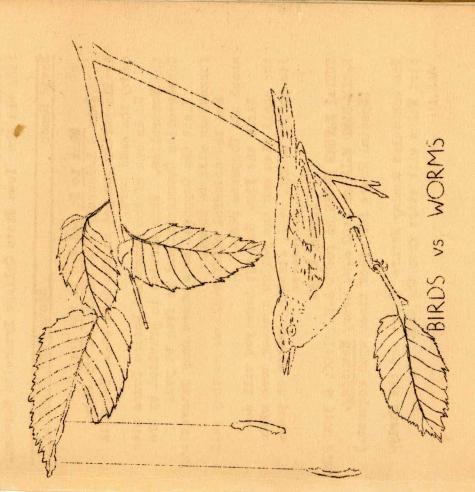


1.226.

DOLLIVER MEMORIAL
STATE TRAVELING LIBRARY
DOLLIVER MEMORIAL
STATE PARK
NATURE NOTES



Iowa 917.77 Io92nd Iowa. Cons

pam.

Conservation commission.

Dolliver memorial state park nature

TRAVELING LIBRARY

OF THE STATE OF IOWA

To communities, and schools, books for reloaning are loaned for a three month's period. To individuals and to clubs for study use, books are loaned for two to four weeks.

Borrowers are requested to return the books as soon as the need for them is passed, and always when books are due. Where books are reloaned, fines may be charged by the local library and retained when the books are returned.

DAMAGES. The pages of these books must not be marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.

10M-MR, 41

Vol. II

June 29, 1940

No. 1

This bulletin is prepared by the Naturalist for the information of the guests of the Dolliver Memorial State Park in order that the recreational and educational opportunities of an unspoiled primitive area may be more full appreciated. atilized and protected. It is issued by the State Conservation Commission with the cooperation of the Recreational Department of the Work Projects Administration and the Iowa State College Extension Service.

David Damon

State Park Naturalist

What to Do and See in the Park Take a leisurely hike on one of the many trails before you put on the feed bag. You will enjoy the meal more.

Go on one of the scheduled Nature Tours with the Naturalist. This service is provided by the Convervation Commission and is free to you.

Visit the Copperas Beds where many interesting formations will be found.

See the colorful cliff swallows as they sail about the Copperas Beds.

Visit the Pike Mursery; here you will see the small fish and the yellow spatter dock with its large, shiny, oval, floating leaves or pads.

NATURE TOURS

SUNDAY NATURE TOURS at 10:00 A.M., 1:00, & 3:00 P.M. EARLY-BIRD WALK at 7:00 A.M. every Saturday.

(Special Tours for other times upon request.)

The scheduled Sunday Nature Tours and the Earlybird Walks will start from the dam. W.L,131

-2-

The Park and How to Enjoy it.

Dolliver Memorial State Park is one of Iowa's finest parks. One is impressed by the sudden change of scenery as he enters the park. The road. takes the visitor from the level farm land down a winding hill to the relatively narrow valley of the Des Moines River. A deciduous forest of oak and hickory covers the high hills while elm, ash, butternut and linden predominate in the valley. A few daring trees cling to the fascinating sandstone cliffs.

The canopy of the trees in the valley provides cooling shade for the popular picnic areas. About seven miles of foot trails lead to the many interesting parts of the park. The two overlooks attract those who wish a bird's eye view of the valley below.

But one whose interest does not extend beyond the physical improvements in the park is missing the many special features which the park has to offer him. Here is the unspoiled home of the native woodland ferns, flowers and trees of central Iowa. These plants provide food and shelter for the many birds and animals that live here all year and for the birds that visit us each summer or those that merely drop in to say "hello" on their way up north and again on their way back south.

Yes, the Indians and the Buffalo, so famous in Boneyard Hollow, have disappeared with the advance of the white man. A few other large animals are also gone, but the park possesses most of the original species of native plants, birds and smaller animals. Those who appreciate nature and understand her language will find this an ideal place to ramble through the woods. Many of our birds will be found rearing their families; the little chipmunk may be seen scampering for his home under a

welcome toour

s of these books must are required to note en loaned to borrowers and to

tree or rock and countless flowers will nod their welcome to you while others are so shy that only a keen eye can find them.

Perhaps you prefer to find for yourself the bird which has that peculiar song; perhaps you prefer to seek for yourself the beautiful little Goldeye-grass or the Hepatica. Such a spirit is to be admired and should be encouraged, but most of us welcome assistance, that is, we want to know right now what this or that plant is, how to tell the red elm from the white elm, and what is the name of the bird that seems to say "teacher, teacher".

The State Conservation Commission provides you with free Naturalist Service in order that you may have such questions answered and thus increase your enjoyment and use of the park. The Naturalist is here to help you to gain a better understanding of plants, animals, birds, rocks, etc. in the park. Accompany him on one of the three scheduled Sunday Nature Tours over a cool, shady trail. Or get a group of friends together and arrange to have the Naturalist take you on a special tour to any part of the park you wish. Week day tours can also be arranged in advance.

The Yellow Woodsorrel
Who hasn't seen the yellow woodsorrel? Or perhaps you know it by another name such as sheep sorrel
or sour grass. It is the plant with a small yellow flower and leaves that resemble those of clover. This plant isn't very particular as to where it lives for we may find it in fields, thickets or woods.

If you have only seen the small plants of 8 or 10 inches, you may be surprised to know that in especially favorable localities the woodsorrel may teach a height of 4 feet. The woodsorrel seems to realize that its flower is not particularly showy and tries to overcome this disadvantage by putting forth blossoms over a long period. Thus we may find it flowering from May to Oct.

The woodsorrel is characterized by its sour watery juice, due to the presence of oxalic acid and from which it takes its Latin name "Oxalis".

Did you know the leaves of most species of Oxalis "sleep" at night and furing cloudy weather? Unless the sun is shinning the clover-like leaflets hang down against the stem of the leaf in a resting position. The seeds are borne in a capsule-like fruit which, when ripe, bursts open suddenly and throws the seeds a considerable distance. The familiar purple-flowered woodsorrel is a close relative of the yellow sorrel.

Have you noticed the brown, lace-like leaves on some of the bur oaks? A small species of worm fed upon these leaves and left only the veins or skeleton of the leaves. A young lady from India who attended the Christian Church camp here told us that the Chinese artificially skeletonize leaves and paint pictures on the delicate lace.

CATBIRD OR BROWN THRASHER ?

Both of these birds nest in the park and both belong to the Mockingbird family. They possess exceptional vocal ability and are able to imitate at least portions of the songs of many birds. Sometimes animal calls are also given. The two birds look nothing alike and no one should have difficulty in distinguishing the plain gray cathird from the larger, reddish brown, spotted-breasted brown thrasher. But many visitors ask if it is possible to tell the songs of the two birds apart.

Yes, this is quite easily done. The brown thrasher will repeat many of his syllables once and then pause a moment before giving his next double outburst. Like some orators, he seems to emphasize many parts of his speech by reneating them and then pausing a moment so that it will "soak in". The catbird on the other hand, "talks" faster with no definite pauses or repetitions and he can't help making a "catty" remark from time to time.

These are two of our most valuable birds and everyone should become acquainted with them.

DAMAGES. In pages of the pages of the marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.



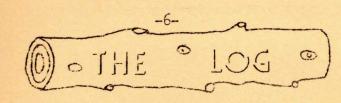
The Swallow-tails

The swallow-tails are butterflies that have a tail-like projection on their hind wings resembling the forked tail of a barn swallow.

Perhaps we take our butterflies too much for granted. Can you imagine living in a world that had none of these bits of animated color? Our birds brighten the tree tops with flashes of many brilliant colors, but it is the job of the butterflies to provide color flashes below the trees.

Three species of swallow-tails have been seen in the park. The largest is the Giant Swallow-tail with a wing expanse of from 4 to 5 inches. It is black with a yellow band extending across the wings from the body to the tip of the front wing and another yellow band across the hind wings.

The Tiger Swallow-tail is smaller than the Giant Swallow-tail and is mostly yellow with some black markings. The third swallow-tail is dark blue shading into black and about the same size as the Tiger Swallow-tail. This is probably the Pipevine Swallow-tail, but as yet we have not had an opportunity to examine this species closely.



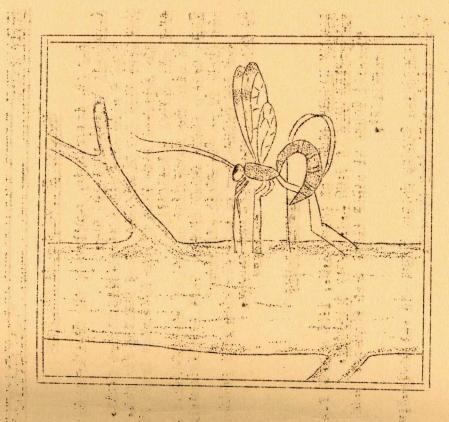
- June 9. We arrived in the park this afternoon, unloaded the "jallopy" and moved into our new summer home.
- June 11. While exploring the nature trails this morning the Naturalist found a Wood Pewee's nest saddled to a limb about 9 feet above the trail. This afternoon a group of 25 campers observed the lichencovered nest and the brave Mrs. Peewee as she sat on her nest.
- June 12. The pair of Phoebes that have a nest under the eaves of our cabin spent much time under the eaves of the adjacent vacant cabin. Thought they were planning to build a new home, but later we were pleased to see that they were back at the nest.
- June 14. The Webster City Boy Scouts who are camping in the park this week had a bird identification contest with bird cards. Competition was by tents. Mr. McMurray, Scoutmaster, and his assistants also took part. A great deal of interest was shown and some surprisingly good scores were made.
- June 16. Mr. Jones, State Naturalist, spent the day in the park. A Wood Thrush nest was found with 2 large young birds and 3 cowbird eggs. The cowbird must have waited too long to lay her eggs.
- June 17. Heard sounds like young birds in a nest.

 Finally discovered a hole in a dead limb
 of an elm from which came the sounds. In
 a few minutes a Hairy Woodpecker flew to
 the hole with his beak full of worms.

DOWA STATE TRAVELING LIBRARY

DOUBLE Moines, lowa:

TATE



DAMAGES. The pages of another not be marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.

July 14, 1940

This bulletin is prepared by the Naturalist for the Park in order that the recreational and educational opportunity tunities of an unspoiled primitive area may be more full appreciated, utilized and protected. It is issued by tion and the Towa State College Extension Service,

David Damon

State Park Naturali

What to Do and See in the Park

See the interesting exhibit at the Trailside Museum (bulletin board) near the dam.

Take a walk over the Self-guiding Nature Trail, Hen you will find the plants and trees labeled for you.

The Copperas Beds west of the Butternut Grove Picnic Area are always interesting,

Go with the Naturalist on one of the scheduled Natura Tours over a cool, shady trail. This is a leisurely tou and there is no "mountain climbing,"

Ask the laturalist to help you with your problems. He can save you much time and energy.

NATURE TOURS

SUNDAY NATURE TOURS at 10:00 A.M., 1:00 & 3:00 P.M. EARLY-BIRD WALK at 7:00 A,M. every Saturday. (Special Tours at other times upon request, Ask the Naturalist).

The scheduled Sunday Nature Tours and the Early-Bird Walks will start from the dam.

W.L-137

Have you ever seen a long, slender-bodied insect flying through the woods with what appeared to be long strings attached to the end of the body? If you have had this exinformation of the guests of the Dolliver Memorial State perionce you probably wondered what kind of an insect it was and whether the "strings" were part of the insect.

This insect is one of the larger members of a group of wasps frequently referred to as parasitic wasps and the State Conservation Commission with the cooperation of the "strings" are a part of the Wark Projects Administration of the Wark Projects Ad in our woods as will be seen from a brief description of its habits.

> It is very interesting to observe the manner in which this wasp lays her eggs. As soon as she alights on a tree trunk her antennae or "feelers" begin to wave up and down as she walks over the bark as though looking for something. Finally she stops at a point which she judges to be over a burrow of a tree borer and elevating her long "tail" or ovinositor in a loop over her back with its tip on the bark of the tree she proceeds with great skill to drill a tiny hole into the tree as is illustrated on the cover of this booklet. When the borer's burrow is reached she deposits an egg in it. The tiny maggot which hatches from the egg creeps along the burrow until it reaches its victim and then fastens itself to the borer which it very slowly destroys by sucking its blood.

> When the maggot is full-grown it changes to the pupa stage and later emerges as an adult wasp and is soon laying more eggs in the burrows of other destructive borers.

One insect destroys the eggs, larvae, pupa or adults of another and may in turn be destroyed by a third insect and so on. Thus continues the struggle for existence in the world of insects. But is this struggle for existence limited to insects?

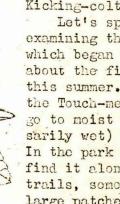
"Great fleas have little fleas on their backs to bite 'em, And little flees hove lesser fleas, and so ad infinitum. And the great ties themselves in turn hove greater fleas to go on; while these again have greater still and greater sittle and so on,

De Worgan

Do You Know the Touch-Me-Not?

You have seen this plant many times and perhaps referred to it as "just another weed" or you may know it by another one of its numerous names such as Jewelweed, Snap-dragon, Ear-drop, Weather-cock, Snap-weed,

Kicking-colt, etc.



Let's spend a minute examining this plant which began to blossom about the first of July this summer. To find the Touch-me-not we must go to moist (not necessarily wet) locations. In the park we frequently find it along the road an trails, sometimes in fair large patches.

You shouldn't have difficulty in recognizing it for is that pale green juicy or watery-looking plant with a hollow stem. The leaves have long stems (petioles), som of which are red. The leaf margins are wavy and the vei are quite conspicuous.

The flowers are yellow with dark reddish spots. The are more or less bell-shaped with a hooked spur at the closed end, and suspended by a long, slender stem which attached to the side of the bell.

The most curious part of the plant is the seed pod which explodes when ripe and scatters the seed. If you touch one of the pods you may be surprised to find it exploding in your fingers. The exploding of the pods when touched has given this plant some of the common nam mentioned above.



Are You A Bird-Lover?

Almost everyone is a bird-lover to some extent. Perhaps we don't realize how much we like birds, but did you ever stop to think what this old world would be like if we had no birds?

It is not difficult to picture a gloomy world which would result if we were suddenly deprived of the colors and songs of these feathered creatures. And from the economic standpoint we can only guess how difficult would be our life if it were not for the help of our birds.

Most of our birds seem to be very appreciative of any little help we can give them. One who has not fed birds in the winter, put up bird houses and set out a pan of water for a bird bath (especially in hot weather) may not believe this statement ...

It is so easy and costs so little to prove it to yourself.



A simple bird bath. Pan of water on a

Hummingbird feeding station.

Glass tube wrapped with red paper, filled with sugar water and tied to shrub.

"A bird in the bush is worth two in the hand."

not be marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.

Who Said "Blue Monday?"

Many of us are in the habit of thinking of Monday as a day of little joy -- everything goes wrong or we have to do that task we didn't do last Saturday. At best we do not consider Monday as a day of picnics.

Regardless of how we fare on Mondays it seems that our little wildlife friends in the park look forward to Monday as a day of picnics. One has but to visit the picnic areas on Monday morning to learn that the tables are still in use.

Squirrels, chipmunks, cowbirds, robins, catbirds, wrens, brown thrashers, sparrows and many others — yes, even the crows and woodchucks are all busy picking up pieces of sandwiches and meat scraps. No "Blue Monday" here.

While many people purposely leave bits of bread

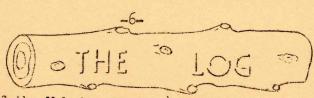
Come on ging, estal)

for the birds and squirrels, a few folks forget that these animals cannot eat paper and tin cans.

Why not get your club together for an Early-bird Walk in the park?

The time? Saturday at 7:00 A.M. or make a date with the Naturalist for any other morning. The Service is Free.

Five to ten sections of prairie land are necessary to hold the Prairie Chicken in any locality.



June 20. One of the Webster County 4-H Girls Club visited the park today. Mr. Leaverton, Conservation Officer and Miss Esther Everett, Home Demonstration Agent, accompanied the girls. We had an enjoyable Nature Tour.

June 24. Found an indigo Bunting's nest in Boneyard Hollow. It was only 11 inches from the ground and contained 3 young.

June 25. Discovered a Blue Jay with a broken right wing. After determining his ailment we released him. Old DameNature excels us humans in the care of wild creatures. This isn't surprising when we consider how much more practice she has had.

June 27. The Ft. Dodge YMCA boys who have been occupying the camp went on four Nature Tours with
the Naturalist this week. Mr. Seeley's boys
showed great interest in the tours. It was
a pleasure to work with them.

June 29. Visited the Indigo Bunting's nest again, but it was empty. Judging from the actions of the parent birds their babies must have been nearby.

The Naturalist had the pleasure of taking Mr. and Mrs. Ted Fay of Iowa City on a Nature Tour this morning. The Fays have been our next-door-neighbors for the past few days and are real lovers of Nature and the out-of-doors.

July 3. The Pocahontas County 4-H girls, under the direction of Miss Genevieve Colgan, Home Demonstration Agent, held a 3-day Conservation Camp at the park. Much interest in Conservation was shown on the Nature Tours and Early-bird Walk. Guy Ramsey, Extension Forester, conducted tree study hikes and showed some very interesting color photographs of Iowa wild flowers.

IOWA STATE TRAVELING LIBRARY V. 2 WG. 3
Des Moines, lowa

DOLLIVER MEMORIAL STATE PARK NATURE NOTES

COMMON MULLEIN

not be marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.

Vol. II

July 28, 1940

No. 3

This bulletin is prepared by the Naturalist for State Park in order that the recreational and educational opportunities of an unspoiled primitive area may be more fully appreciated, utilized and protected, the cooperation of the Recreational Department of the Work Projects Administration and the Iowa State College Extension Service.

David Damon

State Park Naturalist

What to Do and See in the Park

Visit the Trailisde Museums. One is at the dam; the other is at the south lodge.

Go on one of the three scheduled Sunday Nature Tours with the Naturalist. He is here to serve you and will show you some of the interesting things in the park. There is no charge.

Get a bird's-eye view of the park from one of the overlooks. The trail from the central picnic area to the west overlook is part of the Self-guiding Nature Trail. Watch for the plant markers.

Visit the Memorial Spring, plaque and Pool.

NATURE TOURS

SUNDAY NATURE TOURS at 10:00 A.M., 1:00 & 3:00 P.M. These tours are taken leisurely over a cool, shady trail.

Time required: Approximately one hour. EARLY-BIRD WALKS at 7:00 A.M. every Saturday. This is an opportunity to observe your feathered friends at their best.

SPECIAL TOURS at other times upon request. Ask the Naturalist.

"Flowers are like the pleasures of the world." ---- Shakespeare.

Little-Known Facts About a Well-Known Plant

The Common Mullein is a familiar plant that has more mes than a super-colossal badman. Over forty English ames have been given to this plant, but let's not clutter the information of the guests of the Dolliver Memorial) our minds with the other names when there are so many hteresting facts about the Mullein.

In the first place you might be surprised to learn It is issued by the State Conservation Commission with this tall fuzzy plant with the spike of yellow flowers not a native American. No sir, it came over from Europe a one-way ticket years ago -- in fact, so long ago the

> average European thinks it is an American. Consider the Irish who cultivate it in their flower gardens and call it the American Velvet Plant.



The fuzz on the plant is made up of many tiny, interlacing hairs which are equally efficient in keeping out the cold and heat. You see, such an arrangement is necessary since the plant prefers to grow on hot, sunny hillsides and as it takes two years for the plant

o complete its growth the little one-year old plant has to ithstand the cold winters. During the first year a Mullein lant has no stalk; only a rosette of leaves close to the round.

The fuzzy coat has a romatic use too. We are told that ural madens rub their cheeks with it and thus produce that each blossom effect that the best rouge can never give.

The Mullein has had many uses. The Romans dipped the talk into tallow and used it as a funeral torch. In the iddle Ages it was used as a candle wick by many people. It s reputed to have medicinal virtues for both man and beast, moking dry Mullein leaves and drinking Mullein tea being esorted to by those having colds. In England it was used s a healer of cattle diseases.

The particles of "dust" on the wings of a butterfly or oth are really tiny scales arranged in overlapping rows ike shingles on the roof of a house.

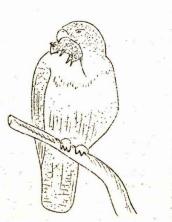
said a visitor as his sharp knife sliced the top out

About the Red-tailed Hawk

If you are fortunate you may see two or three large Red-tailed Hawks soaring over the valley in theof a small elm. It took about one second to terminate vicinity of the Copperas Beds. Watch carefully as

> the birds wheel about and you will see their reddish tails.

This is one of the most valuable species of hawks in Iowa and we can only guess how sands of destructive rodents ea odor). year. Unfortunately, the widespread prejudice against all selves.



The Nature Butcher would be the first person to hawks is exterminating this use "raise Ned" if he found his taxes increased in order that ful species much faster than thedamaged trees, shrubs and flowers could be replaced, unmost destructive hawks that are official trails obliterated, and the Custodian's force inbetter able to take care of the creased to pick up the rubbish left from his picnic of privileges.

tailed Hawk stomachs says, "It has been demonstrated by careful stomach examinations that poultry and game birds do not constitute more than 10% of the food of this hawk and all the other beneficial animals preyed upon will not increase this proportion to 15%. Thus the balance in favor of the Hawk is at least 85%, made to do the same again, with more enjoyment." up largely of various species of injurious rodents -a fact that every thoughtful farmer should remember."

If a Red-tail steals our chickens need we exterminate all Red-tails? If Mr. X. steals our chickens do we exterminate Mr. X's. family?

All hawks are protected under Iowa Law except two which are rarely seen, the Cooper's Hawk and the Sharpshinned Hawk.

will be glad to help you with this and other questions day wild plants and animals?

the little elm. To this Nature Butcher "privileges" apparently meant cutting up trees and shrubs, picking or tramping over wild flowers, and leaving garbage and paper on the ground so much money a pair of Red-tails the next man (perhaps his tax-paying neighbor) could ensaves a farmer by eating thou- joy (?) the landscape with the added touch of color (and

"I AM A TAX-PAYING CITIZEN OF THE STATE OF IOWA and I guess I can have a few privileges in this park,"

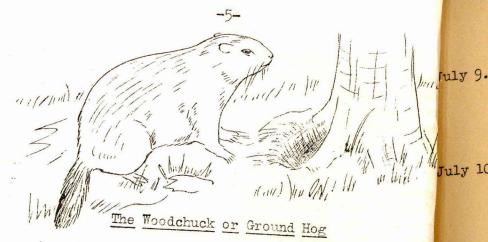
the growth which had required three years on the part of

The moral? Leave your park in as good condition as Dr. A. K. Fisher, who has examined hundreds of Re you found it. By doing so the park will improve since the Custodian will be able to give more time to constructive work.

> "Never did any soul do good, but it became readier ----- Shaftesbury.

Just 100 years ago Audubon described a forest where Passenger Pigeons roosted. "Many trees 2 feet in diameter, I observed, were broken off at no great distance from the ground, and the branches of many of the largest and tallest had given way as if the forest had been swept by a tornado. Everything proved to me that the number of birds resorting to this part of the forest must be immense."

Today there is not one living Passenger Pigeon in the Can you identify these two hawks? The Naturalist entire world. What are we doing to preserve our present-



A number of these large rodents live in this park. Although the Ground Hog may become a nusiance on our farms and need to be controlled locally, in our state parks it is one of the least destructive of the rodents

Even on the farm the Woodchuck has some good points. The farm boy has sport in hunting him. Some people prefer the flavor of the Woodchuck's meat to that of other wild game. Vacated 'Chuck dens are used by rabbits and skunks, thus unwittingly, the Woodchuck aids his furry neighbors, and this pleases the hunter and trapper.

Three to nine blind and helpless young are born in the den during April or May, and a few weeks later they appear above ground. During the summer the Wood-chuck feeds upon grasses, clover and other succulent plants, usually not far from a den entrance. Instead of laying up a winter's supply of food as do many rodents, the Woodchuck has an internal food supply—fat enough to carry him through a long winter's sleep.

And then there is "Ground Hog Day." Whether we put any faith in this famous day or not we'll have to admit that Mr. Woodchuck "makes the papers" at least once a year.

The Rodents make up the largest single group of mammals. Some live in water; some under ground; some on top of the ground and some in the trees.

OTHE DOG @

The Wood Pewee's nest which is directly over a popular foot trail is now overflowing with 3 well-feathered babies. Already these young birds notice the insects that fly past them. Very shortly they will leave the next and catch insects on the wing.

The Common Tree Frog which sleeps by day and sings by night comes in a variety of colors such as brown, gray or green. Today the Naturalist found a brilliant green specimen fast asleep on a large Burdock leaf. So well did the color of the frog blend with the leaf's color he was almost unnoticed. Did the frog select bed intentionally or was it just chance?

The Naturalist could hardly believe his eyes this morning when he flushed a Woodcock right beside the nature trail. The Woodcock is a close relative of the Wilson's or Jack Snipe. Both birds live in moist or wet lowlands where they probe in the ground with their long bills hunting for worms and other small animals, but the Woodcock, as his name suggests, prefers the wooded lowlands while the Snipe likes the wet meadows.

July 16. One of the baby Red-headed Woodpeckers left his hollow tree nest today. His is about the size of the parents, but lacks the red on the head. Although able to fly well and to search for insects on dead trees, the parents are still taking food to him.

July 17. Today it was very hot and sultry, and the Yellow-billed Cuckoo or Rain Crow made frequent rain predictions. The Wood Thrush seemed not the least bit concerned about the weather as he poured out his flute-like song.

Appreciate and protect your State Parks.

"It so falls out,

That what we have we prize not to the worth, Whiles we enjoy it; but being lack'd and lost, Why, then we rack the value; then we find The virtue, that possession would not show us Whiles it was ours."

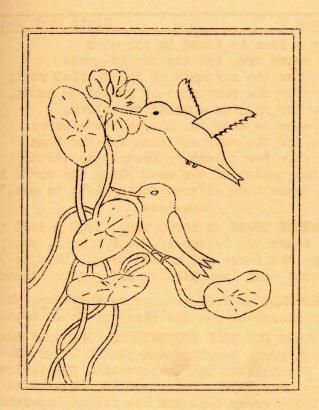
----Shakespeare

State Traveling Library

10WA STATE TRAVELING LIBRARY V. 2 No.3

Des Moines, Iowa

DOLLIVER MEMORIAL STATE PARK NATURE NOTES



Vol. II August 18, 1940

No. 3

This bulletin is prepared by the Naturalist for the information of the guests of the Dolliver Memorial State Park in order that the recreational and educational opportunities of an unspoiled primitive area may be more fully appreciated, utilized and protected. It is issued by the State Conservation Commission with the cooperation of the Recreational Department of the Work Projects Administration and the Iowa State College Extension Service.

David Damon

State Park Naturalist

"Many a tree is found in the wood
And every tree for its use is good;
Some for the strength of the gnarled root,
Some for the sweetness of flower or fruit,
Some for shelter against the storm,
And some to keep the hearth stone warm;
Some for the roof and some for the beam,
And some for a boat to breast the stream
In the wealth of the wood since the world began
The trees have offered their gifts to man."

- SUNDAY NATURE TOURS at 10:00 a.m., 1:00 & 3:00 p.m.

 The tours are leisurely, over a cool, shady trail
 where the ferns and mosses grow. This is your chance
 to meet many Iowa plants. Bring your friends along.
- EARLY-BIRD WALK at 7:00 a.m. every Saturday. This is your chance to see the birds at their best.
- SPECIAL TOURS FOR YOUR CONVENIENCE. Get your club or church group together and plan a Nature Tour with the Naturalist. The Conservation Commission provides this FREE service and the Naturalist is available every day. Ask him for an appointment.
- The scheduled Sunday Nature Tours and the Early-Bird Walks will start from the dam.

The Ruby-throated Hummingbird

Have you ever had the pleasure of watching a Hummingbird as it darted from flower to flower feeding on the nectar and insects? Before you answer "yes", think again; many people mistake the hawk-moths for Hummingbirds. These moths visit the flowers about dusk and on cloudy days.

The Hummingbirds are unique in several respects. They can fly backwards and sideways as easily as they can fly forwards. The family is large, there being over 500 species, all in the New World. Although the family is large, it includes the smallest birds in the world. Hummingbirds range in size from the Giant Hummer of South America having a length of 8 inches, to the Fairy Hummer of Cuba having a length of only $2\frac{1}{4}$ inches. Our Ruby-throated Hummingbird averages about 3 3/4 inches, and is the only Hummingbird in eastern United States.

The summer

These beautiful little birds which Audubon called "glittering fragments of the rainbow" have a temper out of all proportion to their size. The male not only enga-

ges in warfare with its own kind, but attacks any bird, however large, that ventures to dispute its territorial rights. These are not small, for in its own estimation it is "Lord of all it surveys". Nature has denied the Humming-bird song, and the harsh squeaks of these tiny sprites are far better adapted to making war than love.

The female Ruby-throat is an accomplished architect and builds the marvelous little nest without assistance from her mate. Although the nest, which is only 1 inch wide and $\frac{1}{2}$ inch deep, appears so delicate it is so securely anchored and woven about with spider-webs and threads of saliva that it seldom fails to weather the storms. The eggs are 2 in number, plain white and only $\frac{1}{2}$ inch long about the size of beans.

The tiny Hummers are hatched naked and for about 10 days are weak and puny with short, under-developed bills. Later they grow rapidly and after 3 weeks the nest bulges and flattens. Finally they are forced out onto the rim for the last day or 2. The babies are fed on a mixture of nectar and tiny insects which their nother pumps into them.

Our Feathered Police

Nature has provided our country with an abundant and diversified bird life. In order that we may appreciate more fully the practical value of our birds, let's compare them to a police force, the chief duty of which is to restrain within bounds the hordes of insects and rodents that, if unchecked, would devour every green thing. To accomplish this task the members of the force must be variously equipped as is any police force that deals with the many phases of law enforcement.

Our feathered force is divided into the following squads:

Ground Insects Squad - Sparrows, Thrushes, Wrens, Warblers, Crows, Blackbirds.

Wood-burrowing Insects Squad - Woodpeckers.

Tree-bark Insects Squad - Wrens, Nuthatches, Creepers, Warblers.

Flying Insects, Daytime Squad - Swallows, Flycatchers, Swifts, Nighthawks.

Flying Insects, Night-time Squad - Whip-poor-wills. Rodents, Daytime Squad - Hawks

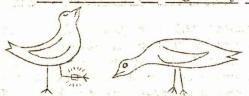
Rodents, Night-time Squad - Owls.

Many other birds which have not been mentioned here also play their parts in the warfare against the foes to man's industry. Let's protect the birds.

Did You Know That

- 1. A single Nighthawk's stomach was found to contain 500 mosquitoes?
- 2. Killdeers, many other shore birds and some ducks love to eat mosquito "wigglers"?
- 3. In a Barn Owl's retreat nearly 3,000 skulls of rats and mice were found?
- 4. Near a Barn Owl's nest nearly \frac{1}{2} bushel of pocket gopher remains were found?
- 5. Many Hawks eat grasshoppers (in addition to rodents), 100 grasshoppers being found in the stomach of one Hawk? This represents just one meal for this Hawk.
- 6. It has been estimated that Tree Sparrows eat about 875 tons of weed seed during their winter visit to Iowa alone?

Bird Banding: or The Telltale of Migratory Flight



If you are a duck hunter perhaps you have had the thrill of bagging a duck with an aluminum band around one log. On this band was a number and also the words, "Notify Biological Survey, Washington, D.C." You put the band in an envelope together with information as to where and when you shot the duck and sent it to the Biological Survey. In time you received a card telling you who banded the duck, where it was banded and when. The person who banded the duck also receives a card telling him that that certain duck was shot by you.

Since 1920 the Biological Survey has been conducting banding of all kinds of birds as a means of determining the routes taken by our migratory birds, and when baby birds are banded it is possible to tell exactly how old these birds were when they were killed. While the results obtained are of scientific value, they are of especial importance to the Survey in the administration of the Federal Migratory Bird Law.

The Biological Survey has hundreds of cooperators over the country who operate bird banding stations and report all birds banded to the Survey. The cooperators are not paid for this work, the banding being a hobby with them. The bands are provided by the Survey. When the bird bander finds a bird which has been banded by someone else this bird is released with its original band and the number is reported to the Washington office. Thus there is the possibility that this bird may be reported again from some other state or country.

Before the Biological Survey issues the permit required legally it must be convinced that the applicant's knowledge of birds is sufficiently advanced to enable him to identify correctly the bird banded. In Iowa a State permit is also required. The bird bander's "field" may be no larger than his window-sill and still yield data of value.

The Birds' Public Enemy No. 1

We humans think we have a lot of enemies and we do when we consider diseases, accidents, war, etc., but suppose we had to be on the lockout night and day for monstrous creatures that loved the taste of our flesh! Would we ever feel like singing if we lived under such conditions?

The house cat ranks first as a foe of our native birds. Did you say your cat doesn't kill birds? Unless you keep him on a leash or in an enclosure each 24 hours of the day how do you know your cat doesn't catch a bird when you are not around? No, the cat isn't to blame if i it kills a bird, for instinct to kill is born in all members of the cat family. Unfortunately this exotic cat has become a part of our wild fauna as have a number of other foreign animals and all because of our lack of foresight, carelessness or ignorance.

The well-fed tabby may take birds when it can, but much of the loss of our feathered life is attributable to the half-starved stray, which in summer is as much at home in the woods and fields as the birds.

If cats are to find place in the household, every effort should be made by carefully feeding and watching them to insure the safety of the birds. The cat without a home should be mercifully put out of the way and this does not mean dumping it out in the country. Nothing could be more unjust both to the friendless cat which must then seek a livelihood for itself and to the hundreds of valuable birds that must be sacrificed each year to support a single unwanted cat.

The world's migration champion is the Artic Tern. It flies from pole to pole twice a year - a total distance of over 22,000 miles.

The Condor is said to be the largest bird that flies and unfortunately it is nearing extinction. It weighs from 20 to 25 pounds and has a wing-spread of 9 or 10 feet.



- July 21-Miss Erma Johnson, new Webster County Home Demonstration Agent, arrived with a group of 4-H Girls for a three-day camp.
- July 24-After an interesting 3-day program the Webster Co. 4-H Girls closed camp today as Mrs. R. S. Hicks, Kossuth County Home Demonstration Agent, brought in her group of 4-H Girls.
- July 27-The Kossuth County 4-H Girls closed the lid to their camp after a busy three days. The girls did considerable conservation work which included working on their Conservation books and taking five hikes with the Naturalist.
- July 28-The Seventh-Day Adventists arrived at the camp for a week of camp life and classes. Nine young people have enrolled in Mrs. E. Woesner's Nature class for special work in Bird Study, Tree Study, and Insect Study.
- July 30-The series of hard rains which we have been having seems to have improved fishing conditions in so far as some "fishermen" are concerned. The "fishermen" we saw today include 2 Kingfishers, 1 Great Blue Heron and 1 Green Heron.
- July 31-It won't be long now! The Evening Prinrose is beginning to blossom and the Golden Rod is about ready to burst forth.
- Aug. 1 -Many birds which were very noticeable by their calls or songs are now quite silent. No longer do we hear nuch from the Ovenbird, Rosebreasted Grosbeak, Water Thrush, Catbird, Brown Thrasher and Phoebe. The birds that are making most of the music now include the Towhee, Chickadee, Crested Flycatcher, Wood Pewee, Flicker, Cardinal, Wren, and Wood Thrush.



Vol. II September 1, 1940

No. 5

This bulletin is prepared by the Naturalist for the information of the guests of the Dolliver Memorial State Park in order that the recreational and educational opportunities of an unspoiled primitive area may be more fully appreciated, utilized and protected. It is issued by the State Conservation Commission with the cooperation of the Recreational Department of the Work Projects Administration and the Iowa State College Extension Service.

David Damon

State Park Naturalist

THIS WILL BE THE LAST ISSUE OF NATURE NOTES for the 1940 season. If these little booklets, together with the Trailside Museums and Nature Tours have increased your appreciation of Nature and pointed out the need for conserving (using wisely) all the natural resources of our state, then we feel that our efforts have been worthwhile.

Although it is necessary to discontinue our Naturalist Service for this year, the true nature enthusiast knows that there is something to see in his state parks each season and if he is a camera fan he will take many Autumn and Winter pictures.

You may be surprised when you see how many kinds of birds spend the winter in the park. Some you saw during the summer; others came down from Canada for their annual winter visit. In the early spring before the trees wake up you will find the woodland flowers in full bloom.

For the naturalist there is no closed season.

---000---

"Nature! Great parent! whose unceasing hand Rolls round the seasons of the changeful year, How mighty, how majestic are thy works! With what a pleasing dread they swell the soul! That sees astonish'd! and astonish'd sings!

The Fox Squirrel

Park visitors often ask what kind of an animal tracks like those full sized drawings



FORE FOOT

BACK FOOT

and are surprised to learn that the Fox Squirrel has such large feet. Were it not for the long toes the foot print would not appear as large. Such long toes are extremely necessary to this large squirrel for with them he is able to climb trees and cling to surprisingly small branches. Once in awhile he may fall from a tree and on such occasions he probably wishes he had bigger and better toes.

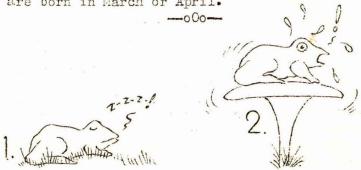
This squirrel is very common throughout the park. In the vicinity of the central picnic area these animals are especially noticeable early in the morning at which time groups of six or more may be seen on the ground. The Fox Squirrel is often but incorrectly called the red squirrel and should not be confused with that much smaller squirrel.

The Fox Squirrel is the largest of our North American tree squirrels and is also the most variable in color. The color varies with the locality, but even in a single park there may be such a difference in color as to make one believe they are different kinds of squirrels. For example, in this park we have only the one species of squirrel. Most of them are rusty red in color, but occasionally we see a jet black individual.

Fox Squirrels spend a great deal of time on the ground searching for food, but always seek refuge in the trees when danger threatens. Their distribution is confined to wooded areas; in the north they live in the hardwoods and in the south they are found

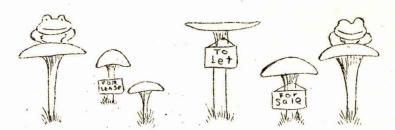
in pine woods, live oaks or cypresses. Since it is a favorite with the hunter and does not migrate like the Gray Squirrel, the Fox Squirrel is on the verge of extinction in many places.

This squirrel has a chucking call-note and when disturbed utters a hoarse bark. It is active only by day and does not hibernate although remaining in a nest during cold or stormy periods. It builds nests in hollows in trees and also constructs large nests of leaves in the crotches of limbs. The young, numbering two to four, are born in March or April.



During the period of heavy dews (Californian, meaning cloudbursts, etc.) thousands of mushrooms and toadstools of every shape, size and color sprang up. Out of the grass, out of the leaves, out of the bare earth and out of stumps popped the toadstools. If a toad fell asleep in the right spot he may have awakened to find himself atop a toadstool. And surely there must have been an over-supply of stools.

By the way, if you don't know the edible from the poisonous mushrooms it is safer to smother your steak in onions.



Sweetflags

Perhaps you have noticed clumps of flat-leaved plants growing at the water's edge in the pike nursery. These plants which look a little like cattails, are Sweetflags. The flowering time of the Sweetflag occurs in June and July, the flowers being borne on a sort of spike which

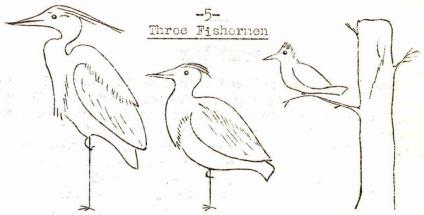
grows out at a sharp angle to the flat stem. When about half matured the spike is tender and edible and the interior of the stalk is sweet.

Although the Sweetflag is a cousin of the Skunk Cabbage it does not have any of the evil—smelling properties of the latter. On the contrary, it has a record as an ingredient of incense that goes far back beyond King "Tut" to times antedating the custom of burning incense by the people of Israel.

The root of the Sweetflag has medicinal properties, and is used, when dried or candied, as a remedy for dyspepsia and as a stimulant and tonic for feeble digestion. It is powdered and used as an insecticide in India and Ceylon, and yields a volatile oil used in the manufacture of perfumery. The Greeks and the Babylonians knew of its properties and employed them alike in medicine and in incense.

---000---

A few copies of the back numbers of this booklet are still available to those who desire a complete set of them. Ask the Naturalist for copies before they are all taken.



We have three species of feathered fishermen in the park. And each is successful enough at the fishing game to make all or part of his living at it. Although condemned by some fishermen these birds cannot be considered harmful except in the vicinity of fish hatcheries and fish-rearing pends. They are protected by State and Federal laws.

The largest of the three fishermen is the Great Blue Heron. His long legs and stealthy movements enable him to wade in the water with scarcely a ripple, and with a lightning thrust of the long bill he captures a passing fish or frog. Aquatic animals are only a part of this birds diet; he also eats snakes, insects, mice and gophers, thus he proves to be an asset to agriculture.

Next in size is the Green Heron who, like his larger relative, frequents the shallow water of lakes, ponds and streams. His food is also varied, for in addition to the usual fish and frogs he eats large numbers of insects, not always aquatic. One bird was found to have its stomach filled with grasshoppers.

The Kingfisher is the smallest of the fishermon. This bird has no need for long legs and large feet since it does not fish in the manner of herons. In fishing he poises on quickly beating wings several feet above the water watching for a fish and when one is sighted he plunges into the water after it. Besides fish this bird eats large numbers of crawfish, some frogs (mainly when fish are scarce), and many insects.



As the summer fades away we are reminded of James Whitcomb Rilcy's poem "Old October" which reads in part:

. . . the frosts is comin' on, Little heavier every day — Leaves is changin' over head, Back from green, to gray and red, Brown and yeller, with their stems Loosenin' on oaks and e'ms; And the balance of the trees Gettin' balder every breeze —

