is often repeated in the mouse's vocabulary, showing the great need to eat in the mouse's life.

The use of puppet role playing, or anthropomorphism (non-human items being given human characteristics) interests an audience. You never have to be afraid of being in front of the group. The audience is always watching to see what is produced or what is happening. Take your topic and put on your own interview.

If you would like a copy of the questions and vocabulary used in these interviews write to: Conservation Education Center, R. R. #1, Box 53, Guthrie Center, Iowa 50115. □

THE ENDANGERED SPECIES ACT
— *in need of friends*

by Dean M. Roosa
STATE ECOLOGIST

The words 'endangered species' are familiar to most Iowans. The words might conjure up an image of a bald eagle, a dainty butterfly, a clam in the Mississippi River, a bobcat or a tiny fish swimming about the base of a giant dam. Some who read of endangered species might feel a pang of remorse that we let some species slip away — other readers might scoff and wonder why we should bother. Their reaction will reveal a lot about their background. At any rate, most will know that the federal government has had something to do with the protection of rare species we read about in the paper. That 'something' is the Endangered Species Act, passed as Public Law 93-205 in late 1973. That Act is now in jeopardy. Unless Congress votes to reauthorize the Act, it will expire on September 30, 1982. During the debate on reauthorization, development-oriented agencies and special-interest groups will urge amendments designed to weaken the Act. Hearings have been held, and, by May 15, 1982, committees in each chamber must approve the respective bills, which will then be up for vote. The final bill must be signed by the President before October 1, 1982.

Dean Roosa is the state ecologist for the State Preserves Advisory Board. Roosa has held this position since 1975.

The Endangered Species Act states that some species, threatened with extinction, "are of esthetic, ecological, educational, historical, recreational, and scientific value to the nation and its people". It further pledges that all federal agencies shall utilize their authority to further the act. It was strong legislation — good legislation — needed legislation. It has been an exemplary and successful act. The success was a result of not only its protection clauses, but also its sections which provided funding to the states for research. States with programs started and with legislation passed to protect species qualified for federal funds on a cost-shared basis where the federal government would provide two dollars for every one dollar of state money spent on endangered species research. Iowa took advantage of this funding arrangement by devoting a portion of the State Ecologist's time and a portion of the State Preserves Advisory Board's budget as the state's share of the project.

Research has been done in Iowa each year since 1979 on such species as the bald eagle, Higgins pearly mussel, Dakota skipper, Indiana bat, and Iowa pleistocene snail. As a result, we now know that Iowa is an important summer habitat for the Indiana bat, where the bald eagle roosts during severe weather, the location of most of the beds of the Higgins pearly mussel, and the location of new colonies of the Iowa Pleistocene Snail. Results have vastly improved Iowa's ability to manage and protect these biological treasures.

It is important that conservation-minded readers of this magazine register their concern by writing to their congressmen, urging a favorable vote on reauthorization of funding for the Endangered Species Act, to reinstitute funding to the states for research and habitat acquisition, and to vote against any amendments which would weaken the Act.

The decade of the 80's will decide what kind of world we leave for future generations. The Endangered Species Act is a part of that decision. Please get involved. □

WARDEN'S DIARY

by Jerry Hoilien
CONSERVATION OFFICER

A number of years ago, Ken Kakac (retired), then the Conservation Officer at Burlington, called one day for some assistance. Seems that some commercial fishermen were getting so used to Ken and his boat, that when they saw him coming, all the illegal fish went overboard. As I had an unfamiliar boat, he thought that might help. I hurried up and loaded my boat on the trailer and headed for Burlington. About five miles up the highway I stopped to check my load. Everything was fine except that I had only one oar. Thinking I'd left it at home, I hurried back. Nope — it wasn't in the shed, and to my surprise the *one* in the boat was now gone too! I've learned to tie the darn things in since then. I've always wondered who found my oars along the highway.

I arrived at the ramp minus the oars where Ken was patiently waiting. We launched the boat and worked our way up the river. The Mississippi is wide in that area, with Illinois on the other side of the channel and lots of commercial fishing gear and activity. It's one of the best catfish producing areas in the country. Ken would sit with his back to the front till we got up next to a boat running commercial gear. We checked eight boats and wrote seven citations.

The last one, we had so many buckets of short catfish in the boat (the commercial size limit on catfish is 13 inches) we didn't move the "bucket of shorts" into our boat right away. As Ken was talking to the commercial operator about the "shorts", his wife stood up from the front of the boat, walked calmly back, reached down past two game wardens, swung the bucket up, out, and over the side saying, *"We haven't measured those yet!"* All Ken could say was *"Here, here"*, and they were gone. It all struck me funny and that didn't help!

I like commercial fishermen — they're a breed apart. It's a hard life and it develops some real characters. Some are real businessmen who wouldn't be caught wrong, but others can't seem to resist adjusting the regulations.

One day the department issued me a new boat and motor. I was so proud of it — got it all fixed up and took out for its maiden voyage. As I was cruising down the river, a commercial rig cut across in front headed for Illinois. I swung along side and as we stopped, the surprised fisherman said, *"Oh, Jerry, you got a new boat!"*

I was more interested in all the game fish I could see in the bottom of his boat (you can't legally keep game fish from commercial nets or gear). *"What about all those game fish, friend?"* I asked. His reply was again, *"Oh, Jerry, you got a new boat!"*

Wildflower of the Month —

SHOOTING STAR

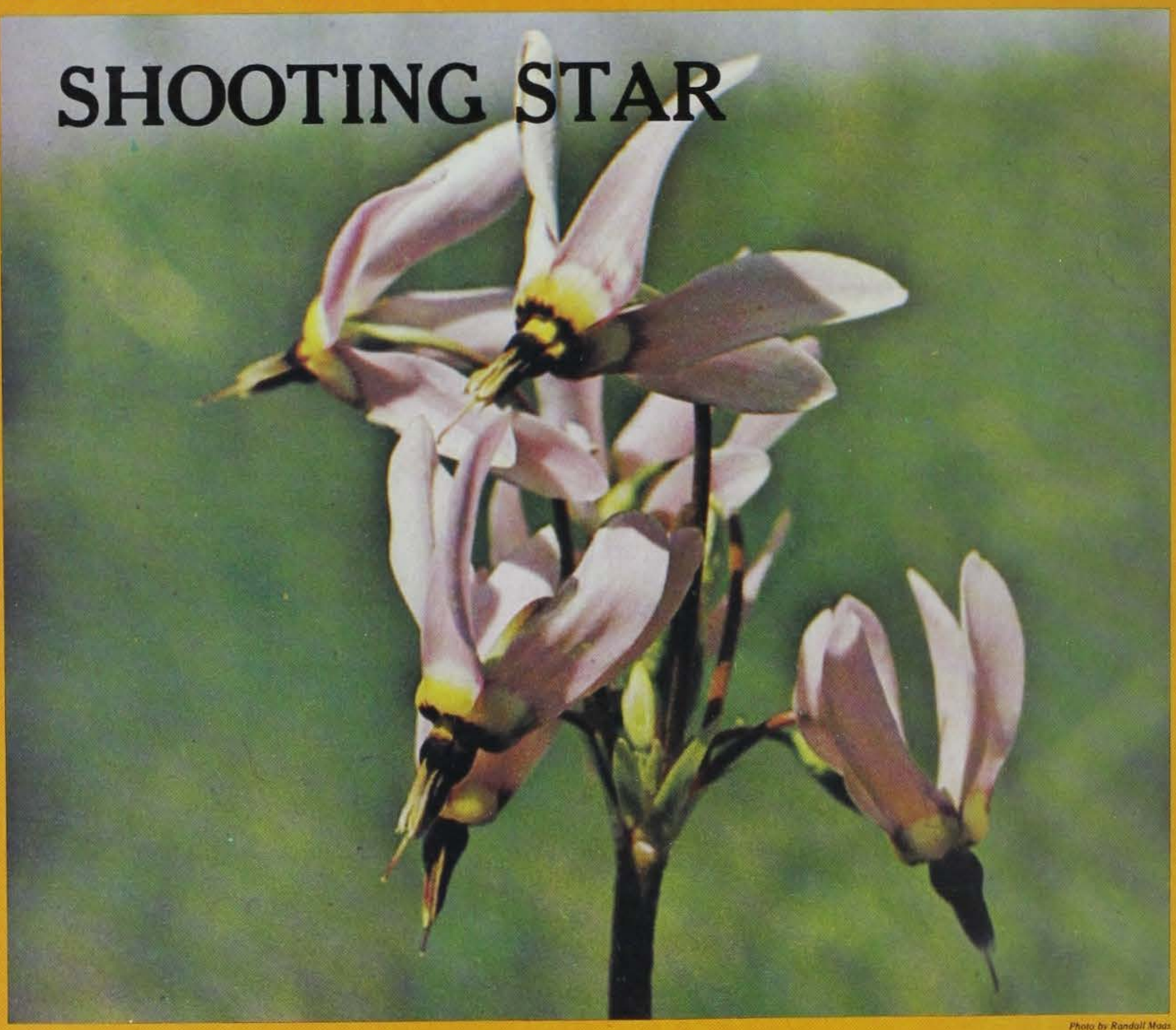


Photo by Randall Maas

(Dodecatheon meadia)

by Dean M. Roosa and Sylvan Runkel

One of the joys of living in Iowa is spring. One of the joys of spring is looking for wildflowers. One of the joys of looking for wildflowers is occasionally finding one which is almost too good to be true. Such a flower is this month's featured species, shooting star *(Dodecatheon meadia)*. A visit to Hayden Prairie State Preserve in late May will convince you.

Shooting star is found on rocky slopes and cliff edges of open woods, but its favorite haunts are native prairies. It is particular which prairies it grows on, though, and finds only those in the northeast quarter of Iowa suitable. It now occurs no farther west than the Butler County area, but it formerly was found as far west as Hardin County. Perhaps it is too dry in western Iowa; perhaps the soil is not quite right; perhaps we will never know.

It starts anew each spring with a basal rosette of spatula-shaped leaves which may get up to eight inches long. The leaves narrow toward the base, and are reddish at the base and on the midrib. The smooth, hollow, leafless stalk gets to 20 inches long, dividing toward the top into several arching branches which end in a flower. The flowers may number from a few to over a dozen and have five narrow petals which vary from crimson to pale pink to lilac. These petals sweep out and up into a fancied star shape; the stamens protrude into a beak-like cone.

When fruits appear, the arch of the flower stem is lost and the fruits point upward. The seed capsules are small and barrel-shaped.

Another shooting star, the jeweled shooting star, is found along the bluffs of the Mississippi River in eastern Iowa. It is smaller, with uniformly-colored pale lavender flowers, but no less pretty.

This spring would be a very good time to make a new wildflower friend. The shooting star is a worthy acquaintance; it will be waiting for you on a prairie or open woodland in northeast or eastern Iowa. See if you don't agree with us that it is almost too good to be true. □