

IOWA CONSERVATIONIST

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MORE NORTHERNS FOR IOWA WATERS

Malcolm K. Johnson



Jim Sherman Photo.

The eggs didn't make it. Because mother pheasant unknowingly nested in an alfalfa field, four cocks were lost to hunters. Four hens laid no eggs. Delaying mowing in both field and roadside makes sense makes pheasants. Nesting success is the difference between a good season and a poor one.

DADSDIE HOMESITES

Richard Nomsen
Pheasant Biologist

The annual production of a pheasant species is of primary importance and when the subject of pheasants is mentioned in Iowa, most hunters think of the ringneck pheasant. Pheasants favor fertile upland and Iowa's rich upland holds the key to the ringneck's success in the Hawkeye state. Pheasants thrive in Iowa because agriculture thrives.

However, the economics of farm-change and so do agricultural practices. Some of these changes affect pheasant reproduction. High speed mechanized equipment has replaced the slower horse drawn machines of 20 years ago. Pheasant hen mortality in hayfields has more than tripled since the early

forties and fewer nests hatch out because hay harvest takes much less time. Hatching success of pheasant nests in oats is high and most of our chicks are produced in this type of cover, but the more profitable row crops have replaced about a third (over 2 million acres) of Iowa's small grain crop in the last ten years. On the other hand, the conservation reserve program has added over 650,000 much needed acres to our dwindling supply of safe nesting cover.

Adequate production each year is a *must* to maintain our pheasant population. The average life of a pheasant is short, which means the annual population turnover is high. For example, only about 20 out of every 100 pheasants will live from one year to the next. Nearly two-thirds of all cock pheasants will be harvested by hunters. Both hens and cocks are further reduced by normal winter mortality, predators, and by automobiles on highways. Add to this, mowing during the spring nesting season which destroys a considerable number of incubating hens.

There is little that can be done for the nests in hayfields. Flushing bars and slower mowing speeds will reduce the hen mortality but will not save the nest. Then, if adequate cover were available, many of these hens could re-nest elsewhere and bring off successful broods. Plans for the flushing bar can be obtained from the State Conservation Commission in Des Moines.

The density of nests, that is, the number of nests per acre, is usually high in strip cover such as fence rows and roadsides. However, most fence row nests are destroyed by predators because the cover strip is too narrow due to the clean farming methods of today. That leaves the roadsides to consider.

Iowa's system of secondary roads is extensive—especially in the more intensified farming areas where safe nesting cover is at a premium. Each mile is bordered by about four acres of nesting cover—nearly 300 acres per town-

(Continued on page 48)

You could ask a bass fisherman who's just put a plug in a likely spot, a cat fisherman with fingers reeking of well cultured bait, or even a trout fisherman dancing a dry fly over a riffle and I don't know a soul who'd deny it. How would you like to have your backbone jarred by an old granddaddy northern?

For out and out cussedness and an appetite that will put a billy goat to shame this predator occupies a justifiably high position in the angler's fancy. Because of his popularity and usefulness many efforts have been made in the past to supply more of them from hatcheries to their normal habitat in the natural lakes and upper reaches of the larger inland streams. As most anglers know, the state has for many years operated hatcheries to increase production of the more desirable species of game fish, but the cantankerous northern has until recently frustrated fish culturists.

Strangely enough, it was experiments for propagating minnows that paved the way for a breakthrough with the northerns. Four

years ago fisheries biologist Tom Moen and John Spinner, fish culturist at Lansing, began work to pep up pike production. The main difficulty in the hatcheries arose when female pike brought in for stripping refused to ripen. They would lie in the holding tanks for weeks sometimes before they were ready to strip. Many had to be returned to the lake still "green" with literally millions of unborn fish with them. If those eggs were obtained, hours of nighttime netting would be saved and more northerns would be available to Iowa fishermen.

The system of making them spawn goes something like this. When the netted fish are brought in to the hatchery, males and females are separated, then the ripe and green females are put in different tanks. The ripe females are stripped and returned to lakes or streams and those with immature eggs are subjected to a series of injections of pituitary extract from 10- to 15-pound carp. At intervals of 12, 24 and 48 hours the females under treatment are examined and

(Continued on page 45)



Jim Sherman Photo.

Ripening a northern pike that is reluctant to spawn. By injecting pituitary extract from the glands of carp, Conservation Commission personnel at the Spirit Lake hatchery help the wayward female pike to mature their eggs. This one produced about 80,000 eggs—what would this process do to the poultry industry?

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GO WET FOR BLUEGILLS

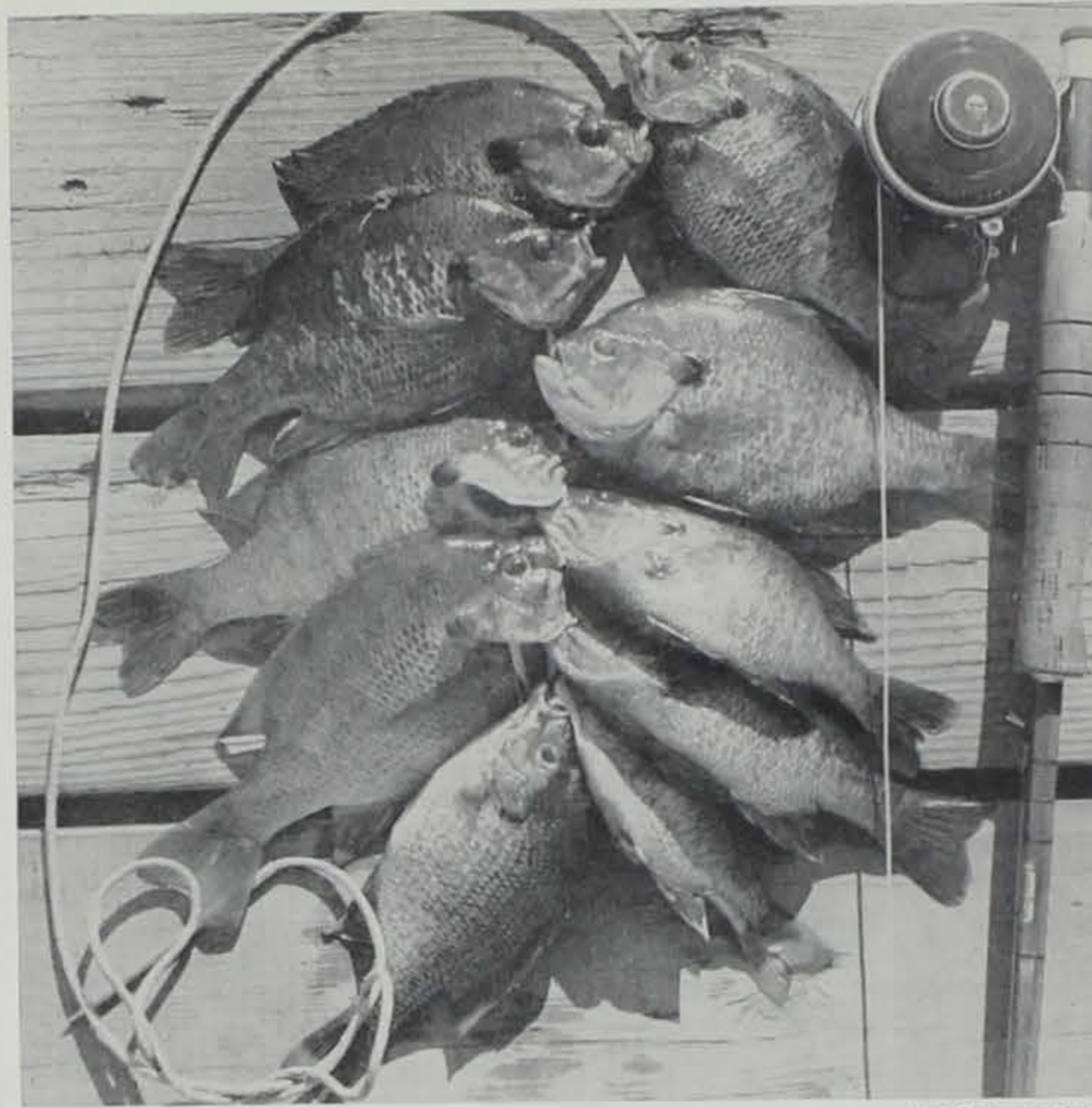
Bill Cochran

If there's a man alive that doesn't like to catch bluegills, I haven't met him. The fact is, I've seen some pretty sophisticated trout and bass fishermen slip off for a day of bluegill fishing. And for good reason. Bluegills have what it takes to satisfy any fisherman—man or boy, expert or beginner.

As for me, I love to catch bluegills. I especially love to catch them when they are surface feeding. It thrills me to watch my fly slowly work across the water's surface, to hear the plunk of a bluegill when he hits it, and to see the whirlpool swirl as he sucks it in. For this reason, I always start bluegill fishing with dry flies, or poppers, or floating rubber spiders. But, unfortunately, I don't always find bluegills surface feeding. When this happens, I'm certainly not above trying a below surface fly or lure. In fact, I find that it often takes more skill to catch bluegills below the surface than above.

It is well known that bluegills find the majority of their food underwater. Surface food is something like a desert to them, or at least it comes in occasional flurries during the day. As a rule, you'll find all bluegills feeding on the surface or all feeding below the surface at the same time. There are few individualists among them. If I find they aren't surface feeding, it doesn't take me all day to tie on a below-surface lure or fly.

I favor wet flies for underwater work, but there are several other below-surface offerings worth carrying. I will list a few of them later, but first let's take a look at wet flies for bluegills. I prefer mine to be dressed in a rather drab color. Bluegills seem to be attracted to drab colored flies quicker than they are to bright fancy ones. The Brown Hackle, Blue Dun, Black Woolly Worm, March Brown and Gold Ribbed Hare's Ear make



Bluegills such as these from Red Haw State Park are as good as can be found anywhere. Going after them with flies or nymphs on light tackle gives action to please the master angler. No need for fancy tackle either, they're just as happy to tug at bait on a cane pole.

good bluegill patterns. I prefer most of mine to be tied on hooks of size 10, 12 and 14.

The method used to fish these underwater patterns is much more important than the offering itself. Finding where bluegills are feeding is the first step. This includes both location and depth.

When fishing strange waters, I usually start by working my wet fly around weed beds and pond lilies or if there are docks, overhanging trees, logs, stumps, old boats, or anything that offers sheltered water, I am sure to give them a try. If these don't produce, I search the deeper water. I start by working my fly just under the surface. If I don't get a strike there, I keep letting it sink deeper, with each cast, until I catch several bluegills at a certain location. I have then found the best fishing depth—for the time being anyhow.

One of the hottest Labor Days I can remember found me bluegill fishing not far from my home. As usual, I started out by trying dry flies, but this time they didn't bring a stir. I then tied on a Brown Hackle wet fly and started fishing below the surface. I kept letting it sink deeper with each cast and I had almost reached the river bottom before I got my first strike.

The only way I could catch bluegills for the next three hours was to make a fairly long cast, then wait until my fly sank to the river bottom before starting my retrieve. I would then retrieve it in a painfully slow manner, but almost every retrieve brought a strike. I had to watch my line with the utmost care, because, at that depth, a bluegill's strike was often only a light tightening or a suspicious

jerk of my line. When I saw this I had to strike fast to connect.

This little incident brings up the subject of retrieves. Bluegills will usually react best to a slow retrieve. They aren't built for speed like a trout, and they don't fancy running their fins ragged after a fast fly. Because bluegills live in still water pools and ponds, the action of your fly must depend on the movements you give with your rod and line. A good bluegill retrieve is merely a series of gentle jerks administered by the tip of your fly rod. If bluegills are feeding near the surface, a large area of water can quickly be covered while using this method, but if they are feeding near the bottom you must wait for your fly to sink before beginning to retrieve it. A little leader sink preparation or a small split shot will help make a wet fly sink faster. While fishing deep, considerable attention must be given to the line in order to denote a strike. A wet fly fishing strike won't always be felt as a bait fishing strike is. It must be seen. A bluegill will quickly discard a fly when he mouths it and discovers it not to be real. To connect, you must school your reflexes to strike back at the slightest twitch or tightening of your line. This is an important key to successful bluegill fishing.

A wet fly will often be struck as it sinks to the bottom, so careful attention must be given from the time it hits the water.

The deep retrieve differs little from the shallow one. When your fly reaches the desired depth, you can begin a retrieve of jerks and pauses, keeping it at an even depth or bringing it slowly to the sur-

face. Sometimes a slow, steady retrieve will bring more strikes than a jerky one. A variety of retrieves may be used depending on the occasion. I often retrieve my fly a few feet toward the surface then let it drop back to the bottom again. This seems to be a good trick to take bluegills.

Earlier, I said that my average bluegill flies are tied on hooks of size 10, 12 and 14. These serve me well most of the time, but occasionally I must go digging in my tackle for a much smaller fly. One evening, just a few hours before dark, I was fishing a small farm pond. I tried my favorite dry and wet flies without luck. In fact, I had tried almost everything I owned with only a few feeble strikes as a result. Bluegills are that way sometimes. They aren't pushovers by a long way. My poor luck sent me digging into my rear fishing-vest pocket, I came across a box of small flies—sizes 16 to 20—that had saved me from fishless trips many times before. I quickly tied on a size 16 Adams. True, it was a dry fly, but I fished it wet, just under the surface, and caught and released over 75 bluegills during the next two hours. By the time it was dark my little Adams was almost worn to the hook.

Now let's take a look at some underwater offerings other than the conventional wet flies. In the first place, several nymphs should be included in every bluegill kit. Don't shake your head sadly when nymphs are mentioned, because they are no harder to use while bluegill fishing than wet flies. Every method I have mentioned for wet fly fishing can be applied to nymphs. Quite often their looks and creeping-like action will attract bluegills better than wet flies.

A few streamers should also be carried. They can be fished much like ordinary wet flies or nymphs; however, a quick dart, then pause method of retrieve seems to be most attractive to bluegills. It pays not to make the action too fast, because bluegills don't like a tough chase. A fly and spinner or small spinner can also be used much the same way as streamers.

Sometimes a few little odd-and-end lures that most fishermen carry come in handy for bluegills. One morning I was fishing a farm pond during a hard rainstorm. I told myself that I was crazy even to be out, but bluegills will often make me do odd things. Dry flies were out of the picture and my wet flies weren't accomplishing much. For some reason I tied on a black rubber water spider equipped with white rubber band legs. It was a surface lure, but I wallowed it in the mud until it sank when it hit the water. By retrieving it under water in a way that allowed the legs to work back and forth in swimming-like motion, I caught sixteen nice bluegills besides a bass. Like I said, I love to catch bluegills.—Pennsylvania Angler.

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C. S. Gwynn

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THE WORKS OF RUNNING WATER

C. S. Gwynne

Not heard in the present day and cry to save our water is one of the most important qualities of this commonest of minerals. Besides its delightful wetness when we're dry, its varied uses in manufacturing and accomplishing household chores, water's motivating force in shaping our landscape yields unending pleasure to the eyes. Mountains, hills, plateaus, plateaus and gorges have been gently caressed or deeply cut by water in motion—nature's modeling tool.

There is hardly one of Iowa's state parks that does not owe at least part of its landscape to the work of running water. To be sure, other gradational agents have played a part in the making of our parks. Weathering, for example, that subtle process, the long-continued action of which results in the formation of subsoil, has been active and is still at work. Glaciers have played a part; most of our subsoil was brought here by glacial ice. The wind, too, has entered the picture. But the most important, all prevailing agent of erosion is running water, and it is responsible for much of the landscape in our parks.

The average rainfall in Iowa is about 35 inches a year. That is quite a lot of water, almost three feet, if you stop to think about it. Some of this water is evaporated, and some of it sinks into the ground, but much of it runs off over the land surface. The big consequence of its runoff is erosion and the development of valleys. So, everywhere, the valleys big and little owe their existence to this agent.

Think it over a little, and you will realize that many of the parks are really centered about valleys. Like Wildcat Den State Park in Linn County, for example.

Here, Pine Creek has cut down through the glacial deposit at the surface and deep into the underlying sandstone. The same at Maquoketa Caves; only here the underlying rock is limestone. The Palisades-Kepler State Park in southeastern Linn County is along a much larger valley, that of the Cedar River. Many other examples could be cited.

That the continued flow of running water along a given course will result in the formation of a valley is no secret. One has only to watch the water as it flows along. If it has any appreciable velocity, the movement of sand grains will be noticeable. If the stream is in flood, then the work that it is doing in carrying sediment downstream is indeed apparent. The water will be brown in color from the presence of the suspended particles of clay and silt. Along the bottom, and perhaps out of sight, sand and pebbles will be shifted along. If the stream has a very high velocity, even large boulders can be moved. Most of this erosion is done when the stream is in flood.

Of course, there is a tendency for the movement of the material to be stopped as the current is slowed down. As a flood subsides, much material is dropped, only to be moved along by the next flood. The creek at Ledges State Park has built a long bar out into the Des Moines River where the two streams come together. This is made up of the coarser material moved by the creek. The stream was able to transport this debris through the park in high water, but when the river was reached, the current was slowed down and the heavier material dropped. High water in the Des Moines River, with its increased velocity, will shift this heavier material downstream.

Some of the larger park streams have many tributaries. That means ravines and gullies, fanning

out like the limbs of a tree, from the main valley. There, the landscape as a whole is very hilly, perhaps a succession of ridges and small valleys. Such an area is likely to be forest-covered and attractive as a recreational area.

Take a look at Pike's Peak in Clayton County, and Bellevue in Jackson. They are along the side of the valley of one of America's largest rivers, the Mississippi. And this valley is a page from the same book, just a longer chapter. It is the result of the work of running water. Of course, in the case of the Mississippi River Valley, a vast amount of time is involved. Possibly the last prehistoric sea to have covered this northeastern Iowa area is one which existed some 60,000,000 years ago, according to present reckoning. More likely, the last one for this area withdrew even farther back than that, perhaps 250,000,000 years ago. In any case, it is apparent that for many millions of years the rains have been falling upon the area of the upper Mississippi Valley and the runoff has been at work developing a drainage system. No wonder this master stream of mid-America has developed such a great, wide valley. Of course, the glaciers of the last three or four hundred thousand years have made many changes in the valley.

The work of running water is greatly aided by weathering. This always active process produces a subsoil from the solid rocks of the earth's crust. Running water can rather easily wash away the fragmental material of the subsoil, and in so doing, produce a channel. Little streams unite and form larger ones. The smaller valleys in which they flow unite and form larger ones, and all keep growing. Erosion in the subsoil is simply a matter of hydraulic action by the stream. It is much like the effect secured by turning on the hose. All one has to do is turn on the water and wash the stuff away.

Such erosion may finally reach bedrock, and then it, too, is gradually cut into. In the bedrock, however, the stream's action becomes one of abrasion, aided by weathering and gravity. Abrasion is the cutting accomplished by the stream-borne sand and pebbles grinding against bedrock and other rock fragments. Weathering loosens material from the bedrock walls, then gravity brings it within reach of the stream. Undermining the rock wall by stream erosion may help. At the Ledges a few years ago, a large section of sandstone just above the upper bridge broke away and fell into the stream channel. That section had been undermined by the stream for many years until at last the sandstone wall, no longer supported, broke away. The creek in the years to come will chew away at that large block of sandstone until finally it will have disappeared.

As almost everyone knows, most of the subsoil of our state is glacial drift, composed of material carried and bulldozed down here from the north by glacial ice. Most of it was formed in the north country by weathering. Some of it had been worn off the bedrock by streams, and some, of course, was the result of grinding wear on the rock surface over which the ice moved. In any case, this glacial drift forms the bulk of our subsoil in which most of our streams nibble and wash their way to the Mississippi and Missouri Rivers.

Most of the northern part of the state, above Des Moines, is much as it was when the last glacier melted away. Running water has not had time to affect it much, so throughout this drift plain as a whole, deep valleys cut into the bedrock are absent, except near the larger streams. All along the Des Moines River north of Des Moines, the country for a few miles on either side is cut up by tributary valleys developed since glaciation. Farther out, the country becomes one of low mounds and intervening sags, almost level terrain over wide areas. The parks of Iowa's lake country in this area show little or no result of the work of running water. The last ice disappeared only some 9,000 years ago and there has not been time enough for running water to accomplish much.

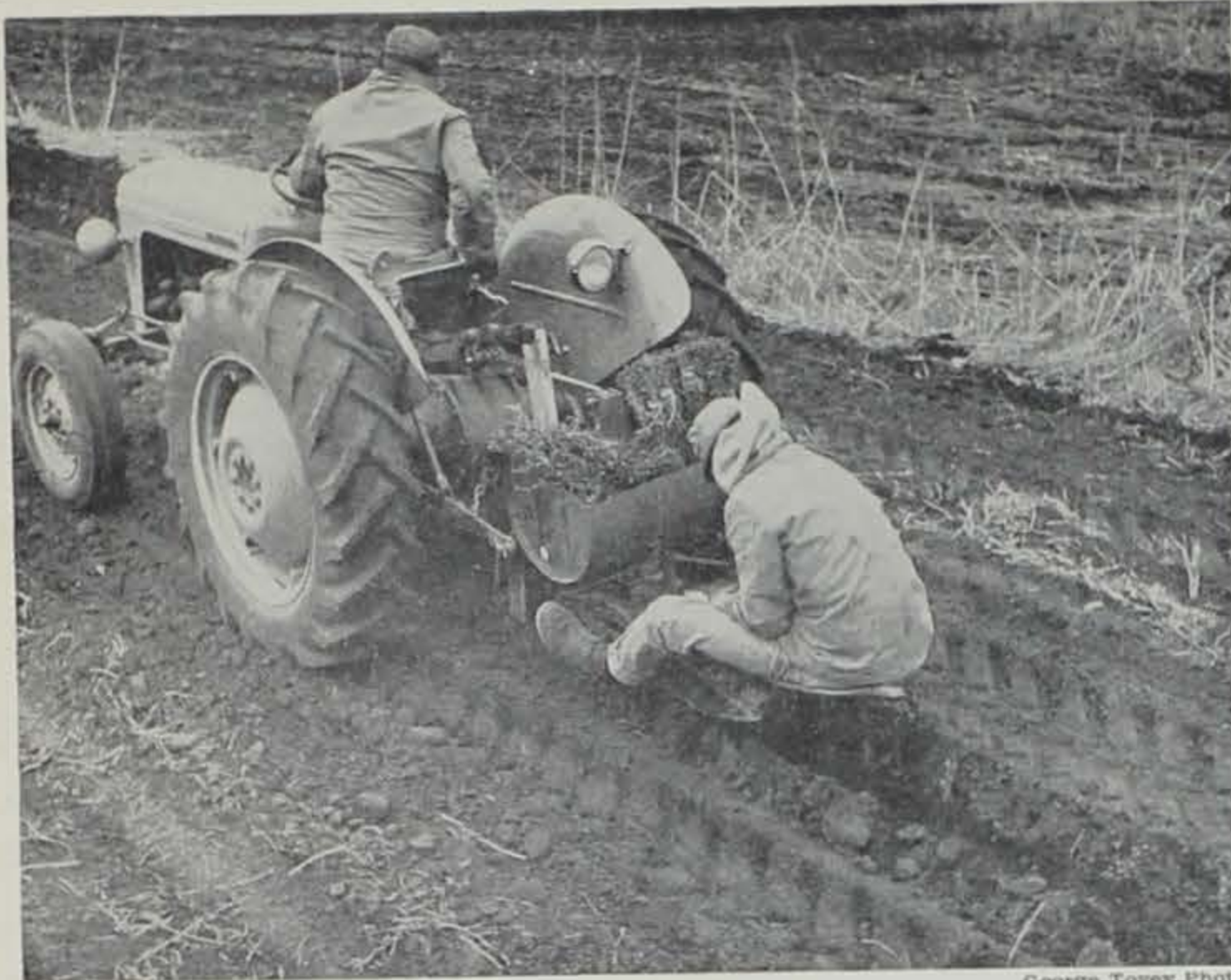
In southern Iowa, park after park has as its center of interest a fine lake; Allerton, Viking and Red Haw to name a few. These lakes are all in valleys made by running water over the ages. The lake basins in each case have been made to store water by building a dam. Tributaries entering the main valley show up as bays or inlets in the shoreline.

There are, indeed, few Iowa parks that do not show to some extent the result of running water. Many are excellent places in which to study this world changing factor.



Jim Sherman Photo.

Slipping boulders into inconvenient areas such as this ford at Ledges State Park is one of the obvious signs of waters at work. Most valley carving, channel cutting, and stream scouring is done during the annual spring floods when millions of tons of water travel through a restricted area in a short time. The force of such a stream in flood may be likened to the flow from a fire hose. Compound this force into many and the problems of major rivers become evident.



George Tovey Photo.

It doesn't take long to plant multiflora rose and other shelterbelt types with this type of a rig. On the Vyron Truog farm southwest of Mallard the Conservation Commission and Soil Conservation Service helped put in the first complete farm shelterbelt in Iowa as a demonstration area for wind erosion control.

THROWING A GOOD BUCK TO THE WIND

Malcolm K. Johnson

Shelterbelt, like most conservation terms, is old stuff to most Iowans. With the passage of years, new ideas and angles come to light. They rejuvenate old programs, broaden their scope and provide further benefits to man and his fellow travelers.

Flying over this region of America it is obvious that nearly every rural home has a wood lot or at least several rows of trees planted in such a fashion as to break the cold northwest winds of winter. The new program of shelterbelt planning is merely an extension of the age old idea of obtaining the natural protection afforded by well positioned trees and shrubs. But cold weather and high fuel bills may well be the least of our troubles with wind. The hot dry air of summer moving over the land first evaporates moisture from plants and soil, then removes the soil itself. This lessens fertility on one area and when the billowing dust is deposited, the growth of the affected crops is disturbed. Dust-laden plants and animals don't flourish as they might without aeolian refuse. Man, the tolerant creature, accepts the difficulties spent on him by nature for just so long, then strikes out to better the situation using whatever tools are at hand. The sciences, and especially the science of conservation, are coming of age in these dealings between man and his environment. Detracting from natural damage with nature's own instruments is, as a rule, the most effective procedure and if done properly doesn't disturb the normal cycle of events. This then is the problem: to better our circumstances without creating havoc in the process.

The owner of a northwest Iowa farm near Mallard has been plagued for the past several years with wind blown soil. Three years ago he stripped the north edge of his farm with conifers and also two types of grass, birdsfoot tree-foil and orchard grass, both of which are excellent wildlife cover. Last April he pulled out all of the stops and following the advice of the State Conservation Department and Soil Conservation Service, planted the first complete farm field shelterbelt in Iowa. The area covered by trees and shrubs is of course lost to production, but the net results shown by similar programs in South Dakota will increase the productivity of his remaining land by eight to ten bushels of small grain per acre. That increment is just the dollar value—who can tally the worth of added beauty and the much improved wildlife habitat?

Bordering the entire farm is a double row of low growing honey-

GOOSE LAKE RESTORED

Malcolm K. Johnson

The transgression of Goose Lake through its turbulent history stands out as a mark against the greed of man. The lake was a natural feeding ground and sanctuary for all kinds of migratory waterfowl and shore birds. Too, the home of thousands of fur-bearing water animals. A nesting ground during the summer and a rest stop for tired and hungry migrants in spring and fall, where they stayed to feed from a few days to several weeks according to the dictates of the weather. Known for its plentiful water supply and capabilities as a marsh, a couple of dry years before the turn of the century made it fair game for the land-hungry.

In 1894 some farm crops were raised in its bed and though water returned, two years later an application was made to have the lake certified as a swamp. Not long after, the interested company began work but was forestalled by

suckle and multiflora rose with a row of hybrid poplar inside the shrubs on the west and south. Another row of poplars in an east-west line through the center of the farm parallels the farm's general orientation.

In the northwestern states, single row plantings of trees and shrubs are becoming increasingly popular for wind erosion control. With the rows placed 300 to 500 feet apart, they have almost completely eliminated blowing dust, spread the snow evenly about the farm, and cut down the effect of hot dry winds prevailing during harvest time as well as providing cover for rodent and insect eating birds and game.

What better balanced program can you imagine? Good for the pocket book, easy on the eyes and an outdoorsman's delight when the time comes to harvest the game.



Got 'em, by gum.

the state's injunction. Later the State Supreme Court and the United States Supreme Court upheld the injunction. Still not satisfied, the group maintained the pressure and lobbied hard. It worked! The reasons for the drainage were listed as the area being an eyesore and nuisance and because of blackbird damage.

In 1919 the 38th General Assembly passed the law which permitted drainage of the lake at state expense, the cost to be repaid from proceeds if the operation was successful. Some 15,000 people futilely petitioned against the act. Work began in 1920, but by the next year assessments were already in question. More surveys were made, money paid out, and still the net result was failure. After investing about \$200 per acre (more than the land was worth even with improvements) the tile system was not operating—another engineering survey indicated that at least \$50 per acre more would have to be spent to make the land farmable. In all \$91,605 was washed down the tile drain.

Because of the project's unsavory history and continual embarrassment, the Executive Council denied a Board of Conservation request to restore Goose Lake to its original condition in 1925; so to make the best of things a forest nursery was started there in 1930. Improper design and specifications that called for the installation of cement tile in that highly alkaline soil caused successive failures in the tile system, the old lake bed was getting progressively wetter. More surveys followed and finally in 1947 the Conservation Commission was given permission to make the lake a lake once more.

This spring the 450-acre lake again abounds with wildlife. A trip to Goose Lake is like opening the door to some vast primeval aviary. The air is filled with the voices of waterfowl and shore birds; pied-billed grebes, yellow legs, yellow-headed blackbirds, large flocks of blue-winged teal that probably are nesting, mallards and mudhens. The long shoreline of shallow water an ample cover will be of inestimable value in bringing hunting back to this section of Iowa, once the host to sportsmen from as far away as Chicago. The owners of the many voices raised against the drainage program can heave a great sigh—Goose Lake is ready for the geese and their kin.

Since 95 per cent of the blue-winged teals winter south of the U. S., their future depends on the conservation practices of Western and Latin-American countries.

The average weight of full-grown wild Canada geese is about nine pounds each.

THE STATE OF IOWA

A where to go and a feature

SPRINGBROOK

Springbrook State Park is seven miles north of Oer, in Guthrie County, accessible on paved roads from all directions. The park entrance, and the park are excellent. Iowa has no better facilities anywhere than this acre beauty spot that is a drive of Des Moines. Many other communities have similar parks. The lake's clear, blue water, bordered by forested hills, is an excellent sandy beach. The bathhouse is a fine facility. Parking is no problem. Boat rentals are available and refreshments served by the bathhouse.

Fishing Excellent

Fishing includes crappie, bluegill, black bass, bluegill, heads and perch. Ice fishing is good, too, in season. Much good picnic area with 175 tables and fireplaces with firewood, toilet facilities, etc., tents and trailer camp with modern toilets, tables, wood and a shop are prominent. The first suggestion for Springbrook State Park was made in the fall of 1923. A Mr. Stacey, publisher of "Cathorian," invited P. H. Pammel of Iowa State University, who was in charge of conservation matters at the time, to visit Guthrie County in his opinion on the project as to its possibilities.

Pammel saw the area and immediately placed his stamp of approval on the hills and shrubs and trees.

Springbrook Park takes care during the hot months, the privacy, so

THE STATE PARKS OF IOWA

Where to go and what to do feature

SPRINGBROOK

Springbrook State Park, located seven miles north of Guthrie Center, in Guthrie County, is easily accessible on paved highways from all directions right up to the park entrance, and the roads in the park are excellent. Central Iowa has no better recreational facilities anywhere than this 620 acre beauty spot that is within an hour's drive of Des Moines and many other communities.

The lake's clear, blue water is bordered by forested hills and an excellent sandy beach. Bathing is easy and the bathhouse offers every facility. Parking space here is no problem. Boat rental and bait are available and refreshments are served by the bathhouse concession.

Fishing Excellent

Fishing includes crappie, large-mouth black bass, bluegill, bullheads and perch. Ice fishing is good, too, in season, of course.

Much good picnic area is available with 175 tables and dozens of places with firewood, water, toilet facilities, etc., close at hand. Tent and trailer camping areas with modern toilets, fireplaces, tables, wood and a shower building are prominent, well kept features of Springbrook.

The first suggestion of Springbrook State Park was published in the Guthrie Center newspaper in the fall of 1923. A little later, Mr. Stacey, publisher of the "Guthrieian," invited Professor L. Pammel of Iowa State University, who was in charge of all conservation matters at that time, to visit Guthrie County and give his opinion on the proposed area to its possibilities as a state park.

Pammel saw the area and immediately placed his stamp of approval on the hills and valleys, woods and trees, wildlife and

springs of this lovely place and put the wheels in motion that officially could make it a park. It was a slow business in those days; but the Professor was patient and, as he usually did in matters of conservation, made his point. In October of 1926, with much help from the Guthrie Center Rotary Club and other interested parties, the land was finally purchased and work began. It was completed ten years later by C. C. C. labor.

Name Changed

Springbrook was once called King Park. The change came about because of the little spring-fed brook that originated the lake, and still feeds it.

Every kind of bird that visits Iowa finds its way to this sanctuary, as do the wildlife—deer, squirrels and rabbits. Every flower and blooming shrub, or blossoming tree, native to this state can be located along the miles of trails that wind through the hills and valleys. Because of this abundance of native flora and fauna and the park's central location, the Iowa Teachers Conservation Camp is held here from June till August each summer.

Springbrook, as its name may indicate, is a haven for refreshing activity and an afternoon's peace.

COW BIRDS THWART WATCHER

Cow birds are not overly popular with ornithologists. They generally push small species around and impose their eggs in nests of others. As a result, a Roscommon, Michigan, woman recently set about to take direct action on cow birds in her area. The woman loaded an air rifle and tried to draw aim on the offending birds. Each time she opened a window of her home, however, the cow birds fled. Finally, though, she got a female bird in her sights and blasted away—right into the biggest window in her kitchen. Needless to say, the bird escaped injury.



Jim Sherman Photo.

This new shower building at Springbrook State Park is representative of 16 others to be built this summer in other parks. Designed with campers in mind they have flush toilets and laundry tubs for utmost convenience. To have them, probably in June, are Nine Eagles, Wapello, Red Haw and Ahquabi. The expansion in State Parks will also include many picnic and parking areas; boat loading ramps at Beeds Lake, Black Hawk, George Wyth, Ahquabi, Darling, Keomah, Macbride, Manawa, Lake of Three Fires, Ledges, Lewis and Clark, Nine Eagles, Palisades-Kepler, Rock Creek, Twin Lakes and Union Grove; and new double vault toilets at Backbone, two at George Wyth, three at Darling, two at the Ledges and one at Twin Lakes.

ONLY ONE FISHING BUDDY

Ron Barnes

It has been said, "every man is entitled to one good wife, one good dog, and one good fishing buddy in a normal lifetime." In my few years, I have had more than my share of fishing buddies, but this is what I think they should be.

A man who . . . thinks of you first, himself last; always offers to drive; when you drive and pick him up, he has breakfast waiting; when he drives, arrives promptly on time, and quietly observes the fact that your family is asleep; is full of enthusiasm for the day's prospects; has forgotten none of his equipment; has made arrangements for the boat and motor to be ready and gassed; insists upon handling the oars; gives you the softest boat cushion; has extra foul weather gear in case you forgot yours; handles the boat to put you in the best fishing spots first; has thoughtfully packed a lunch for the rest period; enjoys every fish that you catch just as much as you do; never complains when

they aren't hitting for him; is ready to leave when you are; leaves you with the feeling that fishing is one of the world's greatest sports; has a reverence for all the things out-of-doors, and their creator.

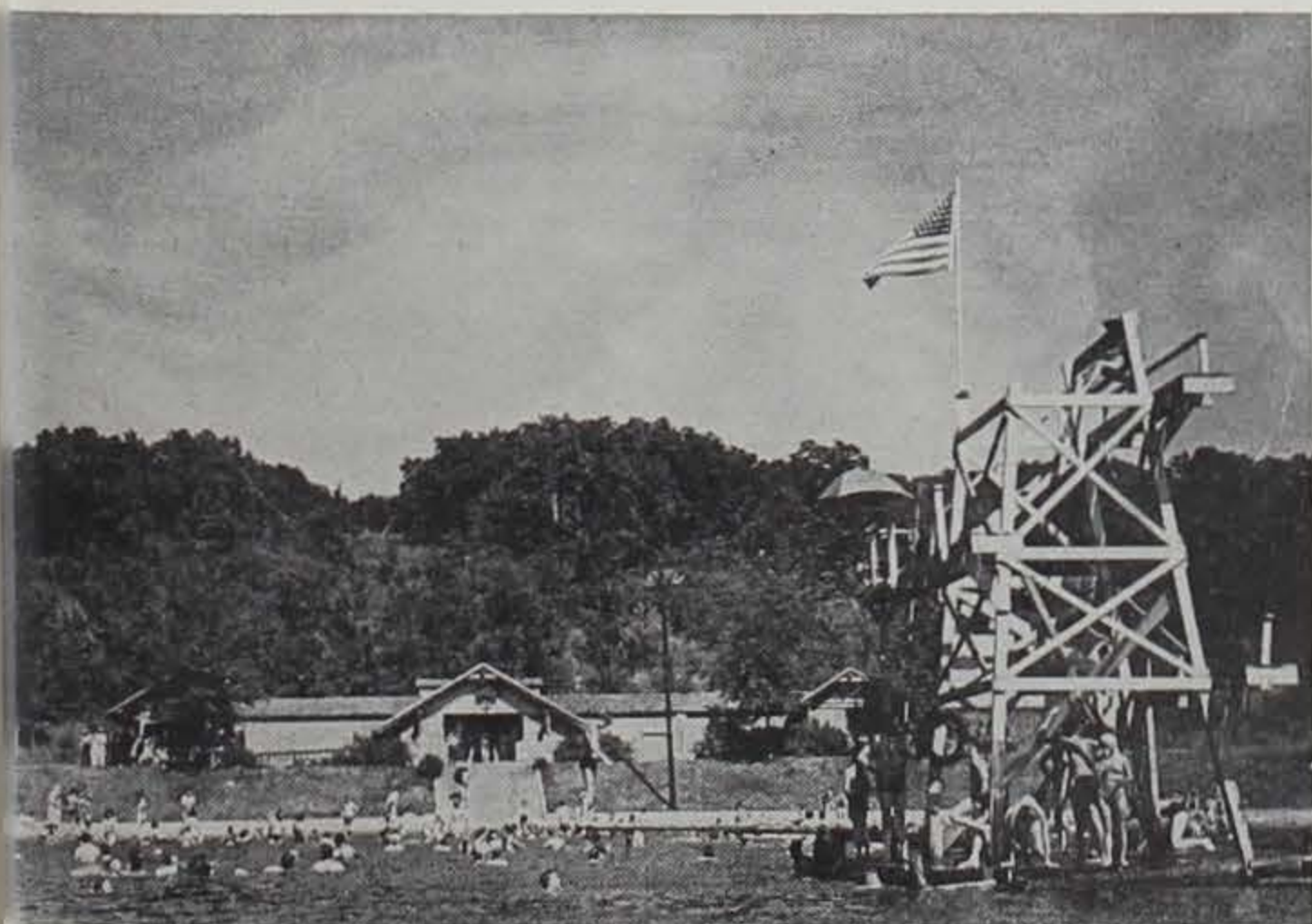
How do you stack up in the book of your fishing companion?—*Clarinda Herald Journal*.

MORE NORTHERNS—

(Continued from page 41)

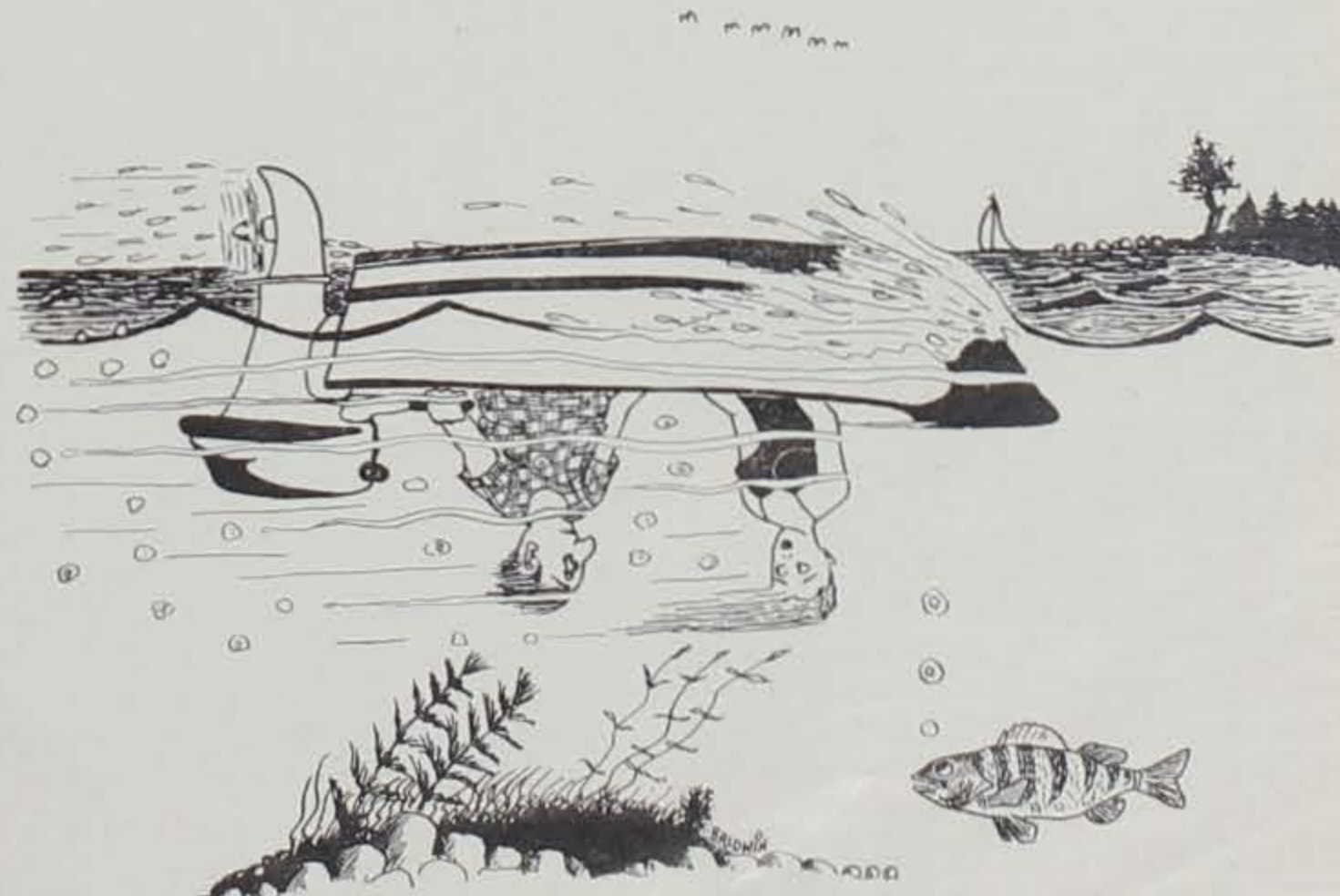
if still unripe, are again injected until they have received three shots. Results of the procedure are exciting to say the least. Where before nearly two-thirds of the females brought in failed to produce, now about 97 per cent are successful and the eggs show no appreciable difference from those of uninjected pike. Needless to say the northern business is booming.

We've never been short of northerns here, but they do show cyclic ups and downs of population. Perhaps with this tool of fish management higher and more stable numbers will be possible—to thrill the unsuspecting crappie fisherman or the guy who really goes after big chunks of scaled fury.



Jim Sherman Photo.

Springbrook Park takes care of the wants of many central Iowans. Loaded with visitors during the hot months, the arrangement of picnic sites allows a large measure of privacy, so there always seems to be room for more.



Was that last turn a little sharp dear?

BIOLOGIST'S



CORNER

QUAIL CAN TAKE IT

M. E. Stempel
Game Biologist

Violent summer windstorms with their turbulent black clouds send young quail scurrying for the shelter of the parent's outstretched wings. Laggards do not make it. This is only one of many hazards to be overcome before quail reach maturity.

In spite of such difficulties, since 1952 quail production has always been good in some territories. Successful hatching did not occur in every territory because as in the years 1953 and 1955, rainfall was uneven in distribution, summer weather arrived late, and there was drouth in August or September. This, as you can imagine, discourages production.

In 1954 and 1958, the summers were long and pleasant. Rainfall was well distributed and sufficient to create the suitable humid nesting environment. Production was good.

Quail hatching sometimes has been successful in very wet years. However, records show that more than two inches of summer rainfall or hail, coupled with strong winds, severely cuts down production and parasites flourish when the season is wet and cool. Insects, so necessary to the diet of young quail, are scarce on wet, cold days.

Some summers are excessively dry for long periods. Drouth is unfavorable since newly hatched quail are only slightly bigger than bumblebees and, unless humidity is near the 90 per cent level, the young quail might never escape from the shell.

There are always some damp areas, however, such as result from local showers. Also, there is some dewfall near creeks or ponds, in low places, and in valleys. Some types of soil retain moisture for long periods and near seeps the air is damp at night and early morning.

Average quail hatching years such as 1952, 1956, 1957 and 1959 had moderate moisture and few extremes of heat. Here, the storms quickly subsided or they were confined to small territories.

Quail have the capacity to produce more eggs than they hatch. If young are lost, many pairs reneat. When hatching is favored by weather, quail flourish wherever food and cover are adequate. In the fall, after very dry summer weather, the birds are in areas where the tall ragweeds and dense grassy cover indicate that there has been suitable summer mois-



Jim Sherman Photo.

Water being pumped into Hales Slough spells bad news for the carp in Spirit Lake. When the slough is filled, the warmed water will be allowed to run back into Spirit through the fish trap in the background to attract spawning carp. As they respond to the call of warmer water the trap will prevent the carp from returning to deeper and colder Spirit Lake. The shallow, reedy slough will be operated at the same time as a nursery pond for millions of northern pike fry. Garlock Slough is being used in the same manner to help rid West Okoboji Lake of rough fish.

HISTORICALLY SPEAKING

By Stan Widney

J. D. (Deg) Reynolds, Conservationist

This is not history—yet—but it will be when the results of this man's labor are recorded in future biennial reports. Deg Reynolds died February 8, 1960, but his work still goes on in the plans he originated and the ideas he passed on to his fellow Commissioners.

Deg served on the Commission over a period of 12 years, from March of 1948 when he was appointed to fill a vacancy, until June 30, 1959, when he completed a full 6 year term to which he was appointed in 1953.

Deg was from Creston and the Creston News Advertiser, in an editorial dated February 25, 1959, recognized Reynolds as a true conservationist as follows:

"... Those have been busy, effective years (on the Commission). Iowa's lake and park system has developed extensively and today it provides service to literally hundreds of thousands of persons all over Iowa. Mr. Reynolds has had an important part in all this work, and it can be said he served with conscientious endeavor, spending

ture. In wet years birds survive best in farmland not subjected to flooding and which are least visited by the black, swirling clouds bringing wind and rain, or the cold green patches of clouds that forecast hailstorms.

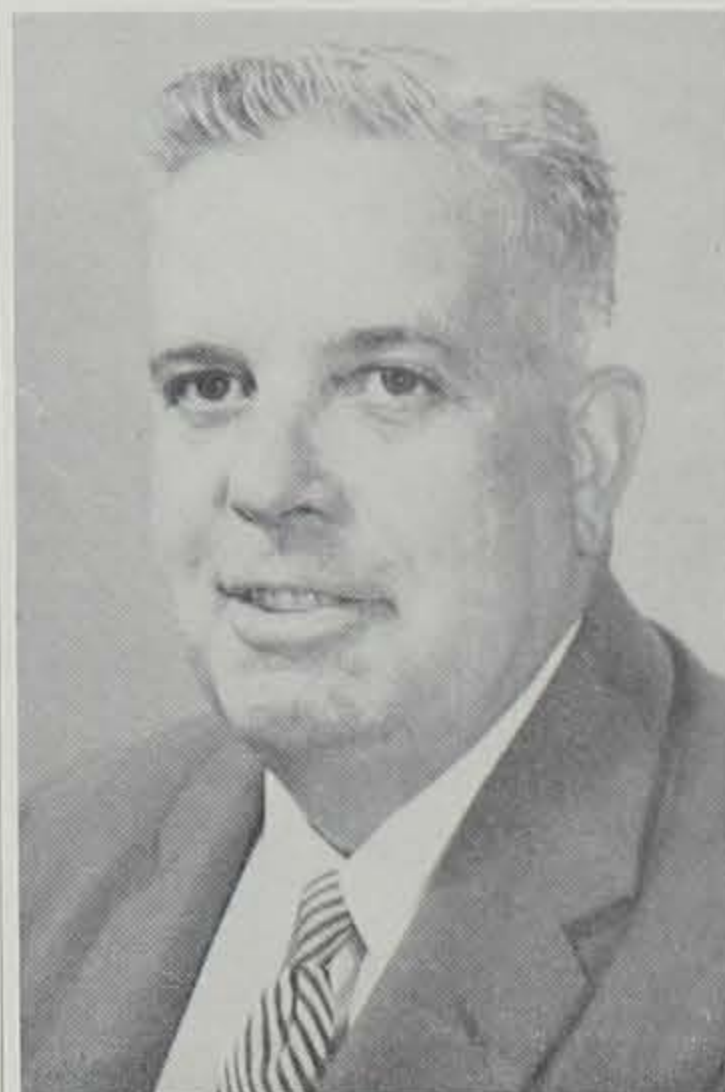
In spite of wind, hail, rain, drouth and man, the quail, perhaps like the mailman, get through in good shape. After all, quail are not small, fragile creatures, rather they are compact, hardy and persistent.

long hours in work that greatly benefits the people of Iowa."

In appreciation of his service on the Commission, Governor Herschel Loveless signed a certificate so honoring Deg and it was presented to him by Mrs. John Crabb, then Chairman of the Commission, on July 1, 1959. Reynolds himself served as Chairman of the Commission in 1954.

E. J. Van Nostrand, in his column "Visiting With Neighbors" in the Creston News Advertiser had this to say about a true friend and neighbor:

"The community was saddened by the death of Attorney J. D. Reynolds. He was known by hundreds as 'Deg,' and had been active in many things in the community. He was a diligent worker, capable of sizing up situations in excellent fashion, and a scrapper for causes he represented. He performed many services in veteran's organizations and in matters pertaining to the legal profession. . . . His was a work of service."



"Deg" Reynolds

COMMISSION MINUTES MAY, 1960

General

Commissioner Humiston reported his trip to Washington, D. C., to bring the Bureau of the Budget and the U. S. Corps of Engineers together for a discussion of the Coralville Reservoir was successful.

Forestry

The National Guard has requested permission to establish a rifle range in a 1,000-acre portion of Stephens Forest. The Guard would stand all construction costs and the area would be open to the public when not in use by the Guard.

State Forester Ellerhoff reported that preparation is being made for locating the mobile prison labor camp in the Yellow River Forest away from camping and other frequented areas.

Fish and Game

Superintendent of Game Bratton made his recommendation for controlled shooting at Lak Odessa which included: duck hunters would check in at the area to pick up permits and leave their hunting licenses. Blind sites provided in part of the area would be assigned on a first come, first serve basis, the rest of the area would be open to public hunting. The hunters would be permitted to go to their area one hour before opening time, not before. The whole area would be closed at three p.m. to allow more ducks to come in during the evening. These recommendations to the Commission were approved as read.

Recommendations to repair and raise breached dikes in the River ton area for a cost of \$76,000 were approved. The dikes should be kept the area inviolate from both branches of the Nishnabotna during annual floods.

It was recommended and approved that the Commission request the Federal Fish and Wildlife Service to expand the Union Slough Refuge.

The "Kids Fish Day" operation was discussed and the following resolution was passed. Fish will be distributed only to areas where resident fish populations where winter kills are unlikely, deliveries of fish will be at the convenience of the department eliminating special deliveries, some ponds in metropolitan areas will be stocked with bullheads through the summer, and pond stocking as Chamber of Commerce promotion will be dropped.

An experimental project planting surplus fertile pheasant eggs in southeastern Iowa was approved. Rod and Gun clubs in that part of the state may make application for the eggs which are at the State Game Farm near Boone. They are to be hatched in local hatcheries and release of the

(Continued on next page)

NOTES—
(Continued from page 45)
ing chicks will be supervised by conservation officers.
County Conservation
The following items were approved. A less in Clayton County
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52 years for \$500. A
half to seven ac
ckasaw County o
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ical Red Schoolhouse
re County northeast
ster for one dollar. A
ct of semi-timbered
anklin County near
a roadside park at
ami. River access
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Farlane Park near
y. Development plan
panoose County Park
the Centerville city
cession in Swan La
rk subject to approval
Superintendent of parks.
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Iowa River six miles
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Boone County was re
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Waters
A request from Clark a
of Venetian Village
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ke was granted.
A request from Glen
Clear Lake for a dock
as refused.
Dock fees in the sta
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A report to the Comm
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AH---CHOC
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THE COLYN FISH AND GAME MANAGEMENT UNIT

Gene Goecke
Unit Manager

(Editor's Note: Gene Goecke is the Colyn (pronounced Co-line) Unit Manager. He and his family live in the headquarters residence six miles south of Russell in Lucas County. From there he commands areas located in 15 south-central Iowa counties. Gene came to work for the department only two years ago with a B.S. degree in wildlife from Iowa State and an intense desire to learn his job. That he has learned this well is evidenced by the fact that the Colyn Area is one of the most popular fishing- and hunting areas in the state.)

The Colyn Fish and Game Management Unit consists of ten areas with approximately 100 acres of refuge and 3,500 acres of land open to public hunting and fishing, and 23 farm-game habitat areas.

In this section of the state, the land is rolling to hilly. Drainage is very fast and, because of this, very few natural marshes or lakes are formed. With the help of the Pittman-Robertson Program, several marshes and lakes have been constructed and some of the best bass, bluegill and bullhead fishing in the state has resulted. Before this construction, duck hunting was a matter of either driving long distances or paying to shoot on privately owned lakes. Now, shooting has become a real sport to central Iowans.

Since there is a great deal of difference in the various areas of the Colyn Unit, each will be covered to show its own potential. The Colyn Area for instance contains 300 acres of marsh with 100 set aside as refuge. Duck hunting is good in the open part, and in the refuge segment, fishing is excellent. The rest of the area is farm ground where there is very good quail and rabbit hunting, and timber, which offers good fox and gray squirrel hunting.

Browns Slough Area, 775 acres, is nine miles southeast of Russell in Lucas County. The 230 acre marsh on the area is top notch for duck shooting. Because floods washed out the dike last spring, there is no fishing in the marsh now but it was stocked again this spring, and if it develops as it has in the past, good fishing will be available again in two or three years. About 400 acres of timber land support red and gray squirrels while quail and rabbits are found on the farmable part of the area.

Williamson Pond, 127 acres, is three miles east of Williamson in Lucas County. Rewarding bass, bluegill, bullhead, and catfish fishing exists in the 50 acre lake and limited duck shooting can be done and it's good hunting, too, for its size.



George Tovey Photo.
Duck Dinners Deluxe . . . Unit Manager Goecke examines a splendid growth of smart weed in a marsh on the Colyn Area. This was planted by the aerial seeding method and assures duck hunters of plenty of game, come fall.

Hooper Area, 320 acres, is six miles southwest of Indianola in Warren County. Several small ponds there offer some duck hunting. Quail and rabbits are the main species of game available and a small herd of deer is present.

Banner Area, 202 acres, six miles north of Indianola, is a worked out strip coal mine that the state has acquired. At the present time very little development work has been done but ducks, rabbits, quail and squirrels are there.

Rock Creek Area, 445 acres, is located eight miles northeast of Kellogg in Jasper County. The 200 acre lake is known for ducks and excellent fishing. The rest of the area supplies pheasant, rabbit, and quail hunting for the public.

Kellogg Game Area, 66 acres, is one mile east of Kellogg. A small marsh supports duck hunting in wet years, while the rest of the area has squirrels, pheasants, quail and rabbits.

Pella Area, 292 acres, is situated two miles south of Pella in Marion County. This strip coal mine on which restoration has been started has three large pools, and several smaller ones have been constructed, but they are still too acid for fish life. Duck hunting is

available on these pools, and the rest of the area offers quail and rabbit hunting.

Hull Area, 387 acres, is five miles west of Oskaloosa in Mahaska County, another strip coal mine that will be good fishing in a few years. Meantime, quail, rabbits, and ducks are good sport.

LaHart Area, 183 acres, is five miles southwest of Lovilia in Monroe County. A 50 acre marsh offers bass, bluegill, and bullhead fishing and some ducks. Squirrels, quail, and rabbits are also there for the hunters.

Trapping is allowed on all of the areas. Those with the larger marshes yield excellent muskrat and mink trapping. The other areas may be smaller, but they still offer the trapper a chance to pit his wits against the fur bearers.

Although the areas under Pittman-Robertson jurisdiction are developed for hunting and fishing restoration, they have other advantages available to the public. For instance, bird watching, hiking, nature study, or a chance to go out for a quiet day to get away from the trials and tribulations of a complex world.



Jim Sherman Photo.
"Look, Pal I told you that little piece of worm was good for somethin'." Bass fishing is fine at Colyn. Drive six miles south of Russell (six miles east of Chariton on Highway 34) and ask the Unit Manager where to get bass, crappie or bullheads. By the way, do you have your new fishing license yet?

MINUTES—

(Continued from page 46)

Young chicks will be supervised by conservation officers.

County Conservation Boards

The following items of acquisition were approved. A two acre business in Clayton County on the Key River seven miles upstream from Elkader to be leased for 52 years for \$500. A five and one half to seven acre access in Okaskaw County on the Little Key River near Saude. The historical Red Schoolhouse in Delaware County northeast of Manchester for one dollar. A six-acre tract of semi-timbered land in Franklin County near Hampton to a roadside park and picnic ground. River access in Black Hawk County across from Arch Marlane Park near LaPorte. Development plans for the Anoose County Park adjacent to the Centerville city reservoir. Accession in Swan Lake State Park subject to approval of the Superintendent of parks. Lease of access area in Lee County. Management agreement between the Conservation Commission and the Hardin County Board of Supervisors for the access on Iowa River six miles north of Ora. A 15½ acre fishing access picnic area on the Little Sioux near Quimby for \$2,000. A acre fishing access and picnic on the Shell Rock River near Falls. Boone County was refused permission to make the lower segment of Ledges State Park a public shooting ground.

Waters

request from Clark and West of Venetian Village to clear maintain a channel into Clear was granted.

request from Glen Severson Clear Lake for a dock permit refused.

lock fees in the state parks been set at \$2 per week, \$5 month, and \$20 per season.

Commission directed the to immediately make safe water passage under the bridge connecting East and West Boji Lakes.

report to the Commission on status of Storm Lake said that winter's fish kill was excellent and that five million walleye and some bullheads have been fed so far with silver bass to placed in the lake sometime fall.

AH---CHOO

accions living in the southern of Illinois evidently need a type of coat, reports Glen lerson, a former biologist for Conservation Department. Now arching for the Illinois Conservation Department, Glen says a high percentage of the racs killed by hunters during the season showed symptoms of monia.

WHY KILL A HAWK?

Roger R. Fliger
Naturalist

It was early June as I stood knee deep in the rank vegetation and water of Sweet's Marsh. Teal and wood ducks made brief flights back and forth across the marsh. A dragon fly poised two feet over the water then shot three feet further on as if dissatisfied with its position.

Not a breath of air stirred and it was hot—very hot—perspiration trickled down my forehead and back. After three hours of wading, sweating, cursing and battling mosquitoes, my bow and fishing arrow had accounted for only one small carp. An occasional red dorsal fin or "slurp" of a carp sucking in air kept luring me on.

As I stopped to catch my breath I spotted a familiar sight. An osprey hawk circled lazily over the marsh. It suddenly folded and dove to the water, hitting with a splash and rising again with a nice carp on its talons. "Congrats," I thought, and had to laugh at myself being shown up by this so-called "dumb" creature. It was a pleasant experience to be remembered long after winter would turn the marsh to ice and snow.

Not so pleasant is my memory of killing that very same bird. It had been turned over to me by the local conservation officer in hopes that I could do something for it. On opening day of the duck season someone got tired of shooting at high flying ducks and busting into compact flocks of red-wings and had taken a shot at the osprey as it circled over.

When I received the bird it was a hopeless sight. Its wing was shattered and the flesh had turned green. There was no other alternative but to dispose of it. I had enjoyed the osprey's beauty and I destroyed it thinking of the great loss to my enjoyment of the marsh.

This story is repeated daily on the marsh, river, or field where

hawks allow themselves to come into contact with man. So greatly misunderstood are these birds of prey that they are all too often lumped into the category of "chicken hawk" or "hen hawk," depending on whether they are large or small. All too familiar is the sight of these "chicken hawks" drooping from a barbed wire fence.

I can hear howls going up from the sportsmen who have seen predation in action. Certainly I've seen a few attacks on game birds and animals—marsh hawks trying to catch pheasants, a red-shouldered hawk with quail, and a red-tail taking a young pheasant or rabbit. A pigeon hawk killing a robin, a sharp-shinned working over a grackle and, too, I've seen the Cooper's take a rabbit, quail, muskrat, teal, cardinal and English sparrow; but let's analyze the kills—infrequent over several years. How many times I've seen a marsh hawk, red-tail, rough-legged or broad-wing dive into the grass and emerge with a small rodent, I couldn't count. I've seen several attacks by these hawks on healthy game in adequate cover and in every case the hawk was out-manuevered and soon gave up the chase.

Since all hawks, except the sharp-shinned and Cooper's are protected by law, the sportsman should train himself to observe rather than turn the hawk into a moving target. Most of those "chicken hawks" killed are immature red-tailed hawks, or in winter, rough-legs migrating into densely civilized areas for the first time.

My experiences with the sharp-shinned and Cooper's hawks have been either at great distance—on rare occasions observed in mass, migrating north or south on rising air currents—or so close that they disappeared in an instant, but I have caught them with a charge of shot. My conclusions are not entirely from an observer's point of view, but rather as a hunter. The times I did kill the unpro-

THE FIRST STEP IN STAYING AFLOAT

Planning on a new boat this season? Before you lay out the cash, there's one set of figures (other than the time payments) that should be studied with care. Overloaded boats are a primary cause of water accidents and drownings. If you want to count yourself out of this category do some planning and then go get the sweet talk from the salesman.

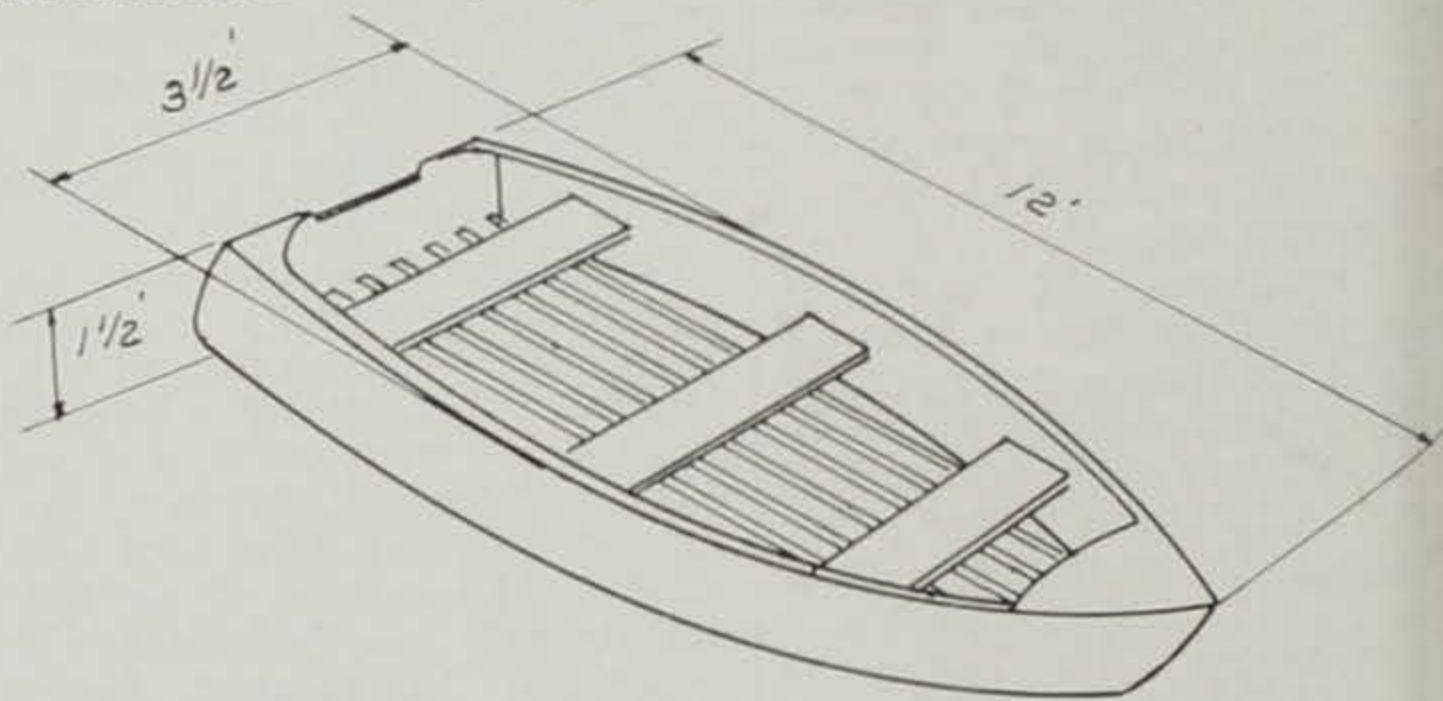
Figuring the capacity you'll need is as easy as pie once you've made allowances for the weight of your motor, spare clothing, equipment for camping or fishing, and the people who'll normally be in the boat. Simply multiply the length (in feet) times the maximum width (in feet) times the maximum depth (in feet) times 0.6; that answer divided by 12 and then multiplied by 150. Exception, where beam measurements are 48 inches (4 feet) use 1.6 as maximum depth; 49 to 55 inches (4.1 to 4.6 feet) use 1.7 maximum depth; 56 inches or more (4.7 feet or over) use 1.8 feet as the maximum depth.

EXAMPLE FOR THE BOAT PICTURED

$$\frac{12 \times 3.5 \times 1.5 \times 0.6}{12} \times 150$$

This boat has a safe capacity of 473 pounds.

Don't forget that all boat measurements must be in feet when using this formula and make plenty of allowance for the weight of extra gear



tected hawks were so infrequent that any thought of improving hunting or helping wildlife by destroying these predators would be comical if not totally ridiculous.

Certainly a man has the right and by all means should protect his property, but often the "chicken hawk" that is shot because some of the "young ladies of the hen house" are missing is often the old red-tail that grew up in the farmer's grove catching highly destructive rats and mice.

There is no excuse for destroying the osprey, red-tail, rough-leg and other common hawks. There is no excuse either for killing the sharp-shinned or Cooper's, for not one in ten hunters could identify one with any certainty. At this day and age we must obligate ourselves to bring up the generation of young hunters so they will appreciate the hawks more than just as a folded mass of lifeless feathers tumbling to earth.

ROADSIDE—

(Continued from page 41)

ship. Proper management of this sizable and well distributed cover type could be a very important addition to Iowa's upland game program.

Until recently, mowing the roadside and other areas was the only method of controlling noxious weeds. However, the increased use of herbicides has greatly reduced the bushy and herbaceous cover along the roads in many areas of

the prime pheasant range so that only grasses remain. While the reduction of cover has been detrimental to wildlife in general, pheasants continue to use these roadsides for nesting. Therefore it is recommended that when noxious weeds are not a serious problem, the mowing of roadsides be delayed until after the pheasant hatch. In most cases, this delay would only be a matter of several weeks. For maximum pheasant nest protection, all mowing, not related to crop harvest, should be delayed until after June 26 in the southern third of the state; July 3 through central Iowa; and July 8 in the northern one third. Countless hens and chicks could be saved if we would merely leave them alone for a while longer.

Roadsides that once held a minor nesting role are becoming more important than ever as nesting sites for pheasants as our natural small grain cover is reduced. This has prompted a special study to be included in the pheasant program this year. A roadside nesting survey will be inaugurated to collect additional information about nesting density, time of hatching, nesting success, production of young and cover preference. Next year we'll know more about what should be done. Right now with pheasants our most popular upland game bird and with their sizeable contribution to hunting in Iowa, can we start this season to give them a lift?



The Marsh Hawk.

Volume 19

HIGH W

Harry Harrison
Fisheries Biologist

Iowa streams have usually large amounts of silt since the fall of 1959. Heavy winter snows so ground so that much of the rainfall entered our streams. This resulted in more water and considerable erosion. There is a lot of loss of soil. The subject of what has happened does to fish. In many opinions, fancy equipment are apt to creep in. The real truth of the matter is...

Such things as how a stream flows; what they do for the fisherman; how the fishing; and what the stream come in for their share of discussion. Let us take a look at the case of fish. They are good—and the answers are to these. How does a fish see? Probably much the same as I view bad weather. Cover during a storm—so fish during high water. A little inconvenience for us suffer. Fish have been to floods for eons. Just since the white produced the plow and we people believe. Proof is in the fact that bottoms are floored with a layer of soil called alluvium. This type has been deposited by running water and usual floods. By the amount of silt present, it has indicated thousands of years were of this accumulation. It comes a little high water could care less than a fish. Question number two: does high water do to the fisherman? To answer part of the question, it is his wife a marvelous lady of getting a lift out of the garage, etc. Ah—does high water do for the fisherman? Herein, the answer is subtle and these waters go a long way in a...