

IOWA CONSERVATIONIST

Volume 9

APRIL 15, 1950

Number 4

PIGMY SINGERS OF THE PONDS

WILLOWS

By Roberts Mann

Forest Preserve District of
Cook County, Illinois

The willow was beloved in olden times as a symbol of sorrow and grace. In contrast, it reminds Englishmen of the willow bats used in playing cricket, their national game. To a Hollander, it means wooden shoes. To young Americans, however, it means pussy willows in early spring, willow whistles and fishing poles.

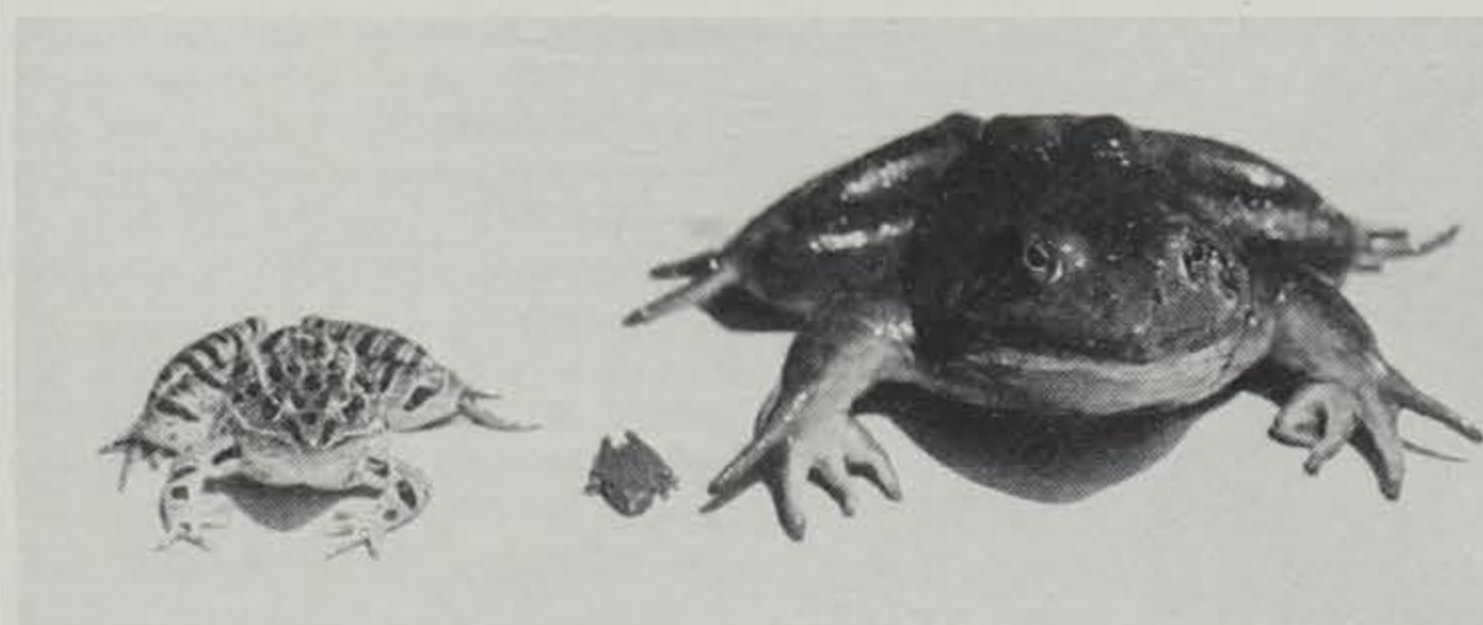
Willows grow rapidly and abundantly in moist soils and along the edges of water throughout most of the United States and in many other parts of the world. They are a conspicuous feature of the landscape along freshwater streams, lakes, ponds and marshes—sometimes as large picturesque trees with gnarled or leaning trunks and open feathery crowns, sometimes as dense shrubby borders, or as thickets covering many acres. Willows are plant pioneers, able to live on raw new soil wherever there is water. Also, because their tiny silky-haired seeds are borne long distances by wind, they were probably the first woody plants to gain a foothold in this region when it was uncovered by the melting of the glaciers. Dwarf willows are found on the barren lands beyond the Arctic Circle.

Most willows range in height from a few inches to 20 or 30 feet. Certain alpine species at maturity are not more than an inch or so in height. In the Chicago region there are over two dozen kinds, which are very difficult for anyone but an expert to distinguish, but only two native kinds reach tree size: the black willow and the peach-leaved willow. The golden willow originated in Europe, the weeping willow in China where, with its long drooping branchlets, it frequently appears in Chinese decorative art. Both are ornamental shade trees. The crack willow and

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The songs of frogs and toads are perhaps a surer sign of spring than those of birds. Most of these amphibious singers have vocal sacs which when filled with air act as resonators, magnifying their spring songs.



Tiny chorus frog, flanked by the familiar leopard frog and the giant bullfrog. The chorus frog is one of the tiny singers that call from every roadside pond in early spring.

By Kenneth D. Carlander and
Robert B. Moorman
Iowa State College

Some of the most delightful signs of spring are the evening trills of frogs. Their calls are perhaps a surer sign of warmer weather than are those of the birds. Since frogs are cold-blooded animals, their activity is more definitely correlated with the weather than is that of the birds which move north with the lengthening days. Soon after the ice and snow melt, forming pools and ponds in the low spots or in the ditches, some species of frogs come out of their hibernation and prepare for their courting season.

The frogs which call the loudest and the longest are not the spotted leopard frogs with which you are probably most familiar. Instead they are small frogs, less than two and one-half inches long—so small that they are usually not seen. It is these small frogs which come out the earliest in the spring, often at least two or three weeks before the larger frogs will brave the icy waters.

These frogs belong to the tree frog family, the *Hylidae*, and can be distinguished from other frogs because the tips of the toes and fingers are expanded into little suction cups. The skin of the belly is granular and not smooth like that of other frogs. With the granular belly and the suction cups on the toes, the tree frogs can even climb up the side of a glass jar or cling to a window pane.

The spring calls of frogs are caused by air passing over the vocal cords in the larynx or voice box of the throat. The sounds can be produced either above or below the water. The mouth is kept closed, and the air is passed back and forth from the mouth to the lungs over the vocal cords. In addition, most frogs have vocal sacs which, when filled with air, act as resonators, magnifying the sound. In the tree frogs, these

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IOWA DEER HERDS—1950

By Glen C. Sanderson
Game Biologist

In early February of this year all conservation officers were asked to mark the winter ranges of the deer herds in their counties and to estimate the number of deer on each range. Accurate estimates are difficult to make; however, surveys similar to this one were conducted in 1947 and 1948 (Faber, L. F., 1948. Deer survey, 1948. Ia. Cons., 7(4):30) in about the same manner and at about the same time of the year, so the results should be comparable.

The results of the 1950 survey show a decided increase in the deer population during the past two

years. In 1947 there were 1,650 deer reported, in 1948 2,024, and in 1950 a total of 4,530 were reported (Table 1). This is a reported increase of approximately 100 per cent from 1948 to 1950 in the number of deer in Iowa. The exact figures are not in themselves important and are probably on a very conservative side; however, it is apparent that Iowa's herd is increasing rapidly.

The results of the 1950 survey further show that 89 of Iowa's 99 counties now have herds (two or more deer) of deer as compared to 78 counties in 1948. Only four of the 99 counties were reported

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Iowa Conservationist

Published Monthly By The

IOWA CONSERVATION COMMISSION
914 Grand Avenue—Des Moines, Iowa
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CIRCULATION THIS ISSUE.....39,000

Entered as second class matter at the
Post Office at Des Moines, Iowa, September
22, 1947, under the Act of March 24, 1912.
Subscription rate.....40c per year

3 years for \$1.00

Subscriptions received at Conservation
Commission, 914 Grand Avenue, Des
Moines, Iowa. Send cash, check or money
order.

1949 WATERFOWL HARVEST

By James G. Sieh
Game Biologist

Analysis of waterfowl data gathered from hunters by conservation officers during the open season has been completed, and we now know what kinds and how many ducks found their way to the dinner table. We wish to express our thanks to the hunters who cooperated in this waterfowl bag check.

Officers checked 5,862 duck hunters, 11 per cent of the total duck stamp purchasers. They had bagged 5,907 ducks and 725 geese. Last year's (1948) sample taken by 4,984 hunters totaled 6,086



Conservation officers checked almost 6,000 duck hunters during the season. Fred Schwob, former state conservation director, making "mallard music" on Lake Odessa. Jim Sherman Photo.

ducks and 206 geese. The breakdown and analysis of these figures in the table following is of interest to every duck hunter.

The most important change in the kill statistics between 1948 and 1949 is the increased harvest of geese and blue-winged teal. The

blue-wing is more vulnerable to an overkill because of its restricted nesting range and smaller total population than the more numerous mallard or pintail. Generally more blue-winged teal are killed during the first few days of the Iowa season than any other species. It is desirable to crop the surplus of blue-wings but, of course, undesirable to overharvest any species.

Fewer mallards were taken this year. Probably lack of good duck weather enables the old greenheads to outsmart the hunters. It took the average duck hunter 3.2

hours to bag a duck this fall, and 2.3 hunting hours last season.

Goose hunting was unusually good over the entire state. More than three times as many hunters killed a goose this year than during the previous season. The flight of blue and snow geese was the best in many years, probably the best ever experienced over the state as a whole.

Prior to the opening day large concentrations of ducks, especially teal, were present in almost every slough and marsh in the northern half of the state. Hunting was good for the first few days. Large numbers of waterfowl sifted through Iowa during the open season, but some of the late migrants, predominantly mallards, arrived after the closing date. These late migrants, for the most part, left Iowa just before Christmas with the final freeze-up.

The waterfowl situation in North America is still critical. The duck kill throughout the nation is enormous, and the gunning pressure in states like Iowa has reached record heights.

To improve waterfowl shooting in Iowa we must re-establish good waterfowl hunting areas as rapidly as funds will permit. We must also improve, increase, and wisely control the nesting areas which still remain within the state.

Private landowners are still draining duck marshes faster than they can be replaced in Iowa. This is unfortunately true elsewhere in many of the duck factories of North America. The waterfowl raised in neighboring states and Canada contribute immensely to the bag of the Iowa hunter. We must help hold the line against those who advocate unnecessary drainage if duck shooting as a major sport is to continue.

In addition to being companions of the hunt, bird dogs help to conserve our game by reducing crippling losses.

Sample of Waterfowl Harvest 1948 and 1949

	(1948)	(1949)
Number of hunters checked	4,984	5,862
Number of hours hunted	13,926	18,802

Species	Total Recorded Kill Numbers—1948—Percent	Total Recorded Kill Numbers—1949—Percent
Mallard	3,327 54.7	2,735 46.3
Black Duck	38 0.6	26 0.4
Gadwall	120 2.0	185 3.1
Baldpate	58 0.9	34 0.6
Pintail	546 8.9	643 10.9
GW Teal	766 12.6	671 11.4
BW Teal	174 2.9	691 11.7
Shoveller	175 2.9	192 3.2
Wood Duck	114 1.9	133 2.3
Redhead	102 1.7	79 1.3
Ring-neck	48 0.8	52 0.9
Canvasback	47 0.8	94 1.6
Bluebill	439 7.2	317 5.4
Golden-eye	21 0.3	7 0.1
Bufflehead	30 0.5	11 0.2
Ruddy Duck	61 1.0	24 0.4
Merganser	20 0.3	13 0.2
TOTAL DUCKS	6,086 100.0	5,907 100.0
Canada Goose	39 19.0	150 20.7
Blue Goose	84 41.5	376 51.9
Snow Goose	70 33.1	187 25.8
WF Goose		9 1.2
Other Geese	13 6.3	3 0.4
TOTAL GEESE	206 99.9	725 99.9



Fewer mallards were killed in Iowa this year, partly because of "bluebird" weather during most of the open season. Jim Sherman Photo.

Echoes From The Past

(Editor's Note: This is the third of a series relative to wildlife in early Iowa. Additional excerpts from pioneer books, newspapers, and diaries will be printed in future issues.)

(The following are excerpts from Galland's *Iowa Emigrant*, published in 1840 and reprinted by the State Historical Society in 1949.)



In 1840 crows were "sufficiently numerous to be at times troublesome to the farmer."

BIRDS

The groves in all this vast region of country, are enlivened with the morning matins and evening vespers of a great variety of singing birds.

The wild turkey, which was so abundant on the Ohio in early times, is but rarely found in Iowa: I have, however, seen large flocks of them on the river Des Moines, more frequently than in any other part of the country.

The prairie hen obtains in the greatest abundance, and more es-

pecially in the vicinity of the white population. Quails are also numerous, but the pheasant is rarely seen. Swans, geese, brants, and an almost endless variety of ducks are in the greatest abundance along the rivers, upon the lakes, and not unfrequently upon the prairies.

Pelicans. These singular fowls, in the early part of autumn, often whiten the sand bars of the rivers and lakes—hundreds of them, on their passage to a southern latitude, alight together on a sand bar or island, and give it the appearance of a bank of snow.

The crow and the black bird are sufficiently numerous to be at times troublesome to the farmers.

Bald eagles are quite common, while the grey eagle is scarcely ever seen. Buzzards and ravens are also frequently seen.

Doves and pigeons, a great variety of woodpeckers, and a few of the real woodcock genus, of a large size, are found in the country.

The little humming-bird is likewise often seen, examining the flowers for his food.

The honey bee is doubtless a native of this region: they are found in the greatest abundance, as we advance beyond the white population.

WILD FRUITS

The earliest fruit, which ripens in the last of May or first of June, is the strawberry. It grows in barren land, or adjoining the timber in prairies, and often on the second

bottoms, which are of a sandy soil. This fruit is of an excellent flavor, and in some seasons can be obtained in almost any quantity.

Blackberries grow plentifully, in those places where the timber has been either cut down by the hand of man, or where it has been prostrated by hurricanes; these are also a very pleasant berry, but not so delicious as the strawberry.

Raspberries are not as plentiful as the foregoing, but they are very common in the country.

Gooseberries are in many places in the greatest abundance, and of the best quality; they are large and smooth and of an excellent taste.

Plums abound in a great variety of size, color and flavor, and grow on trees or bushes in a variety of soils, some of them are of an excellent flavor.

Crab apples are found plentifully about the head of water courses in the edges of the prairies, they are very large and make excellent preserves, having a fragrant smell and a fine golden color. Several varieties of hickory nuts, the black walnut, the butter nut, the hazel nut and the pecan, are plenty in many places.

Grapes. Both summer and winter grapes, and of several varieties, both in size and flavor are found in the country. Wild cherries, the black haw, the red haw and the paw-paw, are also found here.

Cranberries grow in the greatest abundance in the northern parts of this territory, and are obtained from the Indians by the traders in large quantities.

NEW DINGELL BILL INTRODUCED

Congressman John D. Dingell of Michigan has reintroduced a revised version of his Federal Aid to State Fisheries Bill, which unanimously passed both houses of Congress last spring but which was vetoed by President Truman, the Wildlife Management Institute reports.

The new bill, H. R. 6533, would make the act effective on July 1, 1950, whereas the former would have been retroactive to July 1, 1947. It was this feature to which the Treasury Department and the President objected so strenuously. The present bill carries an authorized appropriation of \$2,000,000 for the first year's operations to permit administration to begin at once instead of waiting for a full year to pass so that revenue from the 10 per cent excise tax on fishing rods, creels, reels, and artificial lures could be determined. With these exceptions the new bill is substantially the same as the one vetoed at the close of the last session of Congress.

Adult females of fox and gray squirrels regularly have two litters per year in Iowa, one in spring and one in summer. Yearling females of the same species normally have but a single litter their first year.



Young animals are almost never abandoned by their parents. Here a baby 'possum in the language of all infants cries, "Here I am, Ma!"

ANIMAL 'KIDNAPPERS' ARE SUBJECT TO PROSECUTION

In spite of widespread publicity and education, animals and birds are being subjected to an unprecedented wave of kidnapping by Iowans, says the Iowa Conservation Commission. Possession of protected young birds and animals is prohibited by law and each offense of animal- or bird-napping is punishable by a maximum penalty of \$100 or 30 days in jail. Conservation officials estimate that last year as many as 2,000 baby raccoons were held illegally in Iowa, many in an unsanitary and starving condition.

Young animals that have been taken from the wild and held in captivity, even for a few weeks, when again released seldom are able to readapt themselves to the wild and soon fall prey to their natural enemies.

Young animals found in the wild are almost never abandoned by their parents. Usually the youngsters have been left in hiding by the mother, or wandered away like mischievous children, and will be readily found by their parents unless kidnapped. It is not that we do not want youngsters to have animals as pets, but they should stick to white mice, guinea pigs, or unprotected species like the crow.—Keota Eagle.

The tail of the beaver has many uses, but it is not used as a trowel or to carry materials. It is used both as a rudder and as a powerful propeller when the beaver is swimming. It is also used as a prop when a tree is being cut. Perhaps its most spectacular use is as a signaling device; it makes a slapping splash as a warning to other members of the colony.

The lips of the beaver are constructed so that they can close behind the incisor teeth, permitting the beaver to gnaw under water.



Galland found "swans, geese, brant, and almost an endless variety of ducks in the greatest abundance along the rivers, upon the lakes, and not unfrequently upon the prairies." Jim Sherman Photo.



A few years ago large yellow perch were abundant in Clear Lake, often making up the total bag of ice fishermen.

YELLOW PERCH, CLEAR LAKE

By John Parsons

Department of Zoology and
Entomology
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Years ago the yellow perch was a frequent and desirable addition to most fishermen's catch at Clear Lake. Today there is a different story. During the past several years it has been all too evident to the fishermen that the perch are not only scarce in Clear Lake, but are also small in size.

A study of the yellow perch and other fishes of Clear Lake has been carried on since 1941 by the Iowa Cooperative Fisheries Research Unit. An analysis of the data collected has shown some marked changes in the perch population.

Why the perch in Clear Lake are small is, of course, an important question. Biologists cannot always explain such phenomena, but part of the answer in Clear Lake appears to be that the perch simply do not live long enough to grow to a desirable size (over eight inches). Under normal conditions, fish tend to grow as long as they live. Of the 738 perch examined from Clear Lake since 1941, only two lived beyond three years of age. This is of significance since perch in other lakes often live five to six years and even longer.

There was no direct evidence as to why the perch were so short-lived, but apparently the habitat in

Clear Lake has not been suitable for the older and larger perch. A study of the 1949 Clear Lake perch indicated a comparative freedom from serious diseases and parasites.

The size of the perch has also been affected by a decrease in growth rate since 1941. This can be better explained by showing the size of the perch for each age group during the years of collection.

Total Length at Capture in Inches

	Age in Years			
	1	2	3	4
1941		8.0		
1947	4.1	7.2	9.1	
1948		6.0	7.8	10.0
1949	4.7	5.6	6.2	

Of the fish taken 21 per cent were one year old, 66 per cent two years old, 12.6 per cent three years old, and .03 per cent four years old.

Apparently the perch have decreased in growth rate due to a change of habitat and feeding conditions. A study of the stomach contents of the perch has shown that their food consists mostly of insect larvae which live on vegetation. The submerged vegetation in Clear Lake has greatly decreased in abundance since 1946, and this decrease may be an important factor affecting the perch's growth. It might be mentioned here that although perch frequently bite on minnows in Clear Lake, fish were seldom found in their stomachs as natural food during the summer months.

That the Clear Lake perch have decreased in abundance in recent years seems evident from the figures given below, which are based upon the average number of perch taken per hour for each gill net:

1947	2.59 perch
1948	.31 perch
1949	.03 perch

The future of the yellow perch in Clear Lake is a matter of speculation, but it appears that the perch will contribute little to the fisherman's catch in the next few years.

RACCOON OFF PROTECTED LIST IN LOUISIANA

A few years ago a valuable fur bearer, the raccoon now is classified as a predator in Louisiana.

The pelts of the thin-furred marsh raccoons of the Gulf Coast marshes now bring such low prices that few trappers consider them worth skinning, even when they are caught accidentally, and none trap them deliberately. As a result, their numbers have increased steadily, and they are reported to be preying upon muskrats and nutria and to be robbing the nests of shorebirds and waterfowl. They are credited with robbing traps and even with invading muskrat houses. As a result of the dictates of fashion, raccoons everywhere have had an easy time of it during the past few years.



The Weimaraner, according to its supporters, is changing all previous ideas of a dog's capabilities. Wichelman Photo.

THE NEW DOG

By Gib Knudson, Jr.

Along in late March or early April the first Weimaraner will move to Emmetsburg. If you don't know what a Weimaraner (pronounced vymar-honor) is, it is a dog and, according to many accounts, the wonder dog of all time.

Ted Girard is getting one of these "grey ghosts," as they are called, and he had to put in his order in December for a pup whelped the other day. He is buying it from Wichelman's kennels at Gibbon, Minnesota, and his Weimaraner will be one of fewer than 2,000 in the United States.

You don't just go out and pick up one of these pups as you would a dog of other breeds. Besides putting in an order long in advance and paying a hefty sum for the dog when you get it, you have to join the Weimaraner Club of America by paying a membership fee and agreeing to abide by its restrictions.

The Weimaraner has received much publicity recently in all kinds of magazines. A recent issue of *True* says the breed "is changing all previous ideas of a dog's capabilities." It is rated with an unheard of intelligence among dogs, which makes it seem human-like when hunting or solving problems around the house.

The dog works on all kinds of game, trailing fur bearers and pointing birds, and it is an excellent retriever. It is credited with a "vacuum cleaner" nose which can scent a pheasant or quail 100 yards away.

It is almost beyond belief, the things these dogs can do, according to *True*. They have found pheasants where other gun dogs have found none and with a few hours' training have worked cattle and sheep better than old cattle and sheep dogs.

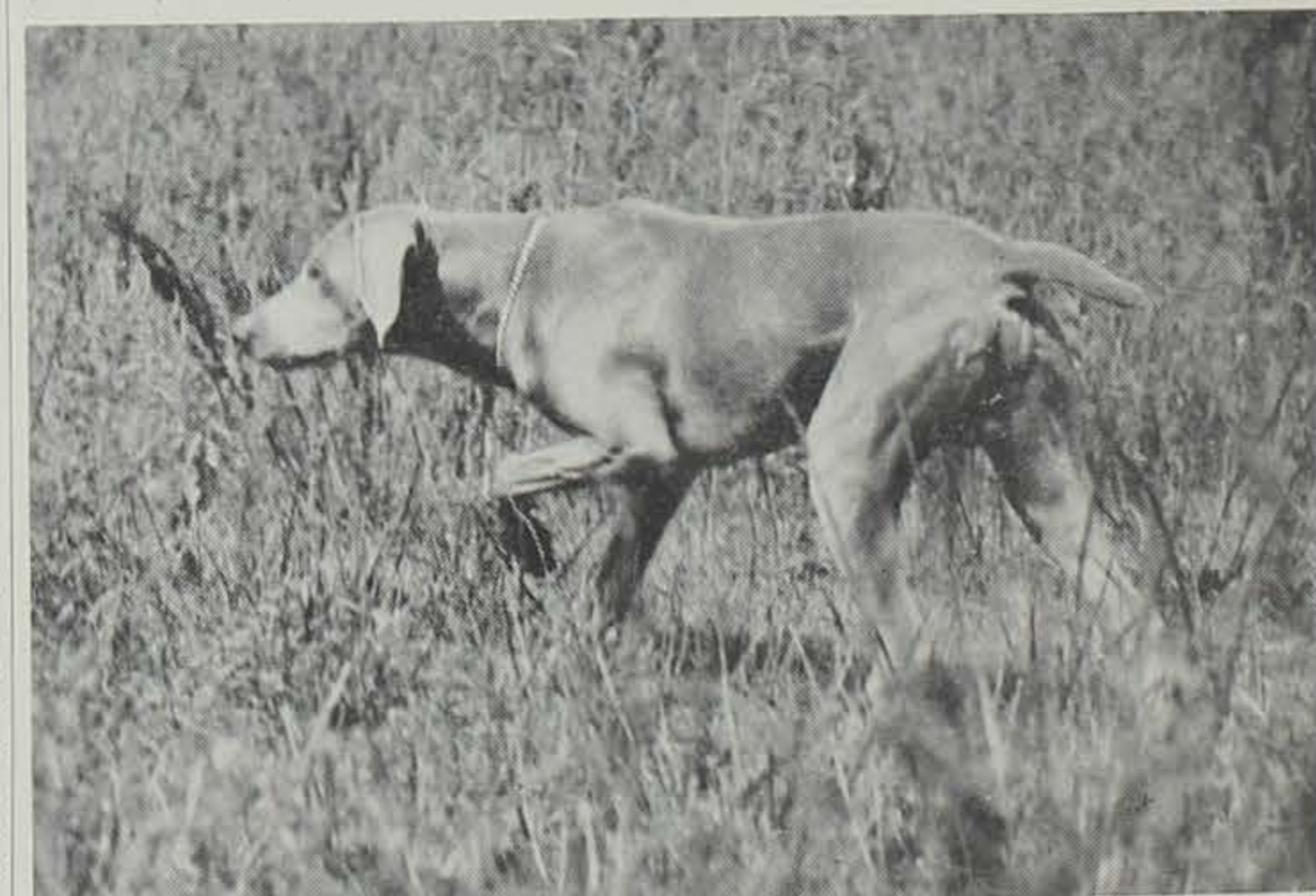
No breed has yet matched them in the perfection with which they pass obedience tests or the young age at which they do it. They have trailed men and found them, after bloodhounds have failed, and they are equally good trailing lions and other big cats.

They also praise these super dogs for doing such tricks as this: putting kennel mates away for the night in their pens and latching the gates. *True* said one even unhooked the receiver from a telephone when the bell rang in the owner's absence. The Weimar had learned it from observation and the person on the other end of the line could hear the sound of the dog breathing in the mouthpiece.

The Weimar is proof of what careful and restricted breeding can do. For 135 years it was found only in the castles of the lords of the Court of Weimar in Germany. They saved and bred only the best dogs and jealously guarded them. Then during the war a few were sent to America to save the breed's extermination. That was when Hitler was ordering dogs killed for food.

The Weimaraner Club in this country is trying to keep the breed at its high standard. Members must agree to breed their dogs only to other Weimaraners and to destroy inferior specimens. The Weimar looks something like a German short-hair pointer, has the short-hair's bobbed tail. But it is a solid grey and the color, along with its easy and powerful gait, gives it the name "grey ghost."

—Emmetsburg Democrat.



The Weimaraner, which is credited with a "vacuum cleaner nose," can scent a pheasant or a quail a hundred yards away. Wichelman Photo.

"JOE BEAVER"

By Ed Nofziger



"In order to conserve water you must start with soil conservation—that so hard to understand?"

THE ORIGIN AND PROGRESS OF ANGLING

(Editor's Note: From *An Encyclopaedia of Rural Sports*, by Delabere P. Blaine, published in London in 1852.)

The practice of taking fish with a rod, line, and baited hook, is called angling, and although now more frequently pursued for amusement than for profit, was without doubt in early times an indispensable occupation, and was forced on man to obtain food.

Whether fish were first ensnared by line and baited hook, or whether other means preceded them, we have no opportunity of ascertaining. If conjecture be allowed to stand in the place of certainty, we should think it not unreasonable to conclude, that the fishes first obtained by man were such as he abstracted from the shallow pools, or from hollows left in the sands by the receding tide; these he would chase, and might either knock on the head, or transfix with a wooden spear.

Observations made on the contents of the stomachs of such as were thus taken, would lead to a knowledge of the proper matters to use as baits for the enticement of others. His judgment would teach him to attach these around some small pointed and curved instrument, capable of fixing itself within the mouth or throat of the fish taking the bait, while he retained a communication with himself by means of some filamentary vegetable or animal matter forming a line.

The adaptation of the line and hook to a pole or rod, was consequent on the necessity which soon became apparent, of casting and maintaining the line and hook at a proper distance. Such probably was the origin of angling.

The Progress of Angling. The exact period when this art assumed the character of a regular and systematic practice is unknown: we have, however, sufficient proofs of its antiquity. Figures connected with it as an art, are among the earliest sculptured relics; and the classic reader cannot fail to trace notices of its existence throughout many of the works of the ancients.

In the sacred writings we have numerous proofs, that the use of hook and line in the taking of fish, was coeval with the early periods of the Jewish history; and also that angling was practiced as an art, separate and distinct from any

other less artificial methods in use for obtaining fish.

In the book of Job (supposed by some to have been written by Moses), we find a portion of the forty-first chapter, which commences in the sublimest style of eastern poetry, peculiarly apposite to our purpose, "Canst thou draw out leviathan with a hook, or his tongue with a cord which thou lettest down?" In the next verse we read, "Canst thou put a hook into his nose?" etc. These interrogatories, it is evident, allude to the practice of angling with hook and line. In the seventh verse of the same chapter we also find the question, "Canst thou fill his (leviathan's) skin with 'barbed irons', or his head with 'fish spears'?" which has likewise been thought to allude to the use of the angling hook.

But this opinion, notwithstanding the authority on which it rests, we conceive to be erroneous; on the contrary, we consider this verse as intended to characterise a mode of taking fish altogether distinct from angling. The Egyptians, we know, had made great progress in the arts in the days of Moses; and we have no hesitation in concluding that, by "filling the skin with barbed irons," was meant transfixing the fish with the harpoon.

The traces of the art during the dark ages are necessarily faint;



Angling in England a hundred years ago was a "top hat and tails" recreation, as shown in this old English print.

with numerous eulogists and commentators, as may be seen in our bibliographical notices, to which we would refer the reader who wishes more minutely to trace its progress.

The Character of Angling as an



The seduction of angling proves universal. "The little urchin catches an early impulse and is heedless of the terrors of the truant's punishment."

and it may be remarked, that not only did the benighted individuals who then lived refrain from transmitting any records of their own on the subject, but also destroyed what had already been handed down to them.

The early history of angling in Britain is confined within a very small compass. The parent art indeed may be traced in the various enactments made for its protection; but of that interesting branch which forms the subject of our discourse, even the industry of Mr. Strutt in *The Sports and Pastimes of the People of England* has failed to inform us. The first public notice which bears any claim to a systematic form among us, appears in the writings of the Lady Juliana Barnes or Berners: from that time to the present the practice of it has been a favorite pursuit, and has consequently met

Amusement. Angling as an amusement presents features of great attraction: it is far from dangerous or expensive, but on the contrary is productive of interest and amusement without any great pecuniary sacrifice.

Its apparent simplicity allures many into the practice; and as a trifling success elates the tyro and leads him on by its fascinations, so he pursues it, although he soon discovers that extreme nicety and precision, great patience, caution, and perseverance, are essential requisites to the attainment of proficiency in the art. Nevertheless, he still continues the pursuit: difficulty after difficulty is overcome; each succeeding year adds to the interest of the practice, which he continues with undiminished ardour to the latest period of his life. It is asserted, and we believe with truth, that there is not

one among the field sports that takes so permanent a hold on the passions as this.

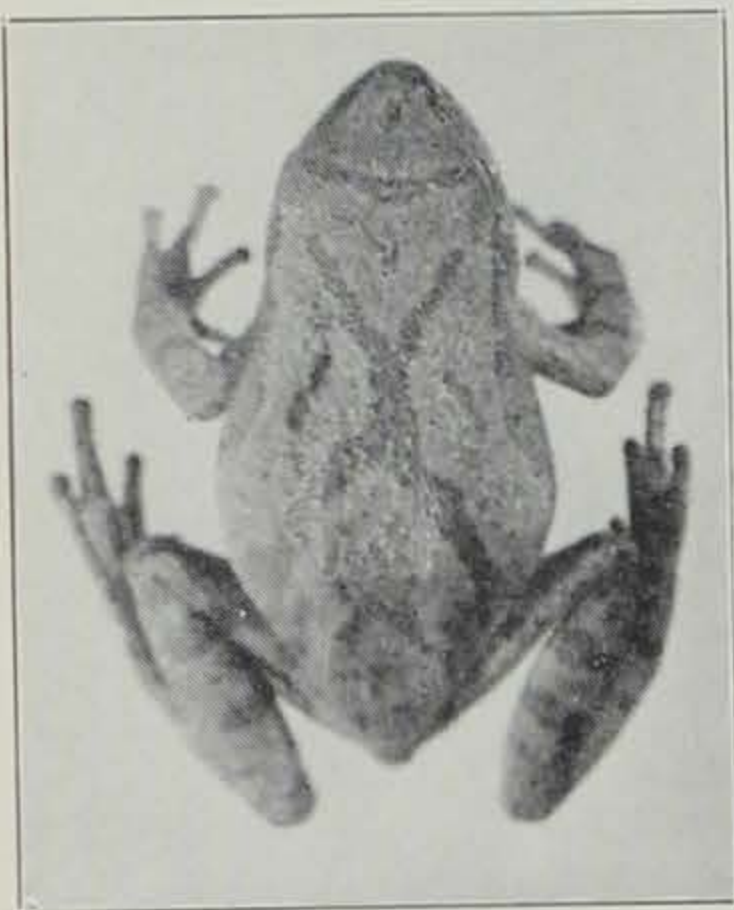
It is no less remarkable for the variety it offers, for, like Proteus, it presents itself under many forms, some of which are suited to the taste of every age, of every rank, and every variety of character and habit. The sedentary, the thoughtful, and the advanced in life, may watch the float as it slowly moves with the stream, without disturbance to their train of thought, or without any fatiguing exertion to their person. The active and volatile may throw afar the leaded bait for the pike, or may engage in the graceful evolutions of the fly rod.

Its seductions therefore prove universal, and it owns votaries of every age and station. The little urchin catches the early impulse, and seeks the brook, where, with a length of twine, encircling by one end a crooked stick, and by the other a bent pin, he toils in all the ecstasy of hope to ensnare the tiny banstickle, heedless of the terrors of a truant's punishment.

Each year increases his passion, and now the spliced hazel twig and horsehair links, the type of "things to come," assist his efforts; and success giving a new spur to his energies, behold him at length armed with a rod of ampler dimensions and workmanlike manufacture, with the accompaniments of well wrought line, buoyant float, and tempered hook. Trolling now engages his attention, and emulation giving a continual stimulus to his efforts, he rests not contented until he has mounted the very feather in the cap of angling, and has become the accomplished fly-fisher.



"His late Majesty George IV created a sumptuous fishing house and thus added himself to the list of royal anglers."



The earliest spring singers are the tree frogs. These can be distinguished from all others because their toe tips are equipped with suction cups so efficient that they can climb a vertical windowpane. Iowa State College Photo.

SINGERS . . .

(Continued from page 25)

vocal sacs are just under the throat and may be swelled like bubble gum until they are much larger than the frog's head. Only the males have the vocal sacs, and they are the ones that do the singing in the spring. The calling is part of courting and apparently helps draw the females and other males to the ponds where the eggs may be laid.

Chorus Frogs

Chorus frogs, *Pseudacris nigrita triseriata*, are usually the first to welcome spring in Iowa. An individual call is a somewhat musical vibrating chirp or trill. It is high pitched (E above middle C to high C), but not shrill. The trill usually rises in pitch and increases in emphasis before stopping abruptly. Although the call is surprisingly loud for such a small frog (adults are less than one and one-half inches long), a single voice does not carry very far. The chorus from the hundreds or thousands of frogs in a small pond may be heard over a half mile, however.

The chorus frog can be distinguished from the other small Iowa frogs by the three dark stripes down the back. The general coloration may be from light tan to almost black and may change somewhat depending upon temperature, the coloration of the habitat where the frog was found, and its health. In the very dark individuals the three stripes may be difficult to see. The toe discs are rather small, less than twice the width of the toe, and the webs between the toes are but poorly developed. The last two to four joints of the toes are free of the webbing. The throats of the males are yellow in contrast to the white throats of the females.

Since the chorus frogs frequent damp woods or marshy meadows, they are often known as swamp tree toads. They are also sometimes called "harvest frogs" when they are uncovered during haying operations in moist pastures. They

are found in all parts of the state and may be located in the spring by anyone who will try to find them in the evening as they trill. At this time they appear in unbelievable numbers, almost out of nowhere, to join in chorus in shallow temporary ponds. Usually they will stop calling when one approaches a pond, but if you will remain quiet one or two males will soon start calling at a far end of the pond. Soon others will chime in until the chorus is almost deafening. By looking and listening closely, you should be able to locate a tiny frog near shore with just the head and vocal sac above water. Often you will be able to turn a flashlight on the frog without startling him and then you can observe the inflated vocal sac.

Soon after the courting starts in the spring, clusters of eggs appear attached to grass or twigs in the pond. Each cluster has from 10 to 300 eggs in a gelatinous mass. Within a few days the eggs hatch into tiny tadpoles. In 40 to 90 days, the tadpoles grow legs and lose their tails, transforming into frogs five- to seven-sixteenths of an inch long. Most of the ponds in which the chorus frogs grow are temporary and therefore the tadpoles must change to frogs before the pond dries up.

Cricket Frogs

Cricket frogs, *Acris gryllus crepitans*, breed later than chorus frogs and usually are not heard until the latter part of April. The call resembles that of a cricket and may sometimes be heard as late as August. A cricket frog is about the same size as a chorus frog but may be distinguished by the fully webbed toes. The back and legs usually have many small warts. In cricket frogs the hind legs, not counting the feet, are about as long as the rest of the body, but in other Iowa tree frogs the legs are shorter. The cricket frogs are the most active of the tree frogs and will usually depend more upon their ability to leap and swim than will the other species which depend upon their secretive habits and coloration for protection. The cricket frogs feed mostly during the day, jumping for flies, etc., whereas the other species are mostly nocturnal. Cricket frogs rarely are found far from water and usually live along the edges of permanent ponds, lakes, streams, and marshes.

Although they belong to the tree frog family, chorus and cricket frogs seldom climb trees and the suction cups on their toes are poorly developed compared to the other two Iowa species, which are truly arboreal, or tree dwelling frogs.

Spring Peepers

Spring peepers, *Hyla crucifer*, usually start calling about as early in the year as chorus frogs, but they are found only in the eastern fourth of the state, being known from moist woodland areas in Allamakee, Clayton, Davis, Jackson, Jefferson, Lee, Linn, Van Buren

and Winneshiek Counties. The call is a shrill, high, clear, single, whistled note, usually repeated at one second intervals. It has a piercing quality which may cause ringing in the ears when several peepers are calling together. The males may even call during the daytime and may sometimes be heard in forested areas in midsummer.

The spring peeper is a small, rather short-legged frog with well-developed discs on the toes, twice the width of the toes. The back is tan or brown with a darker brown crossed mark, like an "X" on the back.

Tree Frog

The common tree frog, *Hyla v. versicolor*, is the largest of the four species of *Hylidae* in Iowa, sometimes reaching a body length of almost two and one-half inches. The skin is granular and the coloration is extremely varied and may change from green to gray to brown within a short time. The surfaces of the thigh region which are hidden when the frog is at rest are always bright orange-yellow, however. Tree frogs are most common in the eastern and southern part of the state but also found in the larger wooded valleys in other parts of the state. The call is a high-pitched, full-throated, birdlike trill lasting about four-fifths of a second. Common tree frogs are fairly late breeders, usually not calling until May or June. Permanent ponds are usually selected, preferably woodland ponds with plenty of brush and other shelter.

All of the tree frogs can be quite easily reared from the eggs, which can be collected as gelatinous clumps from ponds in the spring. The water in which the eggs are kept should not be permitted to get very warm and should not be changed unless it turns foul. Some algae and other aquatic plants should be kept in the jar or aquarium to provide food. After they hatch only a few tadpoles should be kept for each quart of water because they will not grow and transform into frogs if they are crowded. Watching the tadpoles grow, develop tiny legs, and gradually lose their tails may be a very fascinating experience.

WE WHO LOVE ANGLING

We who love angling, in order that it may enjoy practice and reward in the later generations, mutually move together towards a common goal—the conservation and restoration of American game fishes.

Towards this end we pledge that our creel limits shall always be less than the legal restrictions and always well within the bounty of Nature herself.

Enjoying, as we do, only a life estate in the out-of-doors, and morally charged in our time with the responsibility of handing it down unspoiled to tomorrow's in-

(Continued on page 32)

Wardens Tales

Shop Talk From the Field

Maurice Jensen, conservation officer in charge of Clinton and Jackson Counties, writes:

"I have heard many stories about beaver, but this one, I think, tops them all. A farmer in western Clinton County had a creek through his farm, and he thought it might make a good farm pond if he put in a dam. After considerable investigation he decided to hire an engineer to survey the property and give specifications for installation of the dam. After the survey was made, but before construction started, a colony of beaver moved in from the Wapsipinicon River and the farmer didn't have time to do the work. The beaver built a dam across the creek exactly where the engineer advised its construction."

Conservation Officer Vern Shaffer, in charge of Clarke and Decatur Counties, writes:

"While assisting Bill Ayers during the last pheasant season, we saw a car driving slowly along the grass roads and decided we had better see what was going on. We found a man, a dog of uncertain breeding, and a loaded and assembled rifle. The man's license was all in order, and I asked him, 'Don't you know that it's against the law to carry a loaded and assembled gun in an automobile on a public highway?'"

"He said, 'No, sir, I didn't.'"

"I opened the hunting law leaflet, and I said, 'read this,' pointing to the section."

"He studied the section carefully and said, 'Officer, I don't see that fine print so good.'"

"When we took him into court it developed that he could neither read nor write."

Tom Berkley, area game manager, formerly conservation officer in charge of Chickasaw, Winneshiek and Fayette Counties, writes:

"Last summer my boy Don, age ten, and I were fishing below the lower dam in the Upper Iowa River at Decorah. I thought that carp were about all that a small boy might catch, so Don was fishing with doughball while I, the expert, was plug casting for smallmouth. I hooked a nice bass and after unhooking it handed my rod to Don while I walked down the bank a little way to put the fish on the stringer. Don made a couple of casts, had a hard strike, and hooked the fish. I rushed back up the bank to give him some expert help, then thought differently and let him go. The fish fought differently from any bass I had ever seen. Instead of long, fast runs and leaps, this fish fought deep, hard and moved slowly. It

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One of western Iowa's numerous deer herds break from cover, startled by the photographer's airplane. Fekun-Robbins Photo.

DEER . . .

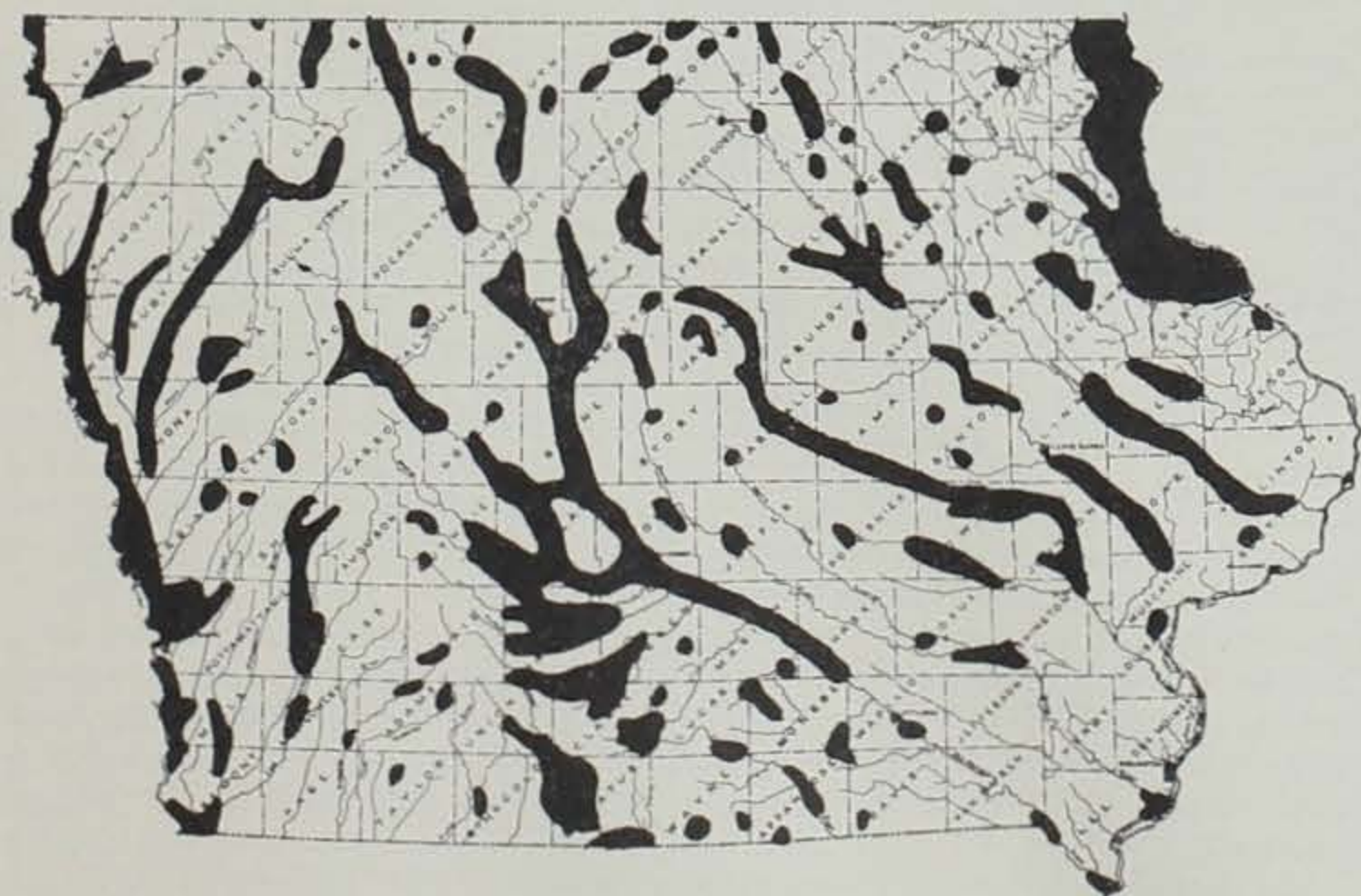
(Continued from page 25)
to have no deer at all, the same number reported to have no deer in 1948 (Table 1). In 1950 Franklin, Henry, Jackson, and Page counties were reported to be without deer, while in 1948 no deer were known to be present in Audubon, Cass, Wright and Grundy Counties. There are very few deer in the latter four counties in 1950. Occasional sight records were reported in five counties in 1950, as compared to eight counties in 1948. Scattered individuals were reported in only one county in 1950, as compared to nine counties in 1948. Thus, 11 more counties have herds of deer in 1950 than in 1948. This increase came from the counties where scattered individuals or occasional sight records were reported in 1948, because the same number (four) of counties were reported devoid of deer in both 1948 and 1950. The present distribution of the herds in Iowa is shown by the accompanying map.

In the 89 counties having herds present, 320 herds were reported. There were 3,507 deer reported in these herds, or an average of 10.9 deer per herd. The average size is very close to the 1947 and 1948 figure. During all three surveys a herd was considered as two or more animals. This computed average herd size may be too high, because small herds are more likely to be overlooked than large herds and a few very large herds raise the average figure. These reported large herds may actually be two or more herds whose ranges are adjacent.

By comparing distribution maps for 1948 and 1950, it is at once apparent that the deer have extended their range in several places during the past two years. The spread in range seems to be most apparent in northeastern Iowa, especially in Allamakee, Clayton, and Dubuque Counties; in central Iowa along the Des Moines and Raccoon Rivers, especially in Dallas, Madison, and Polk Counties; and along

TABLE 1—A comparison of the 1947, 1948, and 1950 deer surveys:

	1947	1948	1950
Occasional sight records in	8 counties	8 counties	5 counties
Scattered individuals in	22 counties	9 counties	1 county
Herds reported in	58 counties	78 counties	89 counties
No deer in	11 counties	4 counties	4 counties
Number of herds	155	199	320
Number of deer reported	1,650	2,024	4,530



Areas in Iowa where deer herds were known to have ranged during the winter months of 1949-50.

the Missouri River north of Council Bluffs and Big Sioux River in western Iowa. Perhaps the two-year increase is not as great as it appears to be on the map, because scattered deer may have been overlooked in the earlier surveys and in the past two years have increased enough so that they were noticed for the first time during this survey.

Nearly all the major water courses have a good population of deer, and it is no longer surprising to receive reports of deer from almost any location in the state. Probably every county in the state is visited by one or more deer sometime during the year. During times of floods, reports of herds of deer near the city limits of several of Iowa's cities are common.

ON RETAINING AMATEUR STATUS

By Thomas J. Feeney

When Pancho Gonzales reached the peak in amateur tennis a few months ago, he went professional. When Doctor Middlecoff hit the apex on the golf links, he turned pro. The same temptation beckons to every bird-watcher when his life list hits 100 or more species. The reason is not to make money out of his sport as the others. It

is a matter of prestige. He no longer wants to be a bird-watcher but an ornithologist.

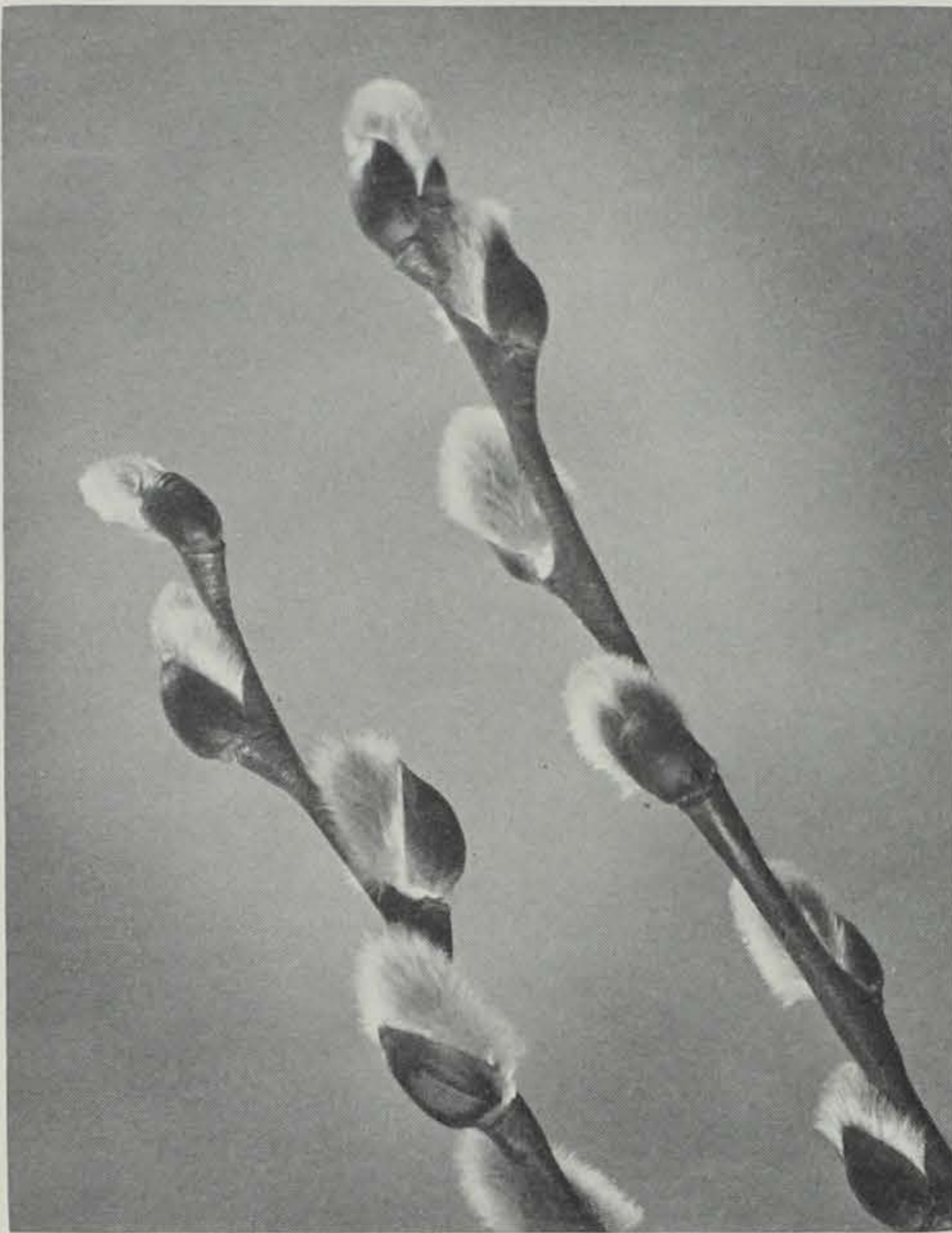
Now the chief glory of bird-watching is that it is a hobby, a pastime, and not a science. It is practically unique in its uselessness. Entomologists, or bug-chasers, can so easily get involved in control of corn borers or the study of the disease-bearing insects. Rock-hounds have always the hope of a bonanza in a brilliant amethyst of great price or, particularly nowadays, equipped with a portable Geiger counter, of a precious and patriotic strike of pitchblende. Stamp collectors look toward a find worth a fortune. Only the bird-watcher remains as a complete amateur—the sole proponent of art for art's sake in the world of hobbies.

The bird-watcher seldom hunts with a gun for his table. And whereas they say it costs every hunter an average of over seven dollars for every duck he bags, if one similarly calculated equipment, especially binoculars, clothes, time, and gas, the bird-watcher may invest as much in each new species merely glimpsed and enjoyed by eye and ear, not by palate or pocketbook. The bird-watcher may write up his notes for magazines, but he is happy in his payment not by check but in free copies for his friends. The bird-watcher cer-

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"The chief glory of bird watching is that it is a hobby, a pastime and not a science. Only the bird watcher remains as a complete amateur, the sole proponent of art for art's sake in the world of hobbies." Jim Sherman Photo.



The male flowers of the willows are the pollen-producing "pussies." The female flowers, always on separate trees, pop open to release a cloud of cottony flying seeds. Jim Sherman Photo.

WILLOWS . . .

(Continued from page 25)

the white willow, which become the tallest and most valuable of our willows, were also introduced from Europe.

In spite of the fact that the fast-growing, fine-grained soft wood of the willow has little value for lumber, fuel or durability, it has many other uses. It does make a fine grade of charcoal for medical or chemical uses—especially gunpowder. Large quantities, three inches or more in diameter, are cut to make paper pulp. The tough wood of the larger logs is used for crates and boxes. Artificial legs are often made of it. Further, willows grow readily from cuttings and are often planted as windbreaks, as living fences, and to control eroding banks or gullies with their dense mats of reddish-orange roots.

Among the many shrubby species, some have special uses. The basket willow and others called osiers are cultivated for the manufacture of wickerware and wicker furniture. The tough bark of some kinds is used as string or twisted into rope. The bitter inner bark is used in tanning hides, and formerly for medicinal purposes, for poultices, and as a substitute for quinine. The common sandbar willow is woven into large mats placed on stream banks and newly construc-

ted earth dams and levees where they quickly take root to form a living protection against erosion.

Willows, with their masses of water-loving roots, often do damage by clogging tile drains and drainage ditches on farms. In cities, as street trees, they do similar damage to drains and sewers. The male flowers are the "pussies" which produce the pollen. The mature female flowers, always on separate willows, pop open to release a cloud of cottony flying seeds. In spring, honey bees swarm about the flowers for early pollen and nectar. Willows are a favorite winter food for rabbits, beaver, deer, elk, moose, and also many birds which feed on their buds.

Willow switches are sometimes used to tan boys' hides.

One of the most interesting groups of aquatic insects are the caddis flies. The larvae of many species build their own portable houses that they carry around on their backs. Small sticks, pieces of vegetation and grains of sand are used. These portable houses are often so uniform in pattern and material that many larvae are known by the houses they drag about.

The common eel will leave the water and make overland forages into swamps and wet meadows to feed on frogs, etc. They have been kept out of water over 24 hours without apparent harm.

AMATEUR . . .

(Continued from page 31)

tainly makes no money from his sport and risks becoming a pariah to his family and regarded as queer by his neighbors.

We resent, therefore, current attempts, constantly growing, to make professionals out of us, ornithologists rather than bird-watchers, pseudo-scientists instead of nature lovers. The attempts are chiefly on the part of our own writers. Almost without exception they are professionals—men who are now earning their keep from what was once their hobby. They are employed by museums, universities, the Fish and Wildlife Service, the National Audubon Society, state conservation commissions, etc. This is as it should be. Professional ornithologists are necessary, but their number is limited. The rest of us should not pretend to be scientists and should not be encouraged by our writers and editors to consider ourselves as such.

Yet they do, in two different ways. First, by slighting and snide remarks at the amateur. Ludlow Griscom, who is perhaps as kind as any of the pros toward us, defines the amateurs as "people whom I am forced to allude to as amateurs, thanks to the defects of the English language, merely because they do not spend their entire time at it, and are not paid for ornithological research." (Modern Bird Study, p. 10). Then he proceeds to show how unreliable are the findings of the amateurs. Practically every recent book by a recognized expert has its little digs, perhaps unconscious, at us—the amateur will not be able to decide the species in the field; very confusing to the amateur, etc.

This sort of thing goads the bird-watcher into pretending he is an ornithologist. In desperation he makes notations about *Pheucticus ludovicianus* perched on a branch of *taxus canadensis*, with date, wind velocity, temperature, and the middle names of his companions, instead of enjoying the glad sight of a rose-breasted grosbeak eating ground hemlock berries.

The second way the writers foster the increase of ornithologists and the decline of bird-watchers is by positive encouragement. For instance, Joseph Hickey, in his very inspirational book for the amateur, "A Guide to Bird Watching", tries to get us into a dither about contributing to science by studying life histories, exact counting of birds, reports to journals. No one can deny that the part-time student and hobbyist in any field does frequently contribute to the common mass of knowledge. But it is questionable how much contribution amateurs make to the science of ornithology compared to the mass of irrelevant material that is poured into our journals.

As a result of such encouragement our magazines are becoming repulsive by overloading with

simple facts couched in stilted terms; with articles concerning the longevity of robins (pardon me, *Turdus migratorius migratorius*) expressed in algebraic formulae; with tables and charts that make the simple lay of the song sparrow as complicated as atomic fission. As yet, "Iowa Bird Life" has not succumbed to the disease. May it ever remain healthy."

As I write these lines in the fall enjoying the myrtle warblers, hermit thrushes, sapsucker and white-throated sparrows as they pass through the yard, I await the arrival of the golden-eye and merganser and bald eagle. Yet, on what day the bald eagle appears and what species (or better yet, sub-species) of fish he may eat during his stay, though I observe it ever so closely, chart it ever so minutely, and report it ever so obscurely, will not, I think, contribute anything to the general knowledge of mankind or change the course of history in any way. Nevertheless, I shall make many trips to the river and watch with eyes watering from the wind, trying to be the first in the vicinity to report the bald eagle. With pride I am content to be a bird-watcher and not an ornithologist.—Iowa Bird Life.

TALES . . .

(Continued from page 30)

was fully ten minutes before Don finally beached his catch. He had two 14-inch bass hooked on the medium-sized white Lazy Ike—and I am the expert fisherman of our family."

Dan Nichols, conservation officer in charge of Louisa and Muscatine Counties, writes:

"When I got home for dinner a while back the family was discussing an article in the paper in which it was reported that a local hunter had received a 30-day jail sentence for threatening me with his shotgun when I arrested him for hunting without a license. My fourteen-year-old daughter exclaimed without thinking, 'Gee, pop, it's too bad he didn't shoot you! Then you would really have made the headlines!'

"After she thought what she had said and started explaining, she became more and more flustered and then almost on the verge of tears said, 'Well, dad, you know what I meant, anyway.'"

ALL WHO LOVE ANGLING . . .

(Continued from page 30)

heritors, we individually undertake annually to take at least one boy a-fishing, instructing him, as best we know, in the responsibilities that are soon to be wholly his.

Holding that moral law transcends the legal statutes, always beyond the needs of any one man, and holding that example alone is the one certain teacher, we pledge always to conduct ourselves in such fashion on the stream as to make safe for others the heritage which is ours and theirs.—Anonymous.