IOWA CONSERVATIONIST

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NEW LIGHT ON AN OLD SUBJECT

hanges, Developments, Improvements

The following excerpts are from address given by Chairman orge Jeck of the State Conserva- n Commission.)

Sportsmen—and you are sports- n and community leaders or u wouldn't be attending this rkshop to advance the battle es of conservation against our miliar foe, self-interest. We of e Commission are certainly not mune to personal attacks along s line. We're accused of in- cting politics into the operation, to the contrary, accused of not tting politics to the fore. This int requires no further mention party politics are definitely an welcome visitor in our offices. is is the law.

Smart men seldom disagree if e facts are known and you must t the facts or the facts will get u. Personnel changes, for in- ance, are always unpleasant, but ien you accept authority, respon- ility goes with it. You can't just y ostrich, the facts must be ed and action taken according your best judgment. For several ars warnings were rampant that gh fish and too many stunted llheads would ruin fishing; like- se the Commission often had to the hunting seasons, bag lim-

(Continued on page 24)

George Jeck

George Tovey Photo.

Circle the 15th of March on your calendar if you're planning to get in on the spring migration this year. Take camera, warm clothes and ear plugs unless you enjoy the raucous roar of these noisy travelers. See "The State Parks of Iowa," page 19, for a choice viewing site.

. . . BIRD MIGRATION POSES ANCIENT QUESTIONS

Fred A. Palmer

Practically everyone has felt a strange sensation while watching flocks of migrating birds move toward their destination each spring and fall. Questions of where they are going and why have plagued man for many centuries.

Theories from ancient philosophers like Homer and Aristotle to those of highly trained specialists have been submitted to answer the age-old questions concerning this annual habit. Few have offered feasible explanations. However, recent studies have improved upon many of these vague theories.

Types of migration, migratory routes used, and distances traveled during migration are questions that have been answered. Much has also been learned about the speed of birds, flight lanes, and direction-finding.

Although bird migration movements are regular and predictable, their basic causes and principles are not fully known. No theory explaining the cause of the annual movement to and from breeding and wintering grounds has been fully accepted by all authorities in the field of ornithology.

According to one theory, birds of North America were at one time non-migratory and were generously supplied the two main avian requirements, a year-long food supply and suitable breeding conditions. Then as the glaciers moved southward, the birds migrated southward to the tropical regions to maintain their two essential requirements. When the ice cap retreated many years later, the birds endeavored to return each spring to their original range. Each winter the birds would again return to the tropics.

The most concrete and commonly accepted explanation of migration is the theory of "photoperiodism." Based on the living behavior of the bird, not on historical factors, it contends that day length and quantity of light trigger the seasonal movement. Food supply, temperature, and other environmental factors also indirectly influence bird migration.

The phenomenal habit takes place at night as well as during the day, referred to as nocturnal

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MALCOLM K. JOHNSON, Editor
STAN WIDNEY, Associate Editor

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TIMBERDOODLE DANDY

Joe Linduska
Remington Arms Company

His eyes are on the back of his head, sure enough. Some claim it's an adaptation to keep the dirt out when he pokes his bill in the mud. Others insist it spares him from having to look where he's going. "He'd be a nervous wreck," they say, "if he could see ahead in his corkscrew flight—just missing this tree, just dodging that limb."

Whatever the advantage of posterior optics, the woodcock wears them well. Eyes deep-set in a head with a handle, and with a round, russet-colored body, this odd-ball is the dandy of the woodlots. "Downright purtiful" was the apt description used by a hunting partner from the Louisiana bayou country. "And powerful good eatin', too," he added, holding the beauty at arms-length and twirling it by its bill.

The timberdoodle is probably the least known and least appreciated of our game species. Lots of folks have never seen one—others haven't recognized him when they have. Part of the reason is he's a secretive sort. Seldom gets around much in daylight hours. In migration he moves mostly at night, and the same when feeding. Through the day he lies low in a woodland thicket. Come twilight he seeks moist ground where he drills for earthworms, item one on his bill-of-fare.

More than just having displaced eyeballs, this woodland Durante is a one-bird museum of oddities. His ears are forward, not far from the base of the bill. Some say it permits him to keep his ear to the ground, so he can listen in on scuttlebutt from wayward worms. That could be important when you're working at night—and underground.

His bill, as it should be, is on the front of his face, except too much so. It's as long as your middle finger, and unlike most other animals it's the top jaw that's hinged. But this king-sized proboscis has yet another characteristic that makes it a worm tool of neat engineering qualities.

Ever try to retrieve an olive from one of those long, thin bottles? Tough, isn't it? The thumb and index finger fit fine; but after you're in you can't spread 'em enough to pick up a banana seed. You'd expect the woodcock might be similarly frustrated. He rams his bill in up to his mustache, and, naturally, it has to be closed going down. If not, he'd clog his plumbing in two or three drillings. So how does he open to retrieve the worm? Simple. He can part the tips without opening his jaws. You'll have to admit that's no small accomplishment—about like eating an apple through a knothole.

With a physical make-up of this sort, you'd expect him to have some off-beat habits. He has. Take his breeding behavior, for instance. Why, it's a regular Canaveral carnival. He speeds moonward at a dizzy pace for a few hundred feet, hovers for a moment, then plummets down like a spent Sputnik. His zigzag course is with half-flaps, so the wind through the feathers makes a tremulous whistle. It alerts the girls for some distance around.

On the ground he has another sound—this one made with his throat. Some describe it as "peent, peent." To me it's more like the eructations of a flatulent frog. But whatever the sound, it works. The usual clutch of four eggs hatches out in about three weeks. The young have the appearance of adults, only more so. The bumblebee-like body has two enormously long legs on one end and an exaggerated bill on the other. And they can swim if they have to.

Indifferent to the urgings of Horace Greeley, woodcocks remain in the East. The Mississippi River is about the western limit of their breeding range and winter finds them pretty well bunched up in Louisiana, Mississippi and Arkansas. Between this southern terminus and the prime nesting areas in Ontario, the Lake States, Pennsylvania and New England, there can be fancy shooting during fall migration.

In a large measure the woodcock is a combination bird. In the north country you'll find him mixed in with ruffed grouse. And in the south he's stirred in with the quail. But at either end of the line—and in between—he'll never be far from worms. And that's part of the challenge in hunting them.

As for a choice of guns, the main thing to remember is you'll be in the woods, snap-shooting at a target whose path is as erratic as a balloon, jet-propelled by escaping air. This spells open bore. Add to that the need for fast swinging, a couple of miles of tramping and lots of ammunition. What I come out is 28 gauge, improved cylinder and autoloading. Others can settle for anything less.

When you get the birds home there's another choice: The specialized, concentrated worm diet of the woodcock is reflected in the specialized, concentrated alimentary tract. It's short, waxy and clear looking, like a small ball of vermicelli. The connoisseurs say leave it in, never clean one before eating him. Being an amateur I can't testify to that. I always take mine with the insides out and the outsides off.

Editorially Speaking

THE IMPORTANCE OF TREES

Trees are such an ordinary part of our everyday surroundings that we take them for granted and seldom realize the important roles they play in our lives or how interesting they can be, except to think of them as decorative parts of the landscape. A quick look through a few books on trees at your local library would probably surprise you. We took such a look the other day and came up with the following bits of incidental intelligence:

It has been estimated that seventy per cent of the nation's wildlife lives in National Forests.

About one-half of the nation's stream flow comes from woodland. About ninety per cent of the usable water in the west originates on forested watersheds.

The printed page you're reading was made from wood. The printed word is important to our way of life. It has been estimated that the *New York Times*, every week, consumes the product of eighty acres of woodland. The demand is met by an eighty-year rotation of 400,000 acres of forest.

It takes 150 to 180 years to grow a marketable crop of sawlog timber in the Rocky Mountain area.

In the United States, often less than fifty per cent of a tree is used when it is cut. The rest is considered waste. Europe manages to use eighty to ninety-four per cent.

Despite the development of plastics and various lightweight metals, wood has more uses today than ever before and the demands for wood are increasing. The 1949 Department of Agriculture yearbook reported that 4,500 uses had been listed and it wasn't assumed that the list was complete.

A ton of dry wood will make 180 gallons of molasses. A ton of sawdust will yield about a half-ton of sugar.

During World War II, Swedish restaurants served woodburgers of torula yeast, which is derived from wood. The yeast is rich in riboflavin and has almost all of the properties of meat protein.

Timber is a renewable resource, but nature renews it just so fast and no faster. In any area, where the rate of use exceeds the rate at which timber is renewed, it is just a matter of time until no trees are left.

The book, "The Story of Trees," by Dr. Ferdinand C. Lane, says that "for a country to maintain such standards as our own, thirty per cent of its area should remain forested."

On a sign at the entrance to a public park in Portugal are inscribed the following words:

"Ye who would pass by and raise your hand against me, harken ere you harm me. I am the heat of your hearth on the cold winter nights; the friendly shade screening you from the summer sun; and my fruits are refreshing draughts quenching your thirst as you journey on. I am the beam that holds your house, the board of your table, the bed on which you lie, and the timber that builds your boat. I am the handle of your hoe, the door of your homestead, the wood of your cradle, and the shell of your coffin. I am the gift of God and friend of man."—*Wyoming Wildlife*

OUR RIGHT TO BEAR ARMS

Every citizen of the United States, whether or not he owns a firearm, has a vital interest in his right to possess and use them. Our forefathers, in their profound judgment, established this nation on the basis of individual rights which are the foundation of freedom. Freedom in America has been preserved over the years by the enduring efforts of freedom-loving people. There is a crying need in this generation for a greater appreciation of the importance of our natural rights.

There are developing in America today more and more efforts to deny reputable citizens their right to own firearms and to use them for lawful purposes. To a greater extent than ever before, uninformed or biased sources are blaming guns rather than people for crimes, suicides, and accidental shootings. An ever-increasing number of excuses is being devised to propose anti-gun laws. The right to keep and bear arms is a priceless heritage and must be protected from those who would destroy it.

The moose is one animal which has changed little in historic time. Drawings on walls of ancient caves show animals similar to the moose and they are side by side with sketches of beasts long since extinct.

THE STATE PARKS OF IOWA

A where to go and what to do feature

WAUBONSIE

ild and free as when Waubonsie trod a loess ridge on watch for friend or foe;
lley and glen, pinnacle and crag unchanged from long ago."

Perhaps the earliest of the Iowa te parks to don her spring fin- lies in the loess bluffs and hills Fremont County, seven miles thwest of Sidney, the famous leo city.

This magnificent land of sharp ges, ravines, woods, flowers and ubs has largely been left as it s when Indians held their coun-, plotted their wars and pitched ir teepees there. It is often re- red to as "a bit of the south- st transplanted to Iowa" be- se of the miniature mountain ils where yucca and pawpaw w wild and where, on a clear , one may view the hills of nsas over 50 miles away. As matter of fact, it is possible see four states from one of the rlooks which can be reached by vide trail only a short distance m the park's main parking area. e name of this scenic overlook appropriately "Inspiration int."

Seven miles of trail wind along dswept ridges; steep, narrow, eath-taking; and down into rges and valleys where echoes ound from loess walls and wild- scampers away, almost under- t.

Chief Waubonsie and the red n who came before him left nty of evidence that they too ed this beautiful place. In the unds, on the floors of grassy leys and in gorges, artifacts d the bones of animals killed by w and arrow are still found.

Fifteen miles from the park on a scenic bluff road, Forneys Lake lies in the Missouri River flats. On March 15, give or take a day, the most spectacular sight in waterfowldom will take place. That's when the spring goose flight arrives at Forneys to rest awhile on their northward journey. Tens of thousands of blue's, snow's and Canada's cover the lake, taking off, wheeling in the wind, and landing in the utmost confusion, yet orderly enough that there are no in-flight casualties. A trip to Waubonsie Park around the fifteenth with a side trip to Forneys Lake when the geese arrive, would be a high spot in anyone's travel experience.

They say that every other visitor to Waubonsie carries a camera. No finer spot in Iowa exists for both color shots and black and white. For color beyond compare, visit Waubonsie around the last week in April for the Red Bud Blossom display.

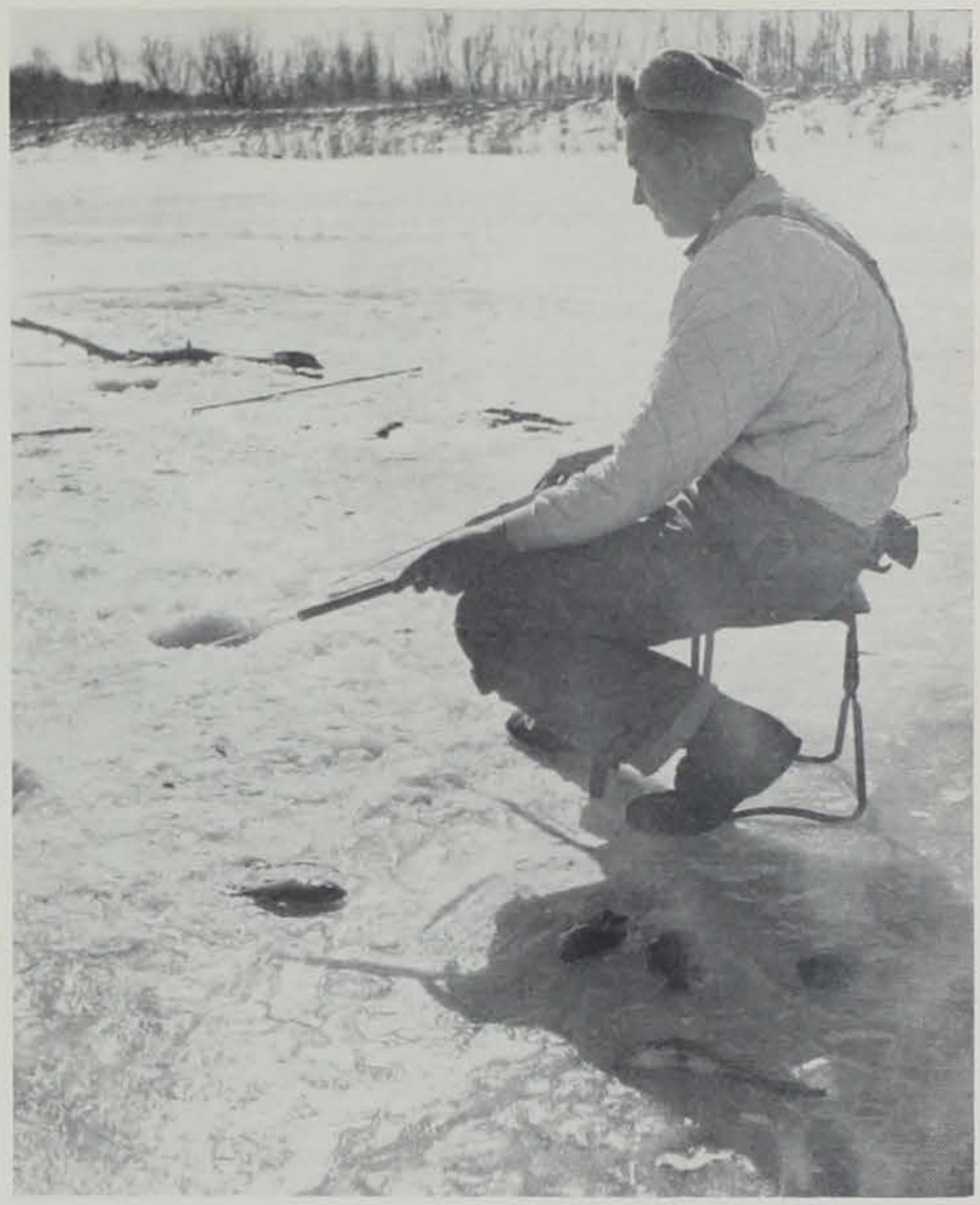
Waubonsie permits tent and trailer camping and organized group camping for which there is a nominal charge. Picnicking is very popular with over 100 picnic tables and dozens of fireplaces to accommodate visitors. An open-sided shelter house for family reunions for which there is no charge is available but this is reserved on a first come, first served basis.

The park custodian will provide visitors with a nature trail folder describing 25 marked plants to be found along the well marked trail.

Early spring visitors, especially if there is a "late" spring, may find a few of the black-top and gravel roads closed by order of the State Highway Commission. This is very necessary when frost heave or like conditions prevail and visitors should realize that a closed road will make it a better road later in the spring. Waubonsie State Park's main road is open the year around however, and the trail to Inspiration Point is always clear.—*S.A.W.*

George Tovey Photo.

ubonsie State Park from Inspiration Point. The hills of Nebraska lie across the t-shrouded valley of the Missouri. In the park itself, 7½ miles of nature trails wind oss sharp ridges and dip into wooded glens where flora and fauna are just as y were centuries ago. This is Iowa's most scenic park for year 'round recreation.



Perhaps the most hardy fishermen of all are those who brave the icy winter winds, kept warm by enthusiasm when the fish are hitting and a mountain of clothes when they aren't. Hungry bluegills kept this follow busy for an hour.

THE FISHERMAN

On that day when the almanac says poor fishing, when it's drizzly and cold outside, not fit for man or beast, there is always one lone soul out fishing.

He may be on the river bank waiting for bullhead, or he may be by a lake, sliding a weedless lure through some lily pads, but whichever it is, he is doing what he wants to do. This is one place where he is way ahead of many of us. On such days we stay in the house, watch TV and grumble about the weather. The best we can do is page through supply catalogue "wish books" and wait for weather which better suits our liking.

There *is* a difference between a fisherman and a fair weather fisherman. The real fisherman is a man who goes because he loves to fish and has a certain kin with the out-of-doors. He may not own the latest fad in lures and may not have the highest priced equipment, but what equipment he does have is well used and thoroughly enjoyed. And what's more, it is seldom blamed for an unsuccessful trip.

When he returns home from an unsuccessful trip, he is just as happy and feels no need to excuse his luck. He fishes because it is part of him and in his blood. He knows the thrill of fighting a big one; but enjoys throwing back the little ones and just watching the water. He watches the wildlife around him, and it seems to show little alarm at his presence. His demeanor makes him a part of the countryside. He watches the seasons come and go and many of nature's secrets are seen by him. It's all part of his sport, and he has no desire to change it, or the weather.
—*Duane DeKock*

FOR ONE AND ALL

Rifle markmanship is perhaps the only participant recreation open to individual as well as team activities and competition. Physical prowess and strength are of very minor importance, making it possible for girls and boys, all shapes, ages and sizes to compete on equal footing. The emphasis in shooting is upon precision, split-second coordination of eye, mind, and hand, and mental alertness. These are capabilities which, when developed, can mean so much to complete enjoyment and success in every phase of daily living.

Finally, it's important to note that in shooting sports there's no way to learn to teach deceit or cheating. The sportsman's skills are clearly, cleanly recorded on the target. It's a clean sport—shooting—for straight thinkers, your son and mine!

The nighthawk's food is made up entirely of insects, from the largest moths to dragonflies, mosquitoes and flying ants.

Jim Sherman Photo.

"The earth is the Lord's and the fullness thereof . . ." the Good Book's promise of abundance for His children. Wildlife, such as these bobwhite quail beside the hedge apple tree, constitute a part of this promised abundance that can be ours if we are willing to do our part—the part called CONSERVATION.

SOME CONCEPTS OF ABUNDANCE

Paul D. Kline
Game Biologist

Good Hunting! Poor Hunting! It's all in your point of view. If you're successful in an outing for pheasants, filled your bag, had plenty of time for working the dog and joshing your fellows for missed opportunities, then hunting was "excellent." If your party flushed 13 birds ("mostly hens"), killed two roosters ("had to ground-swat one of them"), chances are your comment to friends and neighbors was—"lousy."

What governs hunting success? This question cannot be answered as readily as we may think. Everyone of us probably has a pet answer: The weather, amount of cover, game abundance, ability of hunters, are all factors and each can have its effect upon hunting success. A poor hunt may be attributed to: game scarcity ("too many foxes" or "overshooting"), stormy weather, friend's beautiful dog ("flushed the birds a quarter mile ahead"), missed shots by partner ("new gun"), or any number of other classics. While hunting success may depend upon many factors, some of them quite complicated, we can safely say that it is controlled to some extent by game abundance.

What is the key to game abundance? It's easy enough to reason: restrict shooting a little more! Provide food and cover! Kill off the foxes! Some of these may help. However, *the real key is production*. If we are to have shootable surpluses our game must produce many young every year. Production is basic in creating abundance and in planning harvest.

Annual natural mortality (death rate) among pheasants, rabbits, squirrels, and quail is terrific. Average annual harvest inventories show 70-90 percent of our pheasants are young-of-the-year. Quail and rabbits produce in similar fashion. Young squirrels annually comprise about 55 percent of the bag. And deer: Surprise! About 40 percent of the deer taken are fawns. Lowered production during any one year by a species simply means a reduced reserve for harvest of that species. No production: Disaster! Let's not think of that.

The whole thing boils down to this: For the relatively short-lived species, production every year is a must. Every pair of bobwhite quail, for instance, attempts to raise a large brood of youngsters, starting from a batch of 15 eggs, give or take a few. If they succeed, then everything is fine and dandy. If only some pairs succeed, then quail will be abundant relative to the number of successes. If all pairs should fail to raise broods two years running, quail would be practically extinct. The same rule holds true for rabbits and pheasants. These game species never live long enough to collect longevity pay.

Some animals live longer, however. Great horned owls survive longer in the wild than most of our game species. Consequently, their abundance is not determined so much by production. Ever look in the nest of a big "horny" owl? You'll find one to three eggs, usually two. They do not need to raise large broods because their annual mortality rate is not high. Take the turkey vulture (buzzard) which sometimes nests in Iowa. They raise a brood of one or two chicks (little brutes). But most years many pairs of vultures don't even try to raise broods. They don't need to because their annual mortality rate is low.

Horned owls and turkey vultures do not vary much in numbers from one year to another because their abundance is not so dependent on production. Pheasants and rabbits *do* vary in numbers both seasonally and yearly, because their abundance depends very much on production.

The seasonal variation in cottontail abundance is remarkable to behold. A low in rabbit numbers occurs in March or April at the start of the breeding season. For example, let's imagine we have a 40 acre "patch" which supports eight cottontails during early April. Through production, the rabbits increase to 40 individuals by mid-July. Some deaths have occurred meanwhile, or there would be more. The population has increased because production outstripped mortality. About mid-July, breeding slacks-off, mortality increases over production, and the population gradually declines. By October there may be only 30 rabbits. When corn harvest time arrives and frost and snow reduces cover used by the rabbits, the population plummets until mid-winter when it levels off somewhat. By then the rabbits are adjusted to their winter habitat and predators find them hard to take. A few will succumb, however, until the spring low of about eight animals remains. Then the cycle starts over again. Of course, the figures used here are hypothetical, but the process is authentic.

Over a longer period of time game population may vary just as drastically. Most everyone has heard of cycles. Somes persons attribute our high-low fluctuations t cycles. Actually, in Iowa, we don' have very definite evidence tha genuine cycles occur in most o our games species. A cycle is sup posed to be a rhythmic and regu lar occurrence of alternating high low populations over long period of time. The classic examples oc cur in the far north among snow shoe hares and grouse which fo low ten-year cycles. In Iowa there is evidence that muskrat follow ten-year cycles. The rea son for these cycles, however, ha never been proved satisfactorily One thing is established: When muskrat population is on the "up swing" (climbing) females produc more litters of young than whe the population declines. Also, mor young occur in each litter. So, w can say cycles reflect greater o lesser production effort. The caus of increased or reduced fecundit remains a mystery.

Many species do not follow cycl patterns although they do fluctu ate erratically in numbers. Some times weather can be blamed fo declines, sometimes deterioratin habitat, sometimes disease, et One thing stands out: Whatev the cause, it always affects th production-mortality balance. the population increases, it is be cause mortality is less than pro duction, and vice versa.

For instance, rainfall during re cent years in the Dakotas an much of Canada has been con siderably less than normal. Man of the potholes in the natur breeding range of our Nort American ducks have been dr and unusable. Consequently, mar ducks did not breed during 195 Production, which was necessar to maintain duck numbers, wa greatly reduced. Mortality con tinued relentlessly. The grand re sult was reduced duck populatio and more restrictive hunting reg lations.

Adverse weather can be detr mental to upland game. The lat winter storms of March, 1959, a still fresh in our minds. Asi from the havoc these blizzar raised with human transportati and communication, they inco venienced wildlife also. In fac those storms were more than inconvenience—they were dow right hazardous. Probably a fe pheasants and quail, and ev squirrels lost their lives duri the storms. But the really impo tant effects are more insidiou more difficult to pin down.

Evidence is mounting whi leads us to believe our small gam species did not produce as ma young this past season as th normally do. Study by Richa Nomsen, pheasant biologist, spur lengths from roosters bagg during the pheasant season sho the ratio of young to adult bir was only six to five. Normal this ratio will be nearer 13 juv niles per five adults. This mea that pheasant production was le

(Continued on next page)

)ME CONCEPTS—

(Continued from page 20)

an half what we normally ex-
ct. It also explains why birds
ere oftentimes difficult to flush
)m fields even when they were
esent. Those old birds get
mart quick."

This lowered production can be tributed to the effect of the arch blizzards. Those storms so duced vitality of the birds that ey did not recover soon enough lay and hatch the vast numbers eggs which are needed to ob- in normal production. Icy winds eate more demand on body heat more food is needed to supply is heat—deep snow makes food fficult to find—and the whole cle adds up to lowered vitality.

The storms had their apparent fects on squirrels, also. Many nters have reminded the writer at more "very young" squirrels ere bagged during 1959 than nor- al. If true, this would mean at squirrels did not produce nor- al numbers of young during the rly part of 1959. Nut crops were or during the fall of 1958. There- re, food for squirrels was not ntiful. The scarcity of nutri- us food, prolonged cold spells ring the winter, and the late nter blizzards all combined to ake living difficult for the squir- ls. No doubt their vitality was duced when the first breeding riod occurred. However, they d recover during spring and sum- er sufficiently to produce more an normal litters. This would count for the many reports of ry young squirrels bagged.

During recent years we have ard much of the Conservation serve soil bank plan and its neficial effects on game. Actu- ly, lands under Conservation Re- rve contract do provide nesting aces for game; and where land is been placed under the pro- am, game probably has in- eased. However, 1959 saw acre- e controls removed from corn Iowa. Thousands of farmers in- eased their corn planting and, so doing, plowed up vast areas pasture and hay ground which normally used by nesting pheas- its, rabbits and quail. This could ly lead to reduced production small game. From this we can e that land use has considerable aring on game abundance.

We have seen how weather and nd use changes may affect game oduction. Another factor may disease. Many persons remem- r the tularemia outbreak of the irties and the consequent decline the cottontail population. All ild animals may fall victim to sease. In foxes and raccoons it n be distemper or the encepha- les. In muskrats—Errington's sease. Oftentimes, game species e of diseases unknown to us. o little is known about them. ne thing seems certain, though, hen a species becomes super- undant it is very susceptible to the ravages of disease. It's simple calculation. With abundance, each individual lives closer to others of its kind, and disease, once started, spreads more rapidly than it would if the species were scarce.

Vitality not only plays a role in production success, it also may influence the results of disease. Animals with reduced vitality do not resist disease as readily as strong animals—they may actually become more susceptible.

These are only a few of the controls of game abundance; an infinite number could be added. Under the present technology and management intensity it is impossible for the wildlife manager to fill the potholes so ducks can breed, to abate winter blizzards, to provide adequate nut crops for squirrels, delay summer rains which drown young quail, or halt ravaging disease. Man may be powerful but he has not yet learned to control these factors for his own benefit—let alone game.

IT SHOULDA BEEN IN ARKANSAS

From "Siouxland Sports Afield" comes a twice-told tale (supposedly true) of a farm boy's ingenuity at catching "northerns." Visited by an Independence, Iowa, fisherman who noticed a pothole-sized lake out behind the barn, the Minnesota farm lad mentioned that some nice northerns had been taken from it. When his story was doubted, the boy invited the man in and proved his point.

After catching a goose in the barnyard and affixing to it about four feet of string with a daredevil lure on the end, the young fellow carried the goose around the lake just opposite the barn, turned it loose and they all watched Mr. Gander set out for the barn via the shortest route—through the water.

"The goose didn't seem to mind the string on his leg as he paddled merrily along with not a care in the world. Just about half way across the old goose looked like he was going to flounder and go down but he put up a terrific struggle and continued paddling slowly toward his destination. When he finally reached shore the boy hurried down to him and you can believe it or not but there was a two or three pound northern pike hung on that daredevil tied to the goose.

"The fellow was just floored when he saw this and told the boy that he still didn't believe it even though he had seen it. The boy did the same thing all over again with exactly the same results.

"When you come to think about it, where could you find a better action for a daredevil than tied to the leg of a swimming goose? That action would drive a northern pike crazy enough to hit that lure like an express train."

HOW AND WHEN TO BATHE DOG

Your Hound Can Take It In Winter

A dog's coat grows more dense as the season advances.

Even sparse-coated dogs, plagued by skin rashes or worse during hot weather, grow protection against colder weather.

Denser coats do, of course, pick up more dirt, weed seeds and such and sometimes accumulate a doggy odor.

How Often?

This brings up the question of how often a dog may be bathed with safety in the winter months. The natural oil in a dog's coat helps to keep the dog weather-proof.

An outdoor dog, especially one used under severe conditions such as water-fowl retrieving, is better off with a water shedding coat. For the house dog this is not necessary.

Take Precautions

A dog may be bathed just as often as the owner desires so long as precautions are taken.

The washing should be done, of course, in warm water. It must be followed by thorough drying in a warm place before the dog is again exposed.

Soaps should be those especially produced for the purpose, or be such mild soaps as you would use yourself.

Further precautions are the drop of mineral oil in each eye, combing out or removing snarls before bathing as they will become more difficult to remove once they have been wet.

The usual procedure in a grooming establishment is to comb out dirt and snarls first, then wash and dry, and trim.

Replace oils removed from the skin with a few drops of oil rubbed in with the finger tips if the skin shows signs of becoming too dry.

May Catch Cold

The danger of bathing, frequent or otherwise, is that a dog may catch cold.

The skin may become too dry and irritated if natural oils are completely removed and skin trouble from scratching or infection **result.**

—Council Bluffs Nonpareil

LARGE MOUTH

This is that miserable time of year that is good for only about one thing—story telling. This year the story tellers in the back of the store have really waxed brilliant. I have never heard a finer bunch of stories in all my years. All you have to do, is pick a subject, then sit back and listen. Sooner or later some character will come up with a real dilly.

Of course, some of the stories are repeats. But, if a story is good enough, it deserves to be told and retold. So, it is about time for me to re-tell one of my favorites.

One day I was spin-fishing for bass on the Withlacooche River when I noticed that the lunkers were hitting something I was unable to see.

Then, as I drifted nearer the shore, I could detect that the big attraction was merely a dark spot on the water, and that the spot was the shadow of a buzzard flying overhead.

I refused to believe what I saw until another buzzard flew over, circled the boat, and a big bass broke the surface to snap at the shadow.

Immediately I got an idea. I saw a big, flat bug near the bow of the boat. It was as black as the ace of spades. I hooked the bug gently onto a 1/0 Shaughnessy and let it swim around.

My idea, of course, was to see if I couldn't get the bug to simulate a buzzard's shadow and tempt one of those enormous bass into striking.

Nothing happened for a few minutes, and then, by golly, it worked. A swell five-pounder rose to the lure and after a short, but snappy struggle I brought him to net. He was a beauty.

But that's only half the story and the lesser half at that. I nosed the boat up to the shore, got out and slit the bass open. And what, so help me, do you think I found? Not one, not two—but 14 buzzard shadows!—*Marvin Lyon, Jefferson Bee*

. . . PREDATORS ARE PEOPLE, TOO . . .

By Werner Nagel
Missouri Conservationist Magazine

A predator is any creature that has beaten you to another creature you wanted for yourself.

This is a pretty accurate description of the way many people think about predators. It's a personal view, however, and though it is true it isn't the whole truth. From a broader view, predation is a way of getting food—that is, by killing and eating living creatures. Many animals, including people, get all or part of their food this way. If they did not, they could not live. Thus predation is a natural and necessary way of life.

The personal view is more common. It covers animals that cost you money by eating a creature that belonged to you, or animals that take game, fish or songbirds in which you're especially interested. It doesn't include animals that eat creatures you don't care about. In short, your views on predators depend mostly on your personal experiences with them.

This personal definition allows an animal to be considered a predator at one time and not at another, to some people and not to others. Take a red fox for example: a farmer seeing a fox kill one of his chickens knows very well this fox is a predator. A rabbit hunter who sees a fox catch a rabbit knows this fox is a predator, too. In both cases, the fox beat the man to a creature he wanted for himself.

But other people's experiences give them entirely different views. To the fox hunter, Reynard is a wonderful sporting animal that offers thrilling chase. To the nature lover, the red fox is one of the earth's most beautiful, intelligent creatures. The trapper remembers that red fox pelts were once valuable, and may be again. The eating habits of the foxes don't interfere with the main interests of these men, so to them foxes aren't predators.

There's another angle: a man seeing a fox digging out field mice may think of this as predation, but he's bound to realize that this fox is doing some farmer a lot of good.

Poultry-thief, rabbit-eater, sporting animal, beautiful creature, furbearer, destroyer of destructive rodents—the fox is all of these and more. What he is to you depends on your experience with him. What he really is, though, equals the sum of all those different aspects.

We used foxes as an example because there are so many strong views about them. The same things can be said of any creature that kills to eat: fish, cats, dogs, or hunters, according to whether or not they beat us in taking something we want ourselves. Mostly, though, we use "predator" to mean wild birds or mammals; on those, views differ according to our interests. All views are "right" but none is the complete animal, the broad view that gives the whole story.

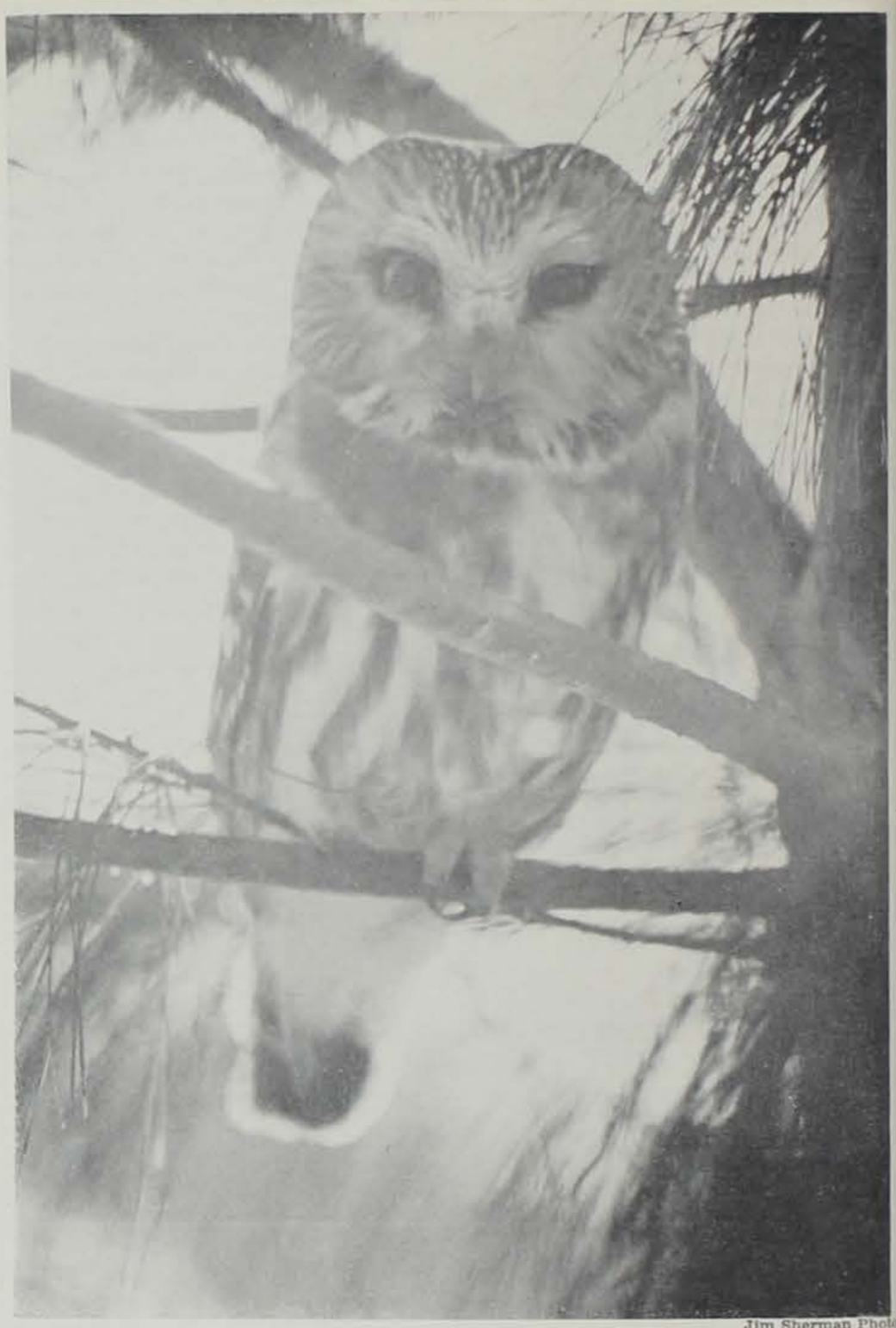
Taking the broad view has its pitfalls, too. It might seem we could set down in one column all the good things about a species, in another column all the destructive things, then treat the species accordingly. But this measurement doesn't work. It could work only if every individual of the species were exactly like every other individual in its eating habits and values. They aren't: individuals in a species differ in what they eat and how they eat, much as humans do. Some are mighty fine to have around; a lot you hardly notice one way or another, and some are downright bothersome. You can't manage all individual animals of a species the same way. In taking the broad view we have to consider differences between individuals as well as between species.

We mustn't carry the comparison of animals with humans too far—we tend to do just that in taking predators and their acts personally. There are reasons for this. One is that predators are most like us in their eating and actions—and dispositions. Another reason is that from childhood on we're soaked in fairy tales and other literature in which animals act, talk and think like humans.

Great-great-grandpa probably had personal tussles with predators. Panthers once were common, with a nasty habit of swiping the family calf, and of joining hobgoblins to follow late travelers home from the tavern. So early settlers took big predators personally—and, if old stories are true, big predators sometimes took an early settler personally.

Now that most people never see a bear, timber wolf or panther, you'd think the old horror stories would die out. But they haven't died even in the Midwest, where conflicts with great beasts have given way to pale triumphs over small hawks, brought down with guns more powerful than those gran'pop used to slay a grizzly. Today's predators are small and shy, they'd be most happy if we'd just go away and leave them alone

But we aren't going to leave them alone, as long as some of them beat us to another creature we want for ourselves. In fact, we are going to try to kill the predators that bother us, and if they're really bothering us, that's natural. We can be right, though, without kidding ourselves. After all, automobiles probably kill more chickens than foxes do; worms kill more lambs than coyotes take; more calves die of "scours" than predation. Also, if we didn't make



Jim Sherman Photo

This little winter visitor is a saw-whet owl. Only about seven inches in length, he is still able to prevent the starvation (in cold, snowy weather) of many small birds and rodents by the simple process of eating them. People supply the same service to pheasants, rabbits and other game animals.

chickens easier for predators to catch than their wild food, they wouldn't catch so many. (It's often easier to do something about predators than about our own carelessness.) It is true that when a predator makes a habit of killing our poultry the most practical thing is to get rid of him as effectively as possible. But when a predator is not bothering us, the best thing is to let him alone—so he can give us those other interests and values he has. That's justice, and that's sense.

Killing predators to control damage is a necessary but very small part of good management. Much more important is the fact that most predators are of value to us most of the time. Of the many creatures — fish, mammal, bird—that make all or part of their living by killing and eating other creatures, only a few individuals of a few species ever become bothersome to us. Yet every wild creature hunts, or is hunted, kills or is killed. Man does that when he raises livestock, or hunts and fishes, or kills to protect his flocks. From the one-celled bits of life sought by minnows to the creatures hunted chiefly by many, no living thing escapes the shadow of this struggle. Predation is a universal law of life.

We couldn't live without this natural counterbalance to the great reproductive power of most creatures. It is nature's insurance that no one species will crowd out all others and over-run the earth. We need this insurance; the productive power of most wild species is too great for us to control; the destructive power of any species out of control is too great for us to stand.

Predation is also nature's way of getting rid usefully of weak, stupid, stunted and diseased individuals. Through predation, the unfit are killed before they can breed or spread disease, and their death is not a waste because it provides food for those that are strong. Culling by predation maintains the sporting qualities that make hunting and fishing worthwhile.

This is the real meaning of predation: the normal and necessary working of a law that benefits all life. Men are not harmed by this law when it is working in a natural balance. When we upset this

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EDATORS—

(Continued from page 22)

ance by destroying natural er and food in converting land i water to our own use, predan can turn on us as a destruce force. The important thing to nember is that only by undernding the principle of normal edation can we control the dame when predation is not normal. hen we know why something pens, it's easier to keep it m happening again.

There are two ways of handling naging predation: we can avoid nage by providing protection animals in which we're intered; when this isn't enough, we reduce damage by killing the edators that are doing it.

Avoiding predator damage is best control, when we can do Using land so that plenty of od natural food and cover is t keeps most predators busy their own back yards—and out ours. Good poultry fences and ht barns are direct protection. king the annual production by ting and fishing for predators t are game, food, or furbearing cies keeps them from becoming numerous for their normal d supply. Controlling tame edators—dogs and cats—keeps m from needless killing of creaes we want for ourselves. All se things are helpful in avoid- predator damage.

Sometimes these methods aren't ough—or we don't carry them enough. Then we reduce predadamage we can't avoid by ling the animals that are actuy causing it. The farmer has ry right to destroy any predathat is molesting his flocks l herds. The hawks, owls, foxes, otes and weasels are by no ans the only animals that can se us damage: the very creaes these "predators" feed on y cause us the most trouble. ese include rabbits, deer, crows, rrows, mice, insects — all of ich may damage us by feeding something we want for ourves. Whether or not we call m so they are predators as are otes and hawks. The mice ne cause us far greater loss n do the meateaters; the ints far outclass mice as destroy- of property and profit.

The point is this: though we phasize a few animals as edators," that's just a personal wpoint. Actually any kind of d or mammal may be destruce when it becomes overabunt or out of place, and the vegeion eaters are most destructive all. The very creatures maned as "predators" are actually lowest-cost insurance against s kind of destruction. Only en they return to destroying perty themselves is it good siness to "cancel this insurce" and then only the destruce individual itself. Anything e will not profit us and, most en, can do us only harm.

COMMISSION MINUTES

(February 3, 1960)

Travel authorization was requested for Earl Rose, Bill Brabham, and Jim Sieh to attend the Mississippi Flyway Waterfowl Council at Stuttgart, Arkansas, February 16-18.

Travel authorization was requested for members of the Forestry Section to go to Illinois for needed white pine seedlings.

FISH AND GAME

Purchase of six and three quarters acres of land at Lake Odessa for access to the lake and camping and parking space was approved.

An exchange of 40 acres of land for 58¾ acres on Elk Creek in Worth County was approved.

A petition to raise the level of Swan Lake in Dickinson County was acknowledged.

The purchase of nine acres on the Raccoon River below Perry for $674 was approved.

The Winneshiek County Board of Supervisors was given permission to widen the right-of-way near Cardinal Marsh.

Permission was granted to the director to endorse a 25 year license from the Secretary of the Army giving the state permission to occupy and use 3,595 acres of land and water areas in the Coralville Reservoir for wildlife conservation and management.

Permission was also given to the director to negotiate with the Corps to raise the level of the Coralville Reservoir two or three feet to increase the accessibility of the area to the public.

The Commission invited a member of the Missouri Conservation Commission to come to Des Moines to give advice on controlled shooting in such areas as Lake Odessa.

PARKS

A new five year extension of the Commission agreement with the Lake View Concrete Company for lease of one-fourth acre of land in Black Hawk State Park was granted provided they plant 300 feet of shrubs and trees around the area.

The Iowa Board of Control met with the Commission to discuss the use of mobile housing units for prison inmates working in the state parks. The Commission approved the projected program.

WATERS

Approval was given to Beebe of Clear Lake to dredge an area 30 inches deep, 100 feet wide and extending 100 feet into the lake next to his property for use by the general public in launching boats.

COUNTY CONSERVATION BOARDS

After discussion, the director was given permission to authorize the use of powered ice-sleds on the natural lakes of the state.

The final plans for the construction of Lake Hendricks in Howard County were approved.

Acquisition of land in Calhoun County for a county park was approved. The land was formerly the property of the Board of Regents and the purchase price was $150 per acre.

Permission was given to the Linn County Conservation Board to acquire part of Chain Lake on the Cedar River from the Board of Supervisors.

Action was started to give T. F. Clark State Park near Traer to the Tama County Conservation Board. This park, 24 acres of shaded lowland, receives only local use.

Permission was given to purchase an 80 acre tract for $40 per acre to add to the Yellow River Forest Area.

HISTORICALLY SPEAKING

By
Stan Widney

IOWA'S FIRST STATE PARKS

State parks in Iowa were legally born on April 12, 1917, when the Thirty-seventh General Assembly enacted Chapter 236 of its laws. This law enabled the State Fish and Game Warden to require the Executive Council to apply part of the hunter's license fund to the purchase of an area in Delaware County known as the Devil's Backbone. The recommendation of the Warden was referred to the State Board of Conservation who examined the grounds and confirmed the opinion of Warden E. C. Hinshaw, Dr. Thomas McBride and Major John F. Lacey that:

"One who reveres the pioneer or respects his time or place will find upon these grounds enjoyment and inspiration.

"One whose tastes of training
'Finds tongues in trees,
Books in running brooks,
Sermons in stones and
Good in everything'

will find here an exalted interest.

It was a great victory for those who had fought so long for the preservation of historical, scientific, scenic, and recreational areas of our state.

In spite of the First World War, our first state park was made ready for dedication. Roads were built to points of interest (The Devil's Backbone; the Mill Pond, mill and dam; Watercress Spring, Richmond Spring and the proposed site of a trout hatchery), the streams in the park were well stocked for the occasion and by the summer of 1919, they were all ready for the grand opening.

Wednesday, October 1, 1919, dawned clear and frosty with a promise of Indian summer in the air around the Backbone. The pullman cars of the excursion train from Des Moines were resting on side tracks at Lamont and by 6:30 a.m. their "top brass" occupants were beginning to stir. They were invited to breakfast at Strawberry Point, Independence, and Manchester and the motor cars of their hosts were waiting.

By 10:30 they were back at the park and a tour of inspection began. Needless to say, those who were seeing this wonderland for the first time were as thrilled and impressed as first-time visitors today.

They enjoyed a picnic lunch and barbecue in the park, then started the dedication ceremonies. A professional band from Cedar Rapids made music—then came the innumerable speeches. Governor W. L. Harding, Secretary of State Ramsey, State Auditor Shaw and E. H. Hoyt, Treasurer of State, had their words of praise for this park and the parks to come, while the Board of Conservation, L. H. Pammel, Chairman, John H. Ford, Joseph Kelso and Edgar R. Harlan, Secretary, sat proudly on the rostrum.

Thus the first Iowa state park was dedicated. Lacey-Keosauqua's land was purchased in 1919, and in 1920 the property that is now the Ledges, Dolliver Memorial, Oakland Mills and Pine Lake Parks was purchased.

The parks now number 88 and the contained facilities offer much more to the public in the form of recreation than the originators of the state park system ever dreamed of. As a matter of fact, the parks last year were visited by more than seven and a quarter million people, three times the population of the whole state.

With faces of rosy-red—we regret to say that last month's blue-green algae is vegetable, not animal matter as reported. Incoming mail proves readership plenty high.

NATURE PHOTOGRAPHIC EXHIBITION

The Hamilton Naturalists' Club of Hamilton, Ontario is sponsoring an exhibit of nature photography next April. They expect worldwide participation and hope to bring to the attention of the public the need to save the few remaining natural beauty areas. Entry forms may be obtained from:
Mr. John B. Giles, Exhibition Chairman
International Exhibition of Nature Photography
Hamilton Naturalists' Club
Main Post Office, Box 384
Hamilton, Ontario, Canada

CHANGES—

(Continued from page 17)

its, etc., with inaccurate or incomplete information from the field. There are other contributing factors, such as weather, but this situation in the past year has caused a $93,000 loss in revenue because misinformed people quit buying hunting and fishing licenses.

Remedying this glum outlook (in part due to natural cycles) the Commission has instigated a more forceful rough fish removal program. This fall we removed 700,000 pounds of stunted fish from one lake in northwestern Iowa, they averaged less than six inches long and more than 400 pounds to the acre—talk about crowded tenements and slum conditions! The rough fish removal crew is now organized to provide a working force for each of the four largest lakes and so renovate these waters that a fisherman can catch a good mess of fish without leaving Iowa.

The game farm at Boone is being enlarged and the game section is hard at work with the forestry section to plant game cover and to do anything within reason to improve our upland game shooting. And when we say improve, we mean business.

County Conservation Boards according to one recommendation, were to be dispensed with and removed from Commission jurisdiction. We feel this field has tremendous possibilities and capacity for expansion. Besides a firm welcome, we're going to do everything in our power to help them. In our office force we have already set up a liaison staff composed of men well experienced in conservation and park planning. The county boards are a part of our responsibility and one that we are happy to accept. So far there are fifty of them and by next year probably 10 or 15 more; with an annual income in excess of $3,000,000 they'll need help in wise and far-sighted expenditure of these funds, here again, a part of our responsibility.

Within our department as a whole, excess spending has been cut out entirely. Central purchasing, with its inherent savings from competitive bidding and a perpetual inventory that eliminates duplicate buying have been installed. An accounting machine has been purchased that does in two or three days what it used to take four people 30 days to do. Commission vehicles are now stored overnight and during week-ends at state garages and parking lots. Detailed work sheets and itineraries keep a closer eye on field personnel. We are working on a low cost uniform for the officers that they can buy themselves because state law prohibits us from purchasing uniforms for them. We want these men to look like officers. The officers also have been provided with survey cards to improve the quality and scope of our annual game census procedures.

The forestry section, in conjunction with Commissioner Frudden and Iowa State University, has worked out multiple-use projects including forestry, recreation, game cover planting, erosion control, and rehabilitation of lands that are at present practically useless. Five of these projects are now underway, one such is the Paint Creek Unit of northeast Iowa with provisions for camping, picnicking, hunting, fishing, bridle paths and nature trails, etc. In addition, all state-owned areas are to be surveyed by a forester. Over-mature trees removed and seedlings planted where needed.

The Fish and Game Division has a new chief, Earl Rose, who is scientifically trained and has many years of experience in the field. The superintendent of game, Bill Brabham is also a well trained man for that tough job. When the opportunity avails, talk to these men and see how well they know their business.

The Federal Aid section has been given its original assignment of planning and selecting new areas for development and relieved of management activities that interfered with their operation, caused confusion, and wasted money. More practical use of our biologists will be made to bring research closer to management.

Our fish hatcheries will increase production and efficiency and be enlarged and modernized where needed. The construction of a chain of small fishing lakes in southern Iowa is receiving serious consideration.

As a part of the State Conservation Commission's endeavor to bring about more and better recreational facilities for the residents of Iowa and their guests, an inventory and evaluation of existing public outdoor recreation areas is now in progress. We want an accurate picture of Iowa's recreation resources such as, fishing waters, game habitat, timber areas, camping and picnicking sites, swimming and boating waters, winter sports, historical, geological and archeological areas of interest, and scenic beauty spots.

We are now in the process of putting out a stream classification map to show what fish are available where on our main streams, pheasant map giving the primary ranges and a small game map showing concentrations of squirrels, quail, partridge, and ruffed grouse. Also in line are maps of river access, boating waters, species of fish in the natural lakes, state parks and other areas for camping, picnicking, hiking, with points of interest in conservation and recreation.

Our job is to provide the most for the Iowan outdoors—increase rough fish removal and hatchery production, step up multiple use of state forests, modernize our park system and law enforcement plus many other items—all this with less money and fewer personnel.

The temperature of a hibernating woodchuck may fall to about 37 degrees and his rate of breathing declines from a normal of thirty times a minute to as little as once in five minutes.

Jim Sherman Photo.

A new system of Field Contact Records, now in the hands of the Conservation Officers of Iowa, will enable them to keep better records of their contacts in the field and, at the same time, obtain a better statewide picture of our fish and game harvest. Hunters and fishermen who observe other nimrods talking to an officer should not jump to the conclusion that the officer is writing a summons. The small yellow book the officer is filling out will contain information and statistics that will make the streams, lakes and fields of Iowa a better place to hunt or fish in the future.

NEW LIGHT—

(Continued from page 17)

and diurnal migration. As a rule the smaller and weak-flying birds migrate at night and feed during all the daylight hours. Darkness affords the weak flyers protection from speedy and agile enemies. Strong fliers that normally live in the open and capture their food on the wing benefit from diurnal migration.

A confined study was made of the migratory routes used by ducks and geese. It was found that they use four main courses each overlapping to some extent the Atlantic Flyway, the Mississippi Flyway, the Central Flyway and the Pacific Flyway. The geographic location of each of the flyways is self explanatory. These specific birds are inclined to follow the same route year after year, returning to areas where food, water, and cover is plentiful.

Studies of the distances traveled by birds have revealed astonishing facts. While some birds range only a mile or two from their birthplace, such as the bob white quail, others move several thousand miles. Whereas most long flying birds remain in the northern part of South America a few species move on southward. The spectacular Arctic tern is known to fly 11,000 miles between its breeding grounds in the Arctic to its wintering grounds which are located in Antarctica.

It is known that certain species favor or are influenced by certain topographical features which run in a north-south direction. Some species follow coastlines and bodies of water; a great many fly along valleys and peninsulas, or travel from one island to another in larger bodies of water. At times, the topography causes the course of flight to be narrowed or expanded.

Speed of flight of birds has always been a subject of interest but one of much controversy. Widespread misconceptions exist concerning the speed that birds can obtain and the speed at which they normally fly.

One must keep in mind that the bird cannot maintain a record or near record speed in its long migratory journey. Seldom is top speed exerted unless the bird is in pursuit or is being pursued.

A snow goose, being chased by an airplane, was clocked at 70 miles per hour, and a mallard was able to maintain a speed of 60 m.p.h. for 10 miles. Most amazing of all was the speed of 200 m.p.h. reached by a frigate-bird.

Bird migration had its origin in times so remote that it is now completely obscured. It can now be interpreted only in terms of present conditions.

Although many gaps still remain in the knowledge of the subject, much has been learned, and future studies will clear away many of the existing uncertainties.—*Texas Game and Fish.*