

IOWA CONSERVATIONIST

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Number 11

WILDLIFE'S 15 YEARS AT COLLEGE

PITTMAN - ROBERTSON TO DATE IN IOWA

By Lester F. Faber

Superintendent, Federal Aid Section

In 1937 the Congress of the United States passed the law known as the Federal Aid in Wildlife Restoration Act. This Act put a 10 per cent excise tax on sporting arms and ammunitions. The money is collected in and returned to the 48 states, Alaska, Puerto Rico, Hawaii, and the Virgin Islands. These funds are administered by the Federal Aid Branch of the U. S. Fish and Wildlife Service. Distribution to the states is based on area of the land surface and number of hunting licenses sold each year.

Under the provisions of this Act, the state adds 25 cents to each 75 cents of federal funds. The total becomes the annual Pittman-Robertson operating budget.

The money gathered is distributed to the states each year, usually on July 1. It must be used for wildlife restoration work where game species receive primary benefit.

The regulations allow P. R. (Pittman-Robertson) funds to be used along five major lines: 1) Coordination—Provides for state personnel and equipment; 2) Acquisition—Allows for purchase of submarginal land, marsh areas, or other land suitable for development of wildlife; 3) Habitat development—On state-owned land, on areas purchased for the purpose, or on private lands; 4) Maintenance of areas; 5) Wildlife surveys and investigations.

Coordination

From 1939 until 1948, responsibility for administering the P. R. program in Iowa was not centralized. July 1 of that year a separate section was set up in the Division of Fish and Game of the State Conservation Commission. It is

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COOPERATIVE WILDLIFE RESEARCH UNIT PAYS PYRAMIDING DIVIDENDS

By Edward L. Koziacky

Leader, Iowa Cooperative Wildlife Research Unit



The muskrat in Iowa is a million-dollar fur animal. Continuous and intensive investigation by the Iowa Cooperative Research Unit has provided us with a vast store of knowledge of the fluctuation of wild mammal populations. Jim Sherman Photo.

On July 1, 1949, the Iowa Cooperative Wildlife Research Unit started on its fifteenth year of wildlife research, education and extension work under the sponsorship of the Iowa State Conservation Commission, the Iowa State College, the U. S. Fish and Wildlife Service, and the Wildlife Management Institute. Unit findings have contributed to better management of wildlife in Iowa through the improvement of game census techniques, the revision of game laws, and the establishment of game management practices. In addition, students have been trained and are now employed in Iowa and 30 other states, Alaska and Canada as biologists, teachers and administrators.

Iowa can be proud that the idea of the Cooperative Wildlife Research Program was initiated by one of its foremost conservationists, J. N. "Ding" Darling.

In 1932 "Ding" had the foresight to see the need for scientific facts upon which to formulate a game management program for the state of Iowa. With this in mind he contributed personal funds and gained the support of the State Conservation Commission and Iowa State College for cooperative wildlife research work. Upon being appointed Chief of the U. S. Biological Survey (now U. S. Fish and Wildlife Service) in 1935, he supervised the establishment of the Cooperative Wildlife Research Units. The success of this venture in Iowa is reflected in the 13 additional units that are now in existence at land grant colleges in Alabama, Colorado, Idaho, Maine, Massachusetts, Missouri, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Utah and Virginia.

Since the inception of the program at Iowa State College, about

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PRESERVATION OF PREHISTORIC INDIAN MOUNDS PURPOSE OF NEW NATIONAL MONUMENT

President Signs Proclamation Establishing Iowa's
First National Monument

By James R. Harlan
Assistant Director

Hopes and dreams of conservation leaders for more than 35 years were realized with the President's signature October 25 on the proclamation establishing the Yellow River Mound Area in Clayton and Allamakee counties as a national monument. By authority of an enabling act of the 49th General Assembly, the 1,000-acre tract has been deeded by the Conservation Commission to the National Park Service to be administered as a national monument—Iowa's first.

The importance of the acquisi-

tion of this land, containing more than a hundred Indian mounds, described as among the "very finest on this continent," cannot be over-emphasized when it is remembered that since the beginning of white man's occupancy, these most important evidences of the mound builders have been vandalized and destroyed in most of the state until only a pitiful remnant of their original thousands remains intact.

The accumulated purchases cover a tract of non-agricultural land approximately three miles north and south and a half mile east and west situated at the mouth of the

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**HOW BIG IS
CONSERVATION?**

By **George W. Worley**
Education Assistant

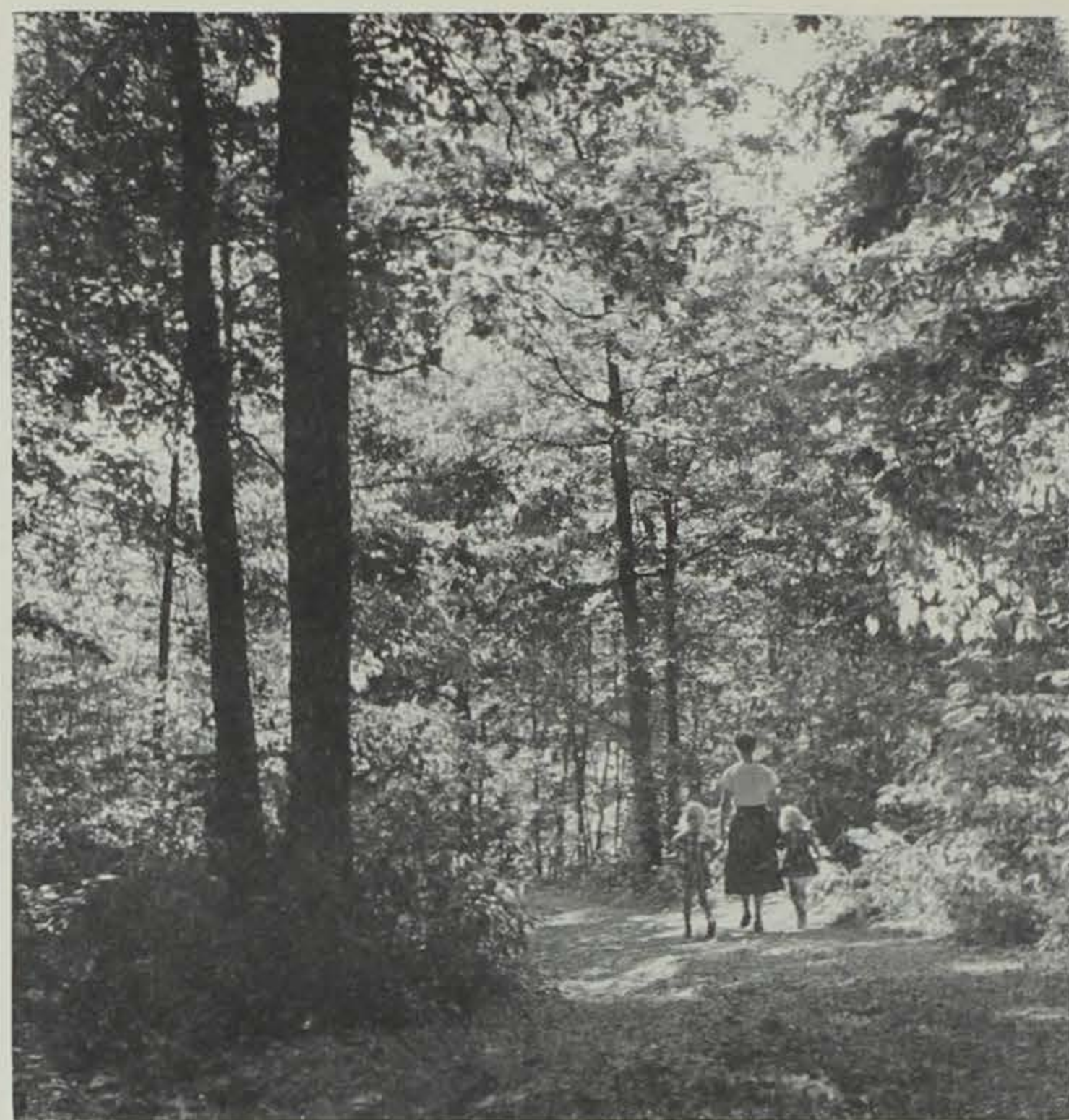
Conservation is so big it deals with all the world, its soil, water, green plants, minerals, wildlife, and people.

The best way to do a big job is to break it up into small parts. That's the way we must do the big job of conservation, but let's not become so tied up in our small jobs that we forget the big one, our real goal—total conservation.

There is no such thing as soil conservation by itself. There is no such thing as forest conservation, or water conservation, or wildlife conservation by itself. Each is a small part of one big job—total conservation.

In total conservation each resource must be managed according to its relation to all others. Thus, wildlife conservation advances through wise use of soil, water, and green plants. Natural resources are tied together in a common relationship. We cannot afford to ignore those ties, for they make our job easier. By conserving one resource, we aid in the conservation of others. By conserving all, we conserve each one.

Conservation is so big it encompasses all soil, water, plants, minerals, wildlife, and people. Conservation is so small that it deals with planting a single tree, or stopping a single gully.



In mid-October Mother Nature puts on a big show, making the days extra nice and bringing beautiful colors to the trees. Jim Sherman Photo.

**A MAJOR PART OF
FISHING**

By **J. Curtis Grigg**

In mid-October we took a trip up along the Mississippi, and we think it the time of year ideal for exploring trips. Of course we were fishing and still we noted the bright red and yellow forests. Seems like Mother Nature puts on a big show because she is sorry that summer is leaving. So she makes the days extra nice and brings beautiful colors to the trees and even the common weeds are dressed up so you wouldn't know them.

Mother Nature is extravagant; she doesn't do things by halves and when she puts on her farewell party for the departing summer, it's something mere man cannot duplicate for color. The harmonizing shades of brown, red and yellow—why, I even forgot about fishing when I looked over some of that country.

Wonder if the fellow who said "Thar's gold in them thar hills" wasn't looking at the sugar maples in October? Couldn't help but think what a shame all this beauty was going to waste and most people too busy to even give it a second look or maybe never see it.

Yes, friend, soon the last leaves will fall and the cold winds will blow. Winter will come and the leaves will fade and blow away, so take a look while they are here.

While we dread the coming of winter, there is much beauty in the woods, fields, hills and streams when they are covered with new

fallen snow, but we often only see the cold side of the picture. Like man, all nature has to sleep part of the time.

The world is a beautiful place and God will send us a new day Tomorrow, and spring will come again. It has always been so. I always thought when the going was tough, as it is for all of us, that it was a wonderful thing that we had to live only one day at a time and, if we managed to get through that day, we would get a new, unspoiled day, Tomorrow.

Brother, I apply this thought to my fishing—if they don't bite today, maybe they will tomorrow, so I go and see. Nothing like faith, you know. Can't catch fish without it. Just as necessary as the bait, only more so.—Hopkinton Leader.

We don't suppose that the Indians will ever return to Iowa, but the wildlife of the state seems to be on the increase in recent years. In some instances the growth of game populations is proving to be a real nuisance to farmers. Last year the Iowa State Conservation Commission took steps to control the beaver population and now the Commission has set up 20 schools to give trappers and farmers specific direction in trapping to control fox and coyote. If we get enough beaver, fox and coyote, with a few deer and buffalo thrown in for good measure—who knows, we may find the Indians returning.—Osage Press.

Much more research is needed to determine the effects of D.D.T. and other poisons on wildlife and on the soil itself.

**NESTING BOX
CAMPAIGN HELPS
WOOD DUCKS**

Nesting boxes set out by state conservation officers and sportsmen throughout the Northeast have been occupied heavily by wood ducks during the past breeding season.

Fully 90 per cent of all nesting boxes put out in Massachusetts, New Hampshire, Pennsylvania, Vermont, Ohio and other states were occupied by nesting birds this summer. The Massachusetts Department of Conservation started the ball rolling when it developed the idea of purchasing war surplus ammunition boxes with Pittman-Robertson funds, converting them to nesting boxes, and distributing them to suitable breeding grounds throughout the state. Other states began similar projects to alleviate the housing shortage for the wood duck.

Massachusetts studies showed that boxes placed on posts set in the water received far more response than those situated in trees. Squirrels, mice and raccoons usually invaded tree nesting boxes before the woodies had a chance to use them, and only 16 per cent of those not placed on poles in water were used by ducks.

Under natural conditions wood ducks nest in hollow trees, but intensive lumbering throughout the breeding range has reduced suitable nesting sites to a minimum. The success of the present program indicates that the wood duck, once seriously threatened with extermination, is here to stay.—Wildlife Management Institute.

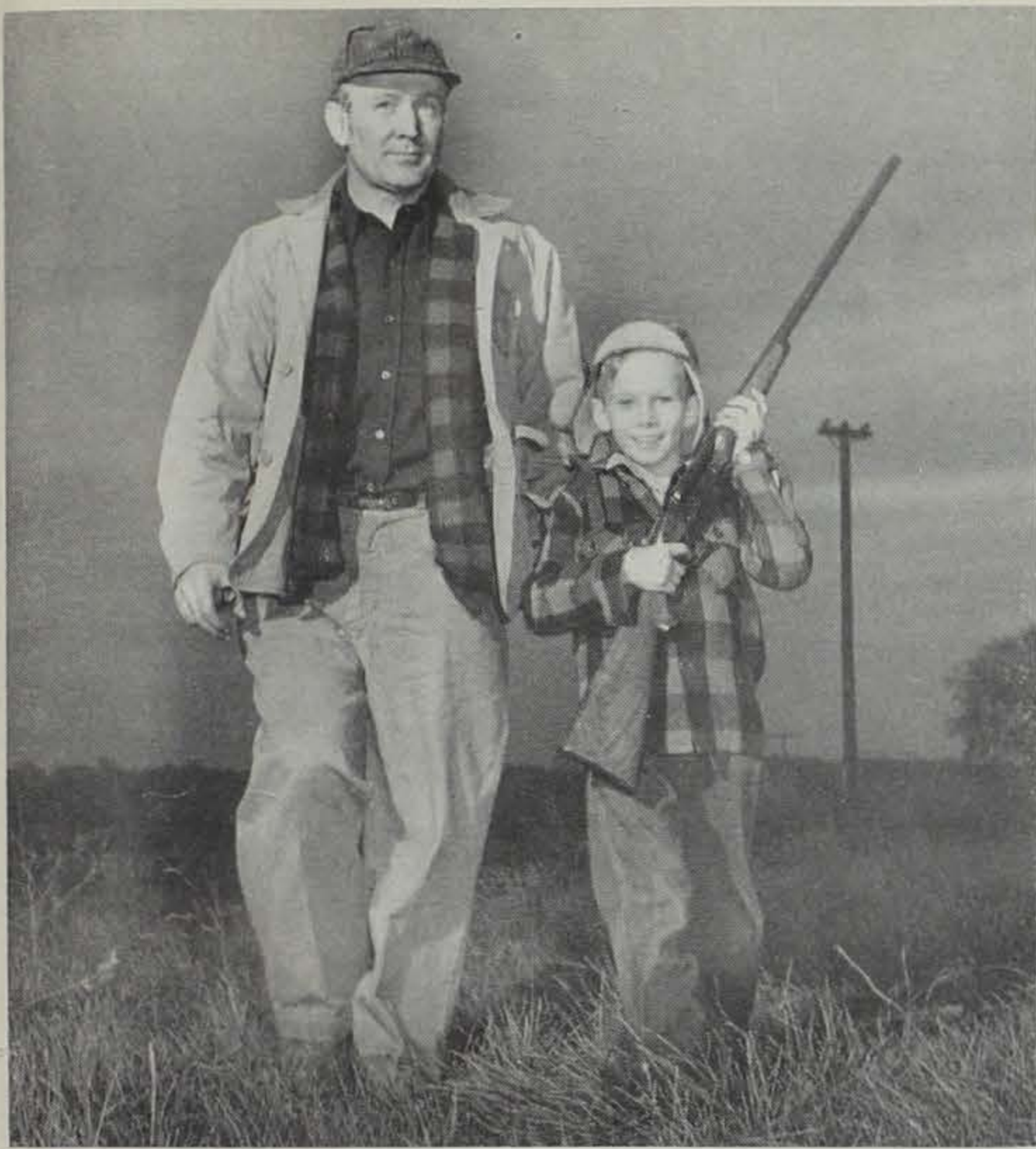


Part of several hundred wood duck nesting boxes built by the Des Moines Chapter of the Izaak Walton League and placed along the streams in Polk County.

What A Mistake!

Last deer season, a fellow in Wisconsin hit the dirt when a high-powered slug whined over his head. He lay tight until a red-coated female rushed up and asked breathlessly if he was hurt.

"Really, I'm awfully sorry," she admitted. "I thought you were my husband!"



Every boy should be taught how to carry his gun and never to point it at anyone. He should know that it is a dangerous instrument, and Dad should be the teacher of these essentials. Jim Sherman Photo.

SHOULD SONNY HAVE A GUN?

Among the certain signs of the coming of fall are the small groups of boys who tramp the roads to the woods, each armed with a gun. Sometimes it's a small rifle, sometimes a light shotgun. Occasionally a favored dog or two is with them, chasing here and there, sniffing at the trail of some big or little beast, letting out a yelp now and then, announcing what he believes to be a discovery of something that the boys should hunt out.

It's good for the boys to be on a tramp into the woods. It might be just as good without the gun, but boys do not always agree with that idea. "Aw!" they protest, "tain't enough fun without a gun."

And that presents Mother, first, and Dad also with an ever recurring problem: Should the boy be allowed to have a gun and go on these so-called hunting jaunts from which the boys rarely bring back any game of value, although the tramp has been good for them?

Parents, alarmed by news stories from many communities in the state, telling of a shocking accident to some boy with a gun, are stirred to refuse to buy the boy a gun. It's a dangerous thing, they object; it costs too much, but son bravely says he'll earn the money himself, protesting that wouldn't happen to him. He's too young but the answer to that is that Billy, his pal, has a gun and isn't much older. And so the argument goes.

What is the answer?

Say those who have studied the problem, "A boy can be too young for a gun and hunting with other boys." How old must he be? They say that this depends upon the boy—and his father—whether the father knows enough about a gun and takes the time to teach his boy how to use it. General opinion is that a boy should be well along in his teens.

In a recent talk to a 4-H boys' club in Williamsburg, Iowa County, Wes Ashby, conservation officer, told the boys some worthwhile things, reported by the Marengo Pioneer Republican. Among them were these:

Danger in handling guns lies in two things—not knowing how to handle them properly and plain foolhardy carelessness.

Foolhardiness can usually be blamed on the boy himself, but it is parents who are to blame when the boy doesn't know how to handle a gun.

Parents should not let their son take a gun to play with or hunt with when he is too young for such responsibility. What is worse, they—and that "they" is usually his dad—fail to give him proper safety instructions.

Every boy should be cautioned not to carry his gun loaded around the premises, never to point a gun at anyone, never to pick it up without checking to be sure it is not loaded, how to carry it without endangering his companions. Then one would not read so often where a lad had killed a little sister, his mother or other person because he "thought it wasn't loaded."

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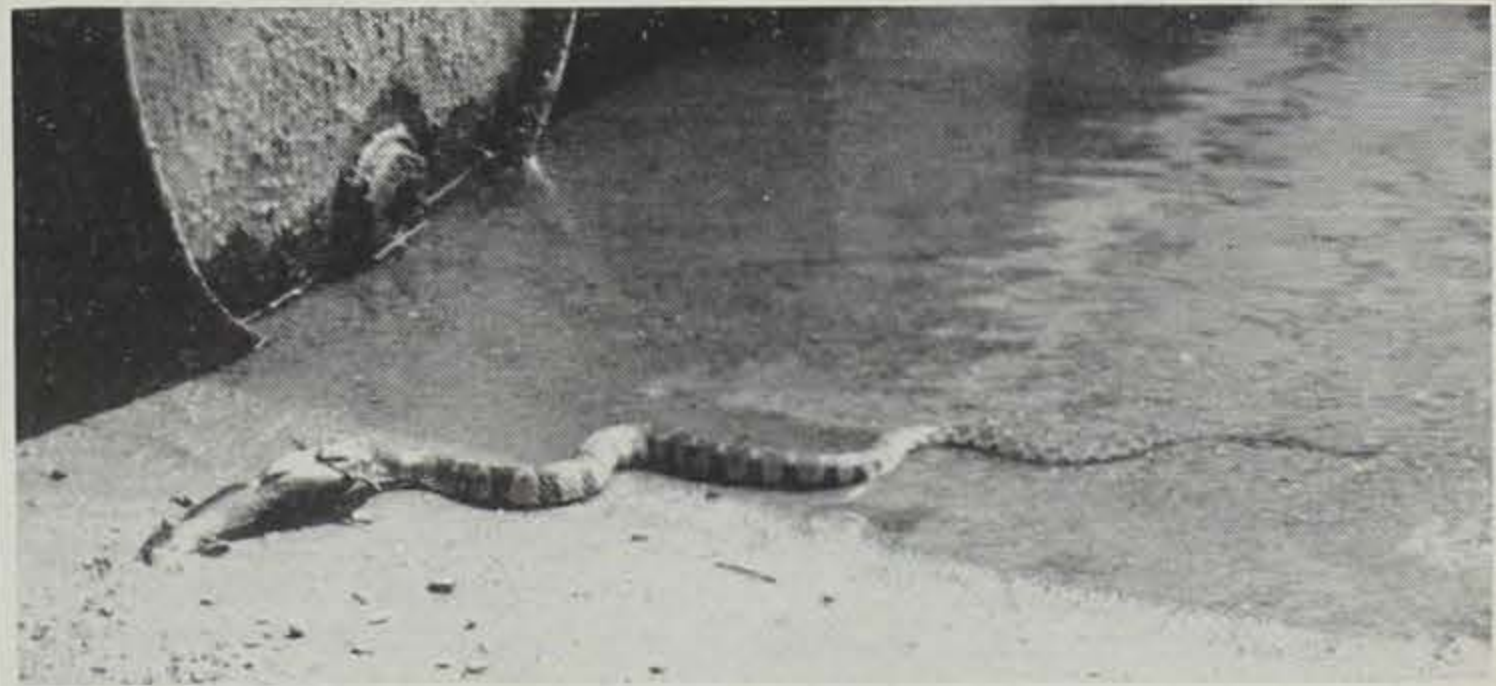
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PLEASE PRINT PLAINLY



A harmless, common water-snake, after capturing a seven-inch bullhead, brought it ashore to make the process of swallowing less complicated. P. C. Walker Photo.

"Iowa Conservationist"
914 Grand
Des Moines, Iowa
Gentlemen:

From time to time I have seen unusual pictures in my conservation magazine which, by the way, I always enjoy. The enclosed picture is my first contribution. It was taken on August 16 on a fishing trip. My son called to me to come quick and see a snake swallowing a fish. The picture shows what I saw. This snake was between three and four feet long, and

the bullhead was seven inches in length. As can be seen in the picture, the snake was doing well with his meal until he encountered the horns, but in time I presume he would have forced them back and completed his meal. He was disturbed by our presence, dropped the fish and swam off in the water.

These common water-snakes are non-poisonous but to some people, including some men, they have a very frightening effect.

P. C. Walker
Cedar Rapids, Iowa

FOR SALE

Wild ducks are in good supply at Muscatine retail markets and are selling for 15 cents each, dressed. —Muscatine Journal, October 24, 1874.

The largest living mammal is the blue black whale with a total length of 103 feet and weighing 147 tons.



The new 400-acre artificial lake being constructed on Honey Creek has been named Lake Darling in honor of Jay N. "Ding" Darling, one of the nation's outstanding conservationists. Construction is steadily progressing. Jim Sherman Photo.

"LAKE DARLING" IS NAME OF NEW LAKE

Naming the Washington-Jefferson-Keokuk county lake the "Ding" Darling Lake we think will meet the approval of everyone in the three counties, for two reasons: (1) "Ding" Darling is, beyond a doubt, one of the nation's greatest conservationists; (2) his cartoons have found their way into every home in the nation. As a result he has become the best and most favorably known picture writer in the nation.

(1) Being a great conservationist and an Iowa citizen, he is entitled to every recognition in Iowa. We move that a huge granite boulder be placed on the center of the dam carrying a plaque that will tell future generations why the lake was so named.

(2) The name "Ding" Darling Lake," or "Lake Darling," will advertise this body of water and the surrounding parks to the four corners of the nation. As said above, everyone old enough to read has become acquainted with "Ding" through his cartoons. When the nation learns that the largest man-made lake in Iowa has been named in his honor, every mother's son and daughter in the country will want to see it. The Conservation Commission is to be congratulated for selecting the name it did.

Those who have had a part in getting a lake on Honey Creek have had not a little fun trying to select a name for the enterprise. It appears that the fine and hard-working group of men over in Washington leaned toward the word Chauquaqua—an Indian word meaning skunk. Early maps of Iowa call the Skunk River the "Chauquaqua River." "Lake Chauquaqua" would have been a musically sounding name.

We people in Jefferson County did not care much what the lake was named, so long as we got a

lake. One of our group did, however, propose the name "Wakeje" (pronounced Wah-ka-gee) — the first syllable for Washington County, the second for Keokuk County, and the third for Jefferson County. "Wah-ka-gee" is the native New Zealand word for safe canoeing. Ralph Shannon immediately stated in his Washington Journal that he thought our name was very appropriate.

The State Conservation Commission very sensibly concluded that both the names "Chauquaqua" and "Wakeje" were too difficult to spell and remember. It asked the Izaak Walton League clubs of Jefferson and Washington counties what they thought of the name "Lake Honey Creek." The two clubs replied the name was perfectly satisfactory.

The name "Darling" was later suggested and immediately accepted by the State Conservation Commission. No better name could have been selected—the name of a great man and a great conservationist.

We are glad that this honor is being paid to "Ding" Darling while he is still living. The human being has a habit of paying little attention to our great men and women while they are still alive—after the great have passed away we then build monuments in their honor.—*Fairfield Ledger*.

Deaths by accidental gunshot wounds in Iowa last year totaled 32, according to figures compiled by the Division of Vital Statistics of the Iowa State Department of Health. The number of accidental fatal shootings occurring in Iowa each year since 1940 follow: 1940, 42; 1941, 32; 1942, 43; 1943, 35; 1944, 36; 1945, 39; 1946, 43; 1947, 34; 1948, 32.

Wardens Tales

Shop Talk From the Field

Conservation Officer Walt Harvey, in charge of Grundy and Marshall counties, writes:

"I am mailing pictures taken at the scene of an unusual wildlife kill. During a recent windstorm a highline carrying 2,300 volts of electricity was blown over. The wires did not go to the ground, but about two or three inches above. The line runs through a field to a cabin owned by Fred Harding about three miles northwest of Marshalltown. As soon as the down line was discovered, it was reported to the power company here at Marshalltown and was promptly repaired.

"The accident to the wildlife was reported to me by Jim Cooper, a farmer living close by. Here is what I found: 10 dead raccoon, ranging from about 25 pounds down to this year's coon; two opossum; one half-breed coon dog; and one black cat. Some of the animals were burned very badly. The area surrounding the scene contains excellent wildlife cover, with a large pond off to the left of the picture. Apparently the pond was a favorite fishing place for the raccoon in the neighborhood, as well as a meeting place for other nocturnal wildlife. We believe that the line was down only two nights."

W. E. Ayers, conservation officer in Wright and Hancock counties, writes:

"I was checking a duck hunting area in Benton County when I noticed a gentleman walking along gazing skyward. As I came up I noticed that he had a duck call on

WE KNOW ABOUT SILT

If we had the knowledge to build lakes as they did about 3,400 years ago, Geode Lake could be built in a fortnight. In 1400 B. C., King Amenotep III decided to build a lake as a gift to his charming wife Tiy. In 14 days the lake was complete and the excavated dirt was heaped up and made into garden-covered hills much like the hanging gardens of Babylon. This man-made lake was 3,700 cubits long, which is more than a mile, and larger than Geode Lake will be. Those boys in the good old days knew how to get things done without much red tape.—*New London Journal*.

a string around his neck, almost hidden by his coat.

"I introduced myself, checked his license, and he volunteered that he wasn't hunting ducks—never hunted ducks in his life, just rabbits. I told him I was glad of that, because it was long after duck shooting hours. He explained to me that he was a good conservationist and that if everyone obeyed the game laws as well as he did all the game wardens could be fired.

"About this point in the conversation I asked him to blow the rabbit call he had around his neck. He grew quite pinkish about the neck and ears, but he obliged by giving it a blow. I might add that it was rather a feeble toot.

"I suggested, 'You're in a darned poor spot to hunt rabbits, but if you ever decide to try your luck at duck hunting you might find this a pretty good flyway.'

"Evidently the gentleman decided to take my suggestion, because when I met him on the street later he insisted on showing me the new duck stamp he had purchased."



Ten raccoon, two opossum, one dog and one cat were electrocuted by a highline wire in two nights in Marshall County. Cy Berg Photo.



"It is only when these amusements are followed so unceasingly as to rob us of that time, wealth and energy which were given us for other purposes that the pursuit of them can be censured."

THE PHILOSOPHY OF FIELD SPORTS

(Editor's Note: From *An Encyclopaedia of Rural Sports*, by Delabere P. Blaine, published in London in 1852.)

Because the beasts of the field being put under the especial control of man, it became his duty as well as his interest to make use of them. In the exercise of this duty originated field sports, which thus sanctioned are moral in principle and philosophic in effect. The animals we follow, even to their destruction, become thereby objects of our attention. We examine their forms; we inquire into their habits; and an accumulation of useful knowledge is the consequence.

Although toil and sorrow have been entailed upon the bulk of mankind as a considerable portion of their inheritance, we read not of any canon that prohibits a temporary alleviation of these by means of sports, pastimes and amusements. These, indeed, may be said to form a necessary portion of our nature. The constitution of the human mind and body unfits them for incessant occupation, and imperatively dictates occa-



"The constitution of the human mind and body unfits them for incessant occupation and imperatively dictates occasional diversions as an indispensable condition of their healthy exercise."

sional diversions as an indispensable condition of their healthy exercise.

In this enlightened age it would appear almost scandalous to assert that fanaticism still influences the mind of some persons to a conviction that there is even great moral turpitude in the pursuit of field sports. If these be not great in number, there are many who think every hour thus spent is an entire waste of time. By a candid examination of the matter we should not despair of convincing both parties that they are in error.

That the practice of field sporting is both innocent and useful we presume may be made evident. And it is only when these rural amusements are followed so unceasingly as to rob us of that time, wealth and energy which were given us for other purposes, that the pursuit of them can be censured.

It is also an abuse of the principles of humanity when the sensibilities are so morbidly directed as to blame all field sports because they tend to the destruction of animal life. These mistaken philanthropists would spare the fox, although he nightly preys on the innocent poultry of the industrious farmer. With such the hare and the rabbit might ravish the crop and the winged game be spared until their super-abundance endangered us and destroyed themselves.

Field sports have been objected to as unfitting the mind for the study and practice of religion. But let the well meaning though mistaken fellow assure himself that a moderate pursuit of rural amusement would dim none of the ardor

of his reverence for his maker or his search after heaven. On the contrary, he might learn in the woods and field to contemplate God in His works as effectively as he studies Him at home in His word. Should he doubt this assertion, we would strongly recommend Walton's "Angler," in which unfeigned piety, benevolence, and all the Christian virtues shine ambiguous throughout. The writings of Walton and the habits of his life were of the same stamp. The piety he paints and the virtues he commends he practiced in an eminent degree.

Field sports by some who do not engage in them are said to beget a habit of cruelty and tend to harden the mind against the suffering of animals. But such a supposition can only be formed by superficial observers. We fearlessly assert that sportsmen are not in the habit of practicing any wilful cruelty. To "take, kill, and eat"

was a divine command and they do no more. The sportsman usually treats his horse and dog with a fondness not common among other persons.

Pursuit of all noxious animals is imposed upon us by necessity and is, therefore, neither wanton nor cruel. The fox is one which it is imperatively necessary to pursue to his destruction. His habits are marked with rapine and shedding of blood. In his destruction the pursuer, however, does not aggravate the fate of the plunderer by wanton infliction of pain. He does not strew poison in his path and thus heighten his sufferings by torture. He is first fairly sought for and when found is afforded a reasonable chance of escape. Should he be overtaken, his life pays the forfeit, but death is instantaneous and marked with much less suffering than the protracted miseries which age and decrepitude would inflict upon him.

EXPERTS SAY BOUNTIES ARE WASTE OF MONEY

After more than 200 years of blood-letting and scalp-collecting, most conservation experts agree that it's a waste of money to set a price on the heads of foxes, coyotes, wolves, crows, mountain lions, weasels, certain hawks and such assorted villains. In fact, there is increasing evidence that most of these are not villains at all, but are beneficial except in isolated cases.

Nevertheless, the bounty system continues—principally because of two powerful factors: pronounced public opinion, especially among hunters, in favor of bounties; and an unhappy knowledge possessed by conservation officials that some predators sometimes must be controlled somehow, even if the bounty

system doesn't seem to be the right method.

States are now trying to educate their citizens to accept the logical solution—intense local war where needed on predators by professional trappers.

The answer adds up the same: Bounties apparently do not control predators. However, predators must be controlled at times, and if the bounty system doesn't work, what will?

No one in conservation denies the necessity of controlling predators occasionally in certain areas, but all students of the problem are coming to the conclusion that such control should be the work of men trained to do the job.—*Hampton Times*.



Experts agree that it is a waste of money to set a price on the heads of predators. In fact, there is increasing evidence that most of them are not villains at all, but are beneficial except in isolated cases.



Bob-white quail studies have shown that surplus bob-white quail cannot survive the critical winter period. This surplus that otherwise would winter-kill is cropped by hunters during the brief open season. Jim Sherman Photo.

Wildlife's . . .

(Continued from page 177)

350 scientific and popular articles have been written by the Unit staff. Many birds and mammals have been studied, but emphasis has been placed on the game species.

As for the present program, there are active projects on the ring-necked pheasant, bob-white quail, blue-winged teal, muskrat, cottontail rabbit, parasites and diseases of wildlife, and plant ecology in waterfowl breeding areas.

Ring-Necked Pheasant

The ring-necked pheasant project is divided into two phases. One phase is concerned with the winter behavior and spring dispersal of this bird from two state-owned areas, Birge and Grass Lakes, Emmet County, in an effort to gather information on the daily and seasonal movements and annual population turnover of the ringneck.

In the winter of 1948-49, one of our students marked 398 pheasants on these two drained lake sites and found that the average distance of spring dispersal was less than two miles with an extreme range of seven miles. Such information is essential in the evaluation and management of these areas for the ringneck.

The other phase is a comparison of the present cover conditions and pheasant production with those of 1939-41 on the Winnebago Pheasant Research Area, where the Unit has been active since 1935. In the last decade the utilization of land for agricultural purposes on the Winnebago tract has increased, resulting in the drainage of slough areas, the decrease of idle lands, the elimination of many fencerows and small fields, and the adoption of new farm cropping methods.

These changes in cover and farming practices will be evaluated with pheasant production and winter survival. This information will provide us with a better conception of the types of essential cover and the tolerance of pheasants to cover changes in northern Iowa.

Bob-White Quail

Quail population data gathered since 1935 on the 7,713-acre study tract in Decatur County have revealed a correlation between spring and fall populations; consequently, the fall and winter losses of this game bird will be closely scrutinized by student biologists. Recently, a rather complete study was terminated on the ecology and management of the bob-white on a state-owned experimental area in Davis County. Management effort resulted in increased utilization of upland habitat by quail during the winter months. In addition it was demonstrated that limited grazing by cattle helped to provide suitable quail nesting cover.

Waterfowl

Waterfowl studies have been conducted since 1932 in the Ruthven Area, especially on the blue-winged teal and redhead. In the spring and summer of 1949 statistical analyses were made of the nesting habits of the blue-winged teal to better understand their nesting requirements and to attempt to duplicate them through management effort. Also, analyses of waterfowl production in 1949 are being compared with the results of similar studies conducted intermittently since 1932. Although the nesting population of blue-winged teal has remained about the same, data gathered on 186 blue-winged teal nests have indicated a higher rate of nesting losses. Another important aspect of waterfowl management in Iowa

is a knowledge of the agents determining the presence or absence of beneficial aquatic plants. Basic information on this subject has been collected and reported upon.

Game and Fur Mammals

The most important fur-bearer in Iowa and North America is the muskrat. This mammal has been the subject of intensive investigation since 1935. This study has provided us with some of the most advanced knowledge on the fluctuation in numbers of wild mammalian populations. Phenomena such as game population densities, compensatory losses, predation, cyclic behavior, and thresholds of security have been explored and more fully evaluated as important biological factors that determine the abundance of game in your favorite fall covert.

The cottontail, most hunted game species in the United States, has been the subject of intensive research by the Iowa Unit staff. Life history data, census techniques, parasites and diseases, and population fluctuations on given areas are a few of the phases of research that have received attention. Currently, the work on the cottontail is centered on a study of production in relationship to cover on the Story County area throughout the year.

Disease Studies

A service project provides diagnosis of wildlife diseases and parasites in specimens submitted by the Iowa State Conservation Commission employees or by the Unit field staff. Such diseases as the muskrat disease, rabies, lead poisoning and tularemia have been detected, and in some cases experimental control measures have been initiated.

Other species of wildlife that have received attention are the coot, mourning dove, ruffed grouse, great-horned owl, red fox, striped and spotted skunks, mink, fox

squirrel and raccoon. Numerous notes have been made on wildlife species other than game and have contributed to our general knowledge of the fauna of the Hawkeye State. Cooperative efforts with the Home Economics Department have resulted in the dissemination of knowledge on the handling and care of freshly killed game and the proper preparation for the table of game species bagged by the hunter.

Training Wildlife Men

In the field of training students in wildlife management 89 degrees have been granted by Iowa State College as follows: Bachelor of Science, 39; Master of Science, 30; and Doctor of Philosophy, 20.

Students enrolled for fundamental and specialized training in the zoology and entomology curriculum supplement their work with courses in botany, forestry, soils, geology, bacteriology, statistics, etc. Specialized courses in wildlife management in the Department of Zoology and Entomology at Iowa State College are game birds, game mammals, techniques in wildlife management, wildlife administration, wildlife conservation, bird study, and wildlife research.

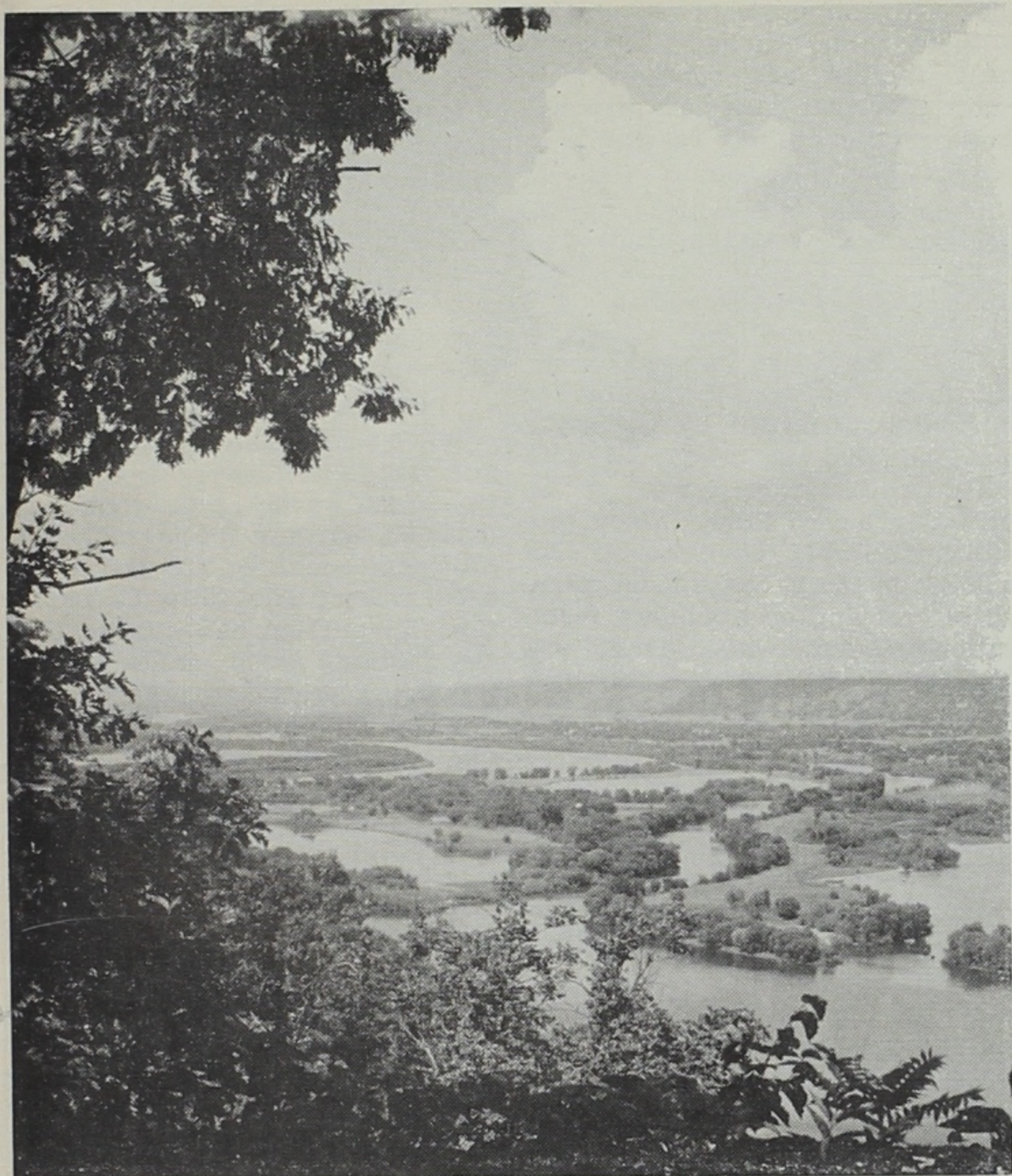
As a general training program, a wildlife extension specialist participates in providing wildlife training for youth groups and in the development of wildlife management as part of a land use policy.

In retrospect the Iowa Cooperative Wildlife Research Unit has not only served to contribute to better game management and the training of game biologists, but has also centralized the research effort of the agencies concerned with the wise use of one of our most valuable natural resources.

In the past 200 years, 70 forms of animals have become extinct, of which 11 species have disappeared from North America and neighboring islands.



The cottontail, most hunted game species in the United States, has been the subject of intensive research by the Iowa Cooperative Wildlife Research Unit.



Some of the most magnificent scenery in the entire state may be seen from the Mississippi overlooks in the new Yellow River Mound national monument.

Preservation . . .

(Continued from page 177)

Yellow River north of Marquette, and include some of the roughest terrain in Iowa's "Little Switzerland" district. The massive limestone bluffs are heavily timbered at some points and are barren rock at others. The whole east edge of the park towers like an amphitheatre before which the pageant of the Mississippi parades 400 feet below.

It is high above the Father of Waters on the top of Iowa's "mountains" that the mound builders laboriously constructed their earth mounds, sometimes in groups, sometimes in series, and rarely singly.

Most of the mounds in the new area are of three distinct types. The circular mounds appear much like greatly enlarged gopher hills and are as much as nine feet above the general surface and are sometimes more than 35 feet in diameter. The linear mounds are some six feet high, 20 feet wide, and some are longer than 200 feet.

It is the "effigy" mounds, however, that are the greatest wonder to archaeologists and laymen alike. These mounds, some exceeding 140 feet in length, 60 feet in width, and four to six feet in height, are designed to represent animals and birds. The principal patterns are those of giant bears and flying birds. For some reason the effigies were nearly always con-

structed to represent the animals lying on their right sides, and in most instances the heads are pointed downstream.

Although there is little known of the mound builders, it is believed that they are ancestors of historic Indians, and it also believed that at least two cultures are represented by the mounds. Some competent archaeologists believe the oldest mounds were built before Christ, and that possibly some were built after the discovery of America.

The soil from which the mounds were constructed has been taken from the immediate vicinity, and in some mounds evidences indicate that the earth was carried in animal skins and placed in position. Some of the mounds in the Yellow River Area have been excavated, and it is believed that all were burial places.

Two types of burials have been discovered, one in which the entire body or bodies of the deceased (multiple burials are most common) were placed on the original surface or a few inches below and then the earth heaped over them. In other instances (the so-called bundle burials) it is believed that the bones were collected after disintegration of the flesh and transported to the mound site for burial.

It is interesting to note that in the "effigy" mounds the human remains are almost invariably found in the same portion of the mound—for instance, in the bear effigies

the graves are located in the head and in the heart region. Where skeletons are found in other parts of the mound, it is possible that the mound was made use of as a burial site by historic Indians who lived in the vicinity after the disappearance of the mound builders.

Some of the mounds have been vandalized by souvenir seekers. However, these ancient graves, generally speaking, are not rich in artifacts. The human remains are always in advanced stages of disintegration and arrowheads, axes, pipes and the like are not abundant. The most important relics found, and rather commonly found, are the remains of "burial pottery." These, however, for the most part, also are fragments.

Although it is primarily to preserve and make accessible to the public the prehistoric mounds, the Yellow River Mound Area is without peer in the Middle West from a scenic standpoint. The valley of the Wisconsin River, where in May, 1673, white man first saw Iowa, may be seen from any one of the new park's numerous overlooks. The broad historic bluff-lined valley of the Mississippi may be seen upstream and downstream for many miles, with its constant and romantic river traffic slowly changing the panorama of the nine-foot river channel. The historic town of Prairie du Chien, Wisconsin, is easily discernible from the park, as well as the mile-long bridge into Marquette.

Through part of the park area the old military road from Fort Crawford at Prairie du Chien to Fort Atkinson in Winneshiek County, Iowa, is deeply rutted and especially interesting where it skirts a series of the "effigy" mounds. It is possible in the future development that one of the park roads to be built will follow the line of the military road, or be built adjacent to this historic travel lane.

Tentative plans have been made

HOW TRUE, HOW TRUE

We would live longer if we emulated our canine companions: "A burst of energy, a deep drink of water, and a nap . . . and repeat." In many circles there is a perversion of this. Instead of a deep drink of water it is a deep drink . . . and repeat. And in emulating the canine it is only in abode—we live in the doghouse. — *Bellevue Leader.*



Although Indian artifacts are not abundant in the mounds, in those that have been opened burial pottery, axes and arrow-points have been discovered. This flint fishhook is one of the most unique specimens.

for the development of the national monument, and in all probability the mounds on the area which have been vandalized will be returned to their original condition.

Regardless of what immediate developments are made in the Yellow River mound area, it will be a monument to the wisdom and forethought of those hundreds of conservationists whose long-time drive finally resulted in public ownership; and with the monument held in trust for the public, it does not take a great deal of imagination to see these 2,000-year-old mounds existing undisturbed for many centuries to come.



The burials of the mound builders were surface or slightly subsurface, with dirt mounded over the graves. More modern Indians made subsurface burials, often with rock or heavy logs racked up over the grave site.



Rice Lake is an example of Pittman-Robertson activity. A failure as an agricultural drainage, it was restored and has become one of the most popular duck shooting marshes in the state. Jim Sherman Photo.

Pittman-Robertson . . .

(Continued from page 177)

called the Federal Aid Section and is headed by the Superintendent of Federal Aid. In some states this position is called Pittman-Robertson Coordinator.

The Superintendent of the Federal Aid Section is responsible for the direction and supervision of the Pittman-Robertson program. He is directly charged with the responsibility of proper use of the funds received from the excise tax.

Before and during the war annual allocations were relatively small. A shortage of personnel and construction materials during the war curtailed development activities, and most of the funds were used for land acquisition only. Much of the needed development work on these areas is just now getting underway.

Between July 1, 1939, and July 1, 1949, Iowa's federal aid funds were used as follows: Coordination 4 per cent, land acquisition 61 per cent, development 33 per cent, surveys and investigations 2 per cent.

Annual federal allocations the past three years have been about \$225,000. By adding the state's annual share, some \$75,000, a sizable budget for restoration of wildlife habitat is available, and efforts are being made to carry out a well-rounded program of land acquisition and development for the benefit of all species of game with these funds.

Land Acquisition

In the process of spending some \$413,000 over a nine-year period for land acquisition, the state has purchased a little over 9,000 acres of wildlife areas. This acreage, primarily submarginal and non-agricultural land, is spread over 20 areas. Approximately 1,300 acres are upland game areas; 7,700

are marsh for waterfowl management.

In Iowa it is felt that acquisition and development of marsh units is the best way to help waterfowl. Acquisition of upland areas for quail and pheasants in this state is, for the most part, far too expensive for the results obtained.

Ownership of land is the surest way of controlling it for development for wildlife, but it is the costly way. This fact is always considered when weighing the problems of what and what not to buy. However, additional areas are being considered for acquisition.

When buying a new unit, detailed investigations are made by engineers and biologists to make sure the project is sound and feasi-

ble. No new projects are started without these studies. All pertinent factors are considered to make sure that each new area will produce the desired results.

The land acquisition phase of Pittman-Robertson will be continued as it fits into the over-all plan.

Habitat Development

P. R. money can be used for development of wildlife habitat on land already owned by the state, on land that is purchased with Pittman-Robertson funds, or on privately owned land. Since providing suitable environment for wildlife is the surest known method of carrying on a wildlife restoration program, a great deal of emphasis is being put on this phase of our activities.

On all of the 9,000 acres acquired by the state, plans are being made to provide the most habitat possible. Development has started on 12 of the 20 areas.

In almost all cases basic development consists of fencing against uncontrolled grazing, building service and access roads, installing water control structures where lakes or marshes exist, planting for food and cover, and erecting proper identification signs. After these preliminary tasks are completed, a three- or five-year development and maintenance program is laid out that will fit the needs of the particular area.

Habitat on privately owned land is undoubtedly the key to more wildlife in Iowa. To raise more wildlife we must provide the environment on the farms where the game is to be produced. The farm game habitat project of the P. R. Section is designed to get shrubs, vines and nesting cover on privately owned farms. This program is new and will be explained fully in

a mid-winter article in the "Conservationist."

Maintenance

Maintenance need only be mentioned here. Funds can be used to maintain developments after they have been completed. At the present time none of our areas are completely developed, but money will be available from P. R. to care for the areas once they are put into final shape.

Surveys and Investigations

When regulations were drawn up governing the use of Pittman-Robertson money, provisions were made so that any special biological problems could be studied if the need arose. The Iowa Conservation Commission has its own biology section, which makes population inventories and other needed fish and wildlife studies. Extensive use of Pittman-Robertson money for this purpose is not anticipated.

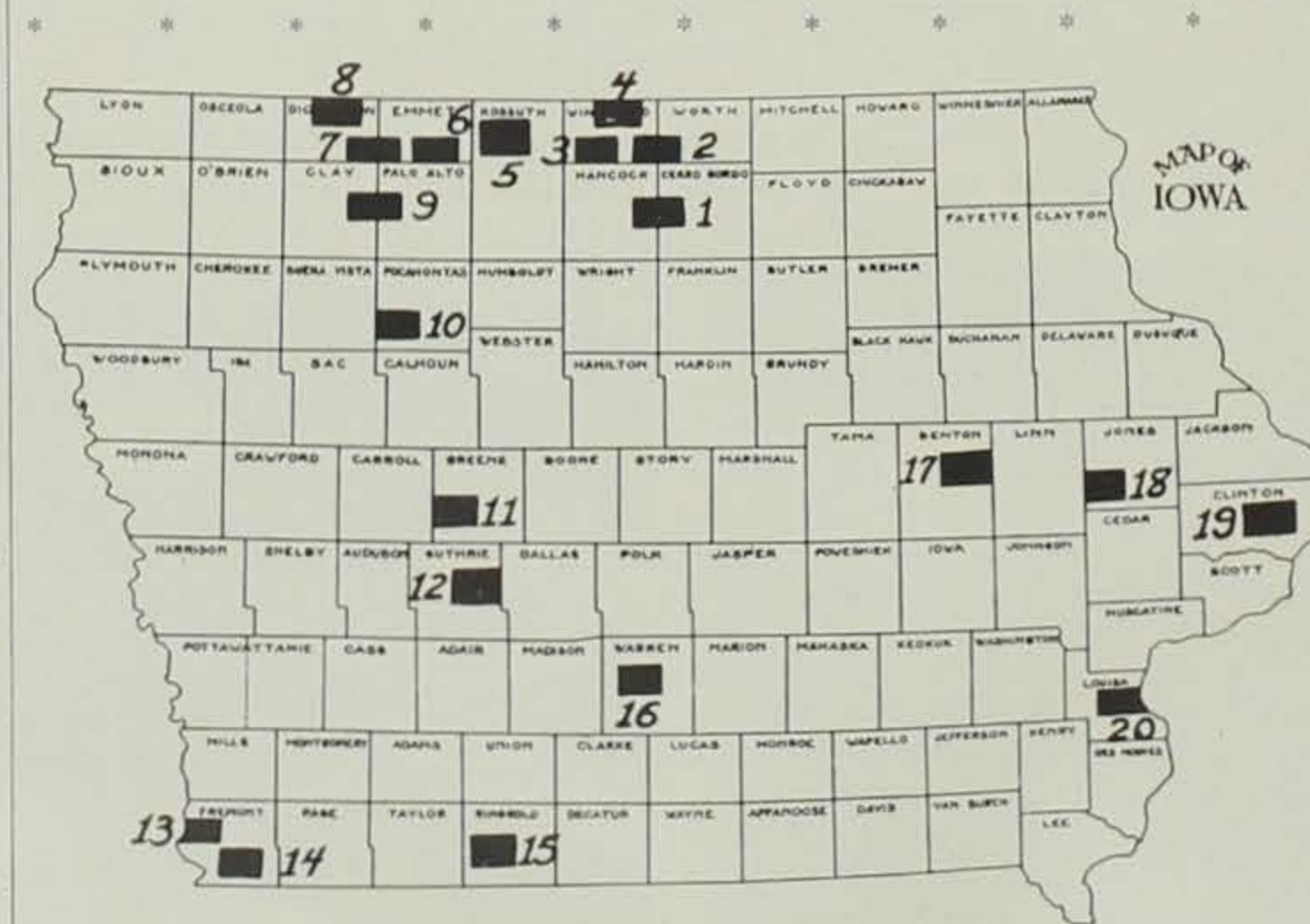
Habitat development is not as spectacular or obvious as game bird stocking, predator control, or prosecuting the violators. It is, however, the best known method by which increased game populations can be assured. Increased game populations is the objective of the P. R. program. Habitat development is the vehicle by which we expect to gain this end.

TRUMAN VETOES DINGELL BILL

A long, heartbreaking battle by conservationists to give state sport fisheries the same benefits as those realized by game under the Pittman-Robertson Act received a severe setback with the veto of the Dingell Bill by President Truman, according to the Wildlife Management Institute.

The bill, which passed both Houses of Congress without major opposition, had the support of practically all organized sportsmen in the United States. Its passage was recommended by state conservation departments throughout the nation and by all national conservation agencies and organizations. Although when a similar bill was first introduced in the 80th Congress, some opposition was expressed by members of the Fishing Tackle Manufacturers' Association, that organization wholeheartedly supported the Dingell Bill during this session of Congress. The only opposition has come from the the Treasury Department, which is reluctant to have the excise tax on fishing tackle earmarked for the benefit of those on whom the tax is levied.

In his veto message, the President branded the Pittman-Robertson Federal Aid in Wildlife Restoration Act as "an undesirable precedent." The veto itself will be a bitter pill for sportsmen to swallow; this backhanded slap at one of the most progressive and valuable pieces of wildlife legislation on the federal statute books is a double dose of the same medicine. —Outdoor News Bulletin.



Pittman-Robertson development in Iowa.

Legend

- | | | |
|-------------------------------|--------------------------|--------------------|
| 1. Ventura Marsh | 8. Christopherson Slough | 15. Mt. Ayr Area |
| 2. Rice Lake | 9. Barringer Slough | 16. Hooper Area |
| 3. Myre Slough | 10. Sunken Grove | 17. Dudgeon Lake |
| 4. Harmon Lake | 11. Dunbar Slough | 18. Muskrat Slough |
| 5. Goose Lake (shoreline) | 12. Lakin Slough | 19. Goose Lake |
| 6. Cunningham Slough | 13. Forney Lake | 20. Klum Lake |
| 7. Four Mile Lake (Shoreline) | 14. Nishnabotna | |