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State Conservation Commission  
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# IOWA CONSERVATIONIST

VOLUME 5

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NUMBER 6

## CONSERVATION ADMINISTRATION

### UMPIRING FOR HUNTERS AND FISHER- MEN A HOT JOB

EVERYBODY is for conservation and it might seem that conservation administration would be highly popular. Factually it is about as popular as an umpire in a hot ball game—and for about the same reason.

Of necessity conservation administration cannot be in complete accord with most outdoor groups. And in any group there is a resentment when conservation administration is not completely in harmony with all of its specific aims.

Does conservation administration work for reforestation? Certainly! And is there universal acclaim when a tree-cover comes back over once-denuded land? There is not. Discussions center on losses, not gains. Look what happened to the open land wildlife assets!

Is conservation administration sympathetic toward retaining wilderness areas? Certainly! But, it is pointed out, few people get back into any wilderness and government should aim to serve the greatest number. It is difficult to hang onto a wilderness in the face of public pressure.

Is conservation administration for an absolute end to water pollution? Certainly! But if it so happens that an uncompromising attitude would mean the closing of meat industries there is a practical reason for hesitation.

Changes that occur on the land favor something at the expense of something else. Many types of wildlife have their group followings and history does not bear out the popular conception that the original wilderness produced everything in great abundance. Retention of maximum of some kinds of wild-

### Well, A Game Commissioner's Job Isn't All Roses!



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life may call for reforestation, retention of a maximum of others might call for deforestation, and where do the ultimate major values lie?

Conservation administration naturally sets its goal as attaining the greatest of final values, re-

gretfully appreciating that something must be sacrificed along the way. But a group backing a species of wildlife that thrives on land abuse sees maladministration.

Conservation administration is none too popular with some hu-

(Continued on page 44)

### WHERE DO BUGS FIT INTO CONSERVATION?

By Harold Gunderson  
Extension Entomologist

TO the average individual in Iowa, bugs are annoying. He thinks of them as the insects which bite him or crawl over his picnic lunch. This individual rarely stops to consider the many different insects present in Iowa and never considers the variety of ways in which they affect conservation.

There are approximately 16,000 different kinds of insects in Iowa and millions of individuals of nearly every kind present. When we consider the fact that the average city lot may support a population of millions of ants, I believe that we can all agree that insects constitute the most numerous form of animal life.

Where do these insects fit into conservation of soil, forest and animal life? Let us first consider the destructive insects. These include those which live in trees and shrubs and kill them, the insects which live as parasites of animals and those which annoy man and carry disease, and with which the picnicker and camper are most familiar.

White grubs, sod webworms and wire worms live in the soil and feed on grass roots. In many cases their feeding destroys the grass and on steeper slopes, the loss of grass promotes soil erosion causing rapid runoff of water and consequent flooding and silting of streams. This, in turn, adversely affects soil and water and is important to the fisherman who loses a place in which to practice his hobby.

Grasshoppers, cutworms and other insects which may appear in large numbers under favorable

(Continued on page 44)



# Iowa Conservationist

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THE IOWA STATE CONSERVATION  
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JAMES R. HARLAN, Editor

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SYCAMORE BLIGHT COMMON  
THROUGHOUT IOWA

A fungus blight of sycamore trees is unusually prevalent throughout the state this year. The blight causing the new leaves to shrivel and die gives the appearance of heavy frost damage. Foresters point out that although the blight is unsightly that the trees will renew their leaf growth and for the most part the fungus does not permanently injure the tree. Where control measures are taken against this disease, Bordeaux mixture is sprayed on the foliage. Spraying for some tree diseases is carried on in the state parks, the Conservation Commission, however, has felt it necessary to attempt the control of the sycamore blight in the state areas.

COMMISSION ACTION  
APRIL, 1946

THE April meeting of the State Conservation Commission was held in the central office at Des Moines April 15th and 16th, 1946. Members present were: E. B. Gaunitz, Lansing; James C. Jenson, Council Bluffs; F. W. Mattes, Odebolt; Mrs. Addison Parker, Des Moines; F. J. Poyneer, Cedar Rapids; R. E. Stewart, Ottumwa, and Ewald G. Trost, Fort Dodge.

## The Commission:

Accepted the offer of \$700.00 made by Leo Hufschmidt of Lansing for lots three and four in Block 17 in that city.

Authorized repair and commission of the Conservation-traveling exhibit for county fairs.

Rejected the request presented by Paul James for the construction of a boat harbor in Templar Park on Spirit Lake.

Effectuated a Memorandum of Understanding between the State Conservation Commission and Tom D. and Dick L. Eilers for improvement on Trumbull-Round Lake area.

Authorized the director to accompany O. H. Johnson, regional director of the Fish and Wildlife Service, on an inspection of the Pittman-Robertson refuges in Nebraska and South Dakota, subject to the approval of the Executive Council.

Held for further study petition received from citizens in the vicinity of South Twin Lake in Calhoun county that this lake be closed to shooting and a refuge be established on the lake.

Established a policy negative to bulk distribution of the new "Iowa Highway and Outdoor Map," with certain exceptions.

Approved a cooperative plan with the Emmetsburg chapter of the Izaak Walton League for riprap work on Five Island Lake.

Granted sick leave to Conservation Officer James O. Rector.

Rejected purchase offer of \$50.00 per acre of Olin Anderson for agricultural lands in the Mud-High Lake improvement area.

Rejected the Ralph Bryan option on approximately three acres of access land to High Lake in Emmet county.

Authorized condemnation proceedings instituted against the 33,798 acre Huston tract in Muskrat Slough in Jones county.

Authorized the purchase of 120 acres in the Sunken Grove area in Pocahontas county at \$41.66 per acre to be paid for from Pittman-Robertson participation funds.

Authorized condemnation proceedings on the Wm. Voss tract of 65 acres in the Sunken Grove area in Pocahontas county.

Approved reciprocal agreement between Nebraska and Iowa relative to fishing in the Missouri River.

Denied application for scientific collector permit requested by George Kull.

Authorized repair, or removal, if repairs are impossible, of the public dock deemed to be hazardous at Lake Ahquabi.

Authorized allotment of \$1,000 toward the improvement of the road on the south side of Forney Lake in Fremont county.

Withdrew condemnation proceedings against the 8½ acre Potter tract at Little Swan Lake in Dickinson county and authorized payment of \$1,000 for the land.

Authorized the employment of Edwin Sneed for research work on the study of muskrat on the Mississippi River in connection with the cooperative research units. Salary to be paid from Pittman-Robertson participation fund.

Commended G. L. Ziemer for his Dunlap award paper, "Conservation Factors in Flood Control Planning."

Commended B. F. Stiles, Chief of Fish and Game Division, for his paper, "Iowa's Fish and Game Policy."

Issued administrative order No. 80 closing the season for Paddlefish and Rock Sturgeon until March 31, 1947.

Issued administrative order No. 81 removing the catch and possession limit on bullheads in Lost Island Lake until March 1, 1947.

Issued administrative order No. 82 opening the bullhead season in artificial lakes on May 1st, and all other species of fish in artificial lakes on June 1st.

Closed forty natural and artificial lakes to minnow seining.

Authorized opening of southern reservoirs for bass fishing June 1st, providing biological investigations warrant such action.

Granted Public Service Company of Lake View permission to place poles on state property at Lake View.

Rejected request of Pine Lake Wildlife club to repair privately owned power dam in the Iowa River near Eldora.

Approved public access agreement with J. H. McClelland at Spirit Lake for access to Spirit Lake through McClelland property.

Authorized one Commission member and three staff members to attend Fish and Game Enforcement Officers' meeting June 5th and 6th at Itasca State Park in Minnesota, subject to Executive Council approval.

Granted request of F. C. Gilchrist, Jr. to run tile line across state property south of Rush Lake.

Denied request of Ralph Frick and Joe Risburg to purchase several deer for exhibition purposes.

Approved general clean up of state property on west shore of Storm Lake area to be used for park purposes while dredging is in progress at the present location.

Authorized further investigations be made of proposed lake sites at the Geode area in Henry and Des Moines counties; Indian Creek in Shelby county; Honey Creek, Washington county; Rock Creek, Jasper county; Cold Spring, Cass county, and the Elliott on Stanton site in Montgomery county.

Approved appointment of Harlan C. Rix as superintendent of the Iowa Great Lakes Sewer System in Dickinson county.

Authorized a cooperative research project by Dr. Carl J. Drake, state entomologist, in spraying a selected park area for control of certain insect pests.

Awarded concession at Ledges State Park to Mrs. Hans R. Williams of Boone for a two year period.

Awarded Pine Lake concession to Walter A. Ruhnke for a two year period.

Awarded Lake Keomah concession to the Keomah Development Company for a two year period.

Approved dock construction by Silver Lake Sportsman's Club on Silver Lake.

Authorized dedication of the Murray L. Hutton Memorial in Ledges State Park during the fall of this year.

Authorized the dedication of the Governor Lucas home at Iowa City on "homecoming" day this year.

Authorized purchase of a 16 mm. sound projector.

Received the resignation of Taylor Huston, Superintendent of Game.

Authorized the establishment of seven north-central Iowa streams as spawning areas through June 15th.

Authorized purchase of five tractors for use in maintenance work in recreational areas.

ROD AND GUN NEWS WRITERS  
ORGANIZED

During the recent North American Wildlife Conference in New York the Rod and Gun News Writers Association was formed. The Association is dedicated to the improvement of rod and gun news writing and elevation of ethics in newspaper rod and gun reporting. Membership is confined to accredited newspaper rod and gun editors and is by invitation only.

Arnold J. Stewart, columnist for the News Journal papers of Wilmington, Delaware, was elected president.

## PRECIOUS

Fussy Diner: "Waiter, I want some oysters, but they mustn't be too large, or too small, too old or too tough, and they mustn't be too salty. I want them cold, and I want them at once!"

Waiter: "Yes, sir. With or without pearls?"



If you jedge the tranquillity of a man's mind by the absence of cuss words in his language, fishin' ain't sech a tranquil sport after all.

What's become o' the feller thet uster go four blocks out of his way up Main Street when he had a big string o' fish?

Some animals is naturally smart-er'n others. There's allers one turtle on a log who holds out on the rest of 'em until you git to where he's exactly three inches from where you kin hit him with your oar.

One o' the mos' dangerous things to do is to try to dislodge a slug in your pipe stem by suckin' on it.

They's jes two fellers I'm goin' to mess up their count'nance one of these days: the feller who keeps runnin' his motor boat up an' down the slough where I'm fishin', an' the feller thet gits back in the woods where I can't see which way he's aimin' an' shoots his rifle every two-three minutes.

Andy Gillam has patched up the hole in the roof of his house the squirrels gnawed in it summer before last.

SEVENTY-FOUR MILLION PIKE  
FRY HATCHED

Two wall-eyed pike hatcheries maintained by the State Conservation Commission at Spirit and Clear lakes, produced a total of 74,000,000 pike fry during the 1946 hatching season just concluded. This figure represents an increase of almost nine and one-half million over production in 1945. 19,380,000 fry were stocked from the Clear Lake hatchery and 56,850,000 from the Spirit Lake hatchery. Several million of the fry have been placed in state nursery ponds and will be stocked as fingerlings in the early fall. The remainder have been stocked in the north Iowa pike lakes.

## REPAIR CHARLES CITY DAM

The power dam in the Cedar River in Charles City, badly damaged during the winter, is to be repaired. Repairs will necessitate lowering the back water above the power dam as well as above the beauty dam. Clamming will be closed from Charles City to Nashua as a result of lowered water except during the month of August. Installation of the latest type Denil fishway is included in the repair budget.





Consider the snake, universally shunned and despised, without arms and legs and with an elongated mass of flesh and bones its only means of locomotion.—Jim Sherman photo.

## Lowdown on the Slither

By Ellis A. Hicks  
Cooperative Research Unit

A MAN without arms and legs would have a difficult time getting from place to place. With the exception of rolling, any attempt at body movement would be a failure.

Consider the snake, universally hunned and despised, without arms and legs and with an elongated mass of flesh and bone as its only means of locomotion.

This animal has managed to adapt itself to a wide variety of homes including deserts, fertile fields, trees and water. Many people upon seeing a snake writhe or coil around an object think that its backbones are very loosely connected to permit such sharp curves or doubling back of the body upon itself. It is not a matter of loose one connections but rather one of close joining among many separate units. The relatively small but numerous bones of the back permit a much freer action than larger, more loosely connected units. Several hundred vertebrae in one snake are not uncommon. Their arrangement is such that only curving movements from side to side or up and down are possible in locomotion. A snake is able only very slightly to twist its body in the manner of wringing out a wash cloth. So slight is this ability that such a method of movement has little influence upon body locomotion.

Each vertebrae from the second to the last trunk backbone is con-

nected with two ribs, one on each side. The inner end of each rib is enlarged and somewhat club-shaped. Instead of a ball and socket union as was previously thought, the connection between rib and backbone is hinged in such a manner that movement of a rib occurs in an oblique direction. When a rib is moved forward, a lifting of its out end accompanies the forward motion.

Since our Iowa snakes have no appendages, their muscular arrangement is simpler than if they had legs or fins. However, to accomplish their sinuous movement, many sets of muscles are used. Most important of these muscle groups are those connecting the vertebrae, those from the vertebrae to the ribs, those connecting the ribs, those connecting the scales so that they form a complete body covering, and those from the ribs to the scales. In addition to these various groups, a large number of slender muscles are often combined lengthwise to form long bands of tissue with

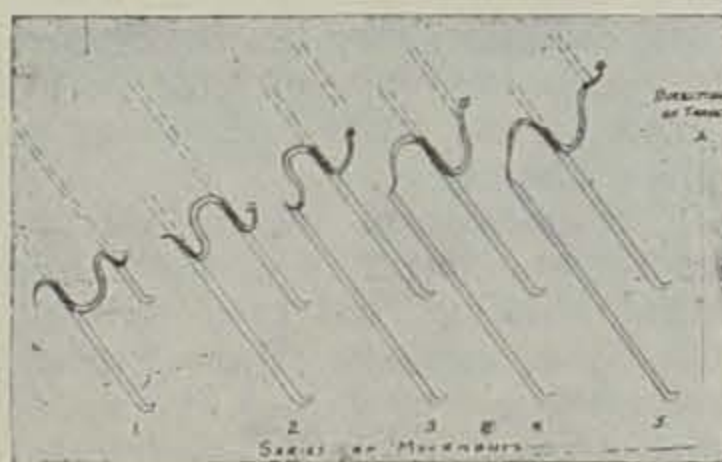


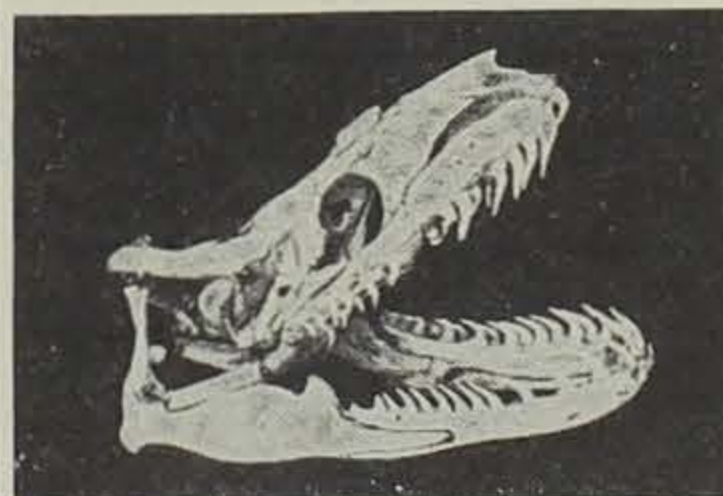
Diagram of a snake in sidewinding locomotion. Only the shaded portions touch the ground.

their attached ends many vertebrae apart.

In watching a snake crawl, a person tends to overestimate its speed. Possibly this is caused by the fact that the whole snake is in movement with several different curvings and separate body motions occurring at the same time.

Some years ago a California scientist, Mosauer, conducted some experiments with snakes in an effort to determine their various speeds. He made observations on maximum speeds used as a means of escape from enemies or in pursuit of prey. A second speed which he observed may be termed a "prowling" speed commonly used by the snake in such activities as searching for food, idle investigation and leisurely travel. The average prowling speed for a rattlesnake was determined to be slightly over .3 mile per hour. Its maximum speed was over two miles per hour. In observing a racer, its average prowling speed was slightly less than .3 mile per hour. Its maximum speed was 3.6 miles per hour. In every instance, an effort was made to have the experimental tracks as nearly like the snakes' natural homes as possible. Since the rattlesnake was a desert rattler, it was tested on coarse, packed sand and smooth stretches of fine dune sand. For the racer a hard, level ground with small pebbles and gravel intermingled with vegetation was chosen.

Snakes in their locomotion use three general kinds of movement. These are known as lateral undulatory, sidewinding and caterpillar motion.



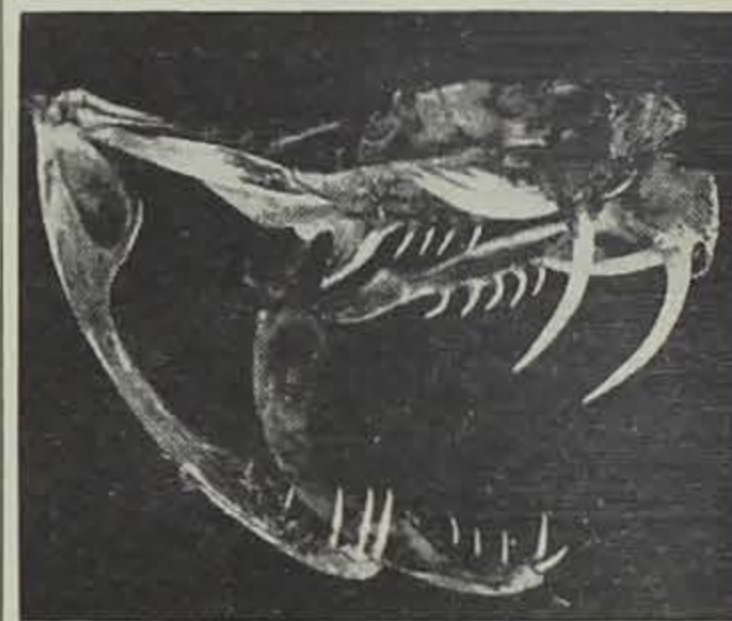
Skull of non-poisonous snake showing the fixed teeth curved inward to facilitate swallowing whole prey.

The first mentioned is by far the most common of the three types. It is the sinuous motion characteristic of all our Iowa snakes. Use of this method requires that there be something by which the snake can obtain traction. Tufts of grass, sticks, stones, clods and other projections are all used. A snake trying to traverse a plate of glass or a polished floor has a difficult time getting anywhere. Neither of them offers any obstructions or irregularities against which a curve in its body could exert force. Where points of resistance are absent, side slippage results with much wriggling and little progression.

The second major type of locomotion is that known as sidewinding which is difficult to visualize

for one who has not actually seen it. This method is used by a species of California rattler inhabiting desert and sandy areas. None of the Iowa rattlesnakes uses this type of locomotion.

The third common type of locomotion is that known as the caterpillar method. This is used chiefly by the thick bodied snakes. The main agent in this kind of movement is the large transverse scales on the under surface of the snake's body. In movement forward, the scales in the neck region are moved forward as far as possible by combined rib and muscle action. This movement of the scales flows



Skull of a pit viper. The long upper teeth are hollow fangs through which poison is forced into a wound. The large white teeth lying flat against the upper jaw are fangs that will take the place of those now in use when the latter are lost.

backward to the tip of the tail, then another series of scale movements begins in the neck region. Since the free margins of the scales catch on resisting objects and hold, the body of the snake is inched forward. The rattlesnake uses this method of locomotion. The track pattern resembles that left by a heavy rope after it has been dragged in a straight line.

There are several other types of locomotion but their usage is limited. Some snakes have been noticed to move about merely by assuming the shape of an S, then straightening out quickly.

Many snakes are good climbers. Especially is this true of the constrictors and the tropical tree dwellers. Our own blue racer and blacksnake are sometimes found in bushes and small trees.

The sea snakes swim by means of lateral undulatory movements. Their progression is aided by the flattened tail which serves as a propellor and rudder. However, we don't need to be concerned about such snakes in Iowa. We do have water snakes, but they are not poisonous even though they do have rather nasty dispositions.

### ASSISTANT DIRECTOR RECEIVES DUNLAP AWARD

"Conservation Factors in Flood Control Planning," by G. L. Ziemer, assistant director of the State Conservation Commission, has received the Dunlap award by the Iowa Engineering Society as the best engineering paper presented during the year.





The honey bee here gathering clover honey, is included in our large and varied group of beneficial insects which pollinate flowers.—Jim Sherman photo.

## Where Do Bugs . . .

(Continued from page 41)

weather conditions, feed upon vegetation, destroy cover for nesting birds and destroy the food supply of many other birds. It has been argued that these insects constitute a large part of the diet of some of our birds and wild animals and in that way they might be considered beneficial. However, when they appear in outbreak numbers they do much more damage than they do good and cannot be classified as anything but purely destructive insects.

Tree borers, which attack forest and shade trees and which have

been responsible for the loss of large acreages of forest areas in the state, are important because their activities directly affect the soil itself and the birds, plants and animals which are found in forested areas. Other insects, which attack forest trees, carry diseases of trees from one area to another, and which frequently contribute to the weakening and eventual death of the tree, are also important. The insects which attack forest and shade trees are particularly hard to control because of the large areas usually affected and the relatively high cost of control. It may be possible through the use of some new insecticides,

such as DDT, and application by airplanes, that in future outbreaks of these pests we may be able to preserve our forests economically.

Insects and related forms of animal life which attack humans, annoy them and which carry disease, are outstanding in the average individual's mind. He is attacked by chiggers, bitten by mosquitoes, annoyed by flies and used as a source of food by ticks throughout the summer months. Ants parade across the picnic table whenever he goes out into the parks for an evening's relaxation and without knowing anything about the life history or habits of any of these creatures, the average man just swears. Actually, it is possible, through the use of insect repellents and through the proper use of insecticides, to eradicate or to keep away these annoying insects to a great extent. These insects carry diseases of man and of animals and they may cause secondary infections through scratching the bites. From the standpoint of the camper or picnicker they are of direct importance. However, it must be remembered that if the other insects mentioned above have gotten in their work there won't be any parks or forested areas for the picnicker to go to.

On the other side of the balance, we have the insects which may be considered beneficial, either because they act as parasites or predators of the destructive insects or because they are beautiful and add to our enjoyment of the outdoors or because they serve as food for birds, wild animals and fish. Included in the beneficial insects is the large and varied group which pollinates flowers. Without these insects Iowa would be a much poorer state.

We can all enjoy life to a greater extent if we know something about the life history, habits and personal traits of some of these insects, both destructive and beneficial. In future articles some of the specific insects will be discussed in detail.

## TWO PARK AREAS TO BE DEDICATED DURING THE CENTENNIAL YEAR

The Governor Lucas house at Iowa City, home of Iowa's first territorial governor, will be dedicated, according to tentative plans, during Iowa University "homecoming" this fall. The house, recently restored to its original construction, will be maintained as a historic monument by the State Conservation Commission with period furniture and other furnishings on public display.

The dedication of the M. L. Hutton memorial tract in Ledges State Park is scheduled for fall. The area, including Sunset Point overlook, will contain a monument with a memorial to the first director of the State Conservation Commission.

## Administration . . .

(Continued from page 41)

mane groups although it is sympathetic to their views. When it comes to administration there are always those practical problems that cannot be ignored. Conservation administration is out of tune with great sentimental literature that has a wide popular appeal. Dreams of the ages shatter on contact with the realities and it is impossible to step around the realities in administration.

Conservation administration would be popular with one group if it could center all its attention on developing a single popular asset. So would an umpire be popular locally if he might help the home-town boys win. Its troubles come because it tries to retain a balanced measure of all values, giving major stress to the all-important future at the possible sacrifice of the immediate popular present.

People generally are interested in one or more outdoor segments.

Administration must try to fit together an over-all, workable relationship. One group frequently urges that the interests of another group be sacrificed for the benefit of its own projects. Administration can't support that. Conservation involves an endless list of necessary compromises and compromises are never popular.

It is always obvious that somebody is out of step in conservation. People are inclined to feel that it is conservation administration.

—Edward N. Hein, Editor,  
Wisconsin Conservation Bulletin

## CONSERVATION COMMISSION PRINTING 40,000 MORE MAPS

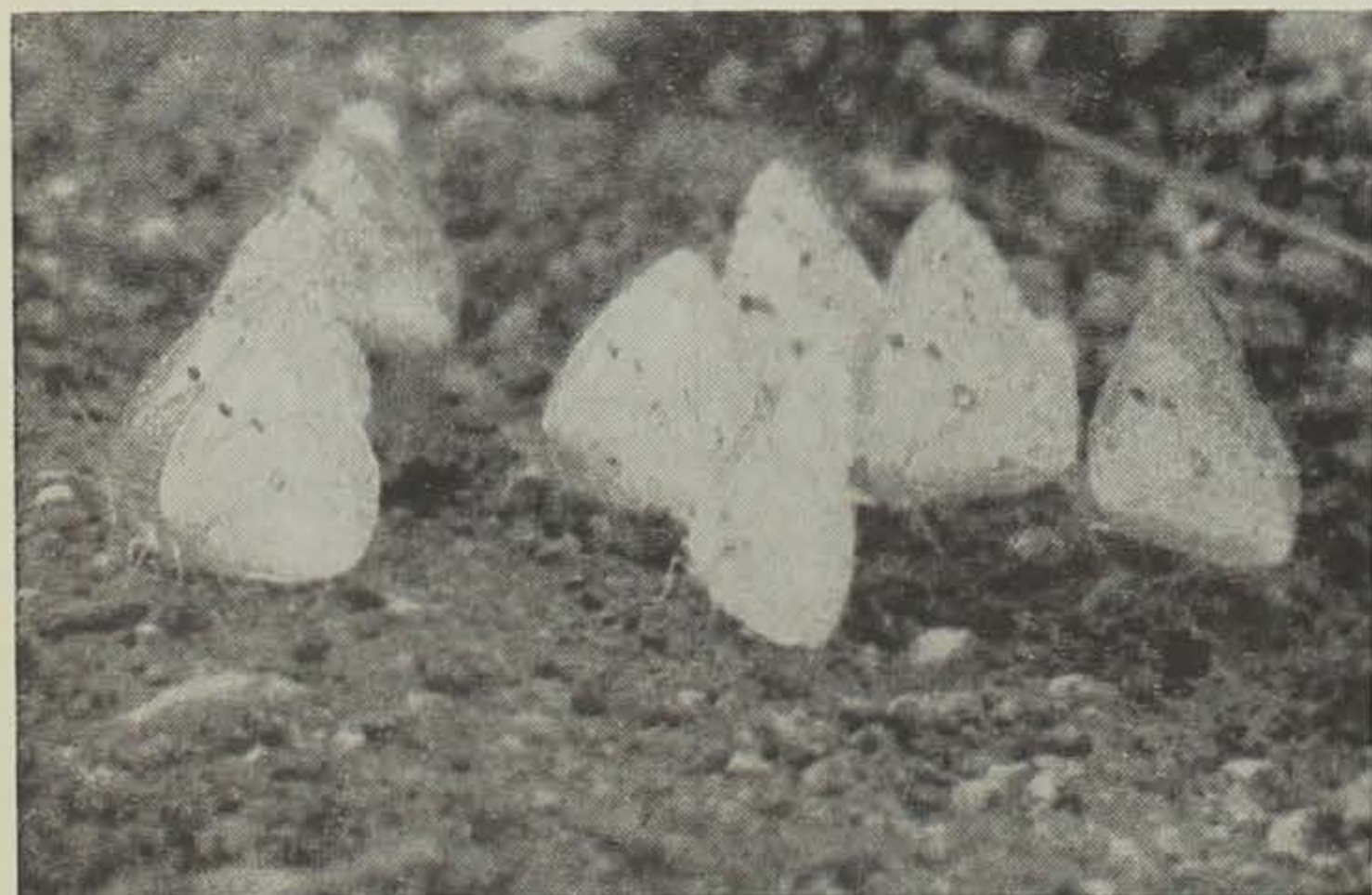
The tremendous demand for the State Conservation Commission's new outdoor and highway map has necessitated a reprinting, and an additional 40,000 copies will be available in the immediate future. The maps have a full-scale up-to-date highway map on the face with a centennial cover design. The obverse side contains five maps showing the state parks and recreation areas, public shooting grounds, major fishing streams and lakes, trout waters; and a game distribution map.

The map is mailed free upon request by the State Conservation Commission, Tenth and Mulberry, Des Moines 8, Iowa.

## IOWA GAME MANAGEMENT AGENT TO MINNESOTA

Floyd H. "Flick" Davis, U. S. Game Management agent for Iowa, has been transferred to Minnesota as agent in charge of that state. Davis, formerly an Iowa state conservation officer, was appointed U. S. Game Management agent in 1939.

Harry T. Maltby has been appointed to succeed Davis. Maltby's offices are in the Old Federal Building in Des Moines.



Some insects add to our enjoyment of the outdoors because of their oddity, or beauty. Here a host of orange sulphur butterflies are daintily wading in the mud.





Building the new Marble Lake access road.—Jim Sherman photo.

## NEW LAKE ROAD

THE Conservation Commission has long advocated the purchase of right-of-ways, and construction of roads into the various public recreation areas and many accesses have been acquired and developed during the past few years.

Marble Lake, in Dickinson county, is now getting a new road. It will be available for public use about the first of July of this year. Marble Lake is a natural lake containing 175 acres. It is located near Highway 276 on the west side of Big Spirit Lake.

The new road will have an all-weather gravelled surface and will extend 1,500 feet from the Primary 76 to the shore line. Parking areas and boat launching facilities will be provided on the lake shore.

Future developments for Marble Lake include construction of control and outlet structures to regulate the water levels between Marble, Hottes and Big Spirit lakes, and control of rough fish populations so that beneficial aquatic vegetation may become established.

## FISHERMEN MAY HAVE TO USE BENT PINS AND TWINE

This is a story for fishermen. It's a hard luck story, too, and here's enough bad news in the world, what with famine, strikes, the aftermath of war, and the atomic bomb, not to mention the deer shortage, the rise in cigarette prices and the white shirt situation.

And now here's another shortage to plague that most harmless of nature's noblemen, the humble fisherman. A survey of local hardware firms reveals that fishing tackle is a critical item, all kinds of fishing tackle—rods, reels, lines, hooks, even sinkers.

The only article of which there's surplus is bobbers, and a float, without the rest of the piscatorial

paraphernalia is like owning a car without wheels.

### Impossible to Get

One dealer seemed to sum up the consensus of the majority of the local hardware men:

"It's impossible to get fishing tackle at the present time. You can't get rods, reels, lines, hooks, sinkers. And the wholesalers don't say when we will be able to get the tackle. Here's a clue, though: I ordered some garden trowels, and they told me it would be twelve months before they'd arrive, and trowels are made of the same steel as fishing poles.

"Lead is critical also, the sinker situation is bad, and with the cotton shortage, fishing lines are hard to get. Even hooks are in short supply."

### Rush to Buy

Another store boasted an initial stock of good reels and steel poles, but there was a rush like a hosiery line for these precious articles, and they were practically sold before the price tags could be tied on them. This same store reported a fair supply of fishing tackle. They have hooks, lines and sinkers, but their supplies really don't meet the demand. They do have some nylon fishing lines.

So for you fishermen who broke your poles on those big ones that got away last year, or whose tackle has just worn out like the old cars you're driving, it looks like you'll have to revert to boyhood and the bent pin and grocery string tied on a hickory limb.

### DDT

A copy of the new publication, Circular No. 11, "DDT: Its Effects on Fish and Wildlife," can be obtained at five cents from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The circular is not for sale by the Fish and Wildlife Service.

## LEDGES PARK BRIDGE CLOSED

The bridge crossing the Des Moines River in Ledges State Park known as the "sixteen to one bridge," has been indefinitely closed to traffic as a result of damage caused by an over-loaded truck. The bridge is the connecting link between the main part of the park and the undeveloped areas west of the river. Fishermen wishing to fish the west side of the stream may cross at the Luther bridge west of the town of Luther and drive north, or across the river on highway thirty and drive south on the river road to their favorite fishing spot.

### HIS BIT

A speaker was lecturing on forest preservation. "I don't suppose," said he, "that there is a person in the house who has done a single thing to conserve our timber resources." Silence ensued for several seconds. Then a meek voice from the rear of the hall timidly retorted, "I once shot a woodpecker."

## CAN SEE THEM BUT CAN'T CATCH THEM

NOW trout fishing is a different sort of sport, and I had my first experience at this the other day. Most trout streams in the northeast section of Iowa are narrow and shallow. It is odd to be able to see them swim and dart along, hide behind rocks in the water, and yet be unable to catch any. Such was my experience. However, to the trout fisherman, catching one or more of them is just like the fisherman who goes to a lake, as the same old thrill is there. But even at that, I believe I prefer the lake fishing where I can't see them swim and yet catch one once in a while, in preference to the trout streams where I can see them and yet can't catch any.

—Enterprise, Thornton, Iowa.



It is odd to be able to see trout swim and dart along and yet be unable to catch any.

## MANY IOWA LAKES CLOSED TO MINNOW SEINING

Because of an acute minnow shortage the following natural and artificial lakes have been closed to minnow seining during the 1946 season by the State Conservation Commission:

County

Spirit Lake.....	Dickinson
West Okoboji Lake.....	Dickinson
East Okoboji Lake.....	Dickinson
Upper Gar Lake.....	Dickinson
Lower Gar Lake.....	Dickinson
Minnewashta Lake.....	Dickinson
Center Lake.....	Dickinson
Silver Lake.....	Dickinson
Marble Lake.....	Dickinson
Hottes Lake.....	Dickinson
Silver Lake.....	Palo Alto
Lost Island Lake.....	Palo Alto
Five Island (Medium)	

Lake.....	Palo Alto
Mud Lake.....	Emmet
High Lake.....	Emmet
Clear Lake.....	Cerro Gordo
Storm Lake.....	Buena Vista
Black Hawk Lake.....	Sac
North Twin Lake.....	Calhoun
South Twin Lake.....	Calhoun
Upper and Lower Pine	

Lakes.....	Hardin
Blue Lake.....	Monona
Lake Manawa.....	Pottawattamie
Brown's Lake.....	Woodbury
Silver Lake.....	Delaware
Bees Lake.....	Franklin
Swan Lake.....	Carroll
Springbrook Lake.....	Guthrie
Lake of Three Fires.....	Taylor
Lake Ahquabi.....	Warren
Red Haw Hill Lake.....	Lucas
Lake Keomah.....	Mahaska
Lake Wapello.....	Davis
Lacey-Keosauqua Lake.....	Van Buren
Lake Macbride.....	Johnson
Backbone Lake.....	Delaware
Echo Valley Lake.....	Fayette
Mill Creek Lake.....	O'Brien
Union Grove Lake.....	Tama

During the past two years more than 130,000,000 fish were stocked in the inland waters of the state.





### NATIVE WOODS FOR BUILDING MATERIAL

By Frank Longwood  
Farm Forester

**T**HE old axiom stating there is no great loss without some small gain has again proven to be true as a result of the present shortage of imported softwood lumber and the partial replacement of it by locally produced hardwood building material.

Pine and fir lumber has become so scarce that many people have begun looking for something to take its place. They don't have to look far. Some two and a quarter million acres of Iowa land is in forest from which more than 72,000,000 board feet of lumber was cut last year. Many people realize now that nearly every foot of this could have been used for building construction had it been sawed for that use and been properly handled before use.

It took a war and the resulting scarcity of lumber for many of us to realize that we had millions of feet of building material in our own back yards. The cut from these back yard woodlots in Iowa would have built 5,000 five room bungalows last year.

Present indications are that the 1,100 Iowa sawmills will cut a greater volume during 1946 than last year's, when there was a greater volume harvested than during any previous year since Iowa became a state.

Many buildings were built of native wood during the war and many more are under construction now. Corn cribs, barns, cattle sheds, and homes are all being made of native wood at this time. Many of the pre-cut houses being erected by contractors throughout

Iowa are partially hardwood lumber.

A large grain elevator will soon go up near Webster City, made entirely of cottonwood lumber.

Cottonwood, once considered a weed tree, is now in great demand for studding, rafters, sheathing, and joists for home and farm construction. This species is in great demand largely because of its relative lightness in weight, white color, straight grain, good strength and its ability to air dry rapidly when piled in the open or under cover.

Basswood, soft maple, the elms, oaks, and hackberry are also in demand for building purposes but in lesser quantities than cottonwood. However, basswood and soft maple will substitute for cottonwood very well. The oaks and elms are more frequently used where maximum strength is desired for such uses as floor joists, beams and other places where heavy timbers are required. Many farm buildings are made entirely of oak due to its excellent lasting qualities.

To get the maximum value from cottonwood or other hardwood it is necessary to dry them properly before using. To dry lumber it is necessary to pile it in the open or under cover where it will get good ventilation. Illustrated bulletins are available on this.

One inch cottonwood and basswood lumber will air dry in about sixty days or less. Elm and ash take about one hundred days, red oak two hundred days, maple one hundred and fifty to two hundred days and white oak two hundred forty to three hundred days. Thicker material will take longer.

During the warm, dry weather of summer from May through September lumber will dry as much as 25 per cent more rapidly than the figures quoted above.

Those people wanting to build a house and needing it badly enough to turn slightly from the conventional systems of building can use native cottonwood lumber for studding, rafters, sheathing, joists, and even flooring.

Oak and maple flooring are among the most difficult items to



Winners of the "Iowa Conservationist" subscription contest sponsored by the Green Bay chapter of the Izaak Walton League at Fort Madison. Left to right: Jim Oppenheimer, third; Martin King, first; Arthur Muerhoff, fifth; Ty Smith, fourth; Richard Kuhljuergen, second.

buy. Consequently, if a person is satisfied to cover his floors wall to wall with either carpeting or linoleum, he can use two courses of one inch cottonwood boards as a base for them. The second or top course of inch boards should be laid cross-wise to the bottom or first layer. By using finishing nails, set well below the level of the top course, the floor can be given a rough sanding. The floor can then be renailed with larger nails if needed.

This system will provide a good substantial floor to lay either linoleum or carpeting on with the total cost, including the carpeting or linoleum, less than the conventional oak or maple floor in many cases.

Another method in which cottonwood lumber can be used to replace hard to get softwoods is in siding. To do this the framing and studding and sheathing is put as usual. Then the cottonwood boards 10 or 12 inches that have been planed on at least the top and bottom sides are fastened to the outside in a vertical position. This is exactly like many barns are built. The small cracks where the vertical boards fit together are covered with battens. These conceal the cracks and when painted prevent the passage of water into the walls.

This system will work very well for the bungalow or one story type house, as it tends to give the low house the illusions of height.

Many of the 1,100 sawmills in Iowa are now equipped with planing machines, making it possible for them to finish and size native woods to a point where they are easily substituted for the pine, fir and hemlock ordinarily used.

Most of the early settlers used native lumber in their homes and farm buildings, many of them still standing and in use today. What better testimonial is needed?

### APPOINT NEW BIOLOGIST

Bob Moorman of Ames has been appointed assistant biologist by the State Conservation Commission. Moorman, recently returned from army service in the Pacific, received his master's degree from Iowa State College and specialized in Bobwhite quail research. He has been assigned to the study of Bobwhite quail in southern Iowa. Moorman's studies will be carried out in all parts of the quail range and he will cooperate with farmers and sportsmen's groups in an endeavor to work out an over-all quail management plan that will be applicable throughout the southern Iowa quail territory.

### THINGS YOU MAY NOT KNOW

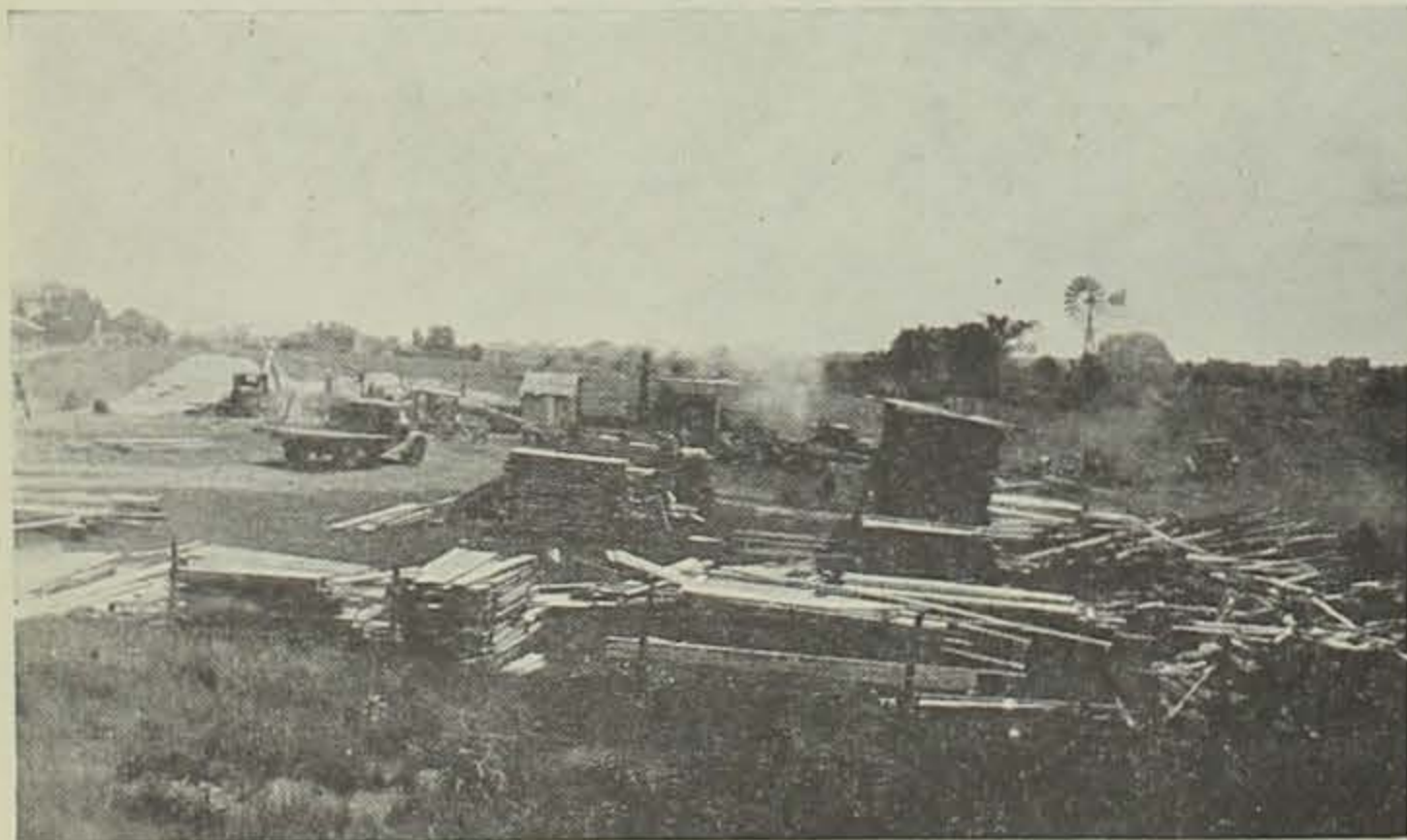
The old wheeze that ostriches "bury their heads in the sand" was probably started by early desert nomads who saw ostriches feeding on the horizon. From this distance the birds' heads would appear to be "buried in the sands." Usually the ostrich depends on his great speed for safety.

The not uncommon belief that a snake never dies before sunset is untrue. The sun's position has no bearing on the condition of a decapitated snake. When his head is cut off he is simply a dead snake. Reflex action leaves the nervous system slowly, making it appear that the snake is still alive.

No report of an eagle carrying off a child has ever been substantiated. Scientists estimate the lifting power of an eagle at not more than seven pounds.

Three or four rabbit skins are used to make one felt hat.

Maintenance and construction for the state parks during 1943 and 1944 cost more than one quarter million dollars.



Iowa's 1,100 saw mills will cut a greater volume during 1946 than in 1945 when more lumber was harvested in the Hawkeye State than at any time during the past one hundred years.





The film stretched across the bony framework of the bat's wing is a fragile, silky skin which is almost translucent in the sunlight.

## BATS ON THE WING

OF the bats in this region, the red bat is most abundant. It is the small flyer in the sunset sky, a fitting shadow over ponds, the bat which sleeps hung up by its claws in bush or tree. The golden-tinged fur of the four-inch body glints in the sun.

The wings, which are folded compactly when the animal sleeps, look impotent and weak, but when spread they may extend to eight or ten inches and have a tremendous power of flight. These are not coarse, leathery wings stretched across a bony framework; they are thin, fragile, silky skin which is almost translucent in the sunlight. The skin is fitted across elongated finger bones in the bat's modified foreleg to make a structure admirably capable of sustained flight.

In these remarkable wings, and in the expressive head of the bat, here centers the greatest interest. The small face has personality. It is fierce, but in spite of a dimin-

utive and uncompromising ferocity, it is not an evil face.

Yet because of the centuries of superstition which have made of the bat an unpleasant thing to be shunned, often the peculiar beauty of this small creature's face goes unobserved. The ears are delicate, intricately shaped, large, and are very highly sensitized. Hearing, not eyesight—though a bat can see—guide the animal in its jagged journey through darkness. By means of a sort of radar system, the bat avoids obstacles in its path.

The mouth has well-shaped jaws; there is a red tongue and a set of fine, sharp teeth which are fitted for holding and chewing insects caught on the wing. Young bats, too, have this same queer elfin aspect. They are born in summer, sometimes two, occasionally four, and are fed for several weeks on their mother's milk. For a while she carries them around with her as she flies; when they grow too heavy she leaves them on a tree trunk while she forages for food. In a short time they become inde-

pendent and join their parents in flying after insects.

Then on a day in late summer, in that quiet, listening time when it is neither night nor day, when a star or two is out, yet the light of the sun has not been entirely blotted out, bats flit against the twilight or come down and swoop by dozens over the pond. Insects in these places are abundant in summer, but as autumn nears and there are frosts, the insect quota daily lessens.

Now the little red bats from all over Illinois, feeding as they go, begin to move in numbers across the daytime sky. At the time of bird migration, small mammals follow the sky route of hawks and thrushes, south for the winter. As autumn moves onward, no more jagged bat-wings trace invisible pathways across the pond or among stars. Not until spring brings back the migrant birds will there be bats in the sky.

—The Illinois State Museum.

## POLLUTION AND POLIO

For a good many years conservationists have connected stream pollution only to the damage it caused to plant and fishlife in the streams polluted. But had you heard Dr. Piszczek, director, Cook county, Illinois, public health department, at the recent convention of the Izaak Walton League of America you would realize that there are many more phases to stream pollution that are as important as the damage to fishlife, or perhaps more so.

The doctor pointed out that there are still 3,400 cities and towns in the U. S., inhabited by 29,000,000 persons whose bath tubs are the envy of the world but who discharge daily 2,500,000,000 gallons of raw sewage into our waterways. And in addition he pointed out that 3,750,000,000 gallons of industrial wastes are also dumped daily into American streams.

You may feel that we are very fortunate here in Linn county in that we have the pollution problem well in hand as compared with many other localities, but don't be an ostrich and bury your head in the sand. With the war over and more leisure time to spend in the open, people are going to drive, fly and travel by various means to many places far distant from Linn county. You may be one of them. And it is just as important to you that the streams in California, Texas, Minnesota or Maine are free of disease laden pollution, as you feel you can expect in the home town or county.

Infantile paralysis is not the least bit interested as to where you are when it takes a sock at your chin, or the chin of some member of your family. And how may you help in such a campaign? By getting behind an organization like the Izaak Walton League of America, the nation's foremost organization devoted to the conservation of our renewable natural resources,

and interested in pure clean waters, not only in the streams of Linn county but the streams of the state of Iowa and the streams of the entire United States.

—Frank Powers,  
Cedar Rapids Gazette.

## PLEASE SEND ME

Letters addressed to the State Conservation Commission from school kids in every section of the United States are constantly received at the Commission office. For the most part the letters contain requests for information about wildlife conservation and are carefully worded, and well written. Occasionally, however, some youngster gets off the "beaten path," and helps to brighten a dull day.

The following excerpts have given us a chuckle, but brought prompt and considerate answers to the questioner:

### North Carolina

"I would like to have the seal of your state, your state flag, your state flower and your pretty State Capitol, and would you mind sending me some of your papers and books to read. It would all be very wonderful, lovely and beautiful."

### Ohio

"As a hobby, I am collecting the gold seals of the Union so I am kindly asking you to send me the gold seal of Iowa."

### North Dakota

"Our school is making a collection of all the capitol buildings. Will you please send us your capitol building?"

### Missouri

"I am interested in knowing if Iowa has a state animal, and if they do, how they got it."

### Mississippi

"I am sending for a folder or book about important facts and pictures of beautiful Iowa. Please hurry, thanks a million. Oceans of love. Also send me a post card with the State Capitol on it."

### Iowa

"Will you send me a map of Iowa; especially going west?"

Okey, kids!

## STATE SUPERINTENDENT OF GAME RESIGNS

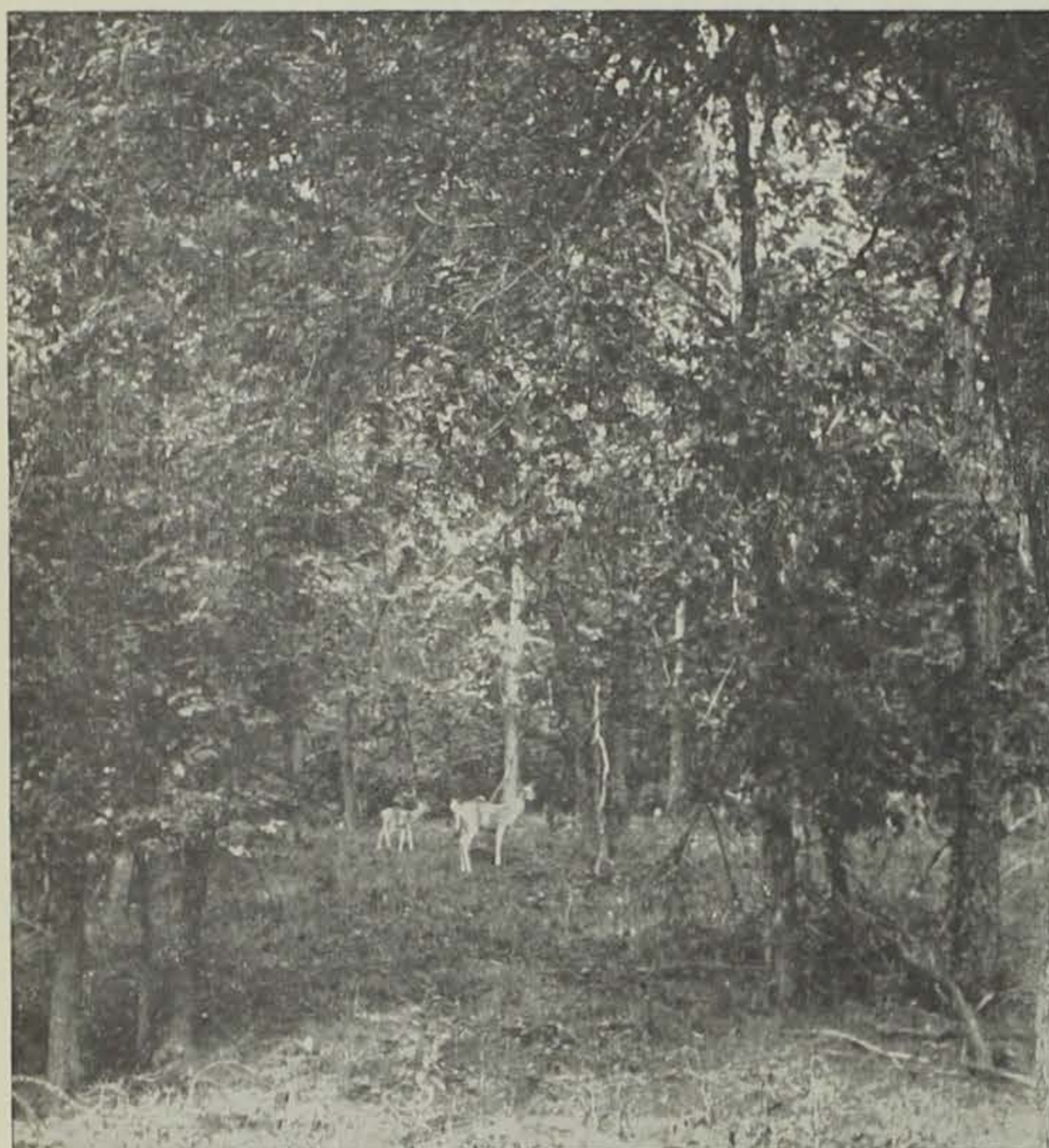
Taylor W. Huston, state superintendent of game, has resigned after fifteen years service with the Conservation department. Huston was one of the pioneers in the Iowa game management program and is widely known both within and without the state, particularly for his work in the development of state-owned game lands.

For the two-year period ending June 30, 1944, 20,900,000 fish were rescued from the land-locked inland waters.



The ears of the brown bat are delicate, intricately shaped, large, and very highly sensitized.





Only after timber harvesting had opened up some of the solid stands of trees did game thrive in our primeval forests because for most species "forest edge" is a necessity.

## TIMBER and GAME...Twin Crops

By Harold Titus

(Continued from last month)

IT is when we consider big game, however, that real catastrophe threatens when some influence does not offset an increase in numbers as the carrying capacity of range is approached. Here we could cite the tragic story of the Kaibab deer herd in Arizona as an example or could brief the tortuous history of Jackson Hole elk in Wyoming, but the sorry saga of the Isle Royale moose is more recent and perhaps more dramatic as well.

Isle Royal is a part of Michigan, eighteen miles off the Canadian shore near the western end of Lake Superior. It is forty-five miles long and a third as wide at some points. Until 1920 it was known only to venturesome tourists, a few commercial fishermen and its light-house crews. Except for scattered copper explorations many years before, it was an untouched wilderness.

How or just when the moose arrived is anybody's guess. Caribou had been present in limited numbers but had disappeared, either because the island didn't offer what they had to have or by the poaching route as no predators except a few coyotes had ever been known to live there. Obviously, moose crossed from the mainland either on ice or by swimming soon after 1900.

By 1911 sign was common. By 1915 the population was guessed at 300. By 1922 this estimate was

upped to 1,000 and the Michigan Conservation Commission asked the legislature to permit limited hunting, following many years of statewide protection for moose.

The request was violently opposed by island fans. The big animals were the principal attraction for the three or four summer resorts by then established in the fiord-like harbors. It was thrilling to see as many as twenty in a wallow at one time and the argument was that if guns were kept out folks might some day see twice that many. The debate became too hot for the legislature to handle and no action was taken.

In 1929 the movement to make the island a National Park was under way and for the first time a top ranking naturalist took a look at the moose. This was Dr. Adolph Murie. After months on the job he estimated that Isle Royale was home for a certain thousand moose and stated that an actual count, were such possible, might turn up three times that number. Anyhow, the herd was probably the world's greatest concentration of the species.

### Starved for Lack of Browsing

Murie called attention to the overbrowsed condition, which others had been doing for nearly a decade, but no action resulted. In less than ten years only a remnant of the herd was left. By 1944 estimates ranged from less than

thirty to perhaps 300, with the namers of the latter figure saying it was no doubt away too high. Michigan had trapped and transported to the mainland seventy-one. Perhaps a few others had been killed by poachers. Otherwise, the animals had been unmolested. No big predators were present. No special disease was revealed by many autopsies.

That magnificent band of magnificent animals had eaten itself down to seed stock. Ground hemlock, lily roots and other staples were muttoned and today no one is venturing a guess when the vegetation will permit the herd to start rebuilding—if it ever tries. Repeatedly in nature we find when stocks of this or that reach a certain low level they are on their way out and nothing can stop them.

To stories such as these there seems to be a revolutionary moral. It is this: when game populations reach a safe level, then, to have their cake, hunters must eat it. Just as when a stand of forest trees is mature that stand must be harvested or the cords and board feet that might have served man will be lost to him, so when a population of game birds or animals reaches that point beyond which the environment will not support more, the numbers must be reduced. If they are not, and especially with the big mammals, catastrophe may be just around the corner.

### Pennsylvania Deer Escape Disaster

The Pennsylvania deer herd apparently missed such a catastrophe by an uncomfortably narrow margin in the early thirties but, because good judgment prevailed, that story has a happy ending.

From colonial times Pennsylvania had been natural range for whitetail deer. After about 1870 the range started to deteriorate. Logging and fire had done their worst, market hunting became a factor and by 1900 deer hunting was not much to brag about in the state.

In 1905 two important steps were taken. One was the setting

up of the state's initial game refuge where no deer hunting was permitted; the other was the importation of fifty breeder deer. In 1907 these moves were followed by a buck law so that does had universal protection.

The condition of food and cover was due to get better shortly because all across the land men were realizing that something must be done about forest fire control. Pennsylvania made the beginnings of a real forest fire organization and areas which had been periodically scoured to a cinder began to stay green and recloak themselves with brush and trees.

By 1915 deer hunting had again become something to talk about a little here and there. Just a little. Nearly 1,300 bucks were killed that fall. In another five years the kill had doubled but that wasn't all. The pendulum had made such a rapid upswing in some counties that farmers were complaining about deer damage to crops. The Game Commission was concerned by that problem but not so deeply as over another which raised its head about the same time. This was the matter of overbrowsing. In some localities there were so many deer that they ate food faster than it could grow. And now and again a field man would report deer found dead, maybe from starvation.

(Continued next month)

### COMMISSION TO PRINT FISH AND GAME POLICY PAMPHLET

Five thousand copies of a paper titled "Iowa Fish and Game Policy," by Bruce F. Stiles, chief of fish and game division of the State Conservation Commission, is to be printed for general distribution. The paper, carried serially in the "Iowa Conservationist," is to be reprinted as a "separate" and will be ready for distribution July 1st.

### IT PAYS

The codfish lays a million eggs.  
And the helpful hen lays one,  
But the codfish doesn't cackle  
To tell us what she's done.  
And so we scorn the codfish coy,  
And the helpful hen we prize;  
Which indicates to you and me,  
It pays to advertise.



It is when we consider big game that real catastrophe threatens when some influence does not offset the increase in numbers as the carrying capacity of the range is reached.