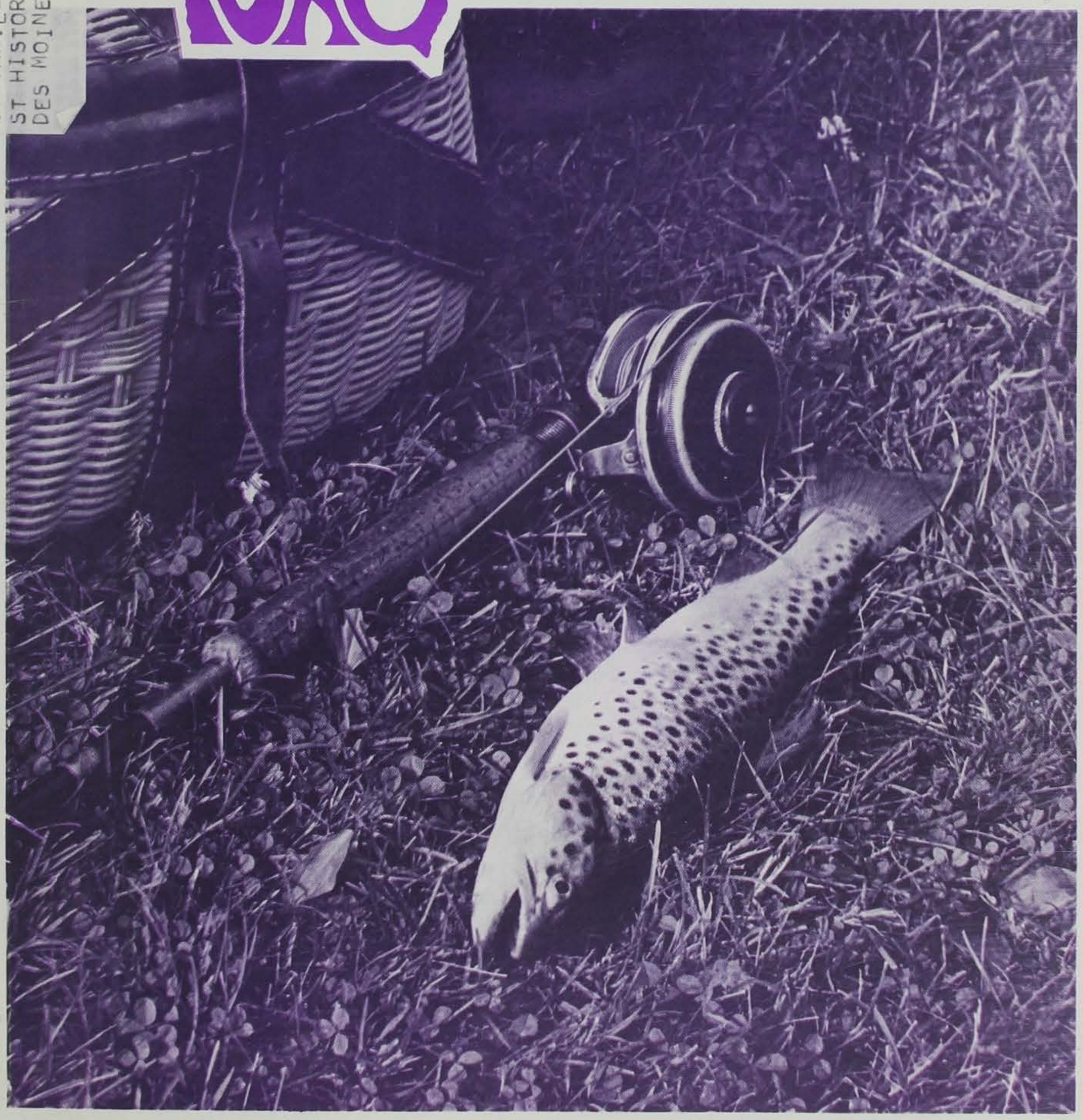
APRIL, 1972

Iowa conservationist



conservationist

Roger Sparks, Editor
Wayne Lanning, Photographer
Jerry Leonard, Photographer

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Commission Minutes

For meeting held in Des Moines January 4, 1972

Approved a permit to construct an intake and discharge structure on the bank of the Missouri River at the George Neal Power Station in Woodbury County.

The Commission voted to restrict Big Creek Lake in Polk County to canoes, sailboats and rowboats, with no motors allowed.

Accepted two options on land adjoining Big Creek Lake.

The following County Conservation Board Projects were approved:

Dubuque County Conservation Board — Land Acquisition — Swiss Valley Park, 143 acres.

Polk County Conservation Board —Land Acquisition — Browns Woods, 563.71 acres.

Polk County Conservation Board — Land Acquisition — Yeader Creek Lake, 3.44 acres.

Webster County Conservation Board — Land Acquisition — Liska-Stanek Prairie, 20 acres.

Woodbury County Conservation Board — Land Acquisition — Bigelow Park, .25 acres.

Butler County Conservation Board — Development Plan — Beaver Meadows Recreational Area.

Butler County Conservation Board — Development Plan — Camp Comfort Area.

Butler County Conservation Board — Development Plan — Considine Lake Area.

Butler County Conservation Board — Development Plan — Green Recreation Area.

Butler County Conservation Board — Development Plan — Shell Rock Recreation Area.

Clinton County Conservation Board — Development Plan Revision — Rock Creek Park.

Woodbury County Conservation Board — Land Acquisition — Bigelow Park, .25 acres.

Johnson County Conservation Board — Management Agreement — Hawkeye Wildlife Area.

Pocahontas County Conservation Board — Management Agreement — Sunken Grove Island.

Woodbury County Conservation Board — Management Agreement — Lakeport Township Wildlife Area.

Woodbury County Conservation Board — Management Agreement — Liberty Township Wildlife Area.

Dickinson County Conservation Board — Horseshoe Bend Recreational Park — Acquisition and Development.

Muscatine County Conservation

(Continued on Page 8)

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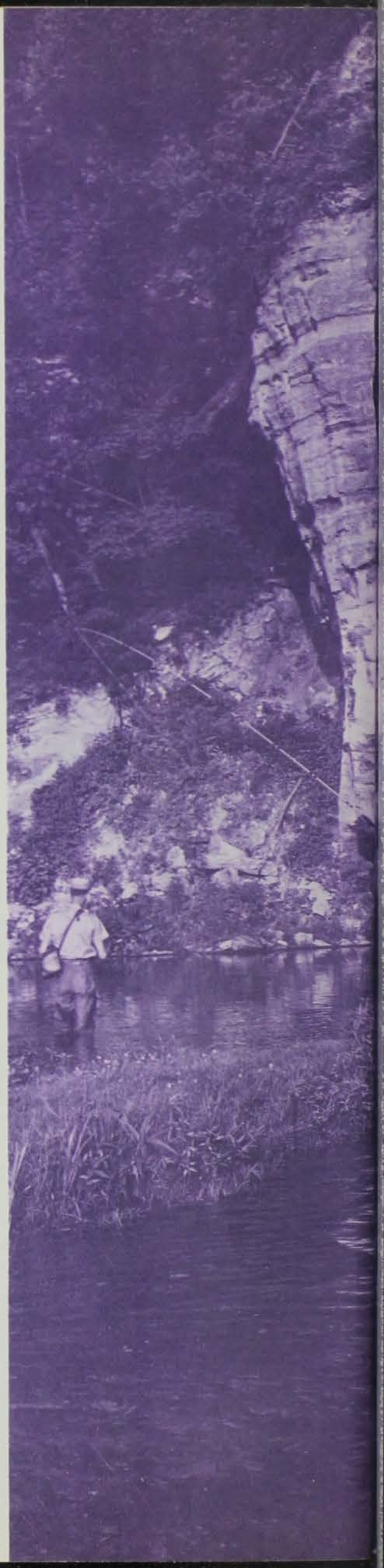
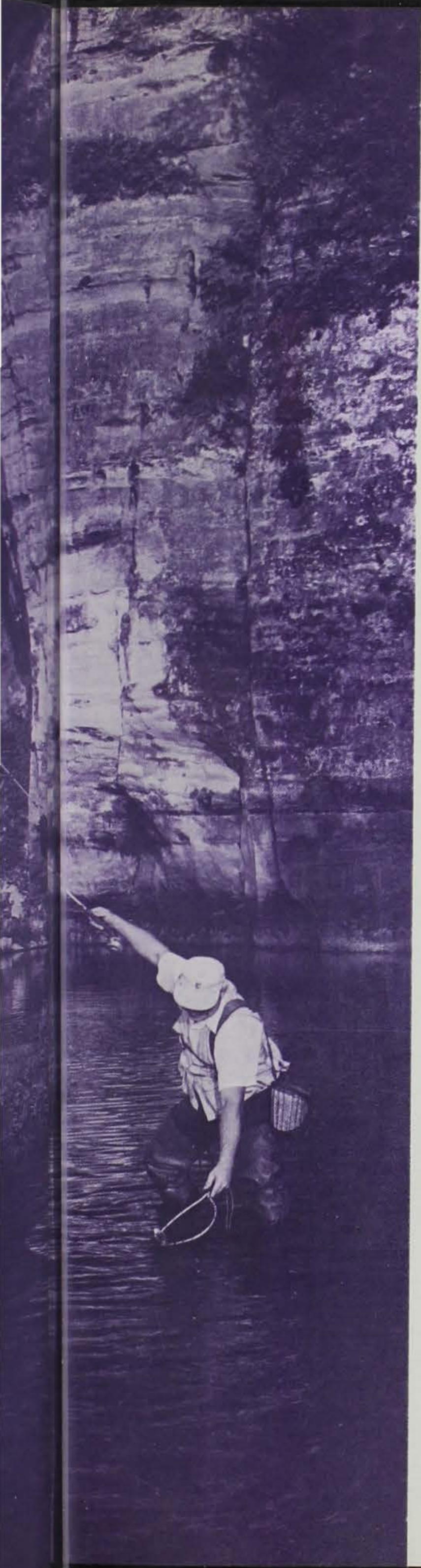
The Iowa Conservationist, as a contribution to the preservation of our natural resources and the protection of the ecology, is printed on 100% reclaimed waste paper.





iowa's trout program present and future

By Jerry Conley
Supervisor of Fish Management and Hatcheries

As the warm spring days slowly defeat winter's hold on Iowa's trout waters, the question foremost in the mind of the trout angling fraternity is the 1972 fishing prospects. Will angling be as good as in the past? Will a favorite stream still be stocked? The answers to these and a myriad of other questions posed by trout fishermen lies in the success or failure of the many facets of Iowa's trout program. How does Iowa's trout program affect your angling success? In broadest terms, Iowa's trout program consists of trout production, stocking, financing, and adequate future planning. A look at each of these areas should answer many of the questions harbored by the trout angler concerned with the present and future of his fishing success.

More Trout

Iowa has three state trout hatcheries, each trout production is unique from a water quality and volume standpoint. Backbone Hatchery in Delaware County has high quality water and excellent water temperatures for hatching and rearing small fish, but low water volume. Big Springs Hatchery in Clayton

County has low water temperatures unsuited for egg incubation but high water volume. Decorah Hatchery in Winneshiek County has adequate water volume, but experiences serious silt problems in the water supply following heavy rains. So each hatchery must be utilized for its particular advantage and fish moved from one hatchery to another at their various life stages.

All trout eggs are received in the fall and hatched at Backbone Hatchery with its warm water supply. The majority of these eggs in the past have come from Manchester National Fish Hatchery. Presently, fish eggs are being received from the Wisconsin State Hatchery at Nevin, Wisconsin. In the future, both brown and rainbow eggs will be taken from brood fish held at Big Springs Hatchery. This is being done to eliminate the possibility of introducing disease into our hatcheries through movement of eggs. A bonus to the trout angler from this development of brood fish will be the availability of large surplus brood fish for stocking as an extra fishing bonus. Approximately 400,000 rainbow and 200,000 brown trout eggs were received in 1971. The resultant fish from these eggs are the catchables that will be stocked in 1973 as one-half pound, 10-15″ fish.

After hatching, trout are fed at Backbone Hatchery on a sinking dry pellet until reaching 2-4″ size. This pellet is a 40% protein food containing all ingredients needed for rapid growth and good survival. Fish are fed 3% of their body weight daily and require 1½ pounds of feed for each pound of fish flesh produced. After reaching a 2-4″ size, the majority of the fish are transferred to Big Springs and Decorah Hatcheries for rearing to a catchable size. Later, some catchables are transferred back to Backbone for distribution in the southern trout stream area.

For the trout production process to run smoothly, no "weak links" must exist at any stage of the trout's life. In the past, our hatcheries have been plagued by several problems that have limited our production; primarily a lack of the properly designed holding facilities for eggs, small fingerlings and catchables. The former two problems were solved in 1970 by installation of six new Heath incubators and eight new fiberglass tanks at Backbone Hatchery. Utilizing these new facilities, approximately 500,000 eggs and 500,000 fingerlings can be held at one time at Backbone. Completion of the renovation work at Big Springs Hatchery has solved the space problem for larger fish. Compared to a previous high of 300,000, our annual productive potential is now approximately 600,000 catchables!

Trout Stocking

Trout stocking of catchable size fish is conducted in 46 cold water streams and one small lake in nine northeast Iowa counties. While some streams have remained in the trout program since its inception, many streams have been periodically dropped or added to the trout program. All streams in the trout program are clearly identified with signs at the beginning and end of the section where trout are planted. As the vast majority of Iowa's trout waters are privately owned, landowners along the streams proposed to be stocked are contacted and public access arranged.

Each stream is assigned for stocking purposes to one hatchery and given a trout stocking quota annually by the NE district fish manager following discussions with conservation officers, hatchery managers, and trout biologists. This quota may vary each year depending upon the amount of public access available, fishing pressure, availability of trout from the hatcheries, and the local water conditions. Additional items also decided annually for each stream are the number of plants to be made, number of fish in each plant, and the ratio of brown to rainbow trout to be planted. Normally streams are stocked weekly starting in April and continuing into early October if the water temperatures remain cool. In the past, all plants have been made during the week days to discourage "truck following." Starting in 1972, however, several streams that experienced heavy weekend fishing pressure will be stocked on weekends as well as week days.

Numerous questions are asked annually concerning the actual stocking procedures employed by the men responsible for trout stocking. Generally, an attempt is made to scatter the trout on each load throughout the accessible part of each stream stocked. However trout are difficult to move any appreciable distance from the trout trucks in nets or tubs and at times the majority of any individual fish load must be stocked in relatively few pools. Our experience has shown that normally there is movement both up and downstream from the point of stocking if there is sufficient water flow.

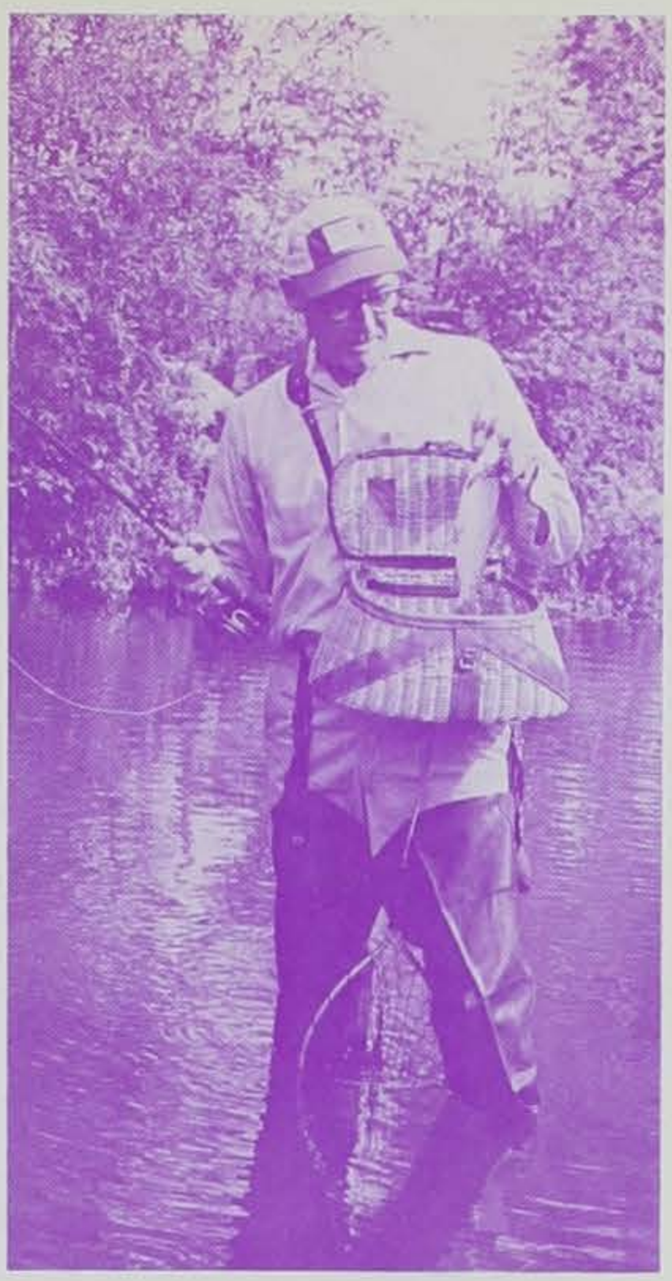
In 1971, over 1,250 individual stockings were made in the trout streams. An average of 150 trout were stocked each trip. The goal is to make as many plants as possible throughout the stocking

year to increase each individual's chance of taking at least some trout, if not a limit. Large plants of trout, if practiced, would result in overlimits and a general waste of fish. An effort is made to stock some surplus brood fish (2-8) pounds with every eight to ten loads when available. These surplus brood fish are now randomly distributed in all streams rather than being concentrated in certain streams. This allows all anglers a chance at a "lunker" while fishing his favorite stream.

Program Financing

Trout have been stocked in Iowa streams since **the early 1900's.** Since the 1930's, all trout stocking has been confined to the cold water streams in northeast Iowa. Only since 1961 have trout stamps been required for fishing in designated trout waters. Trout stamp sales have risen from 11,500 in 1962 (first full year of sales) to over 21,500 in 1970. The annual rate of increase in trout stamp sales in recent years has exceeded 10% with 1970 showing an 18% gain over 1969. At an annual 10% rate of increase, trout stamp sales, which reflect fishing pressure, are expected to be over 43,000 by 1980, or double the present number. One of the present goals of the trout program is to make the program self-sufficient, i.e., fully paid for by trout stamp sales. Prior to the recent rise in the cost of trout stamps from $3 to $5, income to the trout program from stamp sales was approximately $65,000 annually. Recent estimates indicate that the trout program costs approximately $160,000 annually or more than double the money taken in by stamp sales. Under the new license schedule, coupled with increased fishing numbers, the trout program should be self-sufficient by 1980.

One of the major problems faced by the trout program is preparing for this increased number of trout anglers while keeping the production costs to a minimum. In 1970, approximately 250,000 trout were stocked for 21,500 anglers, an average of 11



per angler. In order to ensure the same ratio of trout stocked per angler in the future, Iowa hatcheries will have to stock some 500,000 trout annually by 1980. The new construction work that has been completed at the various hatcheries in 1970 and 1971 should help ensure accomplishment of this dual goal, increased production and economy.

What Does the Future Hold

With the trout production required for the future reasonably assured by recent hatchery changes, the question remains — what areas will be available for the stocking of trout. With added fishing pressure, certainly more wear and tear will be placed on both the patience of the landowner and the stream proper. The answer to this question lies partially in the ability of our trout managers to direct people to areas that could stand more pressure and off areas where pressure should be reduced. It lies with the responsibility each trout angler must take with his behavior on private land. Certainly, camping without permission, littering, broken and open gates could spell a quick demise to the use of many streams. It also lies with the ability of the Conservation Commission to acquire land along key streams and thus, increase the area available for the program. Finally, it lies in our ability to use new, larger streams such as the Upper Iowa River during portions of the year when the water is cool.

Certainly we will have a responsibility in the future to provide quality as well as quantity with our trout program. Many trout anglers are more concerned with the aesthetic surroundings and the quality of the experience than the actual number of trout taken. For many of these individuals, "fly-only" areas would be a partial answer. With this in mind, we have asked that certain required legislative changes be made that would allow establishment of such waters. These areas would be stocked with either fingerlings or small numbers of catchables that would be expected to survive and grow to a "trophy" size in the stream.

Stream improvement work of a more intense nature will be implemented in the future on streams wholly in public ownership. This should allow for increased trout survival as well as fishing pressure. Along this same line, small cold water reservoir sites will be sought that would be constructed to handle large numbers of anglers. These should be a minimum size of three to four acres with a cold water supply, volume wise, sufficient to keep the water temperature below 70° in the critical summer months.

Fingerling plants will be expanded on small streams that can't sustain heavy fishing pressure but have small amounts of habitat for a few trout. Several areas have been stocked in this manner in the past and have proven quite successful.

The future is certain to bring many changes. The secret to a successful future trout program is cooperation. Certainly through the cooperation of the landowner, angler, and the Conservation Commission, the future of Iowa's trout program can be assured. ☆

BIG SPRING HATCHERY

fulfilling its promise

By Jerry M. Conley
Superintendent of Fish Management and Hatcheries

Unknown to the majority of Iowa's trout fishing faternity, major events occurred in 1971 that bode well for the future of Iowa's trout program. Events that will change the trout program for the average trout angler in the area of his major concern, i.e., "the time between bites." Foremost among these events was the reconstruction work at Big Springs Trout Hatchery. Work that was designed to satisfy the rising tide of trout fishermen by increasing the Commission's ability to produce catchable size trout for stocking in present and future programs.

Big Springs Hatchery, located beside the Turkey River ten miles northwest of Elkader in Clayton County, was purchased by the Iowa Conservation Commission in 1961. Prior to that time, it was operated as a private trout fishing club; although some fish were sold to the live market. For this dual purpose of fishing and market, the hatchery contained both fishing areas for club members and production ponds. While the hatchery served well for its original interest, it was recognized at the time of purchase that major modifications would be required before the hatchery would fit efficiently into the Iowa trout program. Its dependable, large volume supply of cool water; however, held great promise for future development. At its normal flow of 10,000 GPM, Big Spring represents the largest cold water spring in Iowa.

The "change-over" process to a different type of use started shortly after purchase. Improvements included such items as new concrete walls around the spring area, dike reconstruction for flood protection, and construction of a new road into the hatchery. While this work was essential to the operation of the hatchery, it did not directly add to the hatchery's earlier promise of producing a large share of the trout that would be required for Iowa's future trout program. Following a review of the changing trout stamp sales — 11,500 in 1962 to 21,500 in 1970 to an estimated 42,000 in 1980 — it was obvious that trout production would be required to meet future fishermen needs. A review of each of Iowa's trout hatchery's capabilities indicated that the best way to meet this demand was to better utilize the abundant water supply at Big Springs.

Preliminary design and site work was begun in 1970 with actual contract letting for the major portion of the project in May, 1971. The final plans used for the area not only were designed to increase production but to cope with periodic flooding by the Turkey River and the ever present danger of a pollution problem from the drainage area above the hatchery. Such a pollution problem occurred in 1963 when trout valued at over $65,000 were killed following a release of **cheese whey** into a stream above the hatchery that lead ultimately through a sinkhole into the spring supplying the hatchery. On the positive side of the design process, excellent water volume and adequate physical space was present, assets that could be utilized to advantage. Final design called for construction of 24 concrete raceways, four water control structures, and a 30″ inlet and outlet pipe system for fish production; and construction of a large pond for an emergency water supply. Total construction cost exclusive of Commission manpower and equipment costs was approximately $180,000. The contract portion of the construction was completed in November, 1971. Relatively minor items remain to be completed. These will be completed by hatchery personnel in 1972 and include landscap- and reseeding, backfilling of old ponds and between raceways, and rebuilding of an emergency spillway.

Each raceway is 147 feet long, seven feet wide and four feet deep and fed by an eight inch pipe off the main 30 inch supply line from the spring. With the exception of four dirt raceways used for brown trout, all future trout production at Big Springs will be in these raceways. Presently some 240,000 trout are being held at Big Springs for stocking in 1972. Initial estimates of potential annual production from this new system indicate that Big Springs could produce around 400,000 one-half pound trout compared to only 138,000 maximum in the past. The relative shallowness of the raceways compared to the older ponds will aid in ease of fish movement, feeding, and disease control. The four acre pond

that has been constructed to the northwest of the new raceways is designed to serve as an emergency water source in case of future pollution problems, i.e, the spring water going into the raceways would be bypassed and a pump used to draw water from the pond for use in the raceways. Some potential also exists for utilizing this pond for fishing purposes.

How will completion of the construction affect the average trout angler? Several ways, all designed to improve either the quantity or the quality of Iowa's trout program. It gives the trout hatchery system flexibility that it did not have previously. Prior to 1971, our highest production from all hatcheries combined was 306,000 one-half pound trout. Our hatcheries were unable to increase that production regardless of how fast the fishing pressure increased. Now we can produce between 550,000 to 600,000 one-half pound trout annually if required by angling pressure. Further, as this increased production is possible without increasing our "fixed cost," manpower and equipment, because of the new raceway design, our cost per fish stocked will decrease. For example, our 1970 cost per fish stocked was approximately 50c. This should drop to 35c fish stocked if we produce 500,000 trout annually. This is in line with the Commission's long range goal of making the trout program self-sufficient.

Additional benefits of being able to increase our production when required include the ability to expand the trout program into new areas and continue our fingerling trout plants into waters that will support this type of fishery. Big Spring's increased production capabilities will also allow us to develop our own brood fish, reducing the possibility of disease outbreaks and adding to the enjoyment of people visiting the hatchery.

Truly, Big Springs appears on the verge of fulfilling its promise when purchased; namely, shortening the time between bites! ☆

FINGERLING BROWN TROUT PLANTS

By Gary L. Ackerman District Fisheries Manager

Nestled deep between limestone bluffs and sheltered by a canopy of dense hardwoods a small stream gushes from a hillside spring. Its waters flow cool and clear through a dense bed of watercress. It swirls around lazily and slowly digs a deep pool under the roots of an old cottonwood. It drops step by step down layers of limestone and endlessly erodes small pools under every layer until the cool water cascades over a blue-clay bank and confluences with a large stream. This describes one of many small streams that just might furnish **very limited** brown trout fishery for the adventuresome sportsman who's ambitious enough to explore northeast Iowa streams.

In 1968 Iowa Conservation Commission fisheries personnel searched northeast Iowa for streams that might sustain brown trout. Basically we sought streams where water temperatures probably would not exceed 80° Fahrenheit — except for very short periods of time. We interviewed farmers, trappers, trout fishermen, and others who really knew their locale. Then we evaluated our findings and drew up stocking lists. Before plants were made individual landowners were contacted for their cooperation. We made verbal agreements with them and most indicated trout fishing would be allowed by permission only. Late in May we planted these streams with brown trout fingerlings of three to five inches.

Our purpose was simple. We wanted to establish brown trout and to create a brown trout fishery wherever it was possible.

The brown trout (Salmo trutta fario) was selected for introduction as they are more tolerant of adverse environmental conditions than other trout. In other states the stocking of this species in degraded trout streams has provided trout fisheries where otherwise there would be none. In Iowa streams where flooding is a problem, browns will tolerate without apparent difficulty high turbidity for short periods of time. Also studies have shown brown exhibit a tendency for upstream movements, so we theorized they would be a suitable species to seek out niches where they might survive through difficult environmental conditions.

Water temperature is the most limiting factor that directly influences their survival in the "marginal" streams where they were planted. Browns are most active and growth is optimum when water temperatures range between 65° and 75° Fahrenheit. Browns will tolerate water temperatures of up to 80° Fahrenheit for short periods of time **providing** the water is satisfactorily oxygenated. Typically we recovered browns in electro-fishing surveys below riffles, where cool springs confluence, and in very deep holes. These recoveries were in streams where in our opinion water temperatures were too warm for trout survival but they were surviving in a specialized environment.

The results of the plants of 1968 were varied. Some failed completely, some produced only one or two trout, and others produced small brown trout fisheries. As we expected, the browns had an uncertain beginning and mortality rates were high. Nonetheless, some survived predation, disease, unfavorable temperature and managed to adapt themselves in niches where they survived. Their growth was very rapid. After 46 months of life browns taken in Sny MaGill for example ranged in size from 3½ to four pounds and 18 to 20 inches. They were highly colored and deep bodied browns that were considered a trophy fish by anglers lucky enough to take one.

Our results were encouraging enough to give us the initiative to repeat the program again in 1972. Brown trout plants have a

(Continued on Page 14)

COMMISSION MINUTES

(Continued from Page 2)

Board — Salisbury Bridge Recreational Area — Development.

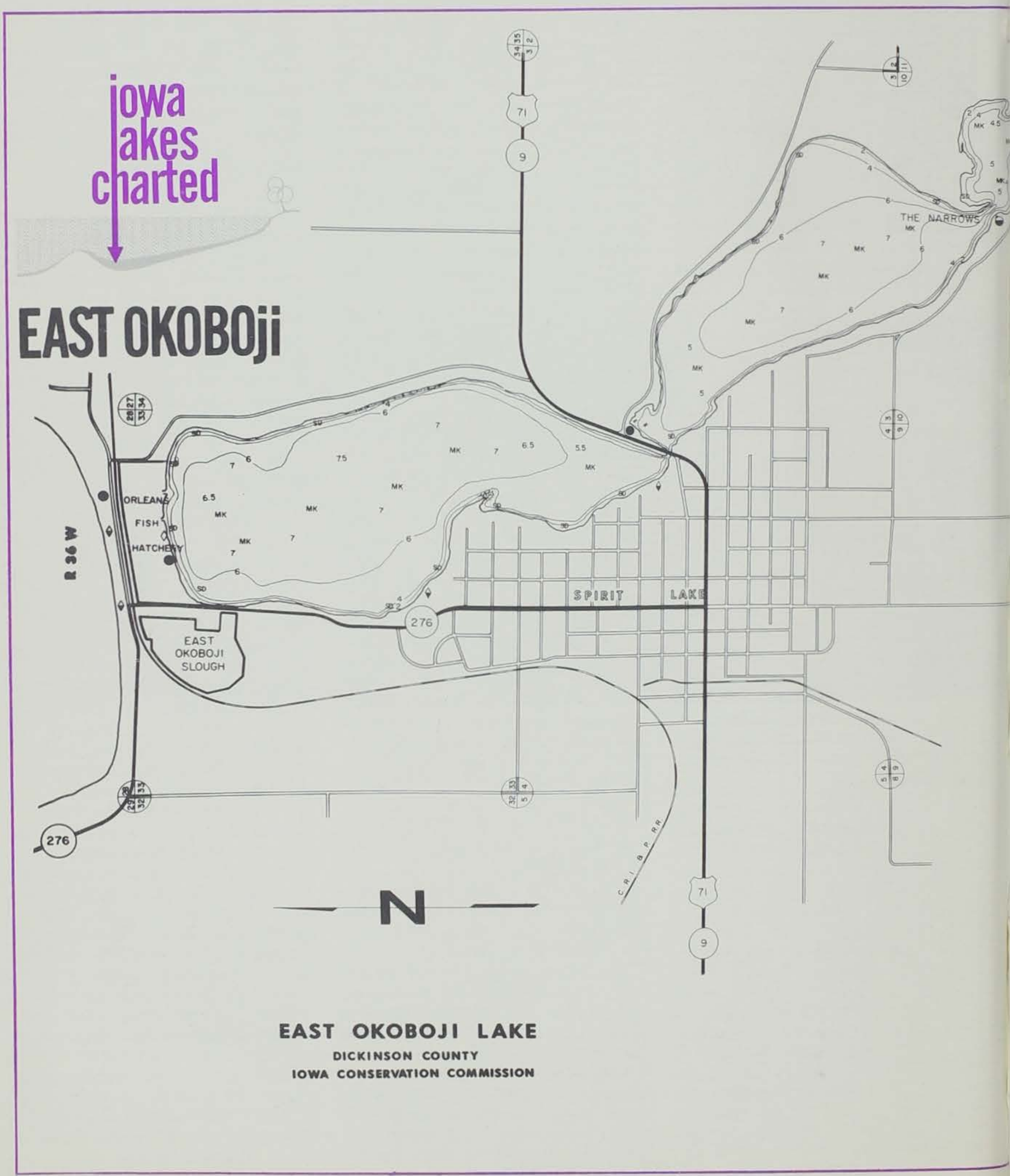
Wayne County Conservation Board — Corydon Lake Park — Development.

DeWitt City Park Board — Westbrook Community Park — Development.

Winneshiek County Conservation Board — Meyer Lake—Development.

Jones County Conservation Board — Central Park — Development.

Council Bluffs Board of Park



EAST OKOBOJI LAKE

DICKINSON COUNTY

IOWA CONSERVATION COMMISSION

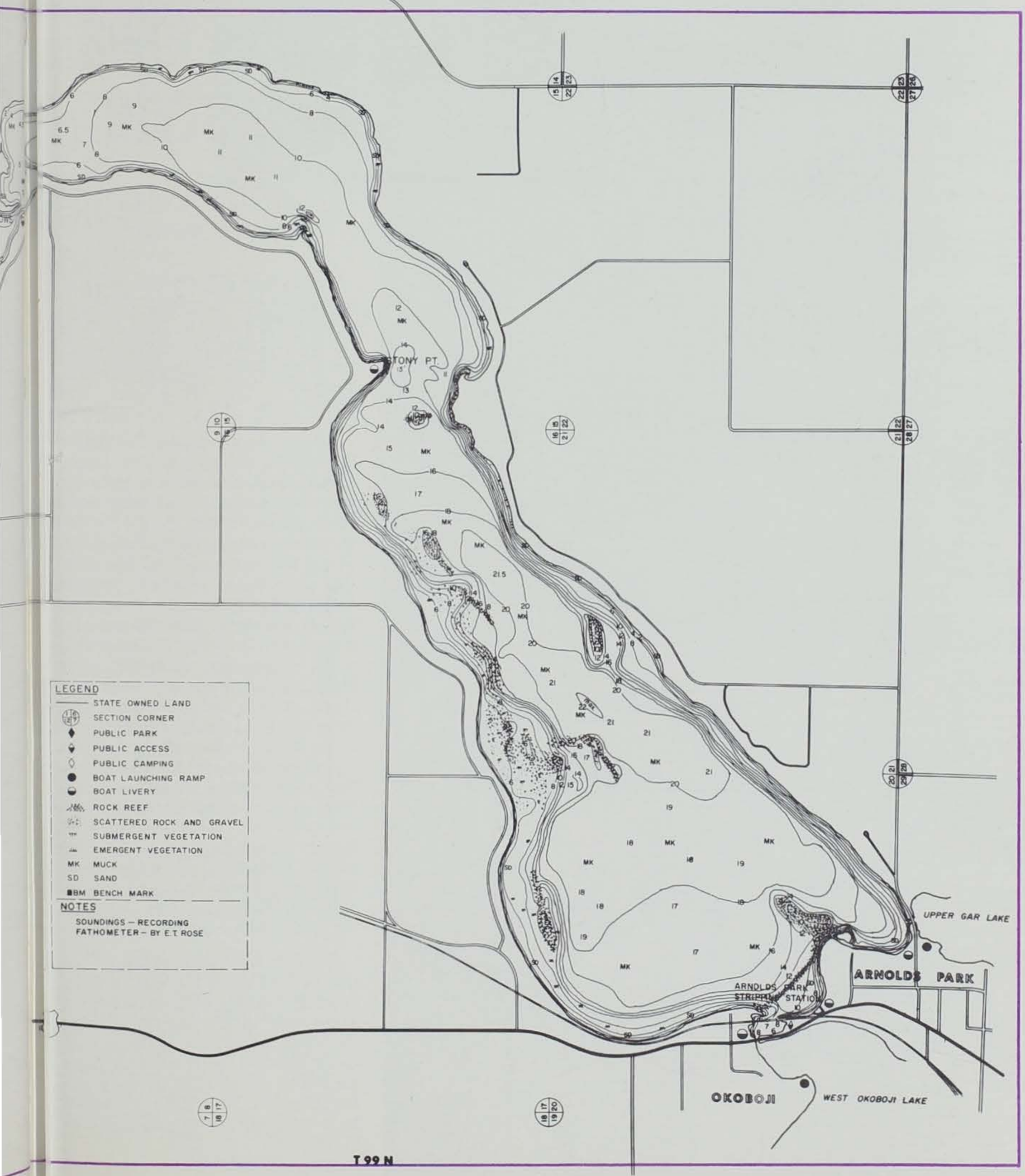
Commissioners — Manawa Park — Acquisition.

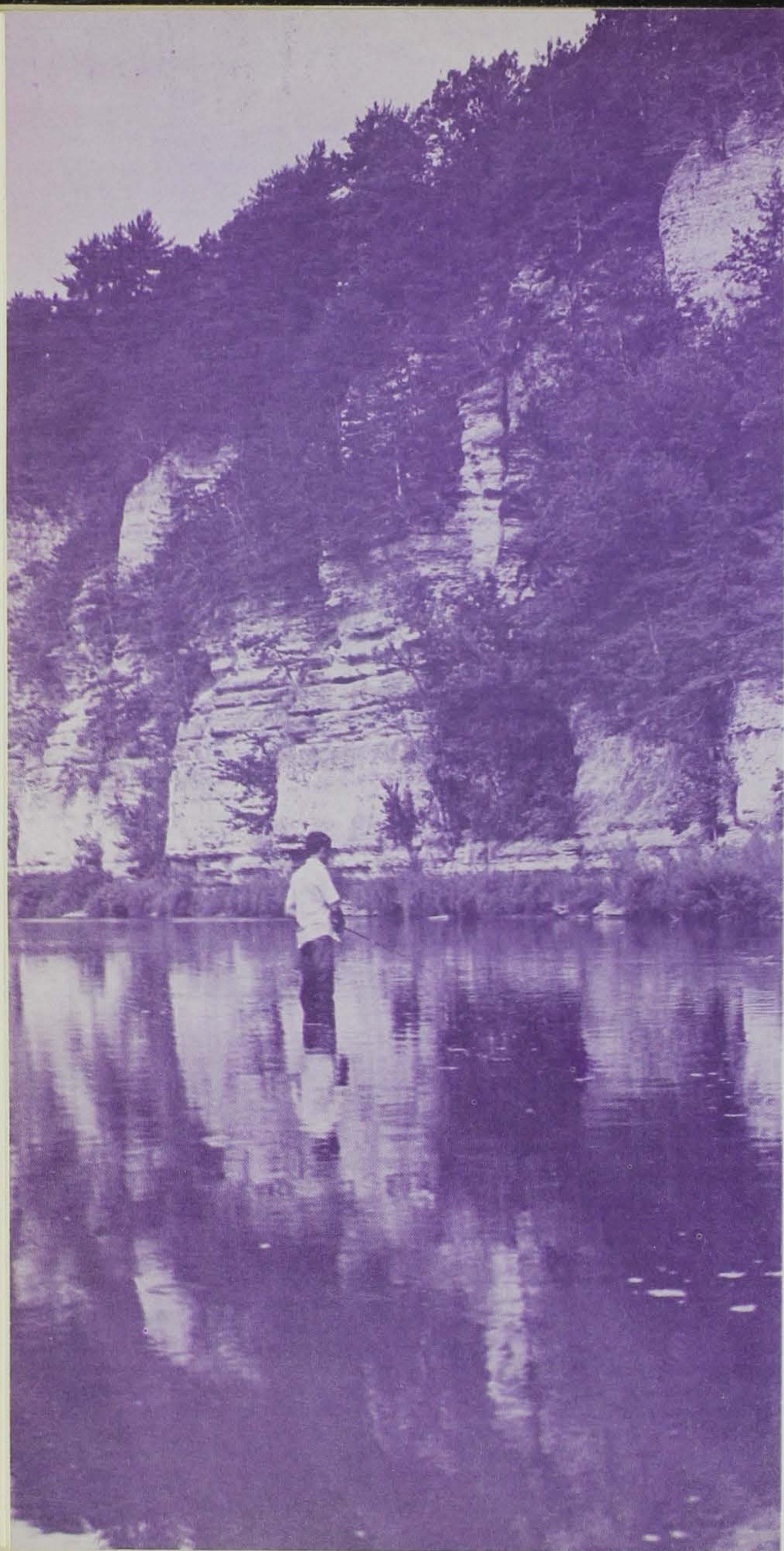
The 1972 Fishing Season Regulations were presented to the Commission and approved.

Approved an option for access to Louisville Bend, Monona County.

Representatives of the Iowa-Illinois Gas and Electric Company presented a request for a permit to operate a diffuser system at the Quad-Cities Nuclear Power Station at Cordova, Illinois. The Commission decided it would be immature to approve action prior to the Atomic Energy Commission's Environmental Impact study.

The Commission endorsed plans for the construction of a fish hatchery at the Rathbun Reservoir in Appanoose County. ☆





TROUT upper iowa river style

By Gaige Wunder
Fisheries Biologist

Ever yearn for the elbow room to make that long cast of clearance in the brush so that favorite fly isn't always hung up? Maybe the trout stocking program being conducted on the Upper Iowa River is for you.

Commission biologists knew from past surveys in the Upper Iowa River of a small population of resident trout that originated from plants made in the river's tributary streams. These fish survived the summer heat by moving into cool water pockets formed from several natural spring effluents. The SE surveys proved the river could support a small population of trout for a long period. Perhaps, then, the river could maintain a larger population of trout on a short-term basis. Rather than conduct a long-term study to this effect, the Commission experimentally stocked the river in 1971 with catchable-size trout to see if a fishery could be established. The angler benefited directly from this type experiment, and the resulting information was available for evaluation immediately.

Surplus fish were obtained for this project from the state's three rearing stations without affecting a cutback in the overall stream stocking program. These fish were marked with various combinations of fin clips as they left the stations to enable biologists to trace their movement and survival.

A peaceful stretch along the Greenbelt.

iowa river GREEN BELT

By Homer Caulkins
Executive Officer, Hardin County Conservation Board

Twisting and turning to every point of the compass, the Iowa River presents many moods as it winds its way through the heart of Hardin County on its way through the Iowa River Green Belt.

Spring finds this jewel of nature undisturbed handiwork festooned with the blossom of flowers which have for generations flourished here beneath the oaks and hackberry, mingled with the white birch and cedar. Fishermen thrill to the swirling eddys beneath the roots of a fallen maple just below an out crop of limestone over which the river noisely hurried along. A sleek coated doe, just recently a mother, daintily follows a path to the water's edge and watches with large expressive eyes as a brood of wood ducks move along the opposite bank in their search for food.

Summer finds the heavy green foliage of all the trees and shrubs creating a canopy which extends for miles broken only by the narrow corridor of the river through which the canoeists float in silence thrilling to the sight of the blue heron standing statue-like awaiting the chance to spear a fish for its dinner or watch the beaver and muskrat as they busily search for food in the summer evening. Mingling with the mantle of green the flashing red of the cardinal and tanager, the liquid blue of the bunting and the blue bird while the oriole flaunts its brilliant coat as it hurries from bush to bush.

Fall finds nature producing one

Eleven areas along 44 miles of the river from just above Decorah to about three miles below Lime Springs were stocked late in the spring of 1971. The trout stocked were 60% rainbow and 40% brown at a rate of about 1,000 fish per mile or a total of 41,473 trout.

Electrofishing surveys were conducted in July and August on selected pool areas in the river to determine trout survival, movement and population levels.

No official creel survey was taken on the river so survival of the fish and associated catch rate of the angler was difficult to determine to any exact degree. It is known that large numbers of fish were taken during the first few weeks and quite respectable catches were still being taken up to freeze-up so overall survival was considered good. Measurements of condition of the fish taken through the season support this contention.

As mentioned earlier, all fish were marked with a fin clip to enable biologists to trace their movements. Only 29% of all fish in the sample moved from the stocking area indicating most of them were probably removed by anglers before they had a chance to move. Of the fish that did move, 72% went upstream remaining vulnerable to the angler.

Population estimates determined for three distinct pool areas ranged from 282 to 378 trout with a mean of 326. These estimates were taken in late July showing a good population of trout still available for the angler. As expected, brown trout were less susceptible to immediate cropping by the angler and made up 73% of the summer sample.

Limited data shows no adverse effects of the stocking on other species of fish in the river. Undoubtedly, competition for food did exist but the Upper Iowa is a very productive stream and seemed to easily provide a niche for the trout. Also the trout congregated in spring areas during hot weather where they were not in direct competition with most other fish species. Data from stomach samples indicate the trout were actively feeding and not in the stressed condition usually associated with overcrowding.

The initial stocking in the Upper Iowa was considered a rather bold experiment both for the Commission and the angler. For this reason the river was not designated as trout water during the first year and, in turn, no stamp was required to take trout. We wanted to know the answer to some difficult questions and the angler could provide these answers with the trout as a bonus. Now that the experiment is completed and we know that an acceptable fishery can be developed in the river, a trout stamp will be required.

In the future, many changes in

(Continued on Page 14)

of the most outstanding displays of coloration that is to be found in the state as the summer foliage turns from the dark green of summer to the gold of the ash, the poplar, the pignut and the birch, the purples and reds of the oak, the sumac, the viburnums, the maples and the dogwoods. The too-fat wood chuck waddles in the evening sun pausing to rest and sniff the spice scented Autumn air, the red squirrel busily burys its winter supply of nuts or sets on a protected limb to scold with jerky tail, the impudent blue jay warns everyone that a red fox in his new fall coat comes trotting along the path.

Spring on the Iowa river.

Cyclists and hikers enjoy verdant scenery.

Winter, with its ermine coat of snow, enfolds the green belt in a softness and beauty of tranquility that nature alone can provide for the picture card beauty of a country side at rest. The long tapering slopes which glide down to the river's edge take on new contours and the forest trees, now bare of leaves, take on new dimensions as their strength and beauty is emphasized by their solitude. A silence is born to a snow muffled world, a word which finds nature's citizens of the wild cautiously making new trails through a familiar yet changed world about them.

In this world based entirely on a hurrying life of economic values, what does this wonder land mean to society and the future? An heirloom precious as history itself lies here, and land where the native American, the Indian, lived out his life and left behind tokens of this life in the burial spots and artifacts found here. Pioneers of the westward invasion also left their marks here in the dates and initials carved in the sheer cliffs of the limestone bluffs along the Iowa River, the remains of the mills and dams, deep ruts left to mark their avenues of travel.

Today man looks to this area as an oasis of quiet and restfulness providing an unequalled therapy of relaxation from the breakneck pace of the world. Here is found an area sparsely served by winding roads which restricts vehicle travel to its borders and allows nature and its wildlife citizens to maintain their natural structure here in the heart of one of the richest agricultural areas of the world.

Value? Dollars and cents can never express the Green Belt's worth to today's or tomorrow's world of this unique example of nature at work in its own realm. Man with all his scientific knowledge and abilities of production of materialistic items can never produce what nature has produced and maintained through the centuries in the Iowa River Green Belt. ☆

Ed and Mildred Myers . . . remembering

43 years for badge number 6

Ed Myers never looked for another job.

By Roger Sparks

House where the Myers resided for 21 of Ed's 43 years of service. (Lake Aquabi)

The Myers family at Aquabi (1942)

Typical campsight before fifties, trailers. (1949).

Ed Myers, by chance (or "misfortune" as he jokingly claims) was born and raised smack dab beside one of Iowa's first state parks. A few years after its purchase, the Ledges was in need of an accessable road. At that time just enough money was available to widen and gravel the old mud lane through it, so the park custodian began looking for a team of horses and someone to drive them. He found both on an adjoining farm and in 1926 a boy of eighteen began a career in Conservation.

"When I started they labeled my job 'part time' although I worked nine months a year, seven days a week," Ed recalls. "Officially I began working full time in 1929." Officially, Ed's 43 years with the Iowa Conservation Commission constitute the longest work record in the organization's history. He has never looked for another job.

"My Sunday duty during those first years at Ledges was parking cars. Picnicking and hiking were very popular then too, and summer weekends attracted thousands. I parked a lot of Model T's, Maxwells, Hupmobiles, Willys Nights, Overlands, Haines and horse-drawn buggies."

Ed married and he and his bride Mildred stayed at Ledges State Park at the trying wage of 25 cents an hour.

"The depression hit and it was an income," he reflects, "but I began hoping to become an Officer." He finally got that wish and in 1938 moved to Doliver to await his appointment. The following October he became a Park Officer and moved to Pammel State Park. The pay jumped to a whopping $75 per month!

A few years later Ed was transferred to Lake Aquabi where during his 21 years of service at that popular park he witnessed the tremendous boom in camping.

"Until the early fifties, camping had been a minor aspect of parks recreation," he notes. "But with the advent of camping trailers and pickup campers, it really mushroomed."

By 1955 Lake Aquabi was the

most popular park in the state. County Conservation Boards were not into full swing and of course none of the federal reservoirs were completed. Aquabi attracted 260,000 visitors that year.

"The hours were long and the work was hard. Because my job included a lot of public contact combined with physical work I would sometimes have to change clothes four times a day to keep a clean appearance," Ed recalls. "But we enjoyed living and working at Aquabi."

"Our park system is still growing and new areas are constantly being developed. But the original idea of providing places for people to picnic, camp, hike and relax in a natural setting has remained the same over the years. It's a wonderful program."

In May Ed and Mildred Myers will leave Union Grove State Park and move back to Indianola to enjoy a much deserved retirement. And they'll travel —.not to Florida — but to Backbone, Nine Eagles, Waubonsie, Lake Geode and the other Iowa State Parks.

Ed has lots of memories. He also has a warm welcome and a handshake awaiting him at every park in the state. Above all he has the respect and appreciation of the millions who have paid him weekend visits during the past half century. ☆

UPPER IOWA TROUT

(Continued from Page 11)

Iowa's trout program will affect the river. The recently remodeled Big Springs rearing station near Elkader has increased the efficiency of our trout program to provide catchable-size trout for the Upper Iowa while still maintaining our ambitious stream stocking program. Production at Big Springs will eventually push overall estimated output of catchable-size trout for the three stations to the one-half million mark. With this supply of trout virtually guaranteed, the Upper Iowa program can be continued to provide a quality fishery in years to come.

The river stocking was a success and will be continued again in 1972. Plans call for two stockings one month apart in late spring with slightly more than 25,000 trout going into the same areas used last year. Also planned is an extensive creel survey of anglers on the river to provide valuable data on catch success and fish survival. In a time when privately owned streams are being withdrawn from Iowa's trout program, it becomes imperative that additional areas such as the Upper Iowa River be developed for future generations of trout fishermen. ☆

PLAN TO PLANT A TREE ON ARBOR DAY

Arbor Day is the only day or event that is observed in every country in the world. 1972 is the 100th anniversary of the founding of this most important day for all life on earth.

Every school should plant at least one tree, more if possible. Arrange for a good variety, hardy in your area — prepare the hole — have good soil available. Have the children take part in the planting ceremony.

Have a chairman tell a little of the background of Arbor Day. Describe the tree, its variety, color, ultimate size, etc., then allow those children who wish, to pass by and toss a shovel of soil on the roots. This way they will have an interest in the tree and protect it.

Friday of the last week in April is Arbor Day, however any day of that week may be chosen to fit your program and possibly local weather conditions.

Your Governor's Environmental Action Program Committee and the Iowa Arbor Day Committee urges you to PLANT A TREE ON ARBOR DAY — Do it each year.

An outline of the history of ARBOR DAY is available by writing to: Iowa State Horticultural Department, State House, Des Moines, Iowa 50309. ☆

FINGERLING BROWN TROUT PLANTS IN IOWA

(Continued from Page 7)

place as a tool for fishery management in Iowa. We can establish brown trout fisheries in small, isolated areas where it's not practicable to establish "catchable" trout fisheries. We can establish brown trout fisheries where trout management has ceased because of sociological problems. We can manage our streams intelligently, economically, and efficiently.

We make no promises. Hopefully landowners will allow us to plant the trout. Hopefully trout fishermen will be able to gain access to private lands later on as the trout mature. So good luck fishing for trophy-size brown trout in some of Iowa's forgotten streams.

Here is a list of those streams in which we plan to plant brown trout fingerlings during 1972:

County	Nearest Town	Stream
Allamakee	Volney	Bear
Allamakee	Waukon	Teeple
Allamakee	Marquette	Cahoon
Allamakee	Dorchester	Clear
Allamakee	Monona	Suttle
Clayton	McGregor	North Cedar
Clayton	Marquette	N. Fork of Bloody Run
Clayton	Buena Vista	Plum
Clayton	Guttenberg	Miner's
Clayton	Colesburg	Pine Creek
Clayton	Edgewood	Steele's Branch
Clayton	Edgewood	Bear
Clayton	Strawberry Point	Mossey Glen
Clayton	Strawberry Point	Alderson's
Delaware	Colesburg	Spring Falls
Delaware	Greeley	Tibbot's Branch
Dubuque	Luxemburg	White Pine
Fayette	West Union	Turner's
Fayette	West Union	Dutton's Spring
Fayette	Fayette	Prairie Spring
Howard	Cresco	Bigalk
Howard	Cresco	Chialk
Jackson	LaMott	Big Mill
Jackson	Maquoketa	Maquoketa Springs
Winneshiek	Burr Oak	Hauge Springs
Winneshiek	Decorah	10-Mile

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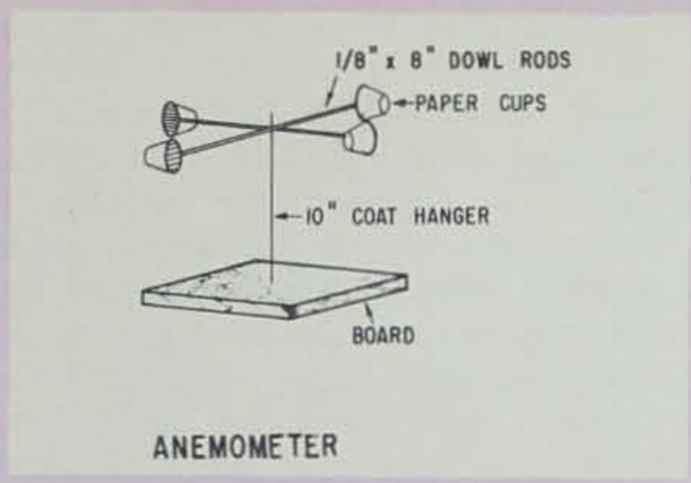
Classroom Corner

By Curt Powell
Adminstrator
Conservation Education Center



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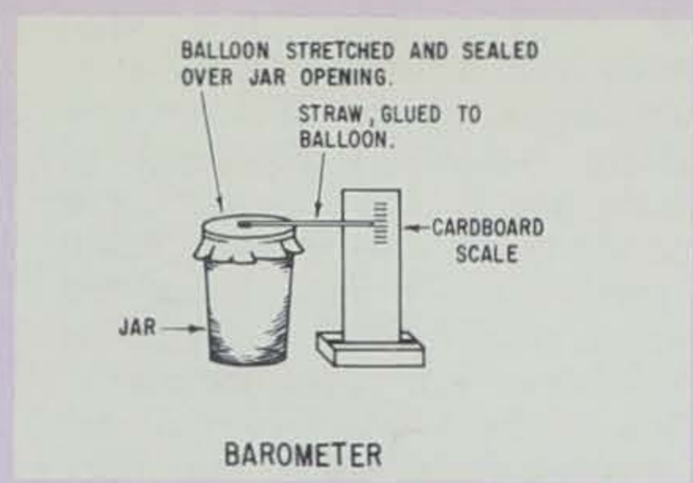

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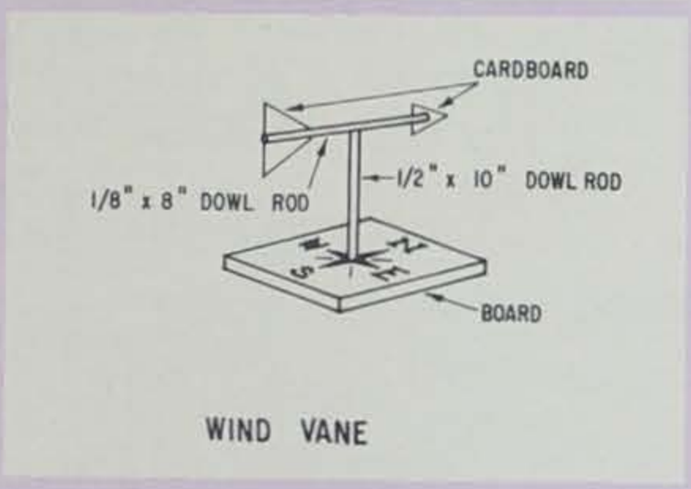
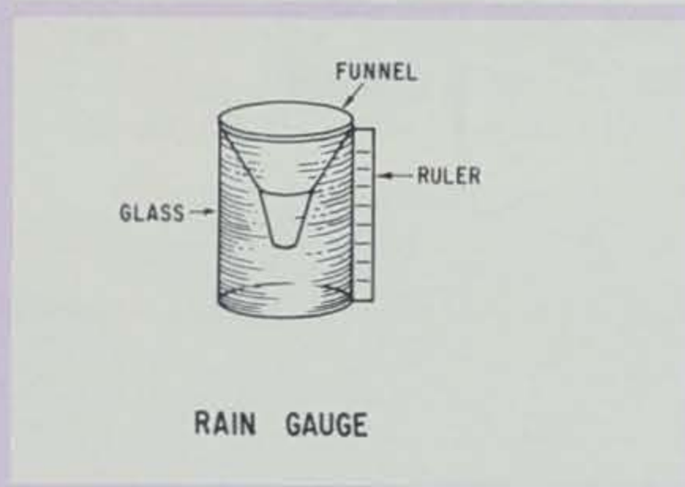


WIND VANE



RAIN GAUGE

"April showers bring May flowers." How often have we heard that short saying concerning the weather in the Spring? Spring is now very near and summer is not far away. As you well know, the weather can "suddenly" change during the Spring and cause you to change your plans for an outdoor adventure. There are many methods that you can use to see what the weather will be like the next day. You can read the weather forecast in the newspaper, hear it on the radio, or watch it on television. What devices do the weathermen use to forecast the weather? Wouldn't it be fun if you could construct some of those devices and, perhaps, make your own weather forecasts?

This is our project for this month, construction of a small weather station for your classroom or home. By using your own weather station and listening to the weatherman, perhaps we can learn more about the weather and how it affects all of us here on earth. The important thing to remember is, this is only the beginning of the project. It is impossible to discuss all there is to know about the weather in this article, so it will involve homework on your part.

We will show you four items: (1) a rain gauge for measuring rainfall, (2) a wind vane, to determine the direction of the wind, (3) an anemometer, for determining the speed of the wind, and (4) a barometer for determining the changes in atmospheric pressure. You will also need an outside thermometer to check the temperature with each day.

If you will look closely at the illustrations, you will notice that these items are fairly simple to build and can be built from articles you might find around the house or in the school shop. Be certain to be careful with the tools you might be using and clean up after you are done.

There are a few comments that we must make concerning each of the devices that we are going to build and how we should use them. Be certain to empty your rain gauge each time it rains and after you have measured the amount of liquid in the glass. Place the gauge in an open and unsheltered area so it will measure accurately. The barometer only measures the amount and change in the atmospheric pressure. It does not tell you the pressure in "inches" as does one the weatherman uses. You must mark on the paper shown beside it whenever the straw moves. This can be done by marking an "A" on the paper where the straw points when you first start, a "B" the next time you check your barometer and so on. Compare the differences with the barometric pressure readings given by the weatherman. Did your barometer show a rise or fall when his did? Be certain the barometer is not placed near a radiator or in a cold place. This will affect the readings that you would obtain from it. Why?

The anemometer must be calibrated for the wind speed. Paint one of the cups red and then have someone (preferably your parents or your teacher) drive the car down the road at five miles per hour. Holding the anemometer near an open car window, count the number of times the red cup goes around in one minute. Multiply the number of turns you count by sixty and this will give you the number of turns the red cup would make in one hour at a wind speed of five miles per hour. If it is ten turns per minute, it would be six hundred turns per hour at five miles per hour. How many turns would it make if the wind was blowing at ten miles per hour? Compare your results of each day's observation with the weatherman on radio or television.

The wind vane must be placed in an open area that is not sheltered. Be certain to "orient" the base board so the vane arrow shows the true direction of the wind. Would a magnetic compass help? Read the thermometer at least three time a day and note the time the reading was made and the temperature on your weather observation chart.

(Continued on Page 16)

CLASSROOM CORNER (Continued from Page 15)

You now have constructed your weather station. Keep records each day of the temperature, wind speed, the rise and fall of the barometric pressure, the amount of rainfall, and the direction of the wind. Does the weather change when the barometric pressure rises or falls? What makes the pressure change? What does it mean when the temperature rises before a summer or winter storm? Are we more likely to have a change in the weather when the wind comes from a certain direction or increases in speed? What are prevailing winds? What kind of clouds are in the sky during a rain storm, or a snow storm or on a partly cloudy day? What are "mares' tails"? What do the terms "high" and "low" pressure mean? What is the average rainfall for your area in a year? Are there any books in your school or city library about weather?

From day to day, listen to the weatherman on your local radio or television station to check your observations with his. Do you see how difficult it is sometimes to predict the weather? After you have finished your project, why don't you write us a letter at the Conservation Education Center, Box 139, Guthrie Center, Iowa and let us know how successful you were in predicting the weather. We would also like to know of other projects that you might be interested in. ☆

1972 IOWA FISHING SEASONS AND LIMITS — March 1, 1972, to February 28, 1973

INLAND WATERS OF THE STATE					BOUNDARY RIVERS
Kind of Fish	Open Season	Daily Catch Limit	Possession Limit	Minimum Length or Weight	Mississippi River, Missouri River and Big Sioux River
Carp, Buffalo, Quillback, Gar, Dogfish, Gizzard Shad, Sheepshead, Sucker, Redhorse, Chub, Sunfish, Bluegill, Crappie, White Bass, Bullhead Rock Bass, Yellow Bass, Warmouth, Minnows and Sand Sturgeon.	Continuous	None	None	None	Same as inland waters.
Rock Sturgeon	Continuous	1	1	None	Same as inland waters.
Paddlefish	Continuous	2	4	None	Same as inland waters except no catch or possession limit on Mississippi River.
Perch, Yellow	Continuous	25	50	None	Same as inland waters except no catch or possession limit.
Trout	Continuous	5	10	None	Same as inland waters.
Catfish	Continuous	8	16	None	Continuous open season, no catch or possession limit.
Largemouth Bass	Continuous	5	10	None	Largemouth and Smallmouth Black Bass. Continuous open season. Aggregate daily catch limit 10; aggregate possession limit 20.
Smallmouth Bass	Continuous	5	10	None	
Walleye and Sauger (natural lakes only)	April 29 to Feb. 15	Combined Walleye and Sauger 5	Combined Walleye and Sauger 10	None	Continuous open season. Aggregate daily catch limit 10; aggregate possession limit 20.
Walleye and Sauger (other inland waters)	Continuous				
Northern Pike (natural lakes only)	April 29 to Feb. 15	3	6	None	Continuous open season. Daily catch limit 5; possession limit 10.
Northern Pike (other inland waters)	Continuous				
Muskellunge or Hybrids	April 29 to Feb. 15	1	1	30 inches	Same as inland waters.
Frogs (except Bullfrogs)	Continuous	4 doz.	8 doz.	None	Same as inland waters.
Bullfrogs (Rana Catesbeiana)	Continuous	1 doz.	1 doz.	None	Same as inland waters.

Where waters are located within the confines of State, County, City Parks or State Fish and Game Management areas, fishing will be permitted only when such areas are open to the public.

EXCEPTIONS: On all state-owned natural lakes, all angling through ice is prohibited between the hours of 8:00 p.m. and 6:00 a.m. **BORDER LAKES:** In Little Spirit Lake, Dickinson County; Iowa and Tuttle (Okamanpedan) Lakes, Emmet County; Burt (Swag) Lake, Kossuth County; and Iowa Lake, Osceola County, the following shall apply: (1) Walleye—daily catch limit 6, possession limit 6; (2) Northern Pike—daily catch limit 3, possession limit 3; (3) Muskellunge or Hybrids—daily catch limit 1, possession limit 1, minimum length 30"; (4) Largemouth and Smallmouth Bass—daily catch limit 6, possession limit 6. Open season on above fish shall be April 29, 1972, to February 15, 1973. (5) Spears, and bow and arrow may be used to take carp, buffalo, dogfish, gar, sheepshead, and quillback from sunrise to sunset during the period May 1, 1972, to February 15, 1973, inclusive.

IN ALL WATERS the possession limit shall not exceed 50 fish of all kinds in the aggregate except that the aggregate possession limit shall not apply to fish named on which there is no daily catch limit.