Iowa CONSERVATIONIST

July, 1969

Volume 28

Number 7

IOWA TEACHERS CONSERVATION CAMP IN TWENTIETH YEAR

By Ross Harrison
Editorial Assistant

For those high school and elementary science teachers that realize conservation education is lacking in Iowa schools, there is an excellent opportunity to take a three week course for three college credits that can give them the most modern teaching techniques to further education of Iowa's resources in their classrooms.

This summer is the 20th anniversary of the Iowa Teachers Conservation Camp in Springbrook State Park. Through the years over 1,500 people have attended the camp and benefited from the conservation education programs.

The Teachers Camp is sponsored by the University of Northern Iowa, the State Department of Public Instruction, and the Iowa Conservation Commission. Together they finance and staff the camp.

Most students of the Teachers Camp are teachers in Iowa's high schools, grade schools, and some are college students still working for a degree in some form of natural science education.

This summer there are four faculty members from the University of Northern Iowa that make up the permanent staff. Visiting lecturers from the Conservation Commission, Iowa State University, Izaak Walton League and many other organizations give the teachers conservation from every angle.

At this camp they are given the opportunity to go on field trips with experienced conservationists and literally root out the facts as they are exhibited in nature.

First-hand contact with the environment impresses them to the point where they spend most of their free time on hikes of their own. Rocks, trees, ants, everything in nature is shown to be incorporated into an intertwining net.

Much more than bare facts are taught

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›m collecting insects in the dry and comfortable upland prairies . . . . . .

vallowing in the wet and not so comfortable marshes, teachers find out what a real field is like.

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COMMISSION MINUTES

Held in Des Moines, Iowa
May 6, 1969

Accepted three land purchase options totaling 221 acres on the Walters Creek Watershed.

Accepted land purchase options totaling 240 acres on Brushy Creek Lake Project.

Exercised three options totaling 109.5 acres on The Volga River Project in Fayette County.

The following projects were approved for submission to the Bureau of Outdoor Recreation: Carroll County Conservation Board—Swan Lake Park—Development; Dubuque County Conservation Board—New Wine Township Park—Acquisition; City of Des Moines—Southwest Park—Acquisition and development; Ringgold County Conservation Board—Poe Hollow Park—Development; Osceola County Conservation Board—Johnson Wilderness Area—Acquisition; Howard County Conservation Board—Meirick Pond—Acquisition; Decatur County Conservation Board—Slip Bluff Park—Development; Pottawattamie County Conservation Board—Arrowhead Park—Acquisition; Cherokee County Conservation Board—Ranney Knob Park Addition—Acquisition.

The following requests for amendment to existing projects were approved for submission to BOR; City of Decorah—Decorah Camping area—Development; Jones County Conservation Board—Central Park—Development.

The following County Conservation Board Projects were approved: Johnson County Conservation Board—River Junction—Iowa River access—land acquisition; Osceola County Conservation Board—Johnson Wilderness Area—Acquisition; Van Buren County Conservation Board—Bentonsport River Front Park—Acquisition; Marshall County Conservation Board—Grammer Grove Wildlife Area—Development; Jones County Conservation Board—Central Park Revision—Development; Mills County Conservation Board—Pony Creek Park Revision—Development; Pottawattamie County Conservation Board—Long's Landing—Missouri River Access—Development; Taylor County Conservation Board—Windmill Park Dam-Development.

Denied the use of metal detectors on state beaches between Memorial Day and Labor Day, except in case of emergency when the director may make exception. Present policy allows the use of such detectors during the off season, or when the water level of our lakes is lowered. Public beaches are used heavily from Memorial Day to Labor Day and many lost articles found by metal detector users may never be returned to their rightful owners. Under the present policy the recovery of lost items turned into the concessionaire or park officer is good

Accepted an option for 128 acres of land on the Cedar River in Floyd County. An option on approximately 10 acres of land at the southeast corner of Bellevue State Park was exercised.

Data obtained from studies concluded that copper sulfate is not effective in controlling blue-green algae and has proven to be detrimental where used excessively Th following addition to commission policy was made: "With the exception of emergency conditions, copper sulfate will not be used for algae control. This exception also applies to certain cases involving localized applications in state owned lakes where municipalities regularly remove drinking water. All applications to be under supervision of Commission staff."

Our Readers Write . . .

Dear Sir:

Enclosed please find my check for one dollar to renew my subscription for the good publication IOWA CONSERVATIONIST. I have taken this nice little magazine for years and now since I live in Arizona, enjoy it all the more, now that I am not able to enjoy the wonders of my native state.

I was born and raised at Waterloo, Iowa and although we love Arizona, we just can't get over missing Iowa. Your magazine helps me remember the fine times I have had tramping the fields for pheasants and casting the streams for bass and walleye in Iowa.

I am not sure when my subscription is up, but do not wish to risk missing a single copy of your exceptional publication, so will subscribe in advance to make sure.

Sincerely,
Doc H. B. Haffa
Tucson, Arizona

Dear Sir:

Please enter this subscription for my husband. I enjoy reading this magazine at the elementary school where I am a secretary. When my husband has finished reading his copies I am sure he will be sending them on to our son with the Air Force in Japan.

Mrs. Don B. Goodman
Anamosa, Iowa

Dear Sir:

I am enclosing my change of address . . .

You have a very fine publication which I enjoy reading very much.

I agree entirely with the editorial by Mr. Bever about the exploiting effect economic thinking has had on wildlife and our environment.

Although some may not deem it important, I sincerely believe that conservation and environmental studies need incorporation into the elemetary school systems as part of the solution to the apathy regarding man's role in keeping a livable environment from becoming history.

Sincerely,
Garry L. Brandenburg
Ankeny, Iowa

Dear Sirs:

The picture of the pleased hunter holding up his pleasant prompted me to write. (December, 1968 issue)

I want to say thank you and to the many kind folks of Iowa for a happy and enjoyable season. As an out-of-state hunter, I wandered into Corydon, Iowa. When he found out that I had never shot a pheasant, Norman Snuder promised me that he would see that I got my bird. This he did.

My wife and I were invited to join the Snyders' family supper, strangers as we were. You have some mighty fine people in Iowa....

I have wonderful memories of pheasant hunting and friendly strangers who make you feel at home in quick time.

As we say in Malaya, "Terima Keseh!"

Sincerely,
Tan Choon Lee

EDITORIAL

"Conservation" is one of our most popular words, ranking right up with "mother", and "patriotism".

But, many of those who toss the word "conservation" around so carelessly have given little thought to just what it means. All too often they think of it as consisting of a series of "don'ts", when actually it should be considered as a positive and not a negative philosophy.

There are many definition of conservation, but to us it means simply the *wisest use* of natural resources for the *greatest benefit* of the greatest number in such a way that the future supply will not be depleted or endangered. There may be, of course, differences of opinion over what is the wisest use.

In considering conservation of wildlife we must recognize certain basic facts:

1. The primary obligation of the land is to support the human population. When there's a conflict between human needs and wildlife needs it's generally easy to predict the outcome. Too often, however, what we call need is nothing but greed and a disregard of the rights of future generations.

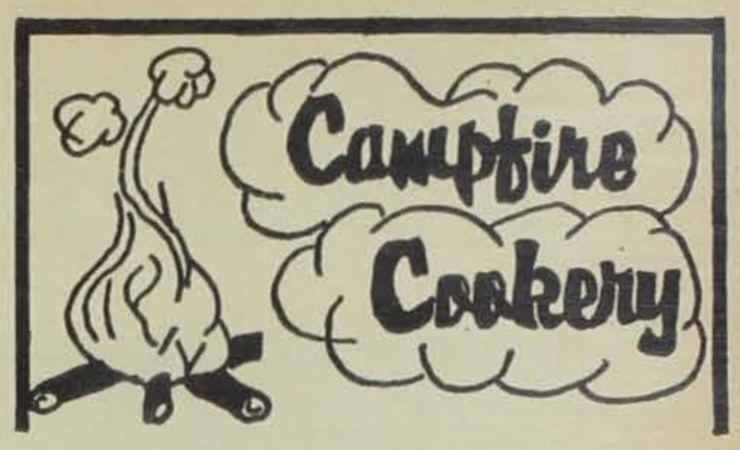
2. There is a great interdependency among resources. What we do to one invariably affects others, sometimes harmfully and sometimes to their benefit. Every tree that is cut down, every stream that is dammed, every field that is planted and every bird, animal or fish that is harvested has some effect on other resources. The effect is sometimes great and sometimes infinitesimal.

3. Man's use of the land is more important in determining game populations, at least small game populations, than the amount of game harvested. Without suitable cover and food no game species can survive.

4. The land has a definite carrying capacity and will support only certain numbers of the various species of birds and animals. The periods of greatest species abundance coincide with the times of greatest food abundance. Hunters take mainly the surplus that could not survive the period of low food supply.

5. Wildlife, particularly small game, has a terrific annual mortality. And a terrific reproduction potential. Of the three or four dozen young rabbits produced by a pair of adults during the year only three or four will be alive next summer, but that's enough to provide a huntable surplus the next fall.

Reprinted from "South Carolina Wildlife".



Even the carpsucker, one of Iowa's most common rough fish, has a place of importance high on the outdoorsman's list of good eating fish. Because of the many bones and the natural mushiness of the meat, most people like the carpsucker pickled instead of fried, baked or boiled.

The following recipe is often used with many variations in seasonings, depending on personal taste. The carpsucker is recommended, but other species of fish may be used.

Pickled Fish

2 cups vinegar
1 cup water
½ cup sugar
1 tbsp. of salt (per jar)
1 tsp. pickling spices (variable)

Fillet the meat from the fish and chop it into chunks no bigger than 1 inch square. Pack the meat in quart jars and add 1 tablespoon of salt per jar.

In a separate bowl, mix vinegar, sugar, water, and pickling spices together until dissolved. Pour this mixture over fish in jars, seal the jars, then steam them for three hours in a hot water bath.

Corn Meal Pancakes

This is a different kind of pancake that is simple enough to whip up even on a camp out.

1 cup corn meal (water ground white corn meal)
1 cup boiling water
1¼ cups milk
2 eggs beaten
2 tsp. baking powder
½ tbsp. salt
2 tbsp. melted butter

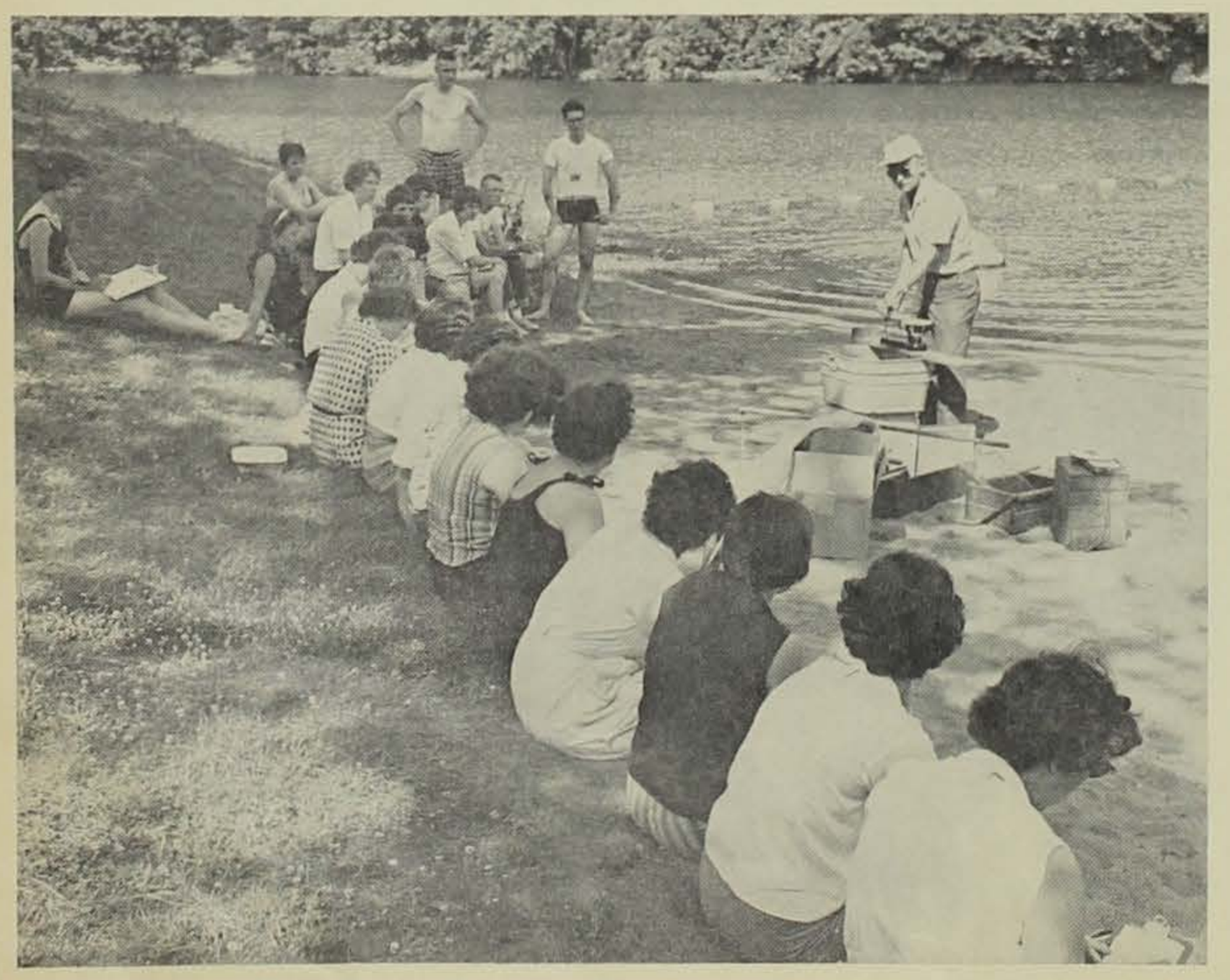
Place corn meal in an unbreakable bowl or pan. Pour boiling water over it and stir well.

Add ¼ cup milk, beaten eggs and remaining ingredients, then add the remaining milk and mix well. Cook on **hot,** greased griddle. Serve as regular pancakes with syrup. Serves 4.

(For variety, add your favorite chopped nutmeats or cooked, crumbled bacon.)

Teachers Are Given Conservation From Every Angle

Staff members, David Fagle (left) and Pat Gorman examine teaching material for the botany portion of the summer session.



Conservation Commission fisheries biologist explains methods used to determine fish growth.

(Continued from page 49)

here. The item most stressed is aware ness of the processes that govern nature

Teachers realize that it doesn't tak much to get a young person interested in a snake, a bear, or a large forest But, they also realize that conservation goes beyond hunting, fishing, and camp ing.

It is these areas that need to be in cluded in conservation education so th student can understand what parts al the elements play in his environment.

Only with the understanding of man' place in nature, and only through publi concern can conservation of our re sources become established. This is th sole purpose of the Teachers Camp.

Without getting over technical, th teachers are shown methods of teachin conservation that will inspire their pupil to the point that they will want mor information about conservation and th important part they can play in it.

There are scholarships available i most counties for teachers and student that would like to attend the camp Organizations like Garden Clubs, Soi Conservation Districts of Iowa, Izaa Walton League and others often pa part or all of the $140.50 undergraduat or $146.50 graduate fee for the thre week camp.

There is a new camp being built a Springbrook which should be ready fo use next summer. It fits in with th progressive education program neede in today's destructive society.

More children need to be made no only aware of their fate because o previously neglected conservation pro grams, due to apathy of society, but the need to know the ways in which the can correct the problem.

The Iowa Teachers Conservation Camp gives teachers the tools to handle thi very important part of modern educa tion.

COMMERCIAL FISHING POSSIBLE IN IOWA'S INLAND WATERS??

By Ross Harrison
Editorial Assistant

Three years ago the Federal Bureau of Commercial Fisheries granted $60,000 to the Iowa Conservation Commission for a study designed to determine if commercial fishing would be possible on the large inland streams and reservoirs of Iowa.

The Conservation Commission was fully aware that the reservoirs (Red Rock, Rathbun, Coralville, and Saylorville) would contain large numbers of under-harvested rough fish.

The possibility existed that limited commercial fishing could be allowed to take care of this surplus. A three year study was carried out on the Coralville Reservoir and on a stretch of the Des Moines River, just upstream from where the Red Rock Dam was built, with this in mind: To see if commercial fishing with nets would be BIOLOGICALLY and ECONOMICALLY feasible!

To determine this, Jim Mayhew, assistant superintendent of biology, and Larry Mitzner, fisheries biologist, began a mass removal of fish (carp, carpsucker, buffalo, and channel catfish) by netting.

The channel catfish were stocked in nearby waters and the rough fish were given away or otherwise disposed of. The intensive netting of these abundant species was to see what changes would occur in remaining populations.

A percentage of captured fish were tagged and returned to the water. Based on the number of recaptured fish, accurate estimates of total populations were calculated. With these figures, the numbers of fish could be watched and correlated with netting activities.

Biologist aids set pound net off shore forcommercial fisheries survey.

After three years of intensive netting on the Coralville Reservoir and on the Des Moines River, it was found that netting had not reduced the populations of the species tested!

This indicates biologically, that the reservoirs and large streams have such substantial numbers of the above species that controlled netting could harvest the surplus.

This means that an untapped resource could be put to wise use—the ultimate goal of a sound conservation program.

It may seem impossible to remove over 14,000 fish from a resorvoir with a population of almost 60,000 and not reduce the population over a period of a year. But, with the understanding of a few important biological concepts, the picture becomes clearer.

For example, RECRUITMENT, which is the replacement of removed fish through growth of remaining individuals, is one factor acting to maintain the population level. An example is cited from the Des Moines River.

In the study area, 20 per cent of the total channel catfish are nine inches. If these are removed over a period of time, then the catfish in the next lower size bracket (6.8 to 8.9 inches) would fill the void as they grow to nine inches.

Of course, growth is not a sudden thing, but neither was the removal of 20 per cent of the fish. By the time the last few fish were being removed, the first would have already been replaced.

Recruiting into the next length (or age) bracket takes place above and below the nine inch size. This principle occurs in all species of fish and wildlife, but in different proportions with different species.

The 6.8 to 8.9 inch fish are replaced by those younger that would not have survived if all the nine inchers remained. Thus, by removal of the nine inch fish, for example, utilization of the resource has been increased.

The remaining fish after removal often exhibit ACCELERATED GROWTH. This is caused by less competition and the usual response is a faster growing rate of the remaining fish.

This is one example of the potential harvest for channel catfish. The proportions and percentages vary for different bodies of water, but the concepts remain.

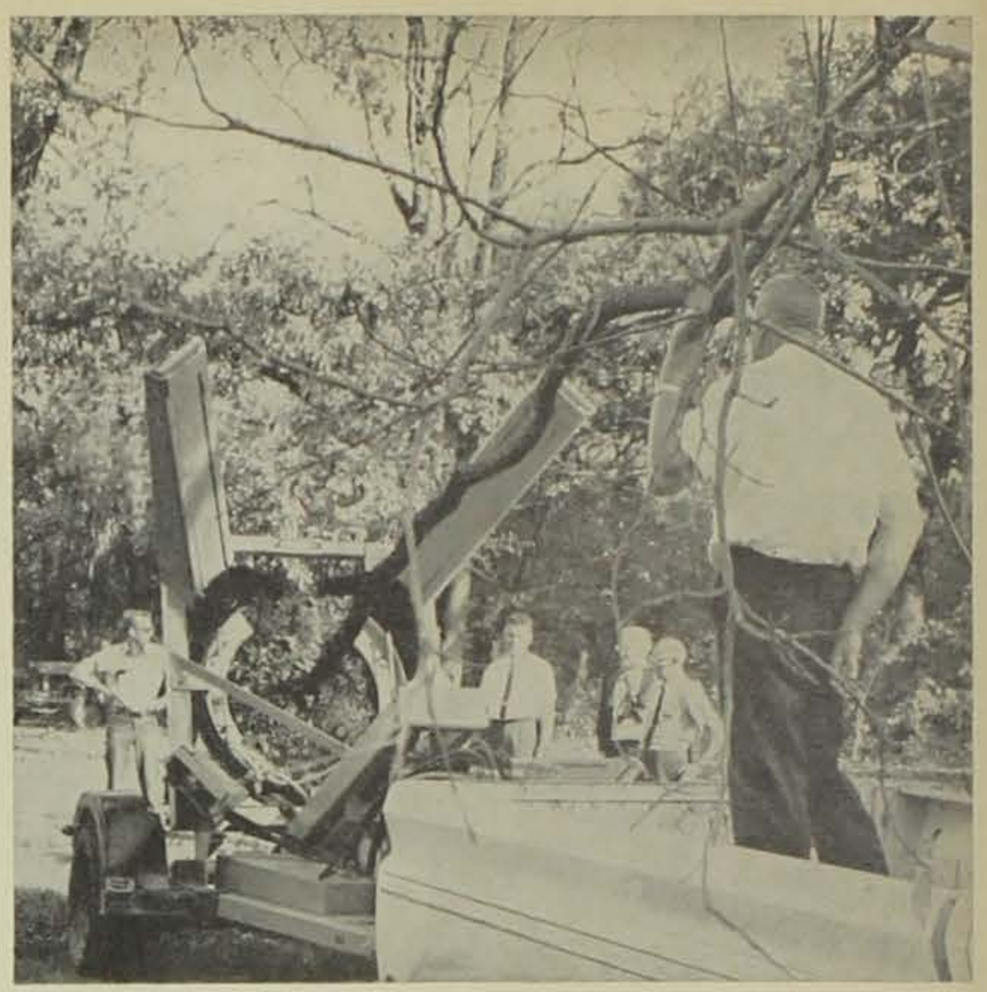
From the economic standpoint, a business devoted to commercial fishing on the reservoirs would probably go bankrupt! Although we have just shown that the fish are there, the methods for catching the rough fish without disturbing the game fish and the entire habitat are relatively poor—both slow and inefficient. Stationary nets seem to be the only technique.

The commercial fisheries study has

(Continued on page 56)

fter throwing the game fish back, the roughfish are sorted to species, weighed, measured, en either released with a tag or disposed of. Carp are one of our most abundant rough sh. In large quantities they can be used as protein supplements in livestock feed.

Commission's New Tree Spade Provides Instant Shade



Tree spade transporting a large black walnut to a new and more useful location in Anita State Park.

By Ross Harrison
Editorial Assistant

Advertisers are telling us about instant tea, instant oatmeal, and just about instant everything! Now, the Iowa Conservation Commission has fallen into the groove with "instant" shade trees.

Picnic and camp grounds, and newly developed state recreation areas that have had sparse supplies of shade can be restored in a matter of a few days with the Commission's tree transplanting machines.

The first "tree spade", the term used for the transplanting device, was purchased in the fall of 1967, and the second, in the fall of 1968. Together, these have transplanted over 330 trees up to 30 feet high and five inches in diameter, large enough to provide good shade shortly after they are planted.

The spade operates by sending four blades four feet down under the tree, severing the roots so that a conical section of dirt and roots remains attached to the tree. The tree is then lifted from the ground and transported to its new location.

Several fast-dissolving fertilizer pellets are placed in the new hole. The tree is fitted into place and packed down snugly by a tractor running over the new soil. Guy lines are attached to the larger trees to maintain stability until rain and time adequately pack the soil around it.

Heavy watering is not an absolute necessity because 80 per cent of the feeder roots are still intact, and many times the tops of the trees are pruned so that the demand for water from the roots is lessened.

Before the tree spades, the only way to get new trees into an area was to plant the small three-to five-foot trees by hand and wait about 10 years for them to reach a height of 30 feet and offer useable shade. Now, for an investment under $10,000, large numbers of shade trees are being placed all over Iowa.

For example, in 1967 a total of 10[illegible] trees were transplanted at Lake Ahquabi Lake Anita, Lake of Three Fires state parks, and the Chariton forestry headquarters. All of these areas had sections which needed the "instant" shade provided by these trees.

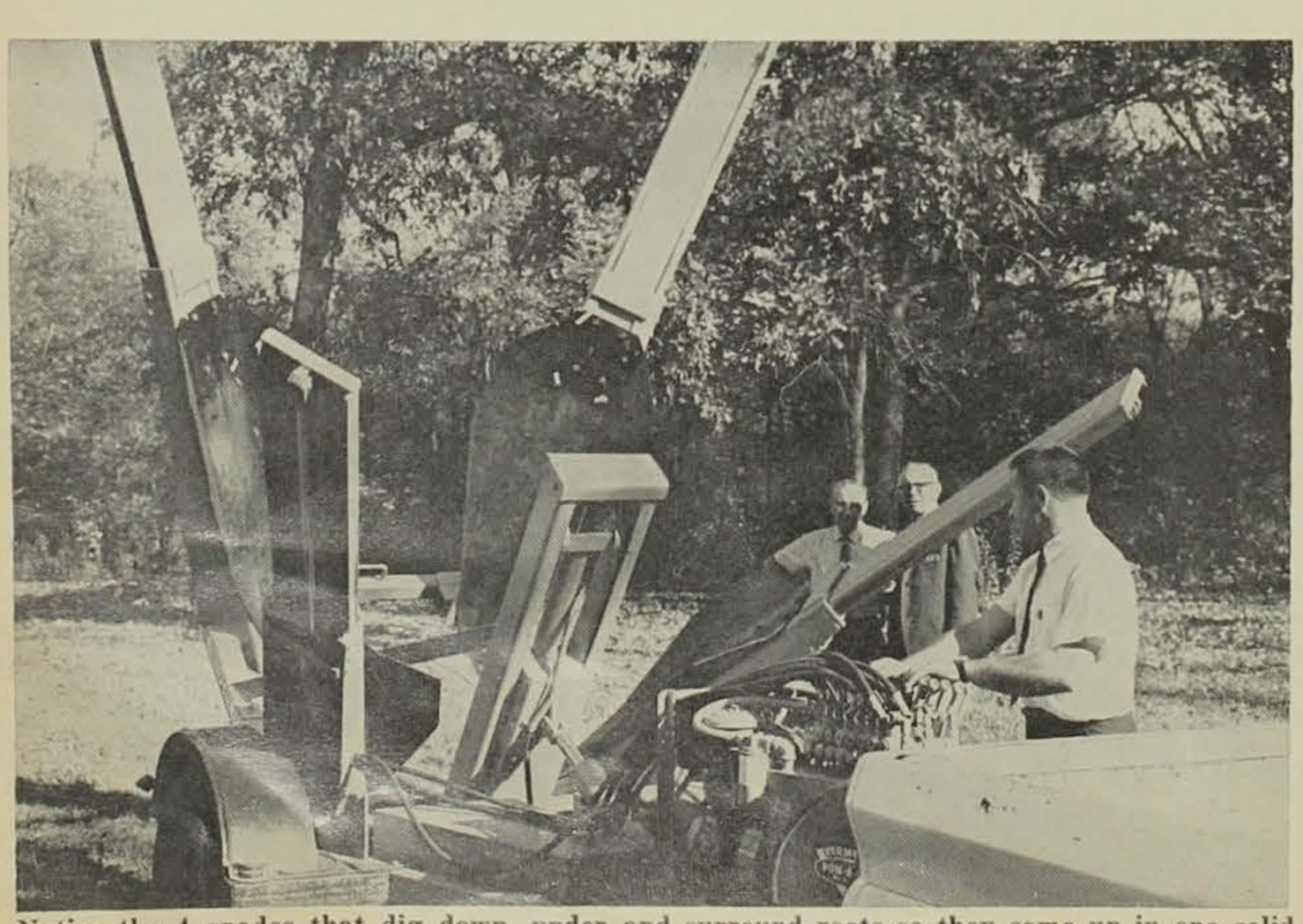
Lake Anita, Iowa's newest state park located in Cass County, is perhaps the best example. Here the development can be planned as to position and type of tree that will give the maximum pleasure to visitors. These trees have close to a 10 year head start on hand-planted seedlings, so the recreational value of the park is realized much earlier.

Similarly, Yellow River Forest, and Red Haw, Springbrook, Pilot Knob, and Beeds Lake state parks benefitted from the 161 transplants in 1968.

The transplanted trees have a survival of over 80 per cent, which is increasing with more experience in using different fertilizers, guy lines, and soil matching techniques.

With the introduction of the tree shade and refinements in its operation, the once scorched and barren grasslands can become cooly shaded areas for enjoyable outdoor activities.

The transplant project is one way in which man can help nature maximize its benefits—almost "instantly" and best of all, naturally.



Notice the 4 spades that dig down, under and surround roots so they come up in one solid chunk.

Habitat Up, Ducks Down

By Richard Bishop
Waterfowl Biologist

Data from aerial surveys across Northern United States and Canada this May, portray greatly improved habitat conditions for nesting waterfowl.

Veteran Mississippi Flyway biologist, Ross Hanson, commented that water conditions look about the best since the mid-fifties. Prospects for a good production year are encouraging; however, it was noted that there were not enough ducks to fully utilize the habitat.

Breeding populations of some species, mainly the mallard and canvasback, are severely depressed. The mallard breeding population is approximately 6.5 to 6.7 million. This is only about ½ million higher than the all time low experienced in 1965.

If ideal conditions continue and production averages 1.5 young per adult on the fall flight (which is the highest reproductive success the mallard has achieved the last 14 years) we still would not be able to allow a season more liberal than in 1968 if we desire to increase the breeding population in 1970. Since the mallard is the number one duck in the Mississippi Flyway the season has been geared to the status of the mallard.

Habitat conditions are good but breeding populations of most ducks are down. To increase the fall flight of ducks down the Mississippi Flyway we must have good habitat conditions and a large breeding population. One without the other just won't do the trick.

The past several years we have been mismatching these conditions. When the habitat was good we did not have the ducks and when we cut down the kill and sent more breeders back north we lost the habitat. Thus we have been barely maintaining a population of mallards that will withstand hunting pressure.

Now is the time to change these circumstances. We have favorable water conditions on the breeding grounds and it looks as if they will remain for at least one more year.

The other thing we need is more breeders to take advantage of these conditions. The only way to achieve this goal is by closing the 1969 season on mallards. If regulations allow hunters to continually nice deeper into the breeding population, then all the habitat in the country will not bring the mallard back.

Hunter harvest is the main controlling factor on the mallard today. Under present conditions a mallard harvest in 1969 of any magnitude will destroy the chances for a rapid rebuilding of a mallard population that could produce enough ducks to liberalize regulations.

If hunters are not willing to sacrifice now when things are in their favor, they must accept the fact that seasons in the future will be short, bag limits low, and eventually there will be a closed season.

Habitat without ducks is just as bad as ducks without breeding habitat. Both cases mean few ducks for the hunter. All the optimistic reports in the world will not produce ducks.

The facts are present to show that our mallards are down and they will remain down even with good habitat, if excessive gunning is allowed. The past four hunting seasons have been termed over-restrictive, but if this were the case the spared birds would be showing up on the breeding grounds, and to date they have not. Past experience has shown that over-restrictive seasons will increase the next years breeding population.

Habitat is essential but a habitat void of ducks does not solve the problem. Several agencies including the Canadian Government, and the Provincial governments, U. S. Federal and State governments, and Ducks Unlimited are involved in expensive wetland purchases to provide a place for nesting ducks. But, these programs are hard to justify when presently there is habitat not being used due to the lack of ducks. It is unsound management to purchase thousand of acres for production and then not allow the population to expand to take advantage of it.

Some species of ducks (blue-winged teal, gadwall, and widgeon) can, at present, withstand limited hunting pressure. Their populations have not been exploited to the extent of the mallard and they have maintained their numbers in spite of adverse conditions.

Under careful management we could have a duck season in 1969 that would not be harmful. This would involve a closed season on mallards and restricted limits on some other species. If it is decided that hunters are not responsible enough to handle this type of regulations a closed duck season in 1969 is imperative.

Summer Training for ISU Fish & Wildlife Biologists

By Ross Harrison
Editorial Assistant

"Working for the Iowa Conservation Commission for the past few summers, has been a fantastic help to my education in biology," said Carter Niemyer, a student of fish and wildlife biology at Iowa State University.

Niemyer is one of more than 40 student summer employees with the Iowa Conservation Commission. These students accomplish two main objectives during the summer.

First, being interested and knowledgable in the field of biology, they provide valuable assistance to biologists, game unit managers, and fisheries men, in carrying out the heavy summer schedule.

Second, the students have a chance to learn. They experience the general projects, problems, and people that they will deal with after graduation.

It is now a necessity for a young person to have at least a bachelors degree to advance in the field of conservation. What was once an art is now a science, becoming more involved with areas like chemistry, physics, statistics, sociology, etc

But, a person can know all there is to know from books and be of little value if he can't operate effectively in the field. A student becomes a good field worker only through experience and guidance from one who has been in the field and knows his way around.

Herein lies the value of the cooperation between the Conservation Commission and prospective conservationists. An example can be taken from Carter Niemyer, a student working near Clear Lake on a pheasant nesting study.

Niemyer heads a crew of two other students. Together they search fields and road ditches for pheasant and hungarian partridge nests in the early summer.

After the data has been collected and under the guidance of biologists Richard Nomsen and Richard Bishop, they review what has been found and are able to make an accurate estimate of the populations of these birds.

Bishop believes that the students benefit greatly from their summer jobs. He thinks that students make the best summer help because they want to learn so much and are very conscientious about their work.

The need for better than adequately trained conservation personnel has never been felt more than it is today. The need is increasing and the way to meet the demand is to provide the opportunities for an efficient and well-rounded education.

The practicality of the summer experience with the Conservation Commission can give a student the ability to tie in his studies with actual practice.

Tom Halbock, another fish and wildlife major at Iowa State, summed up his experience with summer work. "The right blend of practice in the field, coupled with studies in college has given me the best possible education in the processes of biology."

HIT THE HIKING TRAIL

By David Evans
Superintendent
Information and Education

With all the emphasis on motorized transportation such as go-carts, marsh buggies, mini-bikes and snowmobiles, there's a distinct possibility that some people have forgotten what legs are for.

Yes, legs! Those long, paired appendages that support your body when you are not sitting behind a desk, on a bar stool, or laying in front of the television set.

And, it may come as a shock to some people that when legs are used alternately they can actually transport their owners into some fascinating places.

This is especially true in Iowa where over 90 miles of hiking trails and paths have been developed in 32 state parks by the Conservation Commission. These trails have been developed to provide people with an opportunity to "get closer to nature," and enjoy the outdoors by strolling through attractive settings.

In spite of the increase in the number of vehicles zooming, scooting and roaring around the countryside, there are still people who enjoy hiking. It's amazing just how much more you can really experience when wandering along a trail.

Move slowly so you can enjoy the treasures of nature—the beauty of wildflowers, the majesty of big trees and profiles of rocky cliffs. Hikers treading silently along the trail can hear the song bird, the wind whispering through the trees and the bubbling of a stream.

A variety of scenery awaits the hiker including Indian mounds from another civilization, caves, geological formations, river bottoms, streams and forests. Hiking will reveal a multitude of flowers, trees, wildlife and splendid views.

At Maquoketa Caves State Park the trail leads to the famous caves. At Ledges one finds limestone bluffs and at Pikes Peak, a beautiful view of the Mississippi River. The botanical buff will find Wapsipinicon park attractive. These are but a few of the features found in the state parks.

Every summer thousands of people of all ages use the trails. Bird watchers, scouts, solitary walkers, families and school children can be found making their way along the well worn paths. However, only a few ever stop to think just how these trails were developed.

The construction of a trail system in Iowa for hikers was initiated in the 1930's by the Work Projects Administration and Civilian Conservation Corps. Fortunately, much of the tedious work was accomplished at the time when hand labor was abundant.

Many young men worked on these projects marking trails, removing undergrowth, and preparing a path. When the soil was fertile the going was easy using shovels and "Mexican diesels" (wheelbarrows). In rocky areas, picks and sledges were necessary to remove stubborn boulders and rocks. Horse drawn carts and men with wheelbarrows laid the final surface of crushed rock.

Today the method of constructing a hiking trail is a lot different. Tractors with blades and small bulldozers blaze and level new trails in less time. Surface rock is now hauled away in special small trailers.

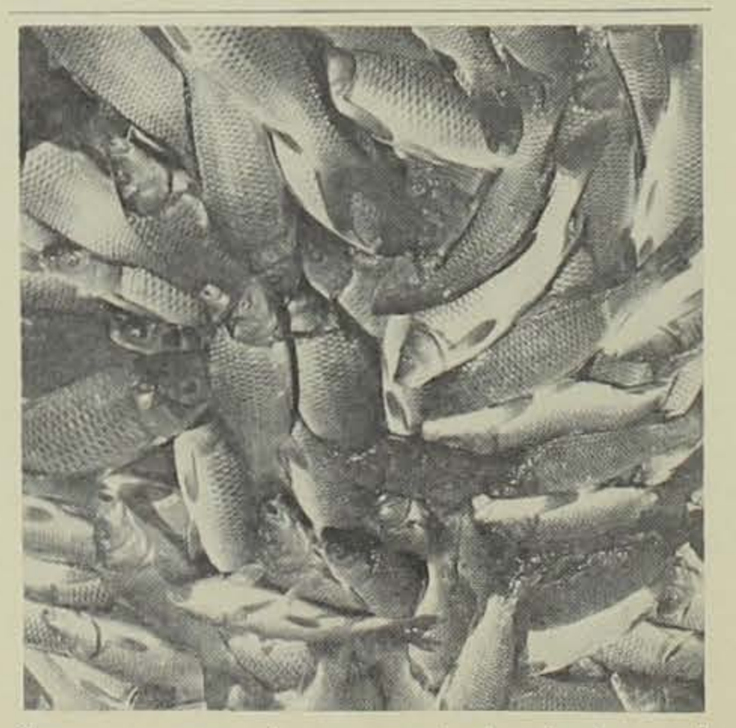
However, in several remote trail areas of the park system, hand labor is still a must. Laying of small stone in diagonal patterns as water diversions must still be done by hand. Periodic tree trimming and the replacing of surfaces is a continual maintenance chore on hiking trails.

Although this article has concentrated on hiking opportunities in state parks, one should not overlook state forests and preserves where there are some fine areas that the walker can enjoy.

Conservation Commission personnel will be happy to suggest hiking routes. They only ask that people use common sense, be careful with fire and don't litter.

Obviously Iowa does not have trails in primitive wilderness such as mountain states to the west or a great complex of trails like eastern states. However, the state parks and forests do present some wonderful hiking opportunities.

The act of using your legs in everyday work could be called "walking." The act of using your legs for longer journeys through the woods and fields is called "hiking."



Carp are one of our most abundant rough fish. In large quantities they can be used as protein supplements in livestock feed.

So get with it. Hit the hiking trail. It may seem a rather primitive method of moving. But, it can provide a lot of enjoyment and bring you closer to nature.

The publication "State Owned Recreation Areas" lists the parks and other areas that have hiking trails. This booklet can be obtained by writing to: State Conservation Commission, Information and Education, 300 4th Street, Des Moines, Iowa 50319.

Commercial Fisheries

(Continued from page 53)

shown that the catch success of the nets for rough fish is low. The Coralville Reservoir area shows that netting for 300 days produced only 15,000 pounds of fish for a catch success of 50 pounds per net.

This does not mean that there is a small population of rough fish. It does show that the rough fish are relatively hard to catch in such numbers that would prove profitable.

The Conservation Commission realizes that commercial fishing in inland waters is out of the question for the present. To harvest the surplus of rough fish, legislation has been proposed to make it possible for a fisherman to use hoop nets. This would be a semi-sportfishery rather than a commercial venture.

Completed action on the bill was not taken this year, but it is hoped it will pass during the next session.

The proposed law provides that one person can have five hoop nets at $1 per net. All game fish are to be released unharmed, but an unlimited number of rough fish can be taken.

This type of fishing will be a new and entertaining sport. At the same time, removal of rough fish will enhance habitat for game species, providing better all around angling.