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# conservationist



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### Iowa Conservationist

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# IOWA C

By Roger Sparks

There's so much refreshing about camping in the spring, the 'just right' sunshine, the chilly nights, the blooming wildflowers even the smells of a spring rain-storm. The winter-is-over atmosphere is everywhere. It's little wonder that camping areas sometimes resemble cities on warm weekends.

Iowa's state parks system includes many areas with camping, either modern (which means showers and flush toilets are available) or non-modern. Some have electrical outlets and sanitary disposal stations.

A maximum of two weeks camping is allowed in an area. Checkout time is 3:00 p.m. daily. Camping sites are available on a first come, first serve basis, no reservations are accepted. A camping permit is required from the park officer. Ask him for a park map.

Many of Iowa's camping areas are located on, or near lakes. Please note that a beach facility means a bathhouse, dressing rooms, and showers building with a supervised beach. Areas without a beach facility are unsupervised.

On state-owned, man-made lakes over 100 acres, motors up to six horsepower are permitted. Lakes under 100 acres are limited to electric trolling motors up to 1½ horsepower. On all natural lakes motors of all sizes may be used.

A few parks have modern family cabins which rent for \$10.00 per day, or can be reserved for \$50.00 per week.

The following brief descriptions of parks and camping areas may help campers meet individual camping needs and wishes.

#### Zone 1

1. **Ambrose A. Call State Park** is a small secluded areas with a shady non-modern camping area, not heavily used. Historically the park is the site of the first white settlement in Kossuth County.



ern camping area receives heavy use in this popular resort area in northwest Iowa. Waterskiing, swimming, sailing, pleasure boating, and excellent fishing attract visitors from several states. A water station is located on the lake. Other areas in Dickinson County worth seeing are the Gardener-Sharp cabin, the sight of the Spirit Lake Masacre; the state fish hatchery located between Spirit and East Okoboji lakes; and Cayler Prairie, a native prairie with over 250 species of native Iowa flowers and grasses. Pillsbury Point, Pikes Point, and Mini-Waukon State Parks are day-use parks in the lakes area.

6. **The Ledges State Park** is one of the more heavily used areas in the state. Located six miles south of Boone, this central Iowa nature park is best known for its elaborate scenic trails which lead up steep rocky hills to views such as sentinel rock which overlooks a large expanse of timber along the Des Moines River. One trail has signs which identify species of wild flowers, trees, and plants. The modern campground is very heavily used, particularly on weekends. A boat ramp within the 1,143 acre park provides access to the river. The Wildlife Research and Exhibit station bordering the park houses wild turkey and other native Iowa wildlife species, and is open to the public.

7. **Lewis and Clark State Park** is located on an oxbow lake (Blue Lake) formed by the meanderings of the Missouri River in Monona County. The park is opposite the original campsite of the famous explorers for which the area is named.

The large, modern camping area is heavily used and is located on the shore of Blue Lake near the beach facility, concession, boat rental and boat ramp. There are no motor restrictions on the lake and waterskiing, pleasure boating, and fishing are popular. Several nature trails wind through giant cottonwoods and other hardwood species.

8. **Mill Creek State Park** near Paullina in Obrien County fea-

tures a level, shaded non-modern camping area that receives light pressure. A 25 acre lake offers panfishing and swimming at the beautiful supervised beach. A golf course and landing strip adjoin the park.

9. Another camping area (modern) that receives light use is at **Pilot Knob State Park** in Hancock County. This timbered area is known for its elaborate foot trails system, and a stone tower atop the second highest point in Iowa. Some unique plant life grows there — the rare sundew plant and sphagnum moss. A bridle trail winds through the park.

10. **Stone Park** on the Big Sioux River in Sioux City is another favorite hiking area. The 900 acre park receives fairly light pressure on the modern camping area. The trails and overlooks offer beautiful scenery and unusual plant life, like wild, native cactus and Yucca. Some of the finest bridle trails in the state wind through this park.



Many of Iowa's State camping areas border good fishing lakes and streams.



## Zone 2

11. **Backbone State Park** is the oldest park (since 1917) in Iowa and certainly one of the finest. The camper may choose between a timbered non-modern campground and a modern area. On weekends, finding space is a problem in this popular area — in 1971 Backbone ranked third in individual campers. An excellent, elaborate foot trail system takes the visitor through 1600 acres of northeast Iowa hills and limestone bluffs, up and down rocky staircases, past caverns, the wind-blown pines (which resemble the cypress of California) and over the Devils Backbone, a rugged ridge for which the park is named.

Clear, cold, spring-fed streams are stocked regularly with trout and a beautiful trout hatchery invites park visitors to view the rearing ponds.

A 125 acre man-made lake offers supervised swimming, boating, and fishing. A nine-hole golf course borders the park.

12. The modern camping area at **Beeds Lake** in Franklin County is easily accessible. A nice swimming beach, beach facility, concession and boat rental are a short walk from the camping area. A trail leads to a foot bridge below the unique, rock spillway. The 130 acre lake was drained and rejuvenated in 1971 and was recently restocked. The camping area was enlarged in 1970.

13. A few years ago **Bellevue State Park** was enlarged by the addition of a separate, nearby unit. Both units are situated on the 500 foot bluffs overlooking the Mississippi River and the town of Bellevue in Jackson County. The Nelson Unit has a couple of nice trails with scenic overlooks and Indian mounds. The modern camping area is in the new Dyas Unit. Walleye fishing is good below nearby Lock No. 12 and a golf course borders the park. Crow-sized pileated woodpeckers, though rare in Iowa, are occasionally seen; and in the winter bald eagles congregate in the area. The park is just off the "Great River Road," which parallels the Mississippi.

14. Clear Lake, in north central Iowa is another popular summer playground. Two areas, **Clear Lake**, and **McIntosh Woods State Parks** offer modern camping on this 3,643 acre natural lake. The camping area at Clear Lake State Park gets hard use — last season it ranked sixth in individual camping. The shaded campground is located right on the lake shore and is a short distance from an unsupervised beach.

McIntosh Woods receives much less pressure. On the northwest side of the lake a gently sloping woods and meadow form the camping area. A boat ramp is available.

Clear Lake is a great sailing, pleasure boating (no horsepower limits), and water-skiing lake. Fishing is good for crappies, walleyes, northern pike, bullheads and yellow bass. A water patrol station and state fish hatchery are located on the lake.

15. **George Wyth State Park** in Black Hawk County stretches out along the Cedar River in Waterloo. The level, timbered camping area is modern and receives fairly light use. A foot trail runs along the river, shaded by some very large hardwood specimens. A small cutoff pond offers fishing for panfish and bullheads. A boat ramp provides access to the river.

16. **Maquoketa Caves State Park** in Jackson County has a shaded, level, non-modern camping area which normally receives moderate pressure. The 192 acre park attracts visitors not only to the 13 caves for which the park is named, but to scenic foot trails with their hanging ferns, wildflowers, bluffs, balancing rock formations and natural rock bridges. Some of the caves, which honeycomb the valley floor are large enough to walk through and are particularly attractive on hot summer days as the temperature inside remains a cool 55 degrees year round. Pathways marked by signs and electric lights lead the way underground.

17. A pretty, timbered camping area receives moderate use at **Palisades-Kepler State Park**, located between Mt. Vernon and Cedar Rapids.

This is a large, rugged nature park with scenic nature trails running along the bluffs and deep ravines overlooking the Cedar River. A marked nature trail identifies Indian mounds and a lookout tower affords an excellent view of the surrounding countryside. A boat ramp provides access to the river (no motor limits) which is dammed at the lower end of the park. Fishing for northerns, catfish and walleyes is fair, above and below the dam.

18. **Pikes Peak State Park** near McGregor in Clayton County is noted for its magnificent, panoramic view of the Mississippi River. Situated atop one of the highest bluffs in Iowa, Pikes Peak is a beautiful picnicking and sightseeing park. The modern camping area is level and shaded, and receives moderate to heavy use.

Although some easy-walking trails are being established in the area, pictured rock trail in the park is probably the toughest in the state. It winds down the rocky, multicolored sandstone bluff, under bridal veil falls, past the sand caves and down to the river. The trip is almost straight down, (and of course, straight back up) but well worth the effort.

In the vicinity are Effigy Mounds National Monument, trout fishing in numerous small streams and Yellow River Forest. Iowa's "Little Switzerland" area is famous for its outstanding scenery, especially during autumn.

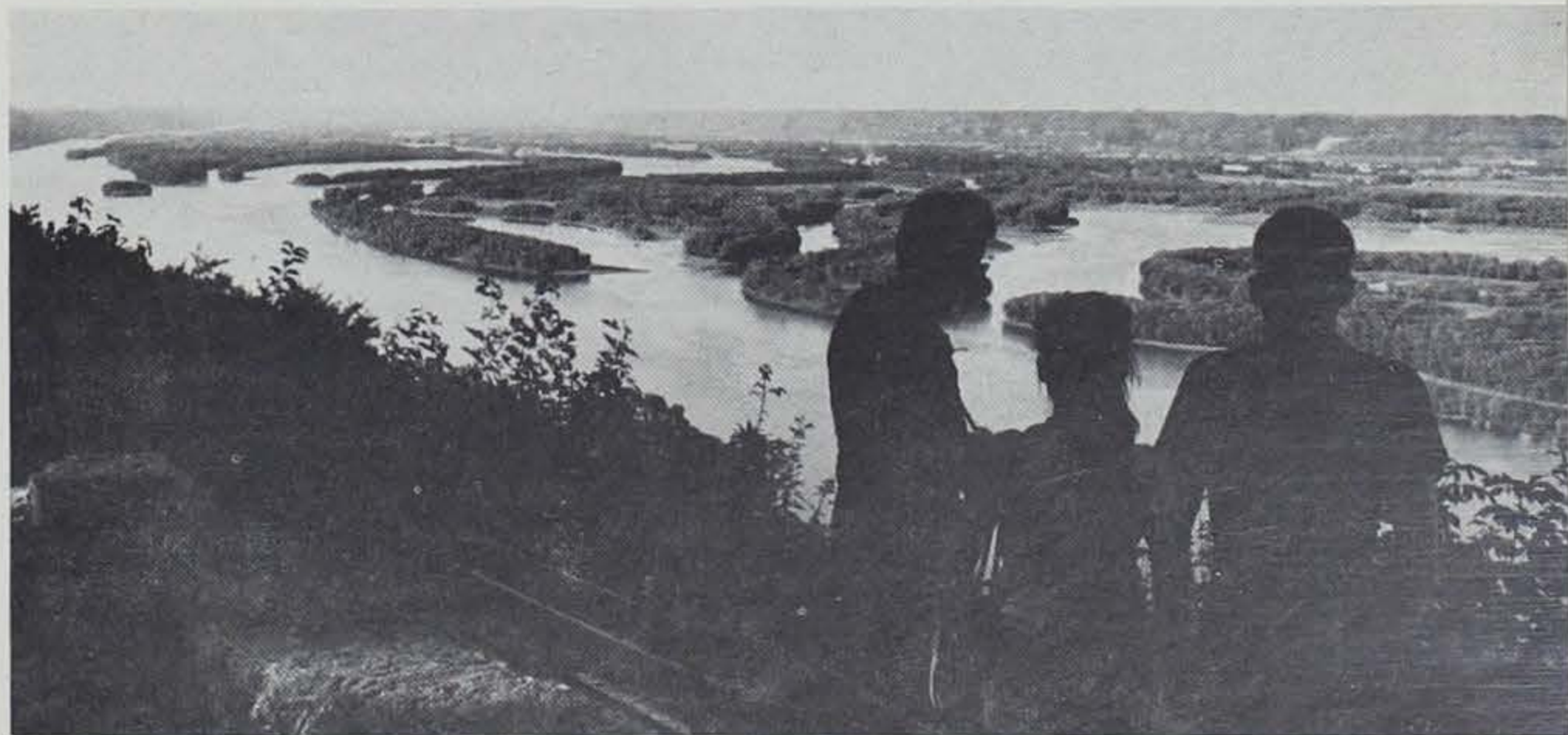
19. Individual camping at **Pine Lake State Park** ranked fifth in the state in 1971. The park actually contains two impoundments, Upper and Lower Pine Lakes, and the modern camping area overlooks Upper Pine Lake. A nearby concession rents boats and motors up to the six horsepower limit. A beautiful wooded island marks Lower Pine Lake, where electric trolling motors are permitted. A concession and beach facility with a supervised swimming beach are provided along the north shore of Lower Pine.

Both lakes offer some fine crappie, bluegill, and bass fishing. A 9-hole golf course lies near the camping area. The central Iowa park is located just north of Eldora.

20. Campers seeking a little elbow room might try the small non-modern area at **Union Grove State Park**. The area overlooks a 110 acre lake with a concession, boat rental, unsupervised beach, and a boat ramp. The lake was rejuvenated in 1970 so fishing should pick up next year. Union Grove is about 10 miles northeast of Marshalltown.

21. The non-modern camping area at **Wapsipinicon State Park** gets fairly low use. The 248 acre nature park near Anamosa offers hiking along the lovely Wapsipinicon River, and splendid scenery. Wildflowers and moss adorn the rock ledges and wildlife abounds.

The "Wapsi" is an excellent smallmouth bass and catfish stream. The oldest white pine planting in Iowa is within view of the road.





### Zone 3

22. The grassy, non-modern camping area at **Green Valley State Park** near Creston in Union County lies right on a 390 acre impoundment. A boat ramp and dock are located there and a beach facility, supervised swimming area, concession and boat rental are a short walk from the campgrounds. Fishing is fair to good in the spring for bass, crappies, bullheads, and catfish. Water-skiing is allowed on Green Valley in a confined area. Check with the park officer for specific regulations.

23. **Lake Anita State Park** was developed in the early 60's. This modern camping area is situated on terraces overlooking the north side of the 171 acre lake. The western section of the campgrounds is shaded and offers a scenic view of the dam. A boat ramp is adjacent to the camping area and a concession, boat rental, and beach facility are a short drive around the bay. The outboard motor limit is six horsepower. Anita is a clear lake and has excellent crappie, bass and bluegill fishing. The park is lo-

cated near the town of Anita, just off I-80 in west-central Iowa.

24. Camping at **Lake Ahquabi State Park** is very popular partly because of its proximity to Des Moines (in 1971 it ranked seventh in individual camping). Ahquabi is a heavily timbered park with a nice system of foot trails, one leading from the campgrounds, across a small causeway, and to the restaurant type concession area. Boats may be rented there and the popular beach is supervised. A boat ramp is conveniently located at the camping area. Lake Ahquabi is located about five miles south of Indianola in Warren County.

25. **Lake Manawa State Park** near the Council Bluffs-Omaha area has a modern camping area, but access will be limited due to re-surfacing of park roads this summer. This Missouri River oxbow has boat ramps, picnic areas, and a supervised swimming beach. There is no horsepower limit on the lake.

26. **Lake of Three Fires State Park** is one of several pretty lake-parks in southern Iowa. Beautiful timbered hillsides dotted with wildflowers and redbuds provide the background for the 125 acre man-made lake. The campground is shaded by large oaks and runs right down to the lake. A boat ramp accommodates boaters at

the campground or a short walk leads to the boat rental, concession and beach facility. Outboards up to six horsepower are allowed, and fishing is good for bass, panfish, and bullheads. Lake of Three Fires is located north of Bedford in Taylor County in southwestern Iowa.

27. Located on the Missouri border just 10 miles east of I-35, **Nine Eagles State Park** has two modern campgrounds, overlooking a 56 acre lake. The east area is grassy with a few trees, the west area is heavily shaded. A trail leads about a quarter mile from the camping area to the concession and beach area. Boats may be rented and electric trolling motors are permitted.

The park is beautiful in the spring — wildflowers, flowering crab and redbuds are everywhere.

28. **Pammel State Park** is a relatively small, quiet, secluded area in the rough, hill country along the Middle River southwest of Winterset. The small non-modern camping area is heavily wooded and overlooks the winding Middle which produces some fine catfish. A pretty picnic area and shelter border the camping area. Foot trails switchback up and down hills adorned with a wide variety of wildflowers. A tunnel cut through an old limestone bluff leads to the camping area which receives light use.

### Zone 4

34. The non-modern camping area at **Bob White State Park** near Allerton is seldom crowded. The area consists of a grassy, gently sloping hillside, about a quarter mile from the unsupervised beach and concession area. Motors up to six horsepower are permitted on the 115 acre lake where panfishing is fairly good.

35. **Geode State Park** was named after the state rock found only in the southeast corner of Iowa. The park is better known however, for the excellent fishing to be found in its 205 acre lake. Largemouth bass that top eight pounds are occasionally caught and panfishing is usually productive. The modern camping

area is a short drive from the lake where a beach facility, concession and boat rental are located. In '71, the area ranked fourth in total individual campers. A scenic foot trail follows the wooded shoreline, and another trail leads to an old cemetery used in the early 1800's. Geode is located about 10 miles west of Burlington.

36. **Honey Creek State Park** is on the north shore of the largest lake in Iowa, 11,000 acre Rathbun Reservoir. The park is still in the first phase of development — facilities available this summer include a modern camping area, unsupervised beach, heated

shower building, and a four lane cement boat launching ramp.

Rathbun Reservoir is a clear water, federal impoundment, popular with boaters and water-skiers. The fishing should be excellent for catfish, crappies, and bullheads. Bass, muskies and walleyes are still small.

37. **Lacey Keosauqua** is a large, popular park on a bend in the Des Moines River in southwestern Iowa. The modern campground is level, heavily timbered and about a quarter mile from the beach facility - concession - boat rental area on the 130 acre lake. One of the scenic, well developed foot trails takes visitors past numerous Indian mounds

29. **Prairie Rose State Park** is a lightly timbered, 10 year-old lake-park, located about eight miles north of I-80 in Shelby County. The non-modern camping area is rolling and partly shaded. On the opposite shore of the 218 acre lake a swimming beach, concession, and boat rental (six horsepower limit) are located. Prairie Rose is a good crappie and bass lake.

30. **Springbrook State Park** near Guthrie Center is known for its splendid spring scenery, large variety of wildflowers and wildlife — especially deer. Several nature trails — one circling the 30 acre lake — meander through this 680 acre wooded park. A concessionaire rents boats near the popular supervised beach. The large modern camping area is very heavily used, and ranked sixth in individual campers last year. The Iowa Conservation Commission Education Center is located near the east entrance of the park.

31. **Viking Lake State Park** has a large, modern camping area adjacent to the 150 acre impoundment. Located in a scenic valley, the campgrounds are very heavily used and may be expanded. A boat ramp is available at the camping area (six horsepower limit). Boats may be rented at the concession-beach (unsupervised) area, located about one-

and Ely's Ford, a river crossing used by the Mormons (the Mormon Trail is still visible here). A State Forest Unit (Shimek State Forest) adjoins the park.

38. **Lake Darling State Park** has a new beach facility, concession, boat rental and ramp just a short drive from the heavily used modern camping area. A good sailing lake, Darling is a 400 acre lake allowing motors up to six horsepower. The 1400 acre park located near Washington includes a pretty hiking trail system.

39. **Lake Keomah State Park** has a small but very popular modern camping area, just a short drive from the beach facil-

**Bridle trails are available at several State Parks.**

half mile from the campgrounds. Viking lake is a good bass and bluegill lake.

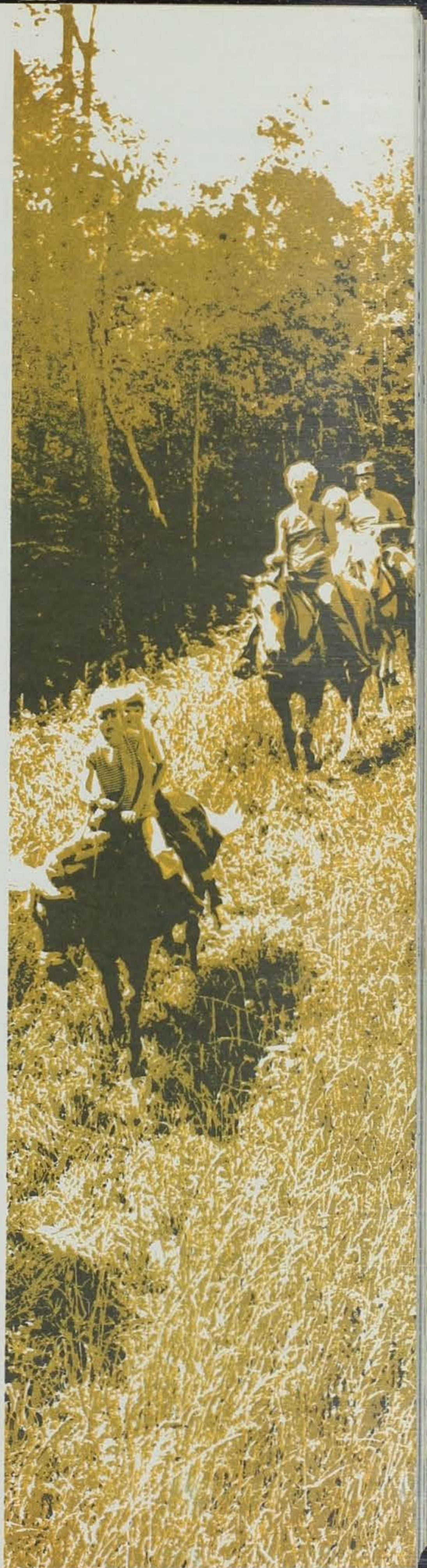
32. **Walnut Woods State Park** contains one of the largest stands of mature walnut trees in Iowa. The small, non-modern camping area is a short distance from the Raccoon River. Walnut Woods is located just south of Des Moines, about two miles east of I-35.

33. **Waubonsie State Park** is comprised of the rugged loess hills in the extreme southwestern corner of Iowa. Some of the best hiking trails in the state wind along the sharp ridges and wind-blown bluffs overlooking the vast Missouri River bottomland. From several overlooks, four states — Iowa, Nebraska, Kansas and Missouri can be seen. Yucca plants, pawpaw trees, and maiden hair ferns are abundant along the trails. The scenery is magnificent in spring and fall and the modern camping area receives heaviest use during those seasons. Another campground presents a starting and finishing point for eight miles of scenic bridle trails which rank among the best in Iowa. A watering tank and arena are also available here.

ity, concession, boat rental and ramp. The lake is only 82 acres so electric trolling motors are the limit. Foot trails surround the lake and a separate camping area is designated for organized youth groups. Lake Keomah is located east of Oskaloosa.

40. Of the two camping areas at **Lake Macbride State Park** the non-modern area is the prettiest. It's a beautiful, timbered site, right on the 930 acre lake, and receives much less pressure than the busy, modern area. Macbride ranked second in individual camping in 1971.

Macbride is limited to six horsepower and is a popular sail-



ing and fishing lake. A supervised beach, concession and boat rental are near the modern camping area. Boat ramps are available on Lake Macbride, and on Coralville Federal Reservoir which adjoins the State area. Macbride is located north of Iowa City.

41. Because of its nearness to Rathbun Reservoir, **Lake Wapello State Park** will probably be even more popular this summer. This 1,143 acre park is located about 20 miles southwest of Ottumwa in southern Iowa. The 287 acre lake is a pretty one; its timbered shoreline and many bays produce nice bass, bluegills, crappies and catfish.

The modern camping area overlooks the lake and is a short drive from the beach facility and concession. Boats may be rented with

motors up to six horsepower. A state fish hatchery raises bass and panfish at Lake Wapello.

42. The modern camping area at **Red Haw State Park** is located on a shaded ridge overlooking the 72 acre lake. The park is beautiful in the spring — dense rolling timber gives way to clearings where picnickers view the lake activity. The lake itself is limited to electric motors and ranks as one of the very best panfishing lakes in the state. A beautiful beach facility with supervised swimming is located a short drive from the camping area. Rowboats may be rented at Red Haw, located just southeast of Chariton.

43. The 640 acre lake at **Rock Creek State Park** was rejuvenated a few years ago, jetties were added and the watershed im-

proved. People apparently like the clearer water and better fishing because last year Rock Creek entertained more individual campers than any other state park. The activity is centered around the lake where sailing, boating (six horsepower motor limit), swimming at the modern beach facility, and fishing for bass, bullheads, and catfish are the main attractions. A boat rental, ramp and concession are available at the camping area. Rock Creek is located a few miles north of I-35 near Grinnell.

44. The old grist mill at **Wildcat Den State Park** was built in 1850 by an early settler in Muscatine County. The mill is open to visitors on Sunday afternoon

(Continued on Page 16)



## outboard troubles

In this day of advanced technology and the sophisticated modern outboard motor, many boatmen are unfamiliar with the mechanics of their engine. But just a few tips may prevent a lost weekend.

For example, what do you do if your engine won't start. First check the fuel system. Make sure the tank isn't empty and the fuel lines aren't kinked. Also check to see that the line is connected at both ends and that it is not being pinched under a tank or at some other spot. The condition of the engine's filter can also be a factor.

If a warm engine won't start chances are it's flooded. To remedy this, disconnect the fuel line at the motor, advance the throttle and pull the starter rope several times. Then reconnect the line, squeeze the priming bulb and give it another try. This should do it.

### Check Spark Plugs

Rough idling is another common but easily corrected problem. Turn the low speed carburetor setting knob slowly until the engine smooths out. Defective spark plugs and improper fuel mixtures can also cause rough idling.

If the motor is sluggish at full throttle, poor spark plugs are more likely the answer. If inspection shows them to be fouled or burned, they should be replaced. Plugs can also be cleaned but for the small cost involved it's a better idea to put in new ones.

Poor high speed performance can also be caused by other factors which can usually be quickly found by a qualified marine dealer.

Excessive vibration while the boat is underway is often due to a bent or broken propeller. If the prop is good, check to be sure weeds haven't caught on the lower unit. It's a good idea to have your prop checked periodically for proper pitch. At the same time, ask your dealer if the propeller you are using is right for the boat and load you are pulling.

These are basic answers to a few common problems. A little knowledge of outboards can mean the difference between fun afloat and frustration. Your owner's manual is also a handy guide to adjustments and it should be handy at all times aboard your boat as part of a tool kit. ☆

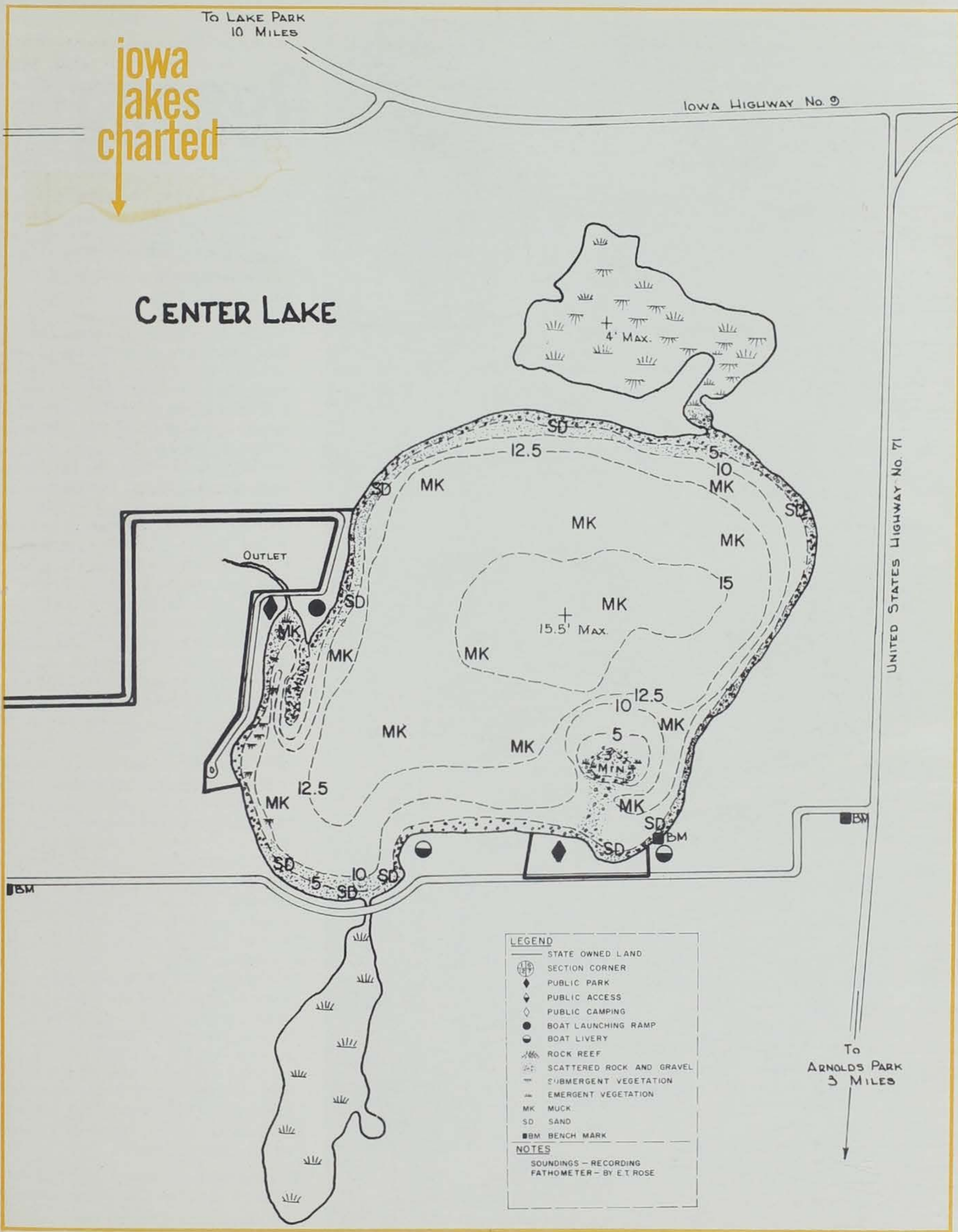


Iowa lakes charted

To LAKE PARK 10 MILES

Iowa Highway No. 9

# CENTER LAKE



UNITED STATES Highway No. 71

To ARNOLDS PARK 3 MILES

**LEGEND**

- STATE OWNED LAND
- ⊠ SECTION CORNER
- ◇ PUBLIC PARK
- PUBLIC ACCESS
- ⊕ PUBLIC CAMPING
- BOAT LAUNCHING RAMP
- ◐ BOAT LIVERY
- ⊞ ROCK REEF
- ⊘ SCATTERED ROCK AND GRAVEL
- ⊙ SUBMERGENT VEGETATION
- ⊚ EMERGENT VEGETATION
- MK MUCK
- SD SAND
- BM BENCH MARK

**NOTES**

SOUNDINGS - RECORDING FATHOMETER - BY E.T. ROSE



# Catfish Rearing

By Jerry M. Conley  
 Fisheries Superintendent  
 Bob Middendorf  
 Fisheries Biologist

Ask the average Iowan what fish he's most interested in catching and chances are he'll answer emphatically "Catfish!" This scaleless member of the Iowa fish family not only is a welcome sight in the frying pan and a worthy challenger on the line, but grows to a trophy size throughout the state. For anglers living close to a stretch of Iowa's 20,000 miles of streams, the majority of which contain catfish, this interest can be easily converted into fish on the stringer. For those less fortunate in location or discouraged by the angling knowledge required to be successful in stream fishing, Iowa's unique, first in the nation, cooperative cage rearing program may supply the catfish to satisfy their interest.

Most of Iowa's fisheries biologists have felt for some time that the biological requirements were present in many of our small impoundments to provide better catfish fishing than actually existed, without affecting other species such as bass, crappies and bluegills. Following an initial stocking, a new lake would normally provide good catfishing for several years, but then gradually cease to exist as a catfish producer. With the demise of many of our better catfish producing streams (mainly through siltation and straightening) it becomes increasingly important that better catfishing be provided in these small impoundments.

Past catfish stocking results indicated that the best hope of providing better catfishing in these lakes lies with stocking catfish

large enough to escape the heavy predation by the bass, crappies, and bluegills present in most lakes. Based on these observations, our catfish stocking program was modified. Catfish fry and small fingerlings will be used only on new waters where established fish populations were not present and 8-10 inch catfish will be stocked in older waters with established fish populations. Starting in 1970, Iowa's warm-water hatcheries began producing these larger sized fish for release into state-owned waters. Iowa's fish managers, however, are responsible for management of both state-owned and, in most cases, county conservation board waters. These county board owned waters comprise some 2,500 water acres. The importance of these waters lies not so much in their total acreage as in their proximity to the population centers of the state.

As with our state-owned lakes, our past catfish program on these impoundments was not giving us the desired results. Our hatchery system, however, was not capable of producing the number of large catfish required for both state and county board waters. The problem was simply how to provide enough numbers of large catfish to give good results in these county board areas. From this dilemma came the beginning

of Iowa's cooperative catfish cage rearing program. Fish cages, which are simply floating wire covered enclosures that are used to protect catfish from predation while being reared to a large size, have been used successfully on an experimental basis in the southern United States for several years. During 1970, cages were constructed by fisheries personnel and placed in four different state waters to test the feasibility of cage rearing under Iowa conditions. Armed with the information from this experience, 25 county boards were approached and asked to participate in a cooperative cage rearing program on these lakes in 1971. Individual boards were selected based on the availability of manpower to feed the fish daily and where waters existed that would provide good growing conditions for catfish after release.

Under this program, the Conservation Commission provided the catfish and technical information required for the program and periodically sampled the fish for determining proper feeding rates. The county boards constructed the cages, purchased the necessary fish feed, and fed the fish throughout the growing season. Fish were stocked as 4-inch fingerlings in May and released in the various waters in late September or early October. Ap-

proximately 500 fish were placed in each cage. Care was taken to anchor the cages in deep water where good water circulation was possible. Fish were fed 4% of their body weight once daily with a 40% floating trout chow. Feeding rates were recalculated every two weeks based on and feeding schedules readjusted.

#### 1971 Results

While some minor problems were experienced, the results of the rearing portion of this program went beyond our rather high expectations. Approximately 84,000 catfish were stocked statewide in cages in May that weighed in total some 2,850 pounds. In late September and early October, over 80,000 catfish were released that weighted some 30,000 pounds. This represented a 95% survival of the fish and a weight increase of over 1000% in just a few short months! Fish ranged in length from 9 to 16 inches and averaged 10 inches statewide, more than adequate to escape all predation. Pounds of fish stocked per acre ranged from 5 to 128. Food conversion rates, the amount of fish fees required to provide a pound of fish, averaged around 2.0 with some areas as good as 1.4. Cost per individual fish stocked, excluding labor costs, was around 12c. This was certainly considered a reasonable cost for stocking a fish that state-

#### CAGE REARED CATFISH STOCKED IN 1971

LAKE	COUNTY	Acres Water Stocked	Lbs. of Fish Stocked Per Surface Acre	Fish Stocked Per Acre
Meyers Lake	Winneshiek	38	11.1	28
Winterfield Area	Sioux	17	29.0	85
Dog Creek	O'Brien	35	13.2	54
Smith Lake	Kossuth	53	18.8	70
Eldred-Sherwood	Hancock	25	20.8	72
Badger Lake	Webster	60	18.0	59
Gravel Pit	Black Hawk	60	4.9	25
Fontana Mills	Buchanan	60	19.3	60
Stern Lake	Crawford	15	12.2	76
Swan Lake	Carroll	130	15.2	63
Spring Lake	Greene	49	29.5	61
Don Williams	Boone	160	18.9	45
Hickory Grove	Story	110	7.9	22
Hannon Lake	Benton	45	33.4	86
Central Park	Jones	24	29.2	94
Manteno Lake	Shelby	11	17.6	82
Easter Lake	Polk	228	22.2	60
Mariposa	Jasper	19	128.1	218
Diamond Lake	Poweshiek	130	28.5	50
Kent Lake	Johnson	30	32.9	87
Cody Lake	Scott	6	68.0	191
Arrowhead	Pottawattamie	16	20.4	96
Cold Springs	Cass	16	45.5	142
County Lake	Marion	7.5	44.1	82
Marr Park	Washington	4	39.0	74



wide averaged 10 inches and weighed one-third to one-half pound (see list of lakes stocked).

The cooperative catfish cage program at this stage, however, cannot be considered a success based solely on the results of the rearing portion of the program. Our objective in stocking fish of this size is to increase their chance of reaching the anglers creel. Whether or not this end is achieved will be determined in 1972 and subsequent years from the creel census programs that will be conducted on representative waters. But, there is every reason to be optimistic based on the catchability of these fish after they were released last fall. For example, even though water temperatures were quite cool when catfish were released, some areas reported that over 25% of the total number of fish stocked were taken in the subsequent weeks before freeze-up. The remaining 75% will provide a good stock for evaluating results in future years. Eating quality of the fish taken was quite high. Many people expressed the opinion that they were the finest tasting catfish they had ever eaten.

#### Future Program

The cooperative cage rearing program is designed to be a continuing program of yearly rearing and release. In 1972, the program will increase to some 150,000 fish with the addition of other areas to the program and increased stockings in certain waters. Stockings are presently being made at the rate of 100 fish/surface acre. This rate may increase or decrease in the future based on our creel findings.

It is also apparent from the 1971 results that the possibility of a "put and take" catfishery similar to Iowa's trout program exists. The main obstacle to this type of program is rearing fish large enough for put and take stocking while the waters are still warm enough for good fishing. To undertake a catchable program, fish would have to be 7-9 inches when placed in the cages in May. Our present hatchery facilities are not sufficient to

produce the numbers of the size fish that would be required. The Conservation Commission, however, has initiated the preliminary phases of construction on a 2.5 million dollar installation below Rathbun Reservoir that is designed to provide the fish required for this type of program. Completion of this facility is not scheduled until 1975-76. During the interim period, we will, in cooperation with one or two selected county boards, be testing the possibility of this type program by trapping 8-10 inch catfish from inland rivers.

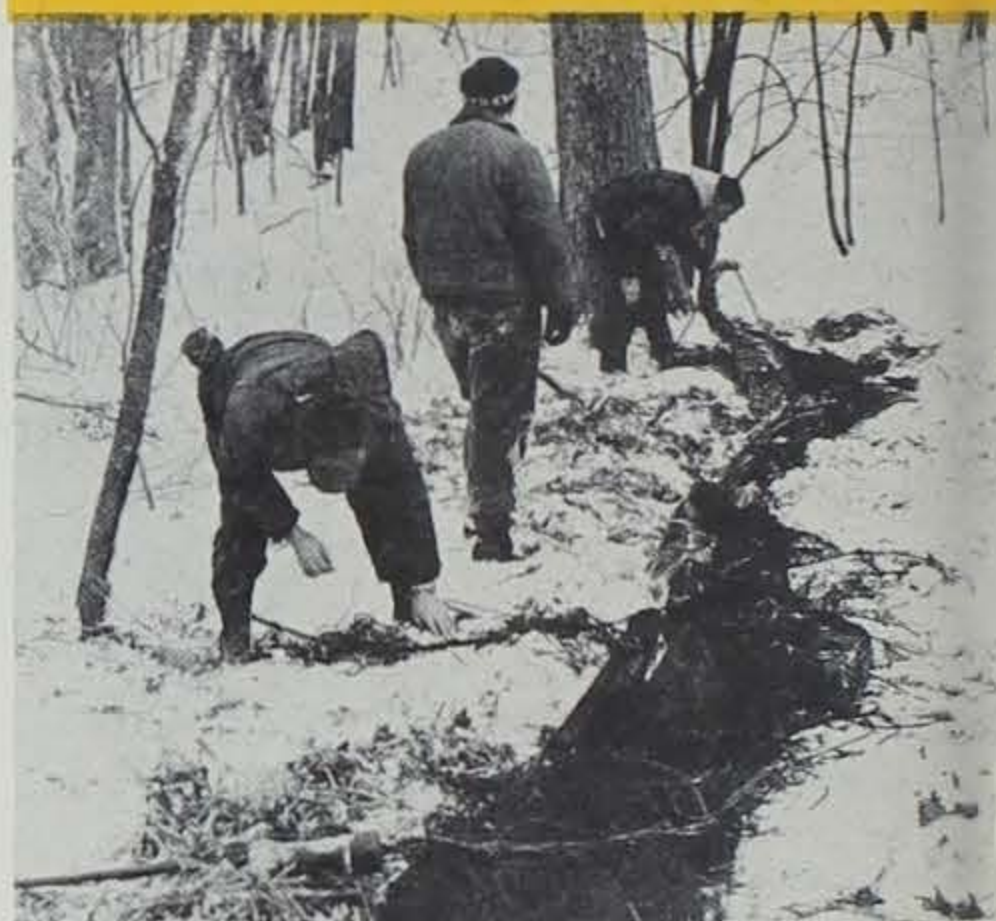
#### Farm Pond Application

This program does have direct application for the pond owner that wishes to provide catfishing in his farm pond or grow fish to an eatable size. Catfish can be purchased from private hatchery sources and placed in home-made cages. Cage size is not critical as large numbers of catfish can be placed in small cages without harm to the individual fish. For example, some of the cages in the rearing program prior to stocking contained some 135 pounds of fish per cubic yard. Placement of the cage in the pond is quite important. Care should be taken to ensure 1½ to two feet of space between the cage bottom and the pond bottom. Also cages should be placed in areas that are subject to good wind action to increase circulation throughout the cage. A floating food that contains all necessary fish dietary needs must be fed as fish receive little or no natural food while in the cage. Before initiation of this type of program in your pond, it is recommended that you contact one of the participating county boards or a local Conservation Commission representative for more detailed information. In the future, pamphlets will be made available that describes the cage rearing process in more detail.

If you're a dyed-in-the-wool catfisherman or a novice eager to learn the fun of catfishing, give one of these county board areas a try. Those cage reared catfish bite, fight, and eat well. The rest is up to you. ☆



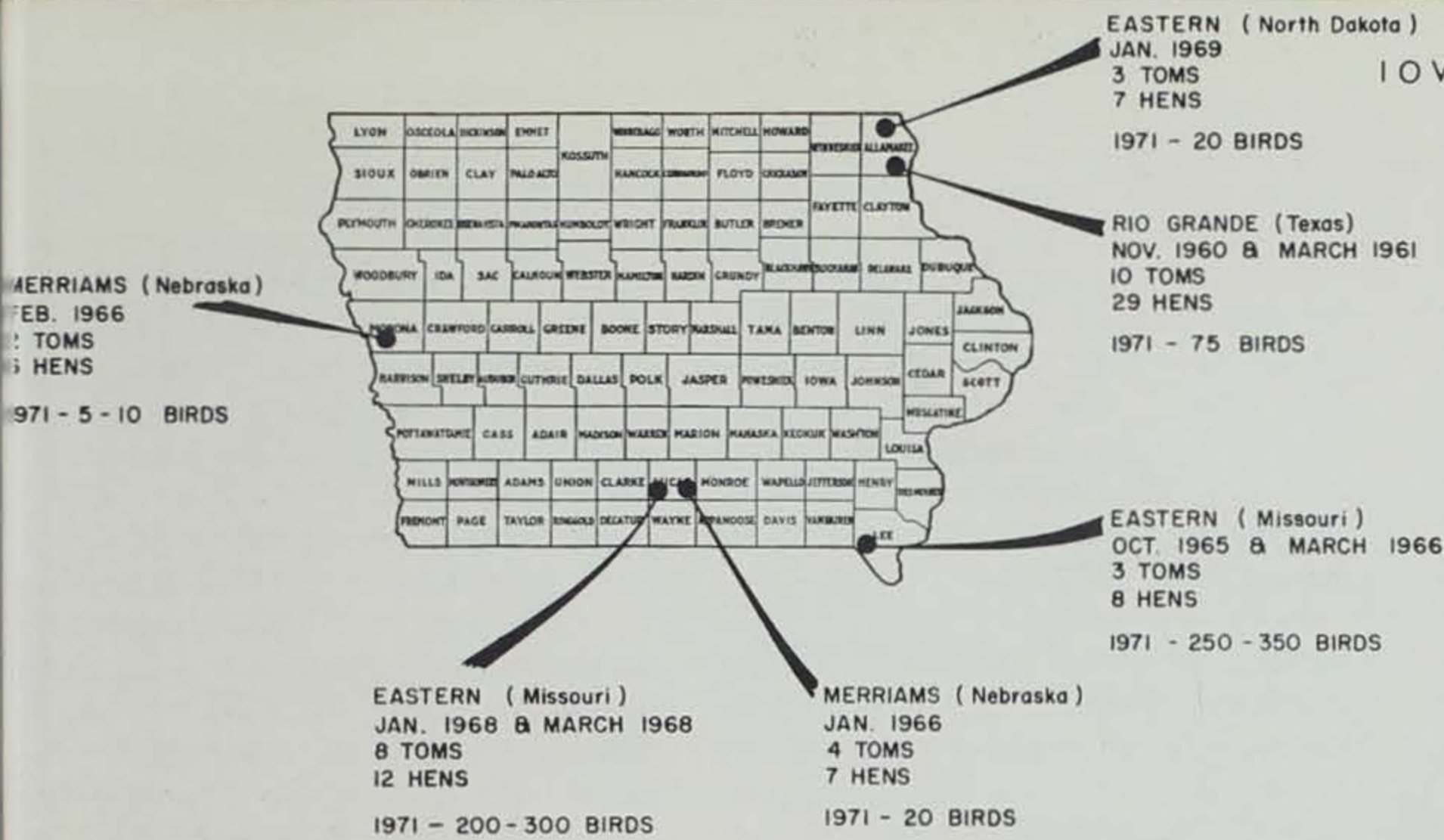
By Bob Sheets  
Wildlife Biologist



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## to trap a turkey

In 1907 the last official sighting of a wild turkey in Iowa was reported in Lee County. Extensive logging had begun, massive timber tracts were levelled and the native wild turkey population virtually disappeared! In years past, Indians that lived along the Mississippi River would frequently arrive at Prairie du Chien, Wisconsin pulling sleds loaded with 20 to 30 wild turkeys for sale. Although merchants in Muscatine paid 50 cents per bird in 1854, better prices could be found further north and to many Indians, the trip was worth it. But with the disappearance of people able to recall these accounts, so passed the pang of regret that came from knowing the gallant bird was gone.

The logging era finally ground to a halt in the late thirties and early forties. The sawdust cleared and there laid a state with thousands of timbered acres carved out to make way for new cropland. But much of the southern Iowa terrain gave landowners a run for their money. Soil fertility was low, crops failed, bank accounts dwindled, and many farms were abandoned. While man moved away, nature began to regenerate second growth hardwood forest over a number of watersheds. Today much of this forest land is reaching a state of growth again capable of supporting moderate wild turkey popula-

tions. So the current challenge presents itself — re-establishing wild turkeys wherever suitable habitat exists.

Restocking efforts and relative success to date are shown on the map. As you can see, the eastern strain of wild turkey originally obtained from Missouri is the bird on which future hopes are being placed. It has shown strong wild traits, good reproduction, and fast distribution — three traits that have allowed an early chance to begin our own trap and transplant program.

Shimek State Forest in Lee County and Stephens State Forest in Lucas County now have turkey populations capable of providing transplant stock without endangering the resident flocks.

As a result, biologists confidently set out to help distribute this wild species. The trapping system consists of 40 foot x 60 foot cannon nets, set at strategically baited areas throughout the forests, armed with recoilless rockets to instantly jettison a net over a feeding flock. All that is needed is a distant observer equipped with a small battery and the knowledge of when to fire. "Foolproof" plans were made in early winter and operation "To Trap a Turkey" began. The following account of one day's experience reveals a quick lesson learned in turkey behavior.

Date: 2-2-72

Time: 9:15 a.m.

Weather conditions: 28° and snowing heavily.

Comments: Turkeys most likely in roost.

Situation: Routine arrival to maintain bait at trap site — 25 turkeys surrounding trap site! Observation blind containing ignition wires surrounded by 8-10 turkeys.

Comments: They were **supposed** to be roosting.

It was quickly learned not to second guess this wily creature!

Not all has been discouraging however. On January 11, a flock of 15 turkeys approached a bait line, devoted seconds to viewing a distant hut, then proceeded to lower their heads and eat. One bird stood sentry for a short period but soon joined the rest. A split second later all birds were beneath a net waiting to be sacked for shipment to a new home. The first catch of 15 has been transplanted to Lacey-Keosauqua State Park. The park and adjacent state forest land contains 2400 acres of public timber with hundreds of privately owned forested acres extending up and down the Des Moines River. Another release site that has already received 14 birds lies near Unionville, Iowa. These first two areas and several other release sites have been chosen based on their state of timber growth, amount of timber, and extent of



human and livestock interference.

The wild turkey is a deep forest dweller and although our established flocks are trying to survive disturbance from trail bike riding and snowmobiling, a newly established flock must have solitude. They undergo an extreme amount of stress the moment they are removed from their recognized territory. Several months are needed to gain familiarity with surroundings. If all goes well at present release sites, the

birds should reproduce and raise several broods this first summer. Whether this happens remains to be seen; much lies in the hands of nature. But the birds must be left alone! We can make more use of our eyes and cameras and less use of recreational vehicles in areas containing recently released wild turkeys.

Long range plans for the wild turkey in Iowa include a spring hunting season on excess gobblers only. If current rates of reproduction and distribution continue, a restricted number of permits could be issued allowing the harvest of one turkey per hunter per year. Timing of the season would be intended to follow the peak of mating, a period during which most hens have begun to nest and yet gobblers will still respond to a well-executed turkey call. In Iowa this period generally occurs the first two weeks in May. The type of season likely to be proposed will be based on a drawing system allowing a restricted number of permits on areas selected by the Conservation Commission. Legislative approval must come first. Then specific plans can be made.

The important point to be made now is that the wild turkey is a

majestic bird able to provide many hours of enjoyment for the naturalist and the hunter. Iowa now has a re-established resource that is doing its level best to exist in a state inhabited by humans and livestock in nearly every section of land.

Southern Iowa pheasants, quail and deer apparently are adapting to man and his alterations and will probably continue to do so as long as some habitat remains. The wild turkey is making the same noble attempt. The one big element working against it is an approximate 2% reduction in mature hardwood forest each year. There is a large economic demand causing this reduction, but landowners can help by thinking twice before clearing the last remaining timber.

The wild turkey is our largest native North American gamebird. He is a magnificent creature whose presence adds much to the outdoors. The trap-transplant program will no doubt continue for several years. But while this is going on, eyes will be focused on the long range outlook for Iowa's timber resource. If this rate of decline continues, the wild turkey will reach its second and final vanishing point. ☆



## Campfire Cookery

By Dick Ranney

### Portrait of a Fisherman

The answer to, "How much do you weigh" will be, "In the vicinity of 80 pounds." His age, "Eleven and one-half going on twelve." He will have a mop of unruly hair and a smile as wide as the Mississippi River. Although he is growing up in a time and place not of his doing, he will try to please and on occasion will reveal the metal from which he is cut.

He plays baseball, football, builds model cars; doesn't like

girls; does like pizza, Hawaii Five-O, kite flying, and as the saying goes, "frogs, snails, and puppy dog tails." We'll call him "Jon."

Jon is a fisherman. Not just an ordinary fisherman, but a died-in-the-wool, sit-quiet-and-wait, fisherman. His best friends this time of year are fishworms.

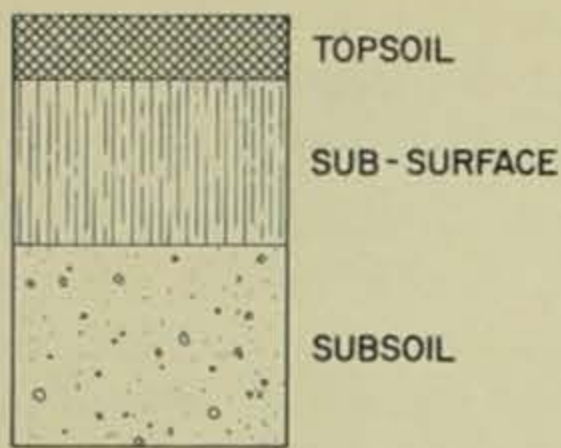
To bring a yell of delight just mention "going fishing." He will check his old 822 Zebco, dig deep into his jeans to see if he has a handful of split shot and a few hooks, and be ready to go. He will be standing at the door waiting for you to make the next move.

You don't have to head for muskie water to please him. He is thrilled and tickled just to go — let alone catch a fish. Jon is on first name basis with sunnies, Mr. Wiskers, pike, perch, bass, walleyes, carp, frogs, and snakes.

He will shiver through rain, snow and dark of nite, or roast under the hot sun until his nose looks like the deer in the Christmas song. If there is a fish to be caught, he will beg to stay a little longer or up a little later.

Jon is a fisherman. His name might be Tom, Mark, Chad, or just plain son. He is waiting for you to ask so chuck all the things that are "so important" aside and say to him, "lets go fishing."

When you get home and have cleaned your string of "lunker's," dust them in a sack containing one cup of yellow corn meal, one tablespoon of flour, salt and pepper. Drop them into a large skillet, filled with enough peanut oil so they deep fat fry. Serve them golden brown with a salad, bread, butter, and a large glass of milk. This is a meal fit for a king — after all he does fit the bill. ☆

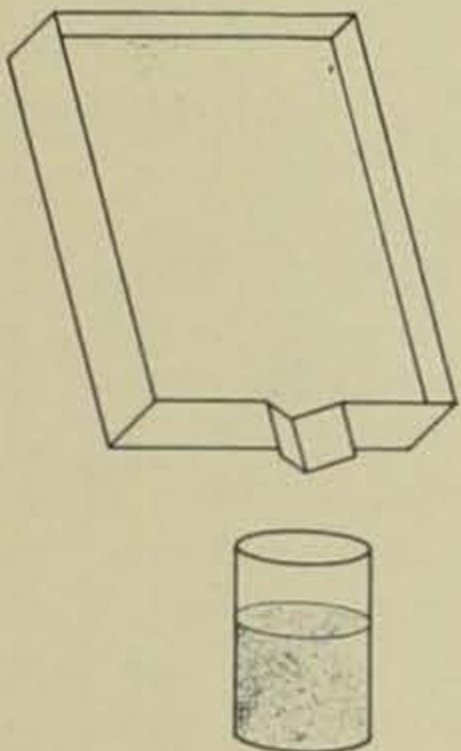


# Classroom Corner

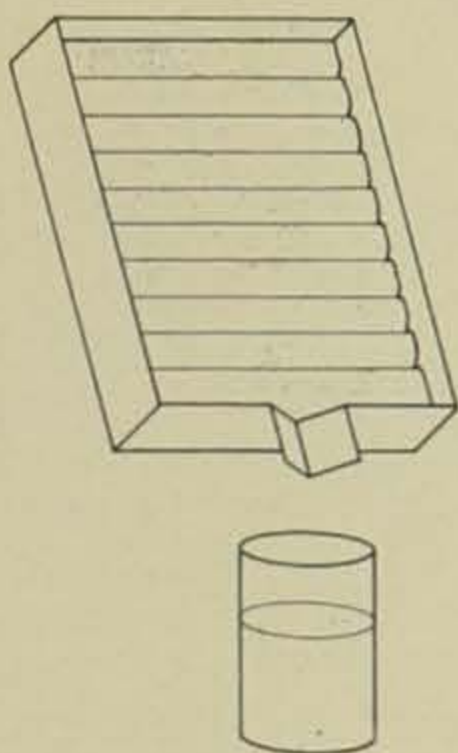
By Curt Powell

Administrator  
Conservation Education Center

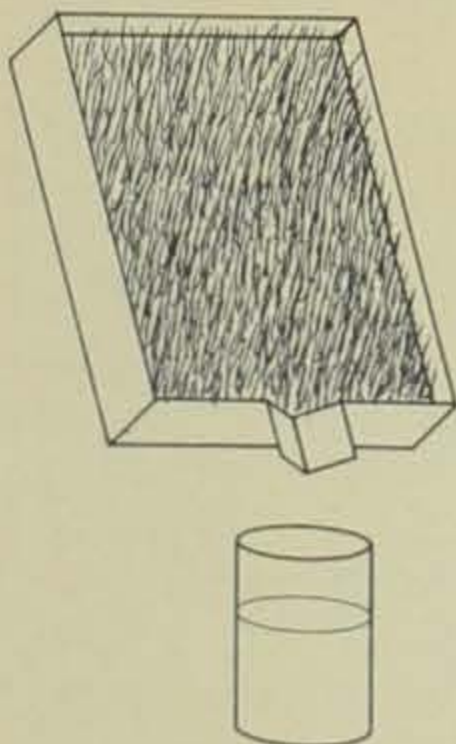
BARE SOIL



SOIL WITH GROOVES



SOD



Most of us have planted gardens, or flowers, or cropland, but how many of us have asked "What is soil and how important is it to me?"

This month's "Classroom Corner" will deal with projects that you may do to learn more about soil and its conservation. We wish to thank the United States Department of Agriculture, Soil Conservation Service for their help in preparing this report. You might stop at your local SCS office and ask for the booklet "Teaching Soil and Water Conservation, A Classroom and Field Guide" PA-341.

Soil is pretty important to our lives. Without it we would have no food to eat or game to hunt or many other things we take for granted. Did you know that most soil is formed from solid rock? Changes in temperature, wind, rain, waves, and other natural phenomenon (happenings) cause rock to break up into fine particles. These small rocks combine with decaying plant and animal particles (called humus) to form topsoil. These top few inches of topsoil are the most important for growing things. When the topsoil is gone, everything else suffers.

The layers underneath the topsoil are called subsoils. A soil profile would look like this:

As you will notice, the soil changes color and feels different, the deeper you dig. Find a place such as a ditch or cut bank where you can see a soil profile. Do you see the differences in color? Does topsoil "feel" different than subsoil? Perhaps, with permission, you might dig a small trench to study the soil.

Do plants grow better in topsoil? Let us find out! You need three flower pots and some cotton in a baby food jar. Fill one flower pot with topsoil, another with subsoil, and another with soil from an eroded area. Plant a few beans in each pot and put a few in the cotton. Keep them all watered and in a warm sun-shiny spot. Is there a difference in growth? Compare them! How important is topsoil? What happened to the beans planted in the cotton?

How much soil does a stream or a rain storm carry away? After a heavy rain take three bottles about the size of a small olive bottle. Fill one with water from a stream that runs through a plowed field; another from a wooded area, and another from a pasture. Let them set overnight. Is there a difference in the soil collected in the bottom of the jar? This is called "sediment." What conclusions do you have from this?

What would happen if rain fell directly on bare soil? Would grass change what happens? Build two small boxes about 12 inches long, 12 inches wide and four inches deep. Line them with plastic to make them watertight. At one end of each, cut a V notch about one inch deep and fit it with a tin spout. Put sod in one and plain dirt in the other. Pour water from a sprinkling can over the dirt and the sod. What happens?

Fill the boxes with the same kind of soil. This time, cover one with straw and again pour the water over both boxes. What happens this time? Refill both boxes and using a stick, dig grooves lengthways in one box and horizontal in the other. Again, pour the water from the sprinklers. Compare the results. Which method saves the most water and topsoil?

After you've completed these experiments, do you know how important topsoil is? What can be done to prevent the loss of topsoil? Does your library have any information on soil conservation? Are there other projects that you might do? ☆

## CAMPING . . .

(Continued from Page 8)

and throughout the week by reservation with the park officer.

Foot trails wind around the 321 acre park which gets its name from the rock crevices which were once the home of wildcats. The non-modern camping area is relatively new, shaded and is used only moderately.

In addition to the state parks

listed above, several areas in the Spirit Lake - West Okoboji Lakes vicinity (Dickinson County) in northwest Iowa have been designated for non-modern camping. They are: **Marble Beach**, **Lower Gar Access**, **Isthmus Area**, and **Emerson Bay**.

A state-owned multiple use area, **Wilson Island**, has a large modern campground with electricity, a sanitary station, and a boat ramp for access to the Mis-

souri River. The area adjoins Desoto Bend National Wildlife Refuge north of Council Bluffs.

**Fairport**, another state owned recreation area with modern camping is located five miles east of Muscatine on the Mississippi River. Electrical outlets and a boat ramp are available.

Numerous other campsites are available at county, city and privately-owned camping areas. ☆

