

# IOWA CONSERVATIONIST

Volume 18

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Park Camping Has Growing Pains

## FAMILY FUN ON A "SHOESTRING"

### "STATE PARK PHILOSOPHY"

Newton B. Drury

**EDITOR'S NOTE:** Newton B. Drury is Chief of the Division of Beaches and Parks for the State of California. During 1941-51, he served as director of the National Park System. He was formerly Executive Secretary of the Save the Redwoods League and has served as Executive Officer of the California State Park Commission. He has achieved national reputation for his achievements in the preservation of outstanding natural areas and the development of valuable recreational areas throughout the country.

(Excerpts from remarks at National Conference on State Parks, Lake Itasca, Minnesota, September 20, 1957.)

There is a state park philosophy in the sense of a set of guiding principles for what we consider an important human institution. Otherwise we would not be here today.

Turning then from park people to the guiding principles—the "philosophy," if you will—of the work in which park people are engaged this unique phase of land and resource management, I think, is distinguished in this: that while other lands are administered to conserve their resources to serve man's material needs, park lands are managed to minister to the human mind and spirit. They are set aside to maintain their beauty, reveal their meaning, and maintain

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At a season of the year when life renews itself, Dutchman's Breeches colorfully announce that Spring indeed has come to Iowa's woodlands.

Keith C. Sutherland  
Editor

Even if you gave it the old Siwash try, it would be hard to find any area of outdoor recreation that has grown to the staggering proportion camping has in the last few years.

Interest in living and loafing in the open has mushroomed to a point where it virtually knows no season. If anything, the trend seems to be to push the camping calendar ahead a little each year. It's not a fanciful notion, but a fact that campers and camp gear begin to appear in Iowa parks while a skiff of winter snow still clutches at the lowlands and chill winds race over the Good Earth. This means camping activity as early as April and occasionally in March. Photographers Jim Sherman and George Tovey's photos, which illustrate this article, underscore this point. All of the photos were taken in Iowa parks early in April.

Interest being what it is, the camper no longer thinks lush weather is a requirement for camping. Maybe he'd a little rather have it for personal comfort, but in this day and age, he's so "wrapped up" in camping, he'll put up with a little adversity to take his housekeeping and cares into the outdoors. Of course, as the season wears on and the weather gets better, the camper will be doing more and more of it and he'll have more neighbors as vacationers hit the trail.

State parks offering camp facilities are within a few hours drive of every Iowan and, whether he camps early or late, there's never a recreational doldrum. Bird and nature study and hiking are available at all parks. Fishing, swimming and boating are additional recreation at the "lake parks." The fact that state parks are near means the camper can "test run" camping equipment overnight or on weekends, before extended camping junkets he might plan

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## Geology at Rock Creek Park

Charles S. Gwynne  
Professor of Geology  
Iowa State College

Perhaps the reader will ask at once, "Well, what matters of geological interest could there possibly be in Rock Creek State Park?" "After all," he might add, "the terrain is much like that of most of southern Iowa. There is a lake, to be sure, but what of that? In spite of the name 'Rock Creek', there do not seem to be

any rocks about; so what can possibly be said about the geology that will be of some interest?"

Let us see. In the first place, the presence of the lake itself needs to be accounted for.

"That is easy," the reader may also say, "for it is a man-made lake. A dam was placed across the valley of Rock Creek, the water backed up behind the dam, and presto! we had a lake."

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## OCHEYEDAN MOUND OFFERED TO STATE

Every Iowan may soon have a claim on the state's highest point!

Ocheyedan Mound in northwest Iowa has been offered to the State Conservation Commission by V. C. Shuttleworth, a Cedar Rapids attorney. Shuttleworth's parents were pioneer settlers in Osceola County and farmed the land on which the Mound is located for many years. They have protected the Mound since the 1890's despite offers from commercial interests to buy gravel and sand from it.

The Commission has accepted the Mound as a state preserve and would develop it as such. It would be allowed to revert to native grasses and flowers. Some native grasses are now present on the Mound, and, like Kalsow Prairie in Pocahontas County and Hayden Tract in Winneshiek County, Ocheyedan Mound has never felt the biting edge of a plow.

Development plans would also include the placing of a marker dedicated to the memory of the pioneering Shuttleworths.

Approval by the Executive Council is all that is now necessary for the Mound to pass into state ownership.

Like most of northwest Iowa, Ocheyedan Mound is born of glaciers and glacial action. It is a large, jutting mass of glacial sand and gravel formed by a river or meltwater pouring off the end of a glacier and heaping layer upon layer until a mound or hill is formed. "Kame" is the word geologists give to mounds created by such action. Ocheyedan rises 1,675 feet above sea level—highest point in the state—and is about a quarter-mile long. The Mound is several hundred yards wide and nearly 200 feet high.

Much Indian lore is associated with the Mound, although stories differ about the origin of its name and early use. Some say the name Ocheyedan comes from a long-dead Sioux Chief. Others think Sioux lookouts once scanned distant horizons from the high Mound.

Others have it that the Mound was once a meeting place for Sioux squaws who came to the Mound to mourn their dead. To these, Ocheyedan means "The Place Where They Cry."

There could be truth in any or all of the legends. On the basis of the number of Indian artifacts found in the area, it's pretty well established the Sioux were frequent visitors to the Mound.

## THINGS TO LOOK FOR IN USED BOAT

When the boating bug bites, many charge their boat dealer with cash in hand and latch onto a brand new model. That's fine if you can swing it, but many others get started in outboarding by purchasing a used boat.

Particularly for this latter group, we have assembled some tips about what to look for in used boats we hope will help prospective buyers get top-dollar value for their money.

Look for the following:

... Run the boat and see if it handles satisfactorily.

... Have the boat taken out of the water and check the bottom. See that planking abuts the transom and stem squarely and solidly. Sight along the keel for "hooks" (large concave indentations in the bottom caused by improper distribution of weight during storage). "Hooks" will cause the boat to perform improperly. Be suspicious of cracks which could develop into troublesome leaks. Seams and planks should be so joined as to remain watertight.

... Check for nail sickness (the symptoms of which are spots of rust on the surface of the paint over a nail, or, in some cases, rust streaking down the side of the hull from a nail-hole). If the condition looks bad, chances are you're in for a complete re-fastening job.

... Look inside the hull. See that frames and ribs are sound and uncracked. A badly cracked frame will cause the planks to work and the boat to leak.

... Since most outboard boats are ventilated, the chances of finding dry rot in an outboard hull are relatively slight. However, inspect the boat thoroughly for rot if the boat has been completely covered during a prolonged storage period. If the boat has enclosed spaces, such as cabins, lockers and the like, look for dry rot. Examine under floor boards, decks, etc. If the wood you're inspecting is soft and crumbly and will tear loose at the touch of a thumbnail or screwdriver, it's affected by dry rot. Blistered paint may indicate the condition but is not necessarily a cause.

... A bad paint job, although it will affect a boat's performance, is not dangerous in itself. How-

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Litterbugs: Their Waste Is Costing Us Money!

## It's Time for that Hatch Again

Ah, the Green Days of spring-time in Iowa! Every meadow and hillside is blanketed with the color of newness. Blossoming trees are heavy with the scent of new life and the songs of their feathered inhabitants throb along every rill and valley. It's a time for answering the beckoning call of the open road.

It's a great time to be alive and doing things amid a world that daily parades its spanking new and most colorful finery! But—and we are sorry to have to report it—this time of year, for all its beauty, is not entirely devoid of problems.

It's a simple truth that people on the go and doing things create waste. It's also a simple truth that there will emerge from this group a certain number who will thoughtlessly litter the highways, roadways, picnic and campgrounds with their litter! To these—good "Joes" or "Josephines," though they may be—we give the descriptive, but rather unsavory handle, of Litterbug.

We have all seen this "character" in operation and, frankly, he's about as welcome as irritated hornets at a garden party! He may be one who nurtures his own backyard with loving care, policing every inch with the thoroughness of an MP detail before annual inspection. He may not give a hang around home, or he may be given to long sessions with the wife and kiddies, admonishing one and all to keep the yard and homestead free of every scrap of paper and piece of string.

Take this same fellow, whatever sort he is at home, put him on the open road or in the parks and—blooey—he goes haywire! Sandwich, gum, cigarette wrappers, Kleenex, discarded potato chip sacks, the wrapper the steak came in, the old torn plastic cover from the potato salad dish—you name it, he'll find a place for it.

And he's no piker when it comes

to bottles and cans either! The soda empties that are too much trouble to lug home for the paltry refund, the empty catsup bottle and the peach can that has seen its day get the old heave-ho—out the window, along the highway, or around the picnic area.

One of the hardest things to figure about the Litterbug is that the same fellow would never think of wadding up a ten or twenty-dollar bill and scattering same to the four winds. But that is about what the situation amounts to. He pays with his hard-earned tax dollars to clean up his aftermath. What's more significant, he deprives himself of other facilities and services that might be his if his tax dough wasn't needed to police up his unwelcome debris. Either way you look at it, the Litterbug pays through the nose for his untidy pastime, and he's only kidding himself if he thinks otherwise!

Let's look at a statistic or two from a Iowa Highway Commission study which points up the magnitude of the problem. This state agency has estimated that nearly \$100,000 is spent each year to clear the rubbish from our roadsides. This says nothing of an additional \$10,000 or so in payment for trash damage to mowers, trucks and other vehicles driven along highway ditches. There are no figures on costs of similar work in state areas, but it would probably make a taxpayer suddenly feel a little ill.

All of the honest-to-goodness outdoorsmen I have ever known had at least two things in common: all kept an immaculate camp—never leaving it without first policing the area thoroughly—and had the same disdain for the Litterbug and the eyesore he creates.

Yellowstone or Iowa—east coast or west—the Litterbug problem is the same. Iowa has some fine outdoorsmen and others who are pretty careless. Those who really

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George Tovey Photo

Wild things were born in the wild to live in the wild. Depriving them of wildlife homes and training is unlawful and cruel. Watch and photograph wildlife young, but leave their care to wild parents.

## Nature's Notebook

### EVENTS IN MAY

Heaviest bloom of wildflowers and shrubs. Most prominent of these are wild plum, wild crab, Hawthorne and red buds.

Spring mushrooms make their appearance, including Morels, Inkycaps, and some oyster varieties.

Height of warbler migration occurs in May.

Game birds—pheasants, quail, etc., take up nesting.

Height of shore bird migrations. Plovers, sandpipers and godwits are in this group.

Last of the migratory waterfowl travel through the state, including blue-wing teal, shovellers, and wood ducks.

Nesting of song birds well underway.

Young fox, woodchucks, rabbits and squirrels begin to appear.

First swarms of bees will be in evidence during May.

Spring chorus begins with the "singing" of frogs and toads.

Last of humming birds, wrens, etc., reach Iowa.

Heavy bloom of prairie Flora.

Heavy night flight of song birds.

Spawning of many fish species during May, including the sunfishes, bass, bluegills, etc.

Wild greens available in May, including dandelion, mustard greens, etc.

### EVENTS IN JUNE

Late spring and early summer flowers in evidence during June.

Young birds and mammals now present along the highways. Watch for them when driving.

Some mushrooms species—Inkycaps and oyster varieties—still available during June.

Heavy bloom of weed Flora.

Birds begin transition to summer plumage.

Bird nesting well along with young in nest.

Heavy swarming of bees may be observed during June.

Schools of young bullheads are in evidence during the month of June.

## Leave Wildlife in the Wild

This is the season of fulfillment and birth for the wild birds and animals in the world of Mother Nature. The clarion call of the wild goose has passed beyond Iowa and now echoes over the nesting grounds of northern Canada and Baffin Island. Pheasant and quail hens have selected their mates and have set up housekeeping. The young of cottontail rabbits, foxes and squirrels are already venturing from nests and burrows.

Unfortunately, a good many who will see young game birds and animals in the next weeks labor under the false assumption that they help or save wildlife young by taking them from their wild homes and ways. Actually, they may not only hurt the chances of survival for wild birds and animals by handling or capturing them, but violate conservation laws in the process! It is unlawful to take from the wild any game bird or animal on which there is an established season, except, of course, during the season.

Mother Nature has set down a pretty thorough code of conduct for her wildlife population. She has endowed all wild things with certain characteristics to give them a measure of security and protection. She has decreed wildlife parents to be the best kind of parents—better able than anyone else to teach their young the ways of the wild. The young are taught who and what they can trust and are "toughened" in the exacting discipline of the outdoors.

Man destroys all this when he attempts to domesticate birds and animals born in the wild to live in the wild. Man teaches wildlife youngsters "soft" living, and allows them to mingle with domestic pets wildlife learns to trust. When the day comes for wild young to be released again to the wild, they have missed a vital part of their wildlife education, and fall easy prey to enemies they have never been taught to distrust.

Many people who cart wildlife young from the open do it on the basis that they are "cute," or that "the first dog or cat along will get them anyway," or that the mother has "deserted" her brood.

Wild youngsters are "cute" to be sure—the young of most everything is! But they can be enjoyed as much at a distance as in the palm of a hand. After all, you don't think of digging up trees or wildflowers and carrying them home just because you think them beautiful. No, you leave them in the wild to enjoy again and again! The same reasoning should apply to wildlife young!

About the point of other animals getting wild young, Mother Nature has destined a number of her population to die from this and other factors. A certain number must perish in infancy as a result of extremes or quirks of weather, insufficient food or by accidents of both man and nature's creation. Others must die from sickness, disease or just plain old-age. These things need not concern anyone. Mother Nature is not unjustly harsh or cruel—these are simply her ways of keeping her population in balance so that there is the greatest possible benefit for surviving numbers.

The point about "mother desertion" is most often attributed to deer. When fawns are discovered, they are usually alone, in concealment and seemingly unattended. The doe may not be anywhere in sight. Anxiety immediately grips the heart of the discoverer. But it needn't. It may be a natural reaction to presume the doe has "deserted" her family, but you can bet she's not far away.

The doe conceals her fawn or fawns before leaving them early in the morning. She depends upon the camouflage nature has given her young, and their ability to lie quietly and motionless, to protect them. The doe will spend the day browsing, returning to her young at nightfall. She will, of course, return to the spot where she concealed her young. If they have been moved in the meantime, she may not find them. Or, if human scent is heavy near the lair, she may desert her family entirely.

These are some things to ponder before you attempt to take anything from its wild home and ways. Wild things are to enjoy. Look at them, study them and photograph them—but leave them in the wild where they need and want to be! Depriving wild things of the kind of life and protection Mother Nature intended them to have is to do a disservice—to wildlife, yourself and conservation!

#### MANY NAMES

In the southern coastal states a gopher is a tortoise; in the prairie states it is one of several striped ground squirrels; elsewhere it is a snake.

#### "BITE" SIZE

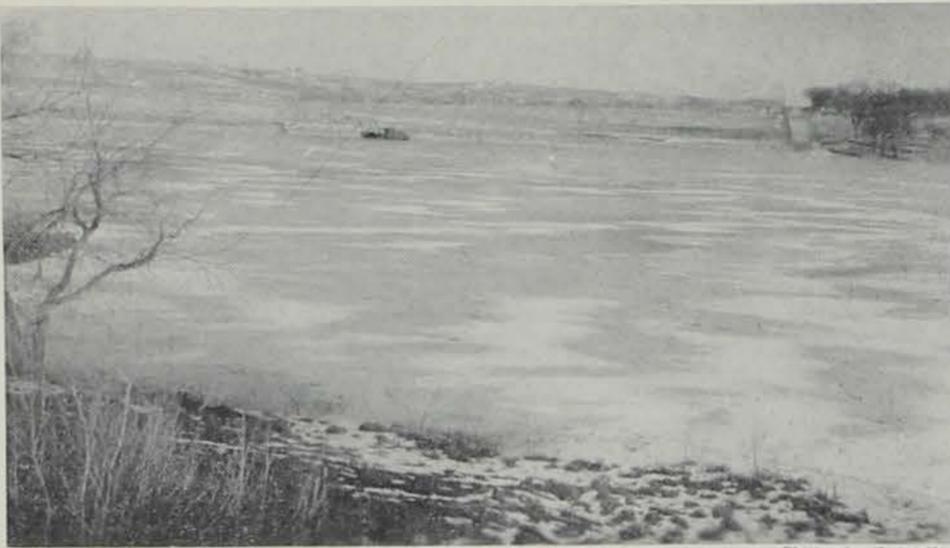
Largest of cats next to the lion, the male tiger may measure more than 10 feet from nose to tail tip and weigh as much as 650 pounds

#### REVERED ANIMAL

Some Indians regarded the mountain lion with reverence. To the tribes of Baja, California, the animal was a god who provided them with much of their food.

#### MAKES GOOD

The ringneck pheasant was first transplanted from the Orient in 1881. Now it is one of the principal game birds of America.



This distant view of Rock Creek Lake in Jasper County shows the lake's causeway. Rip-rapping on the causeway is of unusual texture and is called oolite by the geologist.

## Rock Creek . . .

(Continued from Page 33)

But don't forget that the valley of Rock Creek had to be there first, and that it was made by the waters of Rock Creek pouring down through the valley during ages past. So really, stream erosion, a geological process, was the prime mover in the creation of the lake basin. The larger arms of the lake are in the valleys of tributaries of Rock Creek. The numerous small irregularities of the shoreline are related to the presence of small tributaries to the larger valleys. The lake might be spoken of as the result of "drowning" the valley or Rock Creek.

Of course, the water of the lake presents no mystery. Still, there is something to think about here, also. It is water which had fallen as rain. If there has been recent heavy rain, the lake water is mostly water which has run off the land surface. Some of it may have come from the slopes surrounding the lake. Most of it would have come from the streams, large and small, running into the lake. That's easy.

But suppose there has been no rain for a month or two. Water might still be flowing in Rock

Creek above the lake. This water fell as rain, all right, but then it soaked into the ground, to now reappear in the form of springs and seeps along the course of the stream. This water would keep the stream flowing. Such subsurface water might also be seeping into the lake all along the lakeshore. This is because the lake level stands at the level of the zone of saturation in the ground.

Away from the shore this level, called the water table, rises with the slope of the ground, but not as rapidly. Under the hilltops it may be many feet below the surface. Nevertheless, this means that the ground water below the water table is under pressure at the lakeshore and so tends to slowly seep out. It is the same along the stream above the lake.

The very shape of the lake suggests that this part of Iowa has been subjected to wear by running water for a long time. Otherwise, there would not be all these little tributaries to the main valley. And, for that matter, the Rock Creek valley would not be so deep. Nor so long, either. The headwaters extend northward clear into Marshall County, a distance of about ten miles. These valleys have been developing since the time of the

retreat of the Kansan glacier from this part of Iowa. Until recently this retreat was believed to have taken place possibly a million years ago. Recent studies make it much less than that—perhaps only 125,000 years.

"And what, pray tell, was the Kansan glacier?"

It was one of continental dimensions, similar to those of Greenland and Antarctica of today, that spread from centers in Canada at a time when the world climate was rather different from what it is today. The Kansan glacier covered all but the northeastern part of Iowa and extended as far south as the Missouri River. It even crept over into what is now eastern Kansas, hence its name.

In its movement from Canada, it brought with it, frozen to the bottom, a great mass of soil and debris from the north country. This, known as glacial drift, was left when the glacier melted. The drift is approximately 150 feet thick on the high ground at near-by Kellogg. A little farther north, it is over 450 feet. There is no place in the park known to the writer where this glacial drift can be seen. However, the road cuts on the county roads nearby disclose it. They show only the weathered upper part of this drift mantle. It is stained a reddish-brown from weathering. At greater depth, it has a grey color. It is composed mostly of clay and silt, with lesser amounts of sand, pebbles, and larger stones. Some of the road-cuts show a few feet of loess, a wind-blown deposit of silt and clay, above the drift. It also is brown in color, but has no stones.

The rock used as riprap on the causeway at the north end of the lake is one which might make the curious look twice. This is because of its peculiar texture. For those who are acquainted with fish roe, it looks not unlike petrified fish roe. Because of this, it is known as an oolite. It is a variety of limestone, and is often called an oolitic limestone. It came from a strata which shows at the surface not so far away to the east, in western Marshall County. There are quarries in Marshall County north of LeGrand and at Ferguson. This rock came from the one near LeGrand. There it is seen as a bed about 18 feet thick, beneath layers of other limestone. The oolitic limestone is much lighter in color than the other. It was formed as a sediment in one of the seas which spread over the North American continent in the Mississippian period, some 250 million years ago. In common with the other rock strata of central and eastern Iowa, this layer of oolitic limestone dips gently to the southwest. This means that at Rock Creek State Park that particular layer is not so far from the surface. About 250 feet would be a good guess.

The oolites, the small rounded grains, are believed to have been formed by the precipitation of

limy material from the sea water. The story is that the material started to collect around small grains of sand or shell. The motion of the sea water kept them moving around so that they acquired their rounded form. The individual oolites have a concentric structure; that is, of layer upon layer. There are also fossil impressions in this rock. One is that of a flat coiled snail a few inches across. There are brachiopod impressions an inch or two across. Brachiopods are two-shelled, like clams and oysters. Those in the oolitic limestone are almost flat. The soft sediment composed largely of these oolites was hardened to a rock by cementation.

Rather odd, don't you think, that today's fishermen on the causeway should be fishing from a pile of rock that looks so much like petrified fish roe, but isn't? Bet most of them never thought of that!

The park is in northeastern Jasper County, 3½ miles northeast of Kellogg, on a county road. It is about 8 miles east and a few miles north of Newton. It is a large park, 1,657 acres. The lake is about 600 acres, and has almost 13 miles of shoreline. And we know the reason . . . what might be called the geological reason . . . for this lengthy shoreline. The lakeshore winds into all the small valleys tributary to the larger ones and around the projecting ridges between them. No wonder there are a lot of miles!

## AUDUBON CAMP IN WISCONSIN

Fourth in a chain of camps reaching from Maine to California under the sponsorship of the National Audubon Society is entering its fourth summer season near Spooner and Rice Lake, Wisconsin.

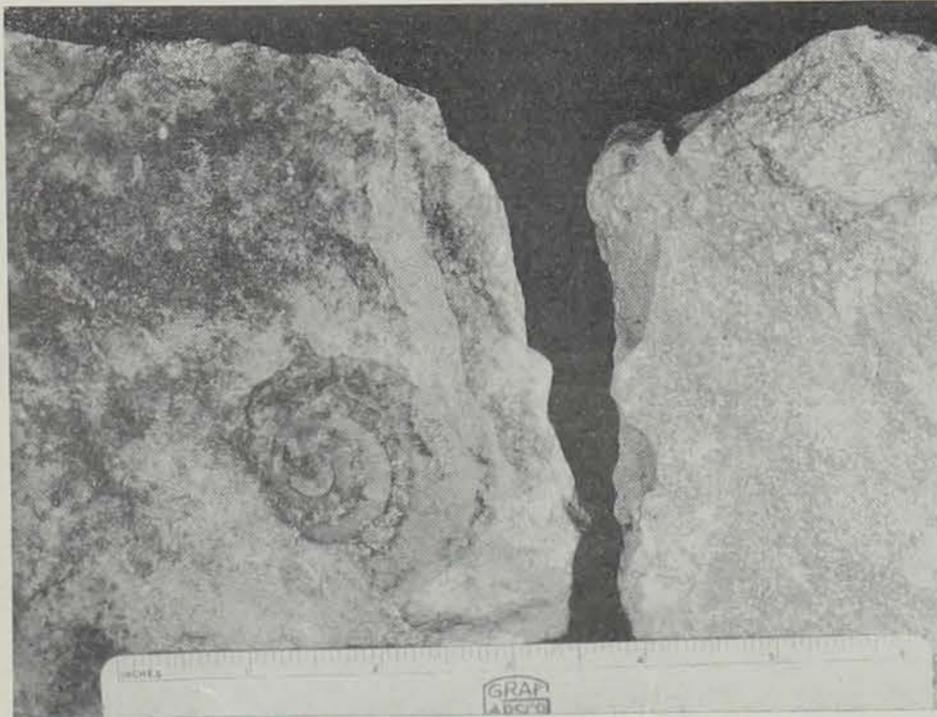
There are five two-week sessions planned, beginning June 15 and ending August 30. The sessions are designed primarily for teachers and other youth leaders.

Those 18 years of age or over will have an opportunity to pursue hobbies or professional interests, since the 300 acres in which the camp is located contains woodland, prairie, marshland and twin lakes. These areas offer opportunity for exploration under the guidance of staff members who acquaint participants with plant and animal life and their relationships to soil, water, and man.

Morning and afternoon sessions are devoted to field trips. Evening sessions, conducted in a new recreation hall, include the showing of colored slides and movies.

Housing available at the camp includes dormitories and quarters for husbands and wives.

A free folder, listing information about dates and costs of the camp, may be obtained by writing the National Audubon Society, 1130 Fifth Avenue, New York 28, New York.



The author has found and photographed this brachiopod impression in a rock found along the shore of Rock Creek Lake.



Camping at Lake Ahquabi State Park brings fishing within walking distance for these young outdoorsmen. Apparently they're making sure they are rigged right to handle that "lunker" they've been dreaming about.



Bird watching, baby sitting or just plain loafing, camping is tonic for the soul away from city noise and bustle. This photo and one directly below were taken at the new camping area at Ledges State Park.

### Camping . . .

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ater, such as an upcoming vacation.

Certainly not the least of the reasons for interest in camping is the fact that it is cheap fun for the whole family. Today's buck, as we all know, is pretty short-lived. Any time then that we can stretch it a little is important! The real requirements of camping are within the buying power of nearly everyone. Most begin with these items, adding more and more as they go along. Of course, if you're plush, you can sink about as much "jingle" into camp items as you want, from the minimum essentials right up to elaborate tents and house trailers. Whether the beginning is meager or big, it is after the initial outlay and the use you begin to make of camp items

that the old dollar starts to stretch. The difference between what you will spend camping and what you would shell out for motels or hotels will go a long way toward returning your original investment or adding more equipment to your original purchase. And one of the nicer things about camp equipment is that once you have it assembled, you have it for years of service. That is, if it is properly cared for and was good quality to begin with.

The basic essentials for camping involve a hearty outdoor appetite, a good night's sleep and protection when weather is something less than ideal. Equipment that takes care of these requirements are the "big" items. Other equipment makes some contribution to be sure, but these are not considered "big" items in terms of cost. Of course, requirements of campers

and camping situations will differ. Generally, the "rougner" or more remote the camping, the more equipment necessary.

Entire volumes have been written about camping equipment. Even so, there are some observations about major items of camp gear that bear repeating:

**CAMP STOVES**—One, two and three-burner stoves are available. Of these the one-burner is not ample and the three-burner is not necessary for most. The two-burner is the choice of most campers—is up to most cooking situations, is cheaper to operate and is of more ideal size to handle and pack. Pressure tank-type gas stoves are preferred over those that burn canned mixtures. It takes a good many cans of canned fluid to equal the performance of the pressure tank type. A satisfactory supply of the canned fluid takes space that could be used to better advantage. The canned product also is a rather hard item to locate in some areas. The

fellow who runs out in the back country is about "sunk." The larger capacities of pressure stoves get most through every situation with least weight and ease of handling. Buy a camp stove with a good name behind it. If given care according to manufacturer's instructions, it should last a lifetime.

**PORTABLE ICE CHESTS**—Purchase a good one in the beginning—one that is well insulated and of large enough capacity to protect food and properly handle limits of fish or game. In addition to a portable chest, a good camp jug for drinking water or other cold drinks is almost a must. Large capacity jugs of the type that reflects heat and the sun's rays will save steps and keep drinks colder longer.

**LANTERNS**—A good, pressure tank-type gas lantern for bright, reliable light is an important item of gear. A double-mantle lantern is pre-

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(Left) Mounds of food and association with good friends. These trailer organization members have found facilities at state parks ideal for such memorable outings.



(Above) Camping is inexpensive family fun. A family doing and sharing things together, such as this camp croquet game, is a strong-knit unit.



Jim Sherman Photo

"I like to remember: The satisfying beauty of lands and forests and waters preserved in state parks."

**Parks . . .**

(Continued from Page 33)

their integrity. They involve a trusteeship on the part of the present, to use the words of Carlyle, "toward the past and generations yet unborn."

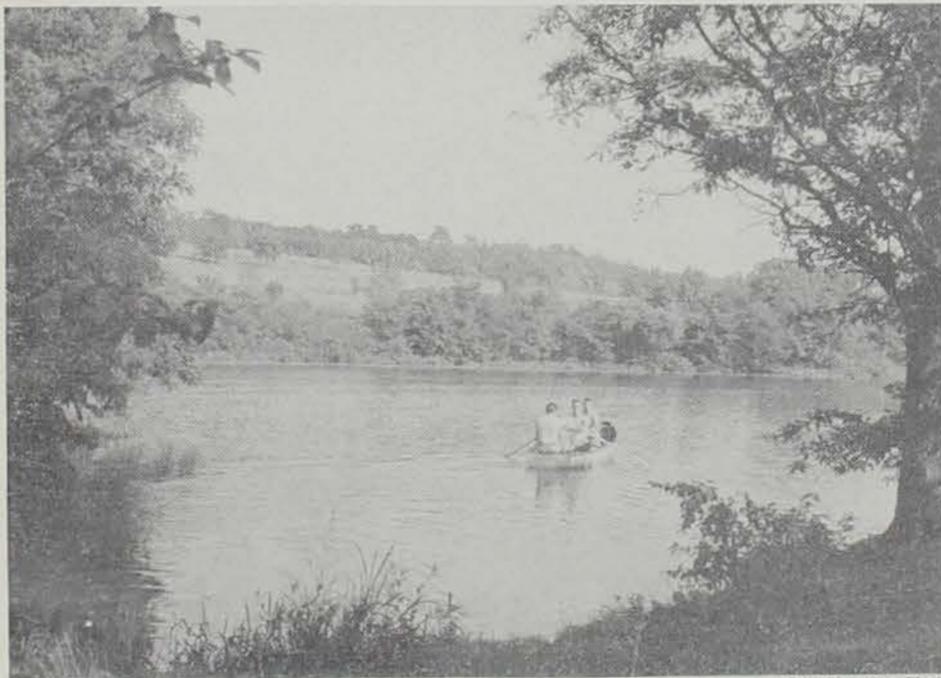
That this purpose is hard to define is patent. This is true of all matters of the spirit. No one has fully expressed in simple terms the purpose of a great institution like a university or a religion. Yet those engaged in the park movement feel this purpose when they do not put it in words, and their whole endeavor, whether they realize it or not, is shaped and guided by it.

Let us consider some of the principles that by common consent have evolved and by most are accepted as to state parks, in their establishment, development, management and interpretation.

One of these, and it is in my opinion basic, is that state parks have as a dominant purpose the preservation, insofar as feasible, of the qualities of native landscape. It was the wonders of nature, as

revealed to the explorers and pioneers, that in places like Yellowstone and Yosemite first led to the conviction that here were lands too fine to have their beauty or their interest cheapened or destroyed by turning them to base uses for the advantage of the few or of the moment. "This place should be preserved for us and others after us to enjoy as we have enjoyed it." This was the thought in the minds of park pioneers over a century ago, and it is the thought behind the growing public demand for parks at all levels of government.

We are concerning ourselves here with state parks. Obviously, there are some lands of such distinction that their preservation is the concern of the nation as a whole. This is exemplified in our great National Park System. Most of its units are recognized as being beyond the responsibilities of the states in which they happen to be located. In many cases—and I think off-hand of Great Smokies, Mammoth Cave, Carlsbad and Yosemite—the states have taken the initiative



Jim Sherman Photo

"Park lands are managed to minister to the human mind and spirit."

and then passed on the responsibility to the nation for varied reasons: financial inability, desire for prestige, or the fruits of increased travel. But mainly because of recognition of national significance and the importance of national parks. True, local promotions have resulted in some areas of less than national caliber being forced upon the National Park System, but even this is a tribute to the prestige of National Parks. Doubtless every extensive portfolio of investments contains some "cats and dogs."

When we come to the state park category this is likewise true. Parks, like gold, are where you find them. But as funds for state parks increase, there is a tendency to strive for the application of appropriations to projects not justified by their importance to the entire state. Even California has not been immune from this, and only a year ago it was found desirable for our commission to restate its criteria as to statewide significance. In the main it has been possible to hold to the principle that "State park funds are not intended to be used as a subsidy to local recreation."

The state park concept having been outlined, and the criteria for the selection of state parks, let us turn to the subject of development. This is the critical phase, as many a fine area has suffered from ill-considered, inappropriate modification of its original qualities. A well thought out Master Plan of Development should precede construction, based upon the principle that each area should be developed to serve its highest use, in keeping with its purpose and meaning.

Restraint should be the watchword. The burden of proof should rest upon those who propose modification of natural conditions.

There is the constant problem of balancing the preservation of natural conditions with the provision of facilities for public use in keeping with the highest values. Obviously, parks are intended for human enjoyment, but there is always the danger of over-development, of passing the point of diminishing returns, so that the satisfactions sought by many are lost to all because of excess in development and use. Many a great landscape carries in its beauty the seeds of its own destruction.

It follows, since state parks are primarily natural areas, that "developments" are for the purpose of making the areas available for public enjoyment in a manner consistent with the preservation of landscape quality and should be of the simpler sorts in a natural environment (i. e. camping, picnicking, sightseeing, nature study, hiking, riding, boating, swimming, fishing, etc.) involving no major modification of their lands, forests and waters, and without extensive introduction of artificial features such as athletic fields, playgrounds, golf courses, and other forms of

recreational developments that primarily are for local benefit.

In state, no less than in national parks, we should always be alive to our obligation, before it is too late, to set aside, in reasonable proportions, outstanding representative areas of forest, seacoast, desert, mountains, lakeshore, rivers and marshland as outdoor laboratories for nature interpretations, scientific and aesthetic study. This is the basis of our naturalist program. If we succeed, these will be a heritage for which future generations will be increasingly grateful, as in the not too distant future they will in all probability be the only places where forests evolve naturally, plants and animals live in harmonious relationship with themselves and their environment and nature and her works can still be studied in the original design.

Regardless of the principal purpose of any state park area, we are conscious that we are primarily managers of lands and are always in the landscape business. This is primarily true, of course, of scenic areas. But it is also true of recreational parks; and it is true of "history written on the land." There have developed many types of state parks, depending on local conditions and public demand. But with respect to all of them we are charged with maintaining the integrity of native landscape insofar as it is humanly possible.

Everywhere the relentless march of material progress, of urbanization, industrialization and consumption of resources for commercial ends are making their impact on the native landscape. Everywhere they are rubbing the bloom off the land. Except in the parks, and even there we know that we are fighting what sometimes seems to be a losing battle. Except in the parks—and in some areas with a partially related purpose such as the national forests—qualities of great open spaces that we took for granted a generation ago are rapidly disappearing.

It is a high calling that has its purpose to assure the people of the future that they will have the great experiences in the out of doors that we have had. It has been my privilege, as it has been yours, to help preserve representative examples of the great pageant of America. In working to maintain this environment we have been a part of it. There are many scenes that I like to remember: the lengthening shadows of the Sequoias, the flight of the White Ibis, the pastel colors of hardwood forests in the fall, the gleam of glaciers, the battle of seas and land, the thunder and mist of waterfalls, the silence that hangs over the habitations of forgotten people. Or the quieter but no less satisfying beauty of lands and forests and waters preserved in many hundreds of state parks, such as Lake Itasca in Minnesota.

Concern for preserving these  
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# The Early Bird Gets the Worm

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From time to time anglers are concerned about "grubby" or "wormy" fish which they have taken from various bodies of water in the state. Due to a lack of knowledge concerning the causative organisms, many ideas have arisen concerning the cause of this pestilence. Among some of the theories advanced by fishermen are (1) the water has become too warm or (2) the lake is being polluted by sewage. While these causes of fish grubs commonly occur in areas where these conditions persist, they are not the primary factors producing the infection.

"Grubby fish" are caused by larval stages of parasitic worms which have burrowed into the fish and formed cysts awaiting ingestion by a suitable animal before they complete their development. In most cases, the adult forms are parasitic flatworms which are found in the digestive tract of birds. Their life cycle is often a rather complicated one. The cycle begins when the eggs of the worms (or flukes as they are known scientifically) enter the water, usually with the feces of the birds. Should the eggs fall into the lake, the eggs will hatch into tiny free-swimming larvae (the miracidia) which will then penetrate a snail. Within the snail the larvae undergo a series of drastic reorganizations, passing through several different stages known respectively as sporocysts and rediae.

An amazing thing about these worms is an adaptation known as polyembryony in which the larvae produce many others of their kind. As a result, one egg may produce thousands of potential worms. Following development to the redial stage, the redia in turn form thousands of tailed larvae known as cercariae which are free-swimming and emerge from the snail. These swim about in the water and will develop no further until they encounter a suitable fish in which to continue their development. These cercariae have little to guide them to the proper fish host and as a result many of them perish.

Of those flukes which require a fish as an intermediate host, the penetrating cercariae migrate to a suitable area where they form a cyst to protect themselves from the host's body reactions. Favored sites for these infections are just beneath the skin, at the base of fins, or in the liver of the fish. Some species of flukes form large cysts and it is these forms which cause so much concern to the anglers.

Trumbull Lake in Clay County, Iowa, was reported to have a heavy infestation of these larvae

in the fish of the lake. Hence, in the summers of 1954 and 1955 a comprehensive collection of the fish was examined for parasites. Those parasites which were found were mounted on microscope slides for examination at a later date. Studies carried on at Iowa State College have failed to reveal any parasites which can be transmitted to humans. A few of the fish in the lake carried excessive burdens of encysted parasites but these were an exception.

Anglers are perhaps most concerned about a large yellow grub (*Clinostomum marginatum*) which occurs just under the skin of some of the bullheads. When the fish are skinned, these grubs are quite obvious and lead the fisherman to think the entire fish is unsuitable for food. Looking at this problem objectively, we must keep in mind that these worms constitute no more danger to man than a worm in an apple. Since they will not parasitize a human, one need not worry about ingesting them acci-

dentially. Normal cooking will kill any forms which might not have been noticed in dressing the fish. For the sake of palatability, it might be well to cut out the cyst but it is a waste of good meat to throw away the entire fish.

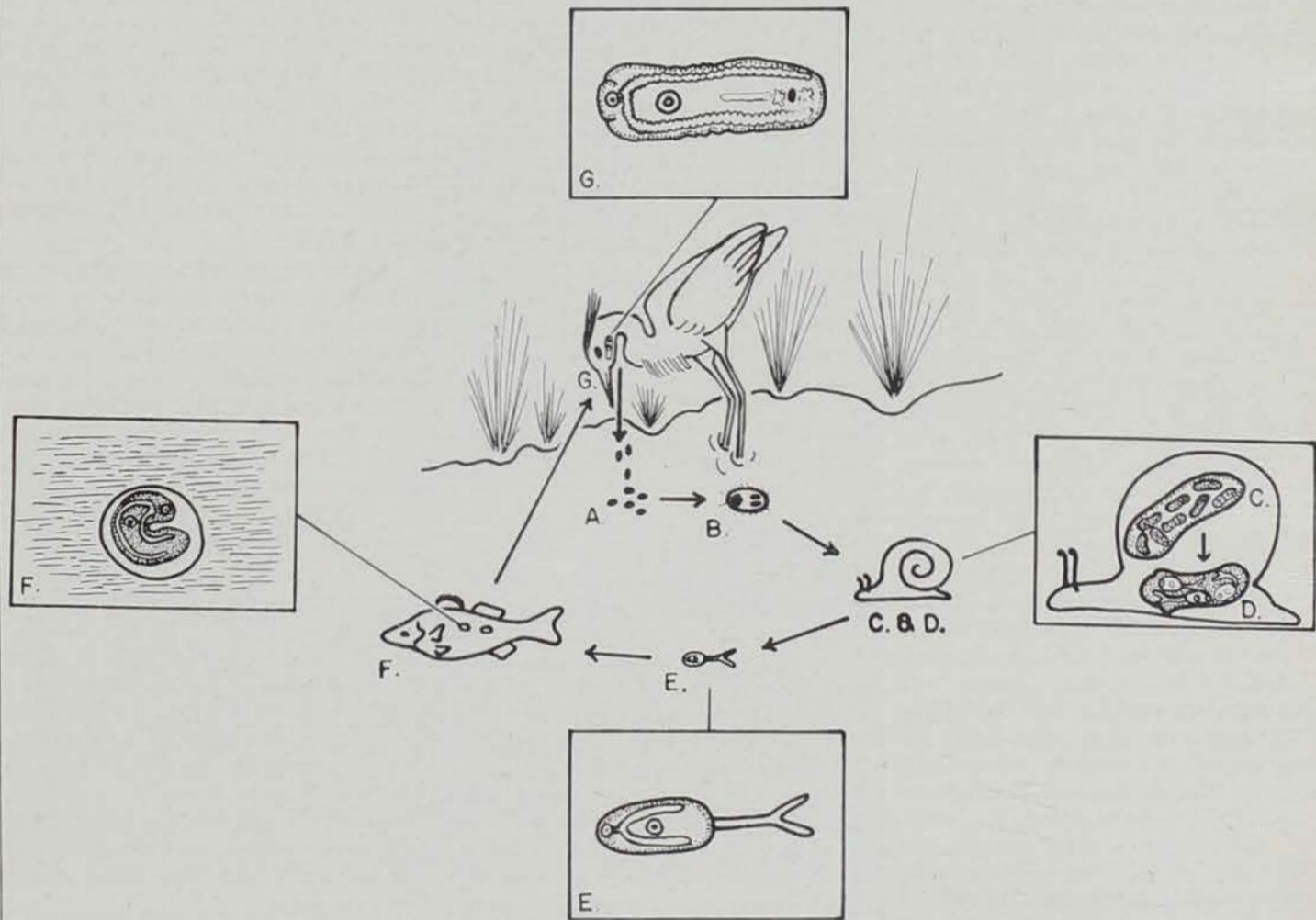
While a species of large tapeworm is known to be transmitted to humans by fish, it is as yet unknown in Iowa fish. The fact that suitable fish hosts are not found in Iowa waters is perhaps a good barrier to the introduction of this pestilence into the state. It is, however, known to be found in the whitefish of northern Minnesota. Here again, normal cooking of a fish would be sufficient insurance against acquiring an infection of the parasite.

The seeming upsurge in the degree of parasitism within the state in recent years is due to several factors. One of these is an increased awareness by the fishing public. More and more people are fishing Iowa's waters and bodies of water never before utilized are coming into prominence. Many of these may often have contained infected fish in the past but since

the lakes had not been fished the grubs went unnoticed.

Another factor, and perhaps the most prominent is the change in the water level in our lakes during the past few years. The near-drought conditions caused a severe drop in the level of many lakes forming extensive areas of shallows which had not occurred before. In such areas, weed beds and rushes grew extensively and provided attractive habitat for aquatic birds which bring the parasitic infections with them. Also, the shallow bars draw wading birds which bring in still other parasites. These same shallow areas provide optimal conditions for the growth and reproduction of snails which form a vital link in the life cycles of these worms.

Another factor resulting in the decline of the water level has been brought about by the heavy siltation of our natural bodies of water. If proper soil conservation practices are not enacted soon, many of our better fishing areas may become extensive marshes which nurture the spread of these parasitic infections.



## THE LIFE CYCLE OF THE YELLOW GRUB *CLINOSTOMUM MARGINATUM*

- |               |                 |
|---------------|-----------------|
| A. EGGS       | E. CERCARIA     |
| B. MIRACIDIUM | F. METACERCARIA |
| C. SPOROCAST  | (ENCYSTED GRUB) |
| D. REDIA      | G. ADULT WORM   |

## Camping . . .

(Continued from Page 37)

ferred. Just make sure you have a supply of extra mantles!

### SLEEPING BAGS AND AIR MATTRESSES

—Except for a tent, probably the most expensive items of camping equipment. Like everything, you get what you pay for in these items. And this is poor camp gear to skimp on! You'll sleep better and get longer service from good quality bags and mattresses. Prices of sleeping bags are based on the type and amount of insulation in them. Down-filled bags are considered warmest with some of the man-made insulating material and fibres nearly equal and perhaps out-performing goose down in some respects. Make sure the insulation is ample for the area and climate in which you expect to use your bag. An extra one-half pound or so of insulation is worth it, even though you make a trip to the north country only once in a lifetime. A good quality air mattress will add much to your sleeping comfort. Some of the inexpensive plastic ones on the market are pretty sad. They are easily damaged, hard or impossible to repair satisfactorily, and don't have a very long life. It's worth it to get one that can be depended upon.

**TENTS**—You probably won't worry much about this item if you're a trailer or station wagon owner. For others, quality and capacity are the considerations in purchase of a tent. The most expensive have some pretty elaborate garnishments, but most don't think these "extras" are worth the time-consuming effort required to get them up and down. Roomy tent types that can be put up and taken down in a hurry and can be anchored well against sudden "blows" and storms are considered ideal by most. Good, well treated canvas will keep you high and dry and last for years, if properly taken care of. Tents that are floored and have ample windows for ventilation are a good investment in comfort and are virtually insect and animal-proof. A plastic ground cloth under the tent floor will keep "clamminess" inside the tent to a minimum and add life to your tent. Whatever your requirements, get a tent with good canvas that's well treated and reinforced, stitched with good quality stitching.

### COOKING AND MESS GEAR

—Make it neat and make it simple—camping, remember, is a reprieve from the kitchen! By all means, build your cooking gear around a hefty coffee

pot and a good skillet that won't stick at crucial times! Get mess gear that nests together and service that is made in the same way. It will save space and prevent losses. A mention of saved space reminds that you'll soon pick up a lot of "tricks" in this department. A trip or two and you'll be able to locate any item "blindfolded" and the organization of camp gear will improve right along. Until you learn which can go in which box, a check-off list of items at the start and end of a trip is a real help.

**OTHER EQUIPMENT**—A canvas bucket and wash basin are handy items to have around camp. A compass and first-aid kit are good insurance. You might also want to include binoculars, a camera, portable radio, and clock—this latter for those who care about time! Fishing equipment, by all means, and don't forget that stringer!

The State Conservation Commission has prepared a publication, "Iowa's State Owned Recreation Areas." In it is listed all state parks which offer tent and trailer camping, as well as organized group camping and a third section covering park cabin accommodations. The respective sections list park locations, custodian addresses and a run-down of camping rates. A handy key guides readers to an Iowa map for quick and simple location of the park within the state. Another special section presents in detail routes to follow in reaching the park and more extensive information about the park's facilities. The publication is free and may be obtained by writing: State Conservation Commission, East Seventh and Court Avenue, Des Moines, Iowa.

## Parks . . .

(Continued from Page 38)

spectacles for themselves and as an environment for active outdoor recreation is at the heart of the state park philosophy. The spirit and meaning behind this concern is the all important thing, but it is hard to put in words. Turning to the Redwoods that I know best, I think of Dr. John C. Merriam's statement that "they connect us as by a hand touch with all the centuries that they have known"; or Edwin Markham's that "they seem to be forms of immortality standing here among the transitory shapes of time"; or the poetic words of Joseph Hergesheimer regarding Bull Creek Flat, now in the Rockefeller Forest:

"Nothing could bring back the serenity the forest had accumulated after a hundred million years. Standing in a grove I thought of the bitter and vain resentment that the future—when it learned that a commerce was not enough to keep the heart alive—would hold against the past, our present. The grace

of the towering trees marked their gigantic span; the ground, in perpetual shadow, holds only flowering oxalis and emerald ferns. It was raining very softly. The fallen trunks of an utter remoteness, too great to see over, were green with moss. The whisper of the wind was barely audible, far off, reflective; the gloom in the trees was clear, wet and mild. It was the past. And this was the Redwoods' secret, their special magic, that they absorbed, blotted out the fever of time, the wasted years, the sickness of mind, in which men spent the loneliness of their lives."

All this, I hope, has bearing upon the philosophy of the State Parks.

## Litterbugs . . .

(Continued from Page 34)

know their way around nature's realm always take great pride in the outdoors and in tidy camp-keeping.

Cleanliness is particularly important in Iowa where public facilities are limited and often jammed with people from early spring to fall. Park officers do a commendable job of cleaning litter, considering the size of the chore and the amount of time they can give to it. But that little element of time is an important factor to the park officer. There are only so many hours on the face of the clock, which means that time spent cleaning litter must sometimes be at the expense of that which could be devoted to more important maintenance work.

While state parks attract many thousands, they aren't the only areas the Litterbug frequents. What about the smaller places such as fishing access areas, public fishing areas and roadside parks that have no custodian to care for them? These are pretty much at the mercy of the public and may—without the cooperation and vigilance of all—lapse into sorry shape!

The problems of littering have been the concern of a lot of state county and city officials. Often their response to the problem takes the form of advocating stiffer laws. In some municipalities and states they are pretty rugged—fines up to \$100. Laws, however, are one thing—enforcement another. Most will agree laws that cannot be enforced are about the same as no laws at all!

Some strides have been made by municipalities who have special squads assigned to curb litterbug activity on a local level. Policing anything beyond this has been proved impractical. Certain aids have come to the forefront such as encouraging motorists to carry trash bags in their cars, and heaping ridicule on offenders by right-thinking fellow motorists and campers. These have made some inroads toward a solution of the problem, but their results can only be negligible in the face of a prob-

lem that is literally as big as the outdoors most people are trying to keep clean.

It seems then that the only real solution must come through a process of education—awakening and jogging the public to a more prideful use of the outdoors. Closely associated with this pride is a feeling of concern for the other fellow and a desire that he find an area as clean or cleaner than we found it.

When it gets right down to basics, the problem is pretty simple. Litter that we discard belongs in the trash containers placed in areas for that purpose—not anywhere else! Litter collected in travel should be kept inside the car, in a sack or other container, until it can be deposited later. It's a simple trick, and perfectly painless!

With the effort of everyone, it's possible we could chronicle the departure of that disheveled, unsightly and thoughtless fellow we call the Litterbug. If we really and truly love the outdoors and have an interest in keeping it tidy and beautiful, it's worth thinking and doing something about!

## Boats . . .

(Continued from Page 34)

ever, it may indicate the previous owner's attitude toward maintenance, so inspect a badly painted craft thoroughly. If you purchase a poorly painted boat, refinish it to get best performance.

Aluminum and glass boats are durable by the very nature of the material used in their construction. Be sure seams in an aluminum boat are correctly joined and will not leak. Glass boats should be free of bad cracks.

You won't have to bother about these things if you purchase a used boat from a reputable dealer.

How about price? There is, of course, no method of determining what the price of a used boat should be that would be suitable for all parts of the country. The best way to determine the fair price of a used boat is to shop. Find what you want and then look for boats similar to it. Several comparisons should give you a good idea of the proper price for the boat you're interested in.

### PELICANS

White pelicans are one of our largest American birds. Their wingspread reaches nine feet.

### STORE FOOD

Badgers, like some other wild animals, sometimes kill more than they can eat at once. They bury the surplus food and return to it later when other food is scarce or impossible to catch.

### MULE DEER

Generally the ears of mule deer are 25 per cent larger than those of whitetail deer.