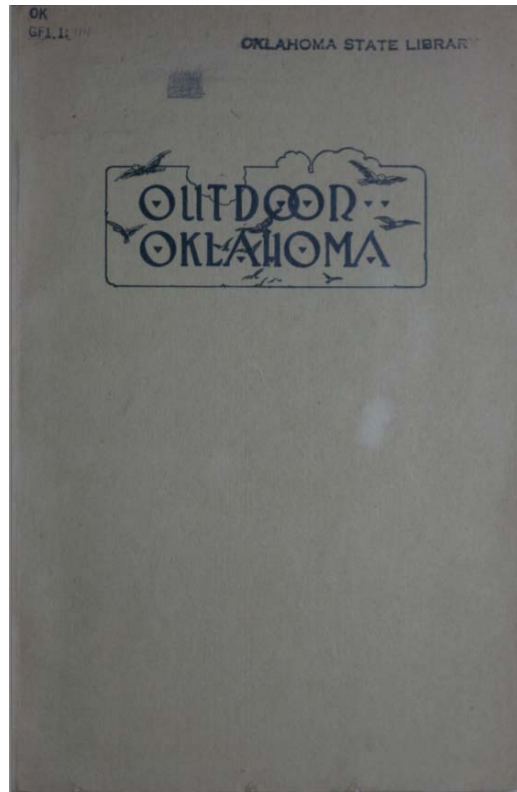


Outdoor Oklahoma

The 1914 Annual Report of the State Game and Fish Warden, John B. Doolin,
to the Governor of the State of Oklahoma, The Honorable Lee Cruce.



Introduction:

By Rich Fuller, Sr. Information & Education Specialist, ODWC

Much like its predecessor two years earlier entitled Field, Forest and Stream in Oklahoma, the 1914 Outdoor Oklahoma was atypical of what many would expect in a governmental report made from an agency head to the Governor of Oklahoma. The report was a soft-bound 96-page book that eloquently describes many of Oklahoma's wildlife and their habitats, but also makes a strong case for greater conservation and support of game laws, and the support of citizens towards the Game and Fish Department for such needs as establishing fish hatcheries.

John B. Doolin- State Game Warden, is credited as the author of the book. A native of Alva, Doolin began his career in the clothing business, but at age 21 began a life-long career in politics and public service.



John B. Doolin

After assisting the unsuccessful gubernatorial campaign of Lee Cruce in 1907, Doolin again assisted Cruce's second attempt in 1910 which he won. Thereafter Cruce appointed Doolin as State Game Warden. While in office, Doolin began an active campaign for the conservation of wildlife, particularly birds.

Although Doolin is credited as the author of both Outdoor Oklahoma, and its predecessor two years earlier, Field, Forest and Stream in Oklahoma, both books were actually penned by Frederick Samuel Barde, an experienced newspaper writer who moved to Guthrie in 1898. It was Barde, a self-taught naturalist, who wrote the descriptive and eloquent prose, interspersed with poems or passages written by other authors including Henry David Thoreau and the Oklahoma Creek Indian poet, Alexander Posey.

Like Thoreau, who found seclusion at Walden Pond in the wilds near Concord, Massachusetts, Barde found his own tranquility in a cabin made of stone he called "Doby Walls" a few miles outside of Guthrie.



"Doby Walls"



Fred Barde (1869-1916) at "Doby Walls"

The following passage within Outdoor Oklahoma, illustrates Barde's repeated pleas for Oklahoma citizens to adopt conservation due to the decline of some species such as prairie chicken.

Do the people of Oklahoma actually feel that their outdoors and its wild life should be perpetuated? Undoubtedly they do. A difficulty of the task, however, is their seemingly hesitancy in realizing that if it is not done promptly and thoroughly the opportunity will soon pass.

An article by Linda D. Wilson documenting the life and writings of Frederick Barde can be found on the Oklahoma Historical Society's Encyclopedia of Oklahoma History and Culture. See link below:

<http://digital.library.okstate.edu/encyclopedia/entries/b/ba019.html>

Additionally, an article about Barde by Larry Phipps ran in the 1965 spring edition of Oklahoma Today Magazine, which can be accessed at the following link:

<http://digital.library.okstate.edu/oktoday/1960.html>

The title of



lives on.

What began in January of 1945 as *Game and Fish News*, the Oklahoma Game and Fish Department's monthly magazine changed its name to *Oklahoma Wildlife* in September 1957. Then, in September of 1965, the magazine changed its title again to *Outdoor Oklahoma*, which is still used today.

Additionally, the title of "Outdoor Oklahoma" was used for Oklahoma Game and Fish's television show produced intermittently in the mid 1950s. Beginning in 1976, the Department of Wildlife Conservation has continually produced and aired "Outdoor Oklahoma" Television show on OETA-The Oklahoma Network.

OK
GFL.1: 917

OKLAHOMA STATE LIBRARY



"Our village life would stagnate if it were not for the unexplored forests and meadows which surround it. We need the tonic of wildness,—to wade sometimes in marshes where the bittern and the meadow-hen lurk, and hear the booming of the snipe; to smell the whispering sedge where some wilder and more solitary fowl builds her nest."

—THOREAU.

16

"Possibly, the greatest boon that the study of birds can confer upon man is seen in the power of the bird-lover to keep his spirit young. One who in his early years is attracted to the study of birds will find that with them he always renews his youth. Each spring the awakening year encompasses him with a flood of joyous bird life. Old friends are they who greet him, and they come as in the days of childhood, bringing tidings of good cheer. Thus it is ever. Years roll on, youth passes, the homes and woods of our childhood disappear, the head becomes bowed with sorrow and frosted by the snouts of time, the strong hand trembles, the friends of youth pass away; but with each returning spring the old familiar bird songs of our childhood come back to us, still unchanged by the passing years. The birds turn back, for us, the flight of time. Their songs are voices from our vanished youth. Let us, then, teach our children to love and protect the birds, that these familiar friends of their childhood may remain to cheer them with song and beauty, when, toward the sunset of life, the shadows will grow long upon the pathway."

—EDWARD HOWE FORBUSH.



Blazing Star.

IN the preparation of this Annual Report, the State Fish and Game Warden has been obedient to what he believes is his real duty toward wild life in Oklahoma. Something more than the enactment of laws is necessary for its security. Until there exists in every community a genuine appreciation of the endless natural beauties that have been created for the pleasure and

happiness of its people, governmental efforts for the protection and conservation of wild life will be fruitless. The subject is intimately related in countless ways to the daily life of every citizen, whether the viewpoint be economic, aesthetic or historical. The saving of a bird or the sparing of a little nook of native wild flowers is in itself of no importance, unless their value be measured by something more subtle than the market price of such commodities. If, however, the songs of birds and the sweetness of flowers are of finer moment in the lives of men, it will be felt that the hand that

wantonly or heedlessly accomplishes their ruin has perpetrated a grievous wrong.

The path would lead just as many miles, if it were barren of woodland life; the river finally would reach the sea, though its bosom were untouched by a single ripple; the earth still would be lighted by the sun, if not one color flashed on the hills at dawn. But the visions of men would be impoverished by such calamities, and the materialistic days would hang like unripened fruit on rotted trees.

Human needs are planted as deeply in the earth as are the roots of mountains. Men remember their ancient surroundings, and the immemorial virtues of outdoors; none becomes so civilized as not to relish the taste of sassafras buds or feel the thrill of lonely forests. Nature is a gracious mother, with arms extended for all her children; yielding to primitive impulse, men seek her in the exuberance of strong health, and delight in her infinite ways; or, with slow step, inevitably turn to her for comfort and consolation, worn with the vicissitudes of time.

Especially is outdoors delightful to children. They ask no questions, propound no riddles, but welcome joyously every sound and object that fill the day. For their simplicity, nature abundantly and affectionately rewards children. Childhood memories of outdoors are perhaps best of all; they linger throughout the years, becoming the little windows through which streams the sunshine of youthful days. For the children alone, it is worth while to save the flowers and birds and fish and the four-footed wild creatures of Oklahoma.

Do the people of Oklahoma actually feel that their outdoors and its wild life should be perpetuated? Undoubtedly they do. A difficulty of the task, however, is their seeming hesitancy in realizing that if it is not done promptly and thoroughly the opportunity will soon pass.

Let it be supposed that an alien force numbering thousands of armed men should appear suddenly along

the borders of Oklahoma. Step by step, as they advance, every bird and every wild animal is killed; every stream despoiled of all its fish; every flower crushed and uprooted; and all the trees and shrubs and vines of the native forests swept away in the havoc.

Every citizen of Oklahoma would rise as a man to repel such an invasion. The Nation itself would cry out against a crime so monstrous and unthinkable. That any man should say that no injury was being wrought, because these things were without utilitarian value, would be unimaginable.

Nevertheless, the shadow of a fate like this lies



Dove's Nest on the Ground.

upon the outdoors of Oklahoma. The destruction is progressing slowly, but surely, and is being wrought, not by foreign enemies, but by citizens..

Something that belongs to nobody may be taken by anybody, a rule of conduct once typical of wilderness surroundings, has ceased to be right logic in these later days, yet this old idea is still held by many persons. As a matter of fact, civilized society accords privileges, rather than rights, to its individual members; the sportsman, for example, may be granted the privilege of hunting, but he has no peculiar rights in the matter. The rights that are involved belong collectively to the

public. It is here that the main difficulty is encountered in the protection of wild life and in convincing a certain class of persons that game laws should be obeyed and respected.



On the Plains.

ownership of wild life that the State itself too often is unable to afford adequate protection. It is an incredible fact that men who would look with scorn upon a man's stealing a peck of corn or cheating his neighbor will violate game laws with slight compunction.

The muniments of title to our wild life are properly lodged in the State. The citizens upon whose land the wild duck descends and feeds may claim no private ownership of his visitor, however reluctantly he may admit the fact; and the dickcissel that nests in his meadow thicket or the oriole that sings in his orchard is possessed only by proxy. If this were not true, there would be no end of slaughter, for while one man might be a true friend of birds, his neighbor might look upon them as enemies to his vineyard. The people have wisely reserved to the State the exercise of all rights that may be involved. But so persistent is the survival of old and mistaken notions about the

If enforcement of regulations governing the pursuit of birds and animals that are commonly hunted were the only reason for the existence of this Department it might well be abolished; its reports would be lacking in their most essential content if they exhibited only the dry statistics of administrative routine. Love of nature for itself—not fear of the law—will save our wild life, if it be possible to save it. The boy or the girl who finds and follows the paths that lead to the constant pleasures of field and forest will become a warden, not only of fish and game, but of all outdoors, compensated from a treasury of riches greater than was ever owned by the State. Naturally, our public schools offer themselves as the best and most effective means of providing the kind of instruction that will safeguard our wild life; technical inquiry into the life-habits, form and characteristics of our birds, animals, flowers and trees will inevitably create such admiration, sympathy and love for them as would enable this Department to be of vital importance to the moral welfare and the happiness of the people of Oklahoma.

In giving to this Report the title, "Outdoor Oklahoma," and in diversifying its contents in the manner to be found herein, there has been conscious effort to render a fundamental service, not only to the wild life, but to the people of Oklahoma. An earlier Report, "Field, Forest and Stream in Oklahoma," prepared along similar lines, was accepted as a sincere contribution to the subject of outdoor life in Oklahoma.



Water Lilies.

THE uplifting of the Kiamitia Mountains and the Cherokee Hills—with here and there a brook or river—was a fortunate occurrence for wild life in Oklahoma. Their roughness makes them difficult of access and the richness of their vegetation affords an ideal food supply for birds and animals. The temperature is mild throughout the year.

This portion of Oklahoma was visited nearly a hundred years ago by the celebrated naturalist, Thomas Nuttall. An account of his observations is preserved, fortunately, in his "Journal of Travels into the Arkansas

Territory, during the year 1819, with Occasional Observations on the Manners of the Aborigines."

Nuttall left the garrison of Fort Smith, May 16, 1819, in the company of the commandant, Major Bradford, and a company of soldiers. They followed the Poteau and Kiamitia to Red River. While botanizing near the mouth of the Kiamitia, in the neighborhood of the present town of Fort Townson, Ok., Nuttall wandered away from his companions who returned to Fort Smith without him. For three weeks Nuttall was the guest of squatters whom he found living in that country, even at that early day. Nuttall subsequently proceeded to the mouth of the Verdigris River, where there was a trading post conducted by two men named Bougie and Pryor. Accompanied by a guide named Lee, a white man, Nuttall continued his studies of flowers and birds as far west as Deep Fork, going north to the Cimarron which he reached at a point not far distant from the Arkansas. Lee described a white expanse of salt to the northwest (undoubtedly the Salt Plains near Cherokee, Ok.) which he said he had visited. These notes descriptive of the Kiamitia region are extracted from Nuttall's Journal:

"We surprised herds of fleeing deer, feeding as if by stealth. * * * Our party fell in with a favorite amusement, in the pursuit of two bears, harmlessly feeding in the prairies, which, being very fat, were soon overtaken and killed. * * * These vast plains, beautiful almost as the fancied Elysium, were now enamelled with beautiful flowers. * * * Serene and charming as the regions of fancy, nothing here appeared to exist but what contributes to harmony. * * *

At breakfast time, we were



Cardinal's Nest

regaled with the wild honey of the country, taken from a tree which the guide had discovered for us * * * Discovering herds of bison in the prairie, the soldiers immediately gave chase. * * * Panthers are said to be abundant in the woods of Red River.



Anemone.

"Horse-prairie, 15 miles above the mouth of the Kiamesha, * * * derives its name from the herds of wild horses, which till lately frequented it, and of which we saw a small gang. * * * arrive at the house of Mr. Davis, contiguous to Gate's creek * * *

I now for the first time in my life, notwithstanding my long residence and peregrinations in North America, hearkened to the inimitable notes of the mocking-bird.

"The wooded hills prevailed on either hand, and strongly resemble the mountains of the Blue ridge, at Harper's Ferry, in Virginia. This morning we proceeded four or five miles before breakfast through a pathless thicket, equal in difficulty to any in the Alleghany mountains. * * * Nothing could at this season exceed the beauty of these plains (valley of Red River) enamelled with such an uncommon variety of flowers of vivid tints, possessing all the brilliancy of tropical production.

* * * Several large circumscribed tracts were perfectly gilded with millions of the flowers of *Rudbeckia amplexicaulis*, bordered by other irregular snow-white fields of a new species of *Coriandrum*. The principal grasses which prevail are *Koeleria cristata* of Europe, *Phalaris canariensis* (Canary bird-seed), *Tripsacum dactyloides*, which is most greedily sought after by the horses, *Elymus virginicus* (sometimes called wild rye), a new *Rotbolia*, one or two species of *Stipa* and *Aristida*, with the *Agrostis arachnoides* of Mr. Elliott, and two species of *Atheropogon*.

"Crossing the Kiamesha, much too low down (while returning to Fort Smith), found it running nearly due west, and very low. * * * We passed and repassed several terrific ridges, over which our horses could scarcely keep their feet, besides, so overgrown with bushes and trees half-burnt, with ragged limbs, that every thing about us, not of leather, was lashed and torn to pieces. We now relinquished the mountains, and kept up along the banks of the Kiamesha, by a bison path, frequently crossing the river, which was almost uniformly bordered by mountains or inaccessible cliffs.

"In a lake, about a mile from the Kiamesha, where we crossed it at noon, grew the *Pontederia cordata*, *Nymphoea advena*, *Brassia peltata*, and *Myriophyllum verticillatum*, all of them plants which I had not before

seen in the territory, and which I have found chiefly confined to the limits of tide water."

It may be imagined that Nuttall's observations and adventures in what is now eastern Oklahoma were recounted at many an English fireside, for after his wanderings he returned to his native land, where an uncle had bequeathed him an estate near Liverpool. The con-



White Water Lily.

dition was imposed that Nuttall should reside on his estate at least nine months in the year. He hungered for his old life among the flowers and the wild creatures of the North American wilderness. He made a subsequent

visit, without breaking the terms of his uncle's will, by taking three months at the end of the first year and three at the beginning of the next, thereby obtaining a continuous period of six months for the pursuit of his studies.

"To me," said Nuttall, "hardships and privations are cheaply purchased, if I may but roam over the wild domain of primeval nature * * * My chief converse has been in the wilderness with the spontaneous productions of nature; and the study of these subjects and their contemplation have been to me a source of constant delight."

The flowers and forests of the Kiamitia may still be found as in the far-off days when they cast the spell of their beauty upon Nuttall. The same bird-songs rise from the tree-tops and thickets; the same winds boom in the tall pines; the same streams sparkle in the sunshine.



Native Wild Plum.

MEN and women whose youth was spent in regions of hills and forests and rivers never forget the intimacy of their appeal. Woodsmen are ever alien in plains and prairies—where the sky comes down like the rim of an azure bowl, where the stars like swarming bees hang low in brilliant nights, and where the sun breathes with a breath of fire through all the long summer days. They cannot escape the heart-clutch of loneliness in the far-off horizon line. There are no sounds of wind in big timber, nor of streams in rocky places. The smell of moist woods is unknown. Dew, ministering to the flowers, does not fall in the plains country as among the hills. There is no mystery of twilight beneath the green roof of forests.

While summer was still young in Oklahoma, a man and a woman made a discovery. For years they had lived in the plains country. They had seen the long days of blinding gray heat pass, one by one, without rain, and the grass wither as a scroll in the hot winds; watched the black storms, rived with lightning, rise and rise until they swirled at the zenith; and, as summer waned, had beheld the landscape change from green to brown, then to the desolation of winter, cruel and cold in its wild sweep over the bare land.



"Where the Sky Comes Down."

The discovery was that Oklahoma is more than a land of plains and prairies—that within its boundaries are regions rich in every natural beauty.

Hungering for hills and dark woodlands, the man and the woman turned their faces to the east and passed along streams flowing blindly beneath beds of sand; passed from where the horizon line is so low and the earth so flat that the cowboy ridges sand round his blanket, to keep from falling into space; from where

the soil is red, maroon, mauve or purple; where the complexion of men shades from old copper to the color of smoked buffalo hide, and their muscles are as hard as jerked venison.

From the roof of the Black Mesa in old "No Man's Land," in sight of snows that flash on the Sangre de Christo, it was a long flight down the rolling watershed of the Arkansas, across wide-spreading plains, to the western ramparts of the Alleghanies—the Ozark foothills.

At dusk they reached the land of the Cherokees, near the Fork of Illinois.

All night long a mockingbird sang to the

moon. When morning came, with its first flush of crimson, and the woods awoke, the woman gazed from the open window.

Her eyes filled with tears.

She said that she felt like one of the Ten Thousand when they returned to the sea, shouting "Thalatta." She was thankful that she had lived to behold

once more the majesty of high hills, the far-flung banners of dawn sweeping their crests.

The house of logs, nestled in a grove high up on the



Elderberry Blossoms

jutting side of an Ozark crag, looked down and down upon a wilderness of trees in a valley that held a silver river. Above this level place the crag leapt to a sky-line jagged with pines.

The man smiled at the woman, yet his heart was strangely full.

Certain philosophers believe that a fugitive day of youth is caught here and there in the mesh of years after one has grown old, in which it is possible to know again the serenity and sincerity of that golden time. Such a day had come with this burst of dawn in the Cherokee Hills. That morning the country-cured ham, sweet with the richness of wild nuts and acorns, tasted to the man as it had in days so far back in the past that his heart failed him in trying to remember them.

The eastern Cherokee country, a land of beauty, is so rugged that the fullbloods for seventy-five years have lived there in primitive fashion, seldom disturbed by the intrusion of strangers. Occasionally, a deer or a wild turkey may be seen, and small game is fairly abundant. Hill and glade are musical with the sound of falling water. Bass, crappie, jack salmon and all the commoner fish are native to the streams.

Grand River leads the crystal procession southward to the Arkansas. It is to the Illinois, the Barron Fork and the Spavinaw, however, that the lover of streams pays most homage. Spouted from the granite jaws of the Ozarks, they come pouring their flood along flinty beds with irresistible swiftness. The Cherokees shun the rapids.

Where the Barron Fork flows into the Illinois there is a sinister whirlpool. No swimmer has fathomed its depths. This maelstrom has ground out a vortex in the hard gravel. Contrary currents, with incredible fury, writhe and strive with each other for mastery, plunging headlong to the depths, then rising and whitening the river with foam. Fishermen move cautiously along the bowl-like sides of this perilous place.

The pleasure of living in the sunshine of this Cherokee land may not be measured. The water, with its surpassing purity, should insure a man's seeing a hundred years of happy days, even though he sip occasionally a jigger of "moonshine." Grass carpets the forest aisles and lends softness to the little meadows. Botanists find in these Cherokee hills flowery treasures which Asa Gray possibly never beheld; an amateur who saw the hills in the bloom of summer found flower after flower of exquisite beauty that eluded his analysis.



"Along Flinty Beds."

The Cherokee country is on the fragrant marge between the northern and the southern flora. Here are strange winds and strange weather not to be found in almanacs.

The clouds, the winds and the rain play many pranks in the Cherokee hills. The west country—out toward the plains where the two Canadians and the Cimarron take their rise—lay shrivelling in the dry

heat. There was no rain, and the grass was growing harsh and ragged.

"Listen," said the woman, as she stood in the door of the cabin high up on the Ozark crag.

There was a low rumble far off in the hills. The sky was clear, the sun shining in full splendor. Then came a crashing boom of thunder. Through a gap in



Wild Phlox.

the hills moved a storm-could, racing with its shadow over the valley. Miles up the Barron Fork rain could be seen falling like silver mist. Closer and closer it swept, the forest rustled to the pattering, and the grass and flowers were suddenly drenched. The shower passed; the sun shone again in a clear sky.

Day after day did this little tempest slip through that same gateway in the hills and play over the valley. Every woodsy place was cool and moist, and along the river floated the perfume of the wild grape. Rocky places were green with moss and bespangled with flowers—flowers unknown to the west country. The passion-flower, pilgrim from the south, clung by its tendrills and swung to the passing breeze. In the dark river bottoms the May-apple offered its yellow fruit; in high, rocky places grew the sarvice berry, whose snowy cloud whitens northern hillsides when sap begins rising in the sugar maple; with its foam of flowers, the dogwood hung tranced in the scented air.

The bass of Barron Fork are so ancient and ennobled that they are said to have their own heraldry. A favorite family crest is a head rampant, with distended jaws. So dainty are the bass of Barron Fork that the slightest discoloration of that limpid stream by freshet sends these aristocrats into temporary retirement. In Barron Fork are bass of such wisdom that for years they have escaped the most skillful snares set for their capture. The angler is fortunate to get even a glimpse of them.

One fisherman knows a pool in the Barron Fork where the sport is not in catching bass—the effort is useless—but in stealing noiselessly to sheltered spots, there to lie hidden, watching the most tantalizing sight an angler may behold. At this place the Barron Fork once followed a channel that ran through a dense forest at the base of a high bluff. The river afterward changed its course, and now flows far from this old bed. At the lower end of this ancient channel, the river abruptly divides itself and sends one arm plunging straight at a pile of gigantic boulders. So violent is the onrush that the waters rise up as if dazed by the impact, and go swirling far up the old channel before they return to battle with the opposing currents for the far freedom of the river. All the dainties that tickle

the palate of the most fastidious bass are brought down the river and spread over this whirlpool.

This body of water is the home of the most sagacious family of black bass in the Cherokee country. Some of them have grown to be six or seven pounds in weight, and it is estimated that not fewer than a hundred and fifty bass of fighting size hang their armor in its shadowy halls. As camp-followers, there are innumerable perch, than which there is no better fish for a pan fry; occasionally a big channel catfish, with white belly and speckled sides, finds his way to these restless waters.

Angling for these bass has brought disappointment to every fisherman whose line has sung over the pool. At the approach of an intruder, the bass dart instantly to a hiding place under boulders or beneath the shadow of overhanging trees. Anglers have hidden behind boulders and cast their bait without exposing more than the tip of their rod. Alas, the most delicate fly never falls lightly enough to disarm suspicion.

This hill country of the Cherokees is a region of silence. Time moves as peacefully as the night's procession of stars. Natural things bring natural joys, and



Blue-eyed Grass.

the sojourner rises from sleep with the freshness of morning in his heart.

* * * * *

The woman gathered a handful of flowers beside the cabin door, and looked wistfully across the valley that lay below the rampart of the hills. The man stood listening to a cardinal that sang as if happy days should never cease.

In the drowse of noon a hunter's horn was heard sounding faintly among the hills along the river. The chase was over, and somewhere in the blue distance the tired pack, one by one, was turning to the homeward call.

The man said:

"It is time to go."

They turned to the wide spaces of the West, mother of infinite dreams, and the Cherokee hills were soon behind them.



Wild Mallards in Wichita Game Preserve.

Photograph by Frank Rush.

WHEN the United States government reserved from homestead settlement the 62,000 acres of land now embraced in the Wichita National Forest, there were persons who complained that the National authorities would have served the public more wisely if the land had been opened to agriculture. Later, by act of Congress, twelve square miles were set aside for a bison range, whereupon a lot of utilitarian folk shrugged their shoulders, and observed that the Government seemed to be engaged in foolish enterprises. This bison range is popularly known as the Wichita Game Preserve.

A finer public service was never rendered to the people of Oklahoma. In surroundings that have not been changed in the slightest degree by despoiling hands, specimens of the larger game animals native to this region have been given sanctuary for all time. There every bird may find shelter. Guns are forbidden, and the hunting season is closed forever. In the Wichita Game Preserve generations to come will behold survivors of the country's first inhabitants.

Entrance to the Preserve is several miles north of the railroad station of Cache. The public has scarcely acquainted itself with the many interesting objects to be found in the Preserve, though lovers of wild life have discovered its attractions. One kind of hunting—a kind that levies no toll upon life, and has charms not to be found in the use of firearms—is permitted to all who possess a camera. The trophies of the camera, in the opinion of a considerable number of persons who are not without knowledge in such matters, quite excel all others to be won in venturing along the ways of wild life.

In choosing a supervisor, the Government was fortunate in its selection of Mr. Frank Rush, a western man, once a cowboy, and for many years deeply in-



Buffaloes in Wichita Preserve.

terested in the protection and conservation of wild life. The writer recalls that sixteen years ago, when Rush lived on a ranch in the Osage country, this "cowboy naturalist," as he is sometimes called, was writing letters to newspaper editors and going before legislative committees in a determined effort to stay the destruction of wild life, which at that time was making shambles of the fields and forests of Oklahoma. Rush's actual knowledge of the needs of wild life is admirably supplemented by the tenderest sympathy for every creature that lives in open places. He plants trees as devotedly as he cares for his birds and animals. He is dextrous with the camera, as may be seen in a number of the illustrations in this publication.

To enlarge the game coverts of the Preserve, Supervisor Rush, assisted by his rangers, has made a number of highly successful forestry plantings. In a single plantation of 20,000 native cedars, 95 per cent of the trees are living. Results were equally favorable

in the planting of 25,000 honey locusts, and 60,000 black walnut trees. The forest growth is being extended each year.

The increase in the number of game animals has been steady. In 1907, fifteen head of pure-blood buffaloes, the gift of the New York Zoological Society, were liberated in the Preserve. During the first winter one of the adult cows died from an unknown cause, and in the following summer a bull and a cow died of splenic fever. From the remaining twelve has grown a herd of fifty-two members, thirty males and twenty-two females.

The first step taken to bring the vanished elk



Antelope.

back to its native range in this part of the Southwest was in 1910-12, when fourteen head were shipped from St. Anthony, Idaho. Four died on the journey, reducing the herd to ten head. The first calf was born in 1912, seven a year later, and eight in 1914. The herd now contains twenty-six vigorous animals. The elk are given wide range, which seems to stimulate their spirit of wildness, making them far more attractive than if they were tame. There will be no difficulty in the maintenance of the elk.

The care and propagation of antelope in the Preserve has been attended by certain obstacles, which finally may prove insurmountable. In 1911 the Boone and Crockett Club contributed eleven head, the ante-

lope being taken from their native range in Yellowstone Park. Only two, a male and a female, survive. The antelope is a timid creature, and does not thrive in contact with civilization. This pair is kept in the remotest part of the Preserve, in the hope that there may be increase. Like the prairie chicken, the antelope is being driven toward the west. In pioneer days the mountain-walled plains of the Preserve were dotted with many bands of antelope.

The wild turkey has found safety in the Wichita Game Preserve, where they fed in countless numbers until their extermination by settlers at the opening of the Kiowa and Comanche Indian lands. A gobbler and several hens were procured from a trapper in southwestern Missouri three or four years ago. Despite the depredations of coyotes, which are closely hunted, the flock now numbers forty fine birds. The turkeys follow their wild ways, the hens secreting their nests in remote, hidden places and the males gobbling along the mountainsides in the early mornings of March, just as they did when Oklahoma was a wilderness.

The turkeys may be approached within fairly close distance, especially by horsemen. Supervisor Rush has been able to take an excellent photograph of the flock. Many opportunities for delightful sport await the camera-hunter interested in wild life, that will match his skill and cunning against the wariness of the wild turkeys of the Wichita Game Preserve.

The native white tail deer is increasing so rapidly that soon it may be necessary to reduce the number. The original wild herd that remained inside the boundaries when the land was withdrawn from settlement numbered perhaps thirty or forty. Two hundred may now be counted. The deer is hardy and prolific, and may be easily reared in captivity. The appearance and movements of the different bands add greatly to the picturesqueness of the glades and meadows of the Preserve.

Bird life is given the greatest possible protection by Supervisor Rush and his forest rangers. The birds are never disturbed. They seem to have discovered that they may live in absolute safety.



Brown Thrasher's Nest.

Waterfowl, especially ducks appear in astonishing flights in seasons of migration and make the water-courses clamorous with their presence. No camera-hunter was ever more fortunate than Supervisor Rush when he made the photograph of wild ducks that appears in this report. This was in February, 1913. He entered a blind long before daylight, shivering for hours in the cold before the light was strong enough for a successful exposure. The ducks were mostly mallards. When Rush "pulled the trigger," the nearest mallard was not more than ten feet distant.

It may be noticed that the ducks in flight add much movement to the scene. They took the air at the moment the shutter was snapped, having been alarmed by the approach of a man just round the bend of the stream—where there are more ducks than are shown in the photograph.

Quail are plentiful everywhere in the Preserve. The stock is strong in vitality, and the birds multiply at an astonishing rate. There is not a finer quail than

those native to Oklahoma, a fact well known to sportsmen in eastern States, where disease at times causes heavy losses in the coverts. A distinctive feature of the violation of Oklahoma game laws arises from attempts to ship quail clandestinely to other States for breeding purposes. As much as twenty-five dollars each is said to have been offered for adult birds by ardent sportsmen.

If there is a prairie chicken in the Wichita Game Preserve, its presence is unknown to Supervisor Rush. The prairie chicken is strong of wing, and sooner or later launches forth in quest of grain fields. The few prairie chicken that were in the Preserve at the time of its establishment met an untimely fate as they went frolicking to nearby corn and kafir fields, and were quickly exterminated. The only hope of perpetuating the prairie chicken depends upon a closed season throughout the State for a period of years. Even this precaution probably would not save this magnificent game bird.



Prairie Chicken.



"Poor Little Fellows."

THE fisherman's camp overlooked the wide, yellow Arkansas, his tent standing on a narrow strip of level land between the bluffs and the river. His freshly tared nets swung from the branches of an oak, their meshes glistening in the sunlight. To a traveller passing that way, the fisherman said that he caught fish for oil-drillers on the other side of the river.

There was warmth and rude comfort inside the tent. It was such a place as may be found in the dreams of tired men who love outdoors. The dirt floor was dusty but a kettle was singing on the stove, and a pipe and a twist of brown tobacco lay on a smooth, sand-scoured table. In a corner was heaped a pile of traps—a greasy odor of furs spread everywhere inside the tent.

In this region the old wilderness still lingered. Beyond the river, northward, lay the land of the Osages—silent and somber in the clutch of winter, and as wild as it was half a century ago, save that the larger game had vanished and the Indians were no longer taking the scalps of white men. It seemed possible that a canoe with a swart half-breed pilot at the bow might shortly sweep past on its way to the settlements down

the river. It was pleasant to sit here in the sunshine and think of the coming of spring.

The winter-blue sky of morning smiled upon the woods. In this ancient home a multitude of birds were singing half-forgotten songs of summer. The fire of the cardinal burned in the green-briar thickets, the vibrancy of his song lifting his music far into the sky. Back in the hills a pileated woodpecker, shy and wary, hammered a tree with all his might, calling raucously at intervals. The fisherman could hear them as he tarred his nets or drew them ashore, and doubtless he loved these frail companions of his solitude.



The Fisherman's Nets.

Snow rarely lingered in this delightful land, seeds were abundant, winds were soft, and surely only the vicissitudes of slow time could prevail against this happy kingdom of the birds. The traveller envied both the birds and the fisherman, dwelling together in the freedom of outdoors.

The fisherman talked of his traps, saying that otter and beaver were no longer to be found, and that skunks and 'possums were about all that came to his traps. His bait? Pointing toward a bench under a tree, he answered:

"That's the very best I can get."

Piteous tragedy. Two broken little bodies, as tenderly blue as if they had been washed in the springs of the sky, bluebirds; three rusty-coated singers of winter

tree-tops, Carolina wrens; with crushed and crumpled feathers, a tufted titmouse, bird of the liquid note when the sap of the "sugar" maple begins flowing in early March; a myrtle warbler, the yellow patches still shining on its little body.

"Poor little fellows," sighed the traveller.

The fisherman looked at the stranger and drew back, as if he did not understand. Hesitatingly, he said:

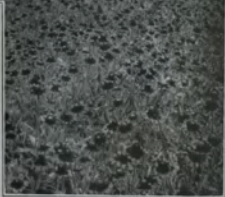
"There are lots of them here."

He told how he had shot the birds at the door of his tent, when they came at the first hour of dawn, just as the dark woods were growing bright, to gather crumbs from his table.

"Poor little fellows," said the traveller, "there are men who would have ransomed you, just to hear your music for a single day."

When the traveller turned at a bend of the river and looked back, the fisherman stood peering at him dumbly through the trees.

That was another tragedy.



Field of Cone-flowers.

THE house of roughly hewn stone, dug from a neighboring hillside, stands in a grove of beautiful trees. There is a window to the east, for the sunrise; a window to the south, for the soft winds of spring and summer; and a window to the west, for the glowing colors

that flash along the hills and the distant river at sunset. The single door opens to the north and overlooks a waterfall that tumbles into a little canyon, deep and narrow, where the light is dim even at high noon. The walls of this canyon are moist and dripping, green with Venus-hair fern, and in summer wild flowers blossom in its depths.

Farther to the east, a spring of pure cold water bursts from the solid rock, ripples through a grove of haws, persimmons, redbud, oaks, willows and twining vines, breaks across a gray path, and then falls with endless music into the limpid pool below the waterfall. Tall cedars mirror themselves in the pool.

The stone house is furnished for the comfort of travellers, whether they come for shelter from the dash of April showers or for warmth when winds roar from the cold north and the great oaks toss their gaunt



Doby Walls.

limbs against the wintry sky. There are books, pictures, a bed, fuel, a stove, cooking utensils and, best of all, a quietness broken only by the song of birds, the sound of wind, the rustle of leaves, the chirp of crickets in the grass, and the low creak of swaying branches. In the stillness of summer nights the tinkle of falling water may be heard.

This is Doby Walls.

It was built by a man who loves outdoors. Here tangible form has been given to a dream of Arcady. There should be a Doby Walls near every town.

Travellers, losing their way, have reached this little solitude, peered in at the windows, observed the key hanging outside the door, and wondered at the strangeness of purpose that led to the building of Doby Walls.

The wayfarer may enter without invitation and abide for a day, a night, or until it is time to go forward on his journey. The print of footsteps marking the arrival and departure of visitors is often found along the paths that lead to the door of Doby Walls; sometimes a breath of smoke is still rising from the embers of the fire at the brink of the canyon where the frugal



Beard-tongue.

meal was cooked. But in all the years that Doby Walls has stood alone, its hospitality was never violated, nor does a single stone bear the mark of desecration.

Not one book has been lost from its rude shelves. Books which the builder of Doby Walls knows he did not buy have been found among the others, gifts, perhaps, of the mysterious forest. Theocritus and Virgil and Horace are there; Thoreau and Emerson; Woodsworth and Keats, and many a tale portraying the happiness of life.

The broad stones of the walls afford generous space for inscriptions commemorating the adventures of travellers—such as these lines that tell of boatmen descending an Oklahoma river and their arrival in the

quiet of late afternoon in autumn among lofty hills:

*The current inland sets at this still hour
And laves the granite base of mounts Idean;
High in air the golden orchards stand,
Blessing with leaf and fruit this lonely land—
The gifts of Priapus in climes Hesperian.*

Lapse of rhyme or meter is no bar to recognition by the kindly critic, if the sentiment be true.

Doby Walls was built to keep young the hearts of all who pass that way; to preserve intimate relations with sky and earth, with space and time; to guard with affection nature's timid and helpless creatures. Of all the inscriptions on its stones, these lines from the Greek Anthology are perhaps most expressive of the spirit that dwells in this sylvan place:

*Kind Earth, take old Amyntychus to thee
—Mindful of all his labors—tenderly.
For thee he set the olive's sturdy roots,
Many a one, and gave thee vineyard shoots
For beauty, and made thy valleys thick with corn.
And of his hand were water runnels born
To feed the serviceable herbs, beside
Thine apple bearing orchards, fair and wide.
Wherefore, on his grey head, kind earth, hie light,
And make with flowers his springtide pastures bright.*

Measured straight toward the North Star—and a little to the east—Doby Walls is six or seven miles from town. But as winds blow or the river runs or paths lead across meadows and over hills, the distance is as variable as the flight of a swallow.

Regardless of weather, the journey should be made only on foot. It is well frequently to take children along—most of them can walk twelve miles in a day with much benefit to their young bones—and upon such occasions children should be imitated in their happy ways by their older companions.

The forest's green fingers reach across the very edge of the town when summer is in the air. In the branches of tall cottonwoods orioles build their nests, year after year. Further along toward Doby Walls in a brambly thicket of green-briar intermingled with honeysuckle that has run wild, dwells a brown thrasher and his mate, bravely defending their nest against all enemies.

With upland meadow on either side and meadow-larks singing in the grass, a red road winds to the sky-line, and instantly is seen a wide valley shut in by distant hills. A river flows through this valley in the direction of Doby Walls. If the day be in early spring, wild geese will be honking in measured flight along the river, with here and there a dark swirl of ducks descending to the sand-bars. If the time still be early spring, there will spread windily over the gray-brown meadows a turquoise shimmer—the dancing of the bluets.

Now begins the season's procession of flowers—the innumerable and beautiful wild-flowers of Oklahoma. So recently has the country been settled that their number and luxuriance seem undiminished by scythe and plow. Vigorous and hardy, some flourish until frost blasts their beauty; others, fragile, and sensitive to every touch of their environment, spring up, blossom and vanish, as if too frail to bear the caresses of the Mother that bore them. To the latter belongs the amaryllis, putting forth its leaves with the rain of mid-August, blooming for a week, and sinking again to the darkness of its long sleep.



Bluets.

The river hills on the way to Doby Walls have the attraction of deep canyons and jutting headlands. From their sides pour springs of good water, where birds gather, and the painted cup and the cardinal flower love to dwell. These canyons, densely timbered, are a favorite resort of birds, and at these springs may be found the best opportunities for the study of bird life.

There was never a prettier sight than a painted and a varied bunting sitting on the same twig, which rewarded a visit to one of these springs.

On the hill-tops, where the blustery wind shakes the flowers, there is such tumult of blooming that entire flower families become engaged in fragrant battles to possess the land. The anemones, shading from white to pinkish and dark blue, a single flower on a single stem, are a bold and valiant company, and by risking an early advance in March are able to make the very hill-tops tremble.

In the glow of mid-summer the cone-flowers on a certain hill stood unrivalled in their splendor of inflorescence. So dense was their growth, and so thickly clustered the amazing multitude of their flowers, that the gentle slope was a crusted mass of wine-dark cones and golden rays. The warm air was thick with their heavy, resinous fragrance. Silhouetted against the blue sky, beyond this field of flowers, stood a lone cedar on the verge of a precipice; in the haze of the far distance the river swung in silver turns toward Doby Walls.



*Heart's-ease
Violets.*

Veering slightly northeast, the trail—for such it has now become—leads past a little stream that breaks out of the green grass of a meadow and forms a little marsh where late in April the first violets are found; they seldom grow elsewhere in the vicinity. Here the dickcissel hangs his nest and sings his songs. Willows wave along the little stream; the blackberry plucks the traveller's sleeve, inviting him to return when berries are ripe.

Down into a deep forest goes the trail. Here owls and crows and hawks make their nests, and here for the last two years has been seen a timber wolf with a pack

of young. The forest safely passed, a low, timbered hillside greets the eye; rising above all its companions, a tall cedar marks the very doorstep of Doby Walls, so hidden among its trees and vines that only near approach reveals its rough stones.

If the builder of Doby Walls be within, he will call heartily, inviting the travellers to enter, and receive them with many honest expressions of welcome. Especially does he welcome children. The actual ownership of Doby Walls has never been clearly set forth. The builder owns the land, and to this makes no denial—as to Doby Walls he once said that nobody owned it or could own it, and that as for himself he would as soon claim title to the winds of heaven.

Wild life is unafraid at Doby Walls. The water thrush delights in the spray of its waterfall; the squirrel builds his shade of leaves in an oak above its roof; a 'possum has its den in the bank from which its stones were dug; rabbits nibble tender shoots that grow along the path to the spring; quail rustle the leaves beneath its windows; wild ducks disport themselves in its little lake; the wood-rat piles his winter heap of grass and twigs in the wall of the canyon, and endlessly the birds sing and build their nests in all its trees.

It is pleasing to be able to distinguish the different species of birds—to know at a glance that this one is a myrtle warbler and the other a Bewick's wren. Lack of this ability, however, is not without compensation, for it prolongs pursuit of beautiful things in beau-



Dickcissel's Nest.

tiful places. In the opinion of an old-fashioned rambler, the amateur who follows from stream to hedge and from hedge to stream the winged vanishers whose note and garb change with the seasons is more to be envied than the scientific observer for whom there is no uncertainty. If all knowledge of birds were to be gained in an hour, outdoors would be robbed of one of its greatest charms.



Hungry Baby Crows.

Birds are never killed at Doby Walls. For purposes of identification, only eyes, ears and binoculars may be used. The birds seem to have learned this fact, and reveal themselves and all their household secrets, generously and with confidence.

Drawing his chair near the door, a man one day opened a bird-book at random, to examine its plates. At the moment his eyes were turning to the page, there was a fluttering outside the door, and a graceful, debonaire bird alighted on a twig that hung at the entrance. The man had never before seen this bird, and wondered what it might be. Turning softly to his book, he was delighted to find that the plate exposed to view was a faithful likeness of his visitor—a crested fly-catcher. The coincidence has long been a pleasant memory.

Country air and the walk to Doby Walls beget honest hunger for simple food—such as may be carried in a knap-sack. The smoke of the crackling fire ascends



At Doby Walls.

from the little open space outside the door. With the children at their heels, the women folk bestir themselves. Bacon is crisping in the skillet. A pail of fresh water is brought from the spring. There is rattling of pans and knives and forks and spoons. Laughter and merriment attend the evening meal. Prevailed upon to lay aside his fragrant pipe, the builder of Doby Walls will sing some old song, to the accompaniment of a guitar.

The sun is sinking; the old glory is on the hills; the mysterious shadows on the trees; the tender peace on the valley,

and as the quiet scene merges into the gray of evening, the travellers turn homeward, leaving Doby Walls to silence and the stars.



One Week Old.

IN a hollow limb among the gnarled branches of a great oak that stood in a canyon overlooking the Cimarron River, a boy found High, Low, Jack and Game the day they were hatched, about the middle of April. A week later their photographs were taken for the first time. For more than two months these little screech owls, as they grew larger and put on their gray and brown feathers, were a source of entertainment, not only to the little boys and girls, but to the men and women of a certain neighborhood.

The oak leaned over the canyon wall at an angle dangerous to a climber, but a rollicking country girl pulled off her shoes and ascended with the agility of a squirrel to the hidden home of the four little balls of white down, and pulled them chittering and clawing from their nest. Strangely enough, the old owls were never seen.

The little fellows had been only fourteen days out of their shells when they were swung in a red bandana handkerchief and carried to their new home—a box among the branches of a cedar tree that stood close beside a doorway.

In a day each little owl had learned to take chopped raw beef from the end of an extended finger, chittering in the tiniest way, and grabbing greedily with his beak until his hunger had been satisfied. During the following two months the children of the neighborhood came daily to watch the ways of the four little owls.



Their First Home.

When the owls were about three weeks old, a mouse was caught in a trap, that High, Low, Jack and Game might have variety in their food. The mouse disappeared as if by magic shortly

after it had been laid on a board where the owls were sunning themselves. Perhaps it had come to life and run away. The mystery soon became clear. High was observed in an attitude of stolid satisfaction. From his beak depended something that suspiciously resembled a mouse's tail, and such it proved to be. Incredibly, High had swallowed the mouse, a marvelous performance for so small a bird. The mother owl doubtless knew that such things could be done, for a mouse was found in the nest in the tree when the little owls were only ten days old.

The owls were voracious eaters, but plainly it was not intended that theirs should be a steady diet of chopped beef. Though they grew bigger and stronger every day, it was apparent that they were hungering

for other food. What could it be? Perhaps nobody save their mother knew. Garden loam in which there were grubs and worms was brought. At once all the little owls grew busy with claw and beak, eating not only worms, but dirt as well. Perhaps screech owls no less than men must eat the proverbial peck.

It would be interesting to know to what extent water is required by owls living in the freedom of the forest. An owl in captivity is said to have lived two years without water. High, Low, Jack and Game never drank of their own volition, but would swallow a small quantity of water from a spoon. When placed with their feet in water, they regarded the latter curiously and then scrambled out, evidently disliking the sensation of wet feet.

As the owls grew older, the chittering cry of their infancy broadened occasionally into a soft screech—the first intimation of the shivery sound that later would denote their presence in dark and lonely woods. They betrayed little fear or alarm, such as may be observed in young cardinals or brown thrashers, and become garrulous and happy when they saw that they were to be fed. They outgrew the confinement of their box home, and preferred to secrete themselves in dark corners or perch on high places in the room where they were sometimes kept. When taken in hand, they would seek to hide themselves under one's coat, and delighted to snuggle in a pocket.

Their wing feathers, brown and barred, were the first to emerge from the soft down, and at their appearance each little owl was moved by instinct to



Three Weeks' Old.

fly. They were surprisingly accurate in measuring distance, rarely missing the point at which they launched. If they fell short, they caught with their beaks or claws and then clambered to their perch.

The members of this little owl family undoubtedly displayed individual characteristics. Low, the smallest, was the gentlest and most lovable little fellow imaginable. Long after he had been given the freedom of the shrubbery, he welcomed the approach of any member of the family, breaking forth in an ecstasy of chattering, as if he longed to be cuddled and praised. High, Jack and Game were more sedate.

Game proved to be a ruffian; in earlier days he doubtless would have been an outlaw or an Indian fighter. He liked to have his head scratched and when softly stroked would close his eyes and lie in one's hand as if asleep. One warm May day he was laid on the grass on his back. He did not move nor open his eyes even when a green and yellow covering of dandelions was piled over him.

Then something happened. A little girl, mischievously, tickled Game's feet with a blade of grass. This plainly was an insult beyond words. Game sprang and attacked the little girl with utmost fury, snapping his beak, clawing her skirt, beating the air with his wings, and striving to reach her face. Though his ears were soundly boxed, the rascal fought until shut in his cage. When released later in the day, his first move was to square himself for further battle. He was seized and held, quite suffocated with rage, until his anger



Hanging by His Claws.

had cooled, just as if he were a naughty, petulant child. Game grew to be the champion and protector of the other owls, fighting the birds that attacked them.

When High, Jack and Game were about four weeks old, they abandoned the shelter of the box in the cedar tree, and lodged in the shrubbery. Low, the little one, made this venture a week later. When the sun was highest, the owls sought the dense shade. They came forth in early morning and in late afternoon to be fed. Throughout the day, they would call softly when closely approached.

They perched side by side in the open when they came for their evening meal. Every bird in the neighborhood seemed to regard this boldness and effrontery as a social scandal. The news spread with rapidity. Birds came from every direction. Dismay, indignation and resentment were voiced in an uproar of bird notes. The larger and bolder birds, such as jays, brown thrashers, robins and mockingbirds, made numerous feints of attacking the owls, but cautiously kept their distance. A red-headed woodpecker was so upset that he hung head downward from a telephone wire above the owls and berated them until he was quite speechless. Of all the birds, the robins were most fearless and daring. The owls, in their excitement and alarm, turned their heads quickly when the attack was uncommonly audacious, and pecked at their assailants. Game flew to meet them, fighting with talons and beak.

It may be of interest to bird-lovers to know that upon one occasion these species of birds were present and participating in this indignation meeting; mockingbird, brown thrasher, house wren, English sparrow, cardinal, crested fly-catcher, jay, robin, red-headed woodpecker, Baltimore oriole, and tufted titmouse. All these birds were nesting in the neighborhood.

Not until about the seventh week did the little owls seem to discover that there were such things as bugs and worms. They soon became industrious feeders,

making short jumps from spot to spot as they pounced with both feet upon their prey. They took the food from their claws, instead of picking it up from the ground with their beaks. They seemed to rely in a measure upon their sense of hearing to locate their prey.

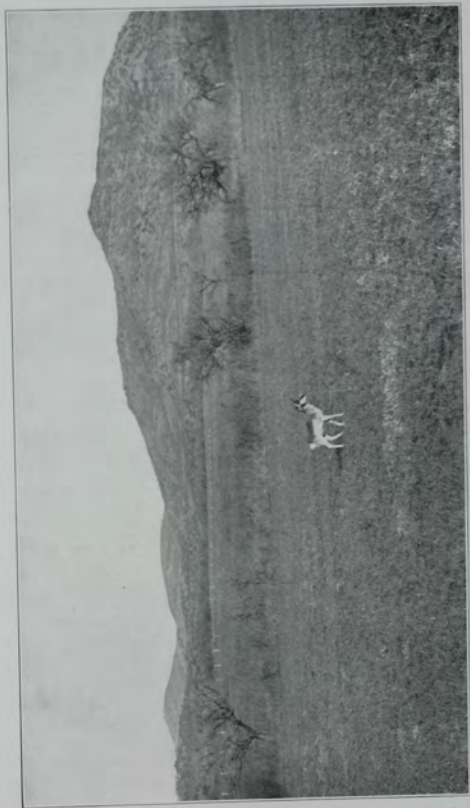
High, Low, Jack and Game were now in full feather. Summer was at hand, and the world full of fine big bugs. They launched upon bolder wing about twilight



Eight Weeks' Old.

one evening, came back the second and the fourth day, and then were seen no more.

Occasionally, during the succeeding fall and winter, the querulous cry of a screech owl was heard at night in the close vicinity of the place where High, Low, Jack and Game had lived during the green days of spring and summer. It was pleasant to think that the little owls had not forgotten their friends, and were calling to them.



Antelope—Wichita Game Preserve.

Photograph by Frank Rush.



Little River (The Bokloosha).

IN the late afternoon of a November day camp was pitched among the pines of Little River, for which the Choctaws have the name Bokloosha, meaning "black water," due possibly to the fact that the moss-covered stones of its bed give to the clear water of its deeper pools a somber tone.

All the long way to camp the trail had grown wilder and wilder in its natural aspects. Fenced farms had gradually disappeared, until there were no fences, save such as inclosed an occasional field. Finally, there were neither fields nor fences. Cabins that appeared unexpectedly at turns of the road were the homes of fullblood Choctaws, a simple people, living in the fashion of their forefathers, rarely speaking English, taciturn to strangers, especially white men, and contented in the places they have known for seventy-five years.



Deserted.

This road, one of the few passages through the mountains to Arkansas, crossed the old military highway which the United States army

engineers constructed in the 30's for communication between the garrisons of Fort Smith, Fort Gibson, Fort Townson, Fort Washita and Fort Arbuckle. Travellers still pass over this old military highway. In Winding Stair Mountains, where it twists and turns along the sides of precipices, with vistas of tumbling streams far below, it is perhaps the most picturesque fragment of Oklahoma's earliest history.

Spring and summer had forsaken the land; the fires of autumn were burning low. Here and there, a wild aster bravely flouted the approach of winter, and the ageratum lifted its azure blue flowers in hidden places. The pawpaws had fallen, but huckleberries, muscadines, haws, fox-grapes and persimmons retained their tang and sweetness. Nuts and acorns lay thick on the ground. Frost had yellowed the grass in the lowlands, but the higher ridges were still noticeably green.



Holly Trees.

When night fell, the change was not from light to darkness, but to blackness—the timbered mountains lifting inky walls against the sky. The trunks of the pines shone gray in the gleam of the camp-fire; higher up, the stars were entangled in their branches. Across

the Bokloosha one tall pine towered above its companions and, lance-like, touched the evening star.

The men who sat smoking their pipes gazed contentedly at the flame of the rosinny pine knots. Ice was freezing in the water-pail. A wolf howled in the hills, way off toward Winding Stair. Gibbering laughter that changed to sepulchral hooting came from the direction of Cloudy—the great horned owl, the big fellow, was abroad in the woods. There were many of these owls along the Bokloosha. The dog sniffed the



"C-o-m-e and Get It!"

air, whined, and lay down. A Choctaw replenished the fire for the night, and the tired hunters crawled under the blankets in the warm tent.

To arise from sleep in the freshness of a November morning in the Kiamitias, splash quickly in the riffles, and respond with the appetite of a grizzly to the cook's call of "C-o-m-e and get it!" is a delightful experience. There is no place where the aroma of coffee at sunrise is so incomparably fine as in a Kiamitia camp.

The soil in the bottoms of the Bokloosha has the color of pine smoke. Its richness gives strength and size to all forms of vegetation, and in the full tide of summer these bottoms are veritable jungles. Plants, shrubs and trees grow in greater variety and luxuriance than may be found elsewhere in Oklahoma.

In fall, the holly groves are charming to the eye. Many of the trees grow to a height of fifty or sixty feet. From lowest to topmost branches, their glossy green leaves are intermingled with scarlet berries; their smooth silvery-gray trunks are easily discerned among other trees.

The dogwood grows in profusion. In spring its dream-like whiteness fills the forest with a mystical splendor. The beauty of the dogwood is rivalled only by that of the redbud when its leafless branches and all its twigs, blushing with thickly clustered blossoms, hang like a flight of rosy bees swarming in mid-air.

The first sound of November morning along the Bokloosha is the drum-tap of the pileated woodpecker. A pair lived in the woods across the river, opposite the camp, and ranged there day after day, attended by a following of flickers that devoted most of their time to eating huckleberries. Despite his extreme wariness, the pileated woodpecker is a noisy bird and utters his raucous note even in his bounding flight. When one drummed on a dead limb the other always made faithful answer, though often the two were a quarter of a mile apart. Numerous species of the smaller woodpeckers were abundant; in fact, at this season the woodpecker family seemed to be in charge of the woods.



Good Eating.

Though many of the birds had gone southward, yet it seemed probable that there were fewer birds here than could be found at the same season in a similar extent of forest in the more densely settled portions of Oklahoma. The jay, with his blue coat, his impudent ways and garrulous call, appeared only in moderate numbers. The robin bestirred himself in a rather lazy manner. Towhees, juncos and the tufted titmouse formed a jolly company. The cardinal rarely flashed his fire in the dull thickets. Best of all were the wrens, the most populous family—save the woodpeckers—along the Bokloosha. The Carolina wren carried a wonderful flute, upon which he began playing at the slightest invitation, and with the greatest enthusiasm. In Oklahoma he is one of the fine singers of winter. Crows are commonly associated with fields or open landscapes. There was a sturdy band, however, living in this Kiamitian solitude, cawing all day long and roosting at night in the pines high up on a mountainside.

Overhanging a deep, clear pool near camp was a wall of boulders that dropped sheer to the water. In this pool lived a large family of bass whose movements were watched by a man for whom the sight possessed the greatest fascination. The surface of the pool was strikingly brilliant, mirroring every object with extreme sharpness. As the man lay hidden among the boulders, there flashed into view a tiny object.

With many a graceful curve, a rusty-gold butterfly no larger than the petal of a wild rose moved to and fro on the surface of the water, leaving not a ripple behind. The species seemed a strange one. Upon tilted wing it spun round and round, the markings of wing and body clearly reflected in the glassy pool. The man who lay charmed at sight of this winged jewel, grew perplexed,—its beautiful form seemed without substance.

Down from the blue sky came a cry, shrill and loud. The mystery passed. A red-tailed hawk (*Buteo bore-*

alis) circled above. On a space of shining water scarcely larger than a Cheyenne war-shield had been mirrored the grace of its whirling flight.

Ranging the river bottoms was pleasant adventure. Dim, winding trails—the natural highways of the furtive inhabitants of the woods—faded to the vanishing point. Here and there a deer had marked the soft declivity, going to the stream for water. Beneath the winter mulberry, its pink fruit densely massed at intervals along its straight stem, the leaves had been freshly turned by a flock of turkeys, whose scratchings were plainly visible; a gray-barred wing-feather gave further proof of their recent presence. A bed of leaves sheltered from the north wind by the decaying trunk of a fallen oak was the winter home of a family of "razorbacks." These hogs are lean and lank, with a row of bristles from ears to tail; they are difficult to approach, and an old boar or sow with pigs is dangerous at bay.

Many a tall sycamore is stored with wild honey, the temperate air and abundance of wild flowers providing for every need of bees. At one spot was found a "gum" of bees that had been hived last summer, probably by some Choctaw hunter. The bees were not disturbed, for their store was barely sufficient to carry them beyond the flowerless days of frost and ice.

Squirrels, both the gray and the fox, were found in large numbers. Their chattering and barking were among the first sounds of morning, and the liveliness and curiosity of the little fellows relieved the loneliness that at times steals upon even the most cheerful explorer of these Kiamitian solitudes. The gray squirrel is the most difficult of approach; two or more are usually together, thus multiplying their chances of detecting the movements of an enemy. Their color blends with that of the tree trunks, and sometimes, when surprised, they flatten themselves against the gray bark and re-

main in full view for a considerable interval without discovery.

The raccoon is a thrifty inhabitant. He enjoys an unlimited food supply, and his footprints may be found along all the streams, where a mussel may be had any day. Trappers report that a few otter and beaver remain, though, like the mink, they are rapidly disap-



pearing. All the fur-bearing animals, including the muskrat, 'possum and skunk, are exposed to the attacks of an enemy whose snares are more dangerous to life than the guns of the hunter. The steadily increasing value of fur for commercial purposes is filling the woods with amateur,

as well as professional trappers. In winter when furs are at their best and farm work is lightest, tents of trappers may be found everywhere in the Kiamitia region. The steel-trap hunts day and night, rarely missing its aim.

The small black bear native to the Kiamitia country is seldom seen, so closely has he been hunted. He is not a sagacious animal, and finds it hard to escape the

extremities of his situation. His harmless ways deserve not the rifle-fire of the hunter, but rather his friendliness and protection.

There are denizens of the Kiamitias, however, that excite neither sympathy nor admiration. At the end of a long day's tramp, whose incidents were being recounted round the campfire under the big pines, a Choctaw said:

"Did you notice depressions filled with rotted wood and dead leaves in the timber? Well, they are caused by the burning or the rotting of a pine. Always go round or jump over them; never step into them. They afford a certain warmth that causes the timber rattlers to coil themselves together and seek winter shelter beneath the leaves. The rattler is growing numb at this season, but it is never safe to trust him."

The man to whom this information was addressed remembered with a shudder that he had seen such places and that he had boyishly and deliberately walked through them to hear the leaves rustle.

The rattlesnake is not a dishonorable foe, for he gives warning before he strikes. Two other members of his race to be found in the Kiamitias—the water-moccasin and the "cotton-mouth"—are dastards that deal their poison without a sound. Fortunately, these reptiles are pursued by an enemy, the razorback hog, which has no fear of their fangs and devours a rattlesnake of most deadly size in the twinkling of an eye.

main in full view for a considerable interval without discovery.

The raccoon is a thrifty inhabitant. He enjoys an unlimited food supply, and his footprints may be found along all the streams, where a mussel may be had any day. Trappers report that a few otter and beaver remain, though, like the mink, they are rapidly disap-



pearing. All the fur-bearing animals, including the muskrat, 'possum and skunk, are exposed to the attacks of an enemy whose snares are more dangerous to life than the guns of the hunter. The steadily increasing value of fur for commercial purposes is filling the woods with amateur, as well as professional trappers. In winter when furs are at their best and farm work is lightest, tents of trappers may be found everywhere in the Kiamitia region. The steel-trap hunts day and night, rarely missing its aim.

The small black bear native to the Kiamitia country is seldom seen, so closely has he been hunted. He is not a sagacious animal, and finds it hard to escape the

extremities of his situation. His harmless ways deserve not the rifle-fire of the hunter, but rather his friendliness and protection.

There are denizens of the Kiamitias, however, that excite neither sympathy nor admiration. At the end of a long day's tramp, whose incidents were being recounted round the campfire under the big pines, a Choctaw said:

"Did you notice depressions filled with rotted wood and dead leaves in the timber? Well, they are caused by the burning or the rotting of a pine. Always go round or jump over them; never step into them. They afford a certain warmth that causes the timber rattlers to coil themselves together and seek winter shelter beneath the leaves. The rattler is growing numb at this season, but it is never safe to trust him."

The man to whom this information was addressed remembered with a shudder that he had seen such places and that he had boyishly and deliberately walked through them to hear the leaves rustle.

The rattlesnake is not a dishonorable foe, for he gives warning before he strikes. Two other members of his race to be found in the Kiamitias—the water-moccasin and the "cotton-mouth"—are dastards that deal their poison without a sound. Fortunately, these reptiles are pursued by an enemy, the razorback hog, which has no fear of their fangs and devours a rattlesnake of most deadly size in the twinkling of an eye.

WHEN night shuts down, a wailing is sometimes heard in the hills that front the Bokloosha, which Micco, the chief in camp, once likened to a murdered woman's cry for vengeance.

Frank, the cook, had come to the woods with dread of this thing in his heart. He was seen to peer quickly behind him whenever there was shuffling of leaves beyond the light of the camp-fire. His most frequent remark, as he tended his pots and kettles, was:

"I sho' made a pow'ful mistake when I come way out heah in dese jimsons. 'En talkin' 'bout dem coogah lions, why, boss, jes' de name coogah lion sca'hs me."

Nobody in camp really thought that it would happen. A long time ago, cougars were commonly encountered in these fastnesses, but only at rare intervals in later years had one been seen. Tawny, lithe, powerful, sometimes measuring eight or nine feet from tip to tip, the cougar is shunned by most woodsmen.



Camp of the Cougar.

Supper had been eaten, and Frank was sitting beside the camp-fire peeling potatoes for breakfast. A cold wind blew from the north, booming across a mountain ridge that lay between camp and a big bend of the Bokloosha.

Not a star was shining.

The agony of it brought each man to his feet. The cry was heard twice before a word was spoken. Then Micco said solemnly:

"That sounds like hell to me."

He was deeply in earnest.

The cougar was travelling southward. He lingered for a few moments on a mountain spur about a quarter of a mile west of camp, with the glow of the fire among the pines far below him. Eight times the cougar wailed, and each time the icy wind seemed to grow thinner and colder. The cougar entered a deep canyon that ran westward toward the Kiamitia River. His last scream was so faint in the windy distance that it might have been made by a lost child.

"Count yourselves fortunate, men," said Micco, "for you may never hear the like again."

"What I bin tellin' you all," shuddered Frank; "an' it done happen right now. Dat animul is suht'inly kin to a big hant. I know I'se gwine teh leave dese jimsons real soon."

Frank slept in the provision wagon, several rods from the tent. As bedtime drew near, he oiled his Winchester, saying:

"I'se wahnin' dat coogah lion dat I'se gwine teh baid with mah five little brothahs."

Frank's "five little brothahs" each wore a brass jacket, from which projected a steel nose; their pockets were filled with highly explosive powder. Frank fell asleep with his Winchester in his arms.

"Mac," who slept at the tent entrance, crossed himself when he lay down.



"Ben swung this Turkey Across His Shoulder."

AT the mouth of Cloudy, tributary of Little River, is a fairly accurate setting down of the place where the wagons stopped for the permanent camp in the big woods, chosen by a Choctaw who knew the country. Though Little River flash a wider stream than

Cloudy, its pools are not deeper, its ripples more sparkling, nor its shores fringed more splendidly with colors when autumn touches the landscape.

There was need of wild meat for hungry men. The cook was in fine feather.

"Gen'lemen," he said, "dese heah pots an' kittles am faihly achin' teh cook a big ole gobblah or a fat turkey hin. Yessuh, an' my mouf is feelin' kind o' curious, jes' as if I wuz carvin' turkey foh you all gen'lemen."

Ben accepted the challenge and shouldered his 30-30 Winchester, the gun that has civilized Oklahoma, as well as killed its big game. Outside, Ben was a white man; inside, a Choctaw Indian. The latter made him fit for the wilderness. He was tall, big-boned, muscular, with a stomach as flat as a board, and could outwalk a horse in the mountains.

"If I get lost, and 'blow up,' (which means to lose all sense of direction, and grow panicky) I'll yelp once and shoot twice at intervals," said Ben, "and you fellows must shoot twice each time, to pilot me into camp."

Ben said afterwards confidentially, that he "blew up" two miles from camp—went stone blind as to compass points, save that the moss on the trees meant north. He had wandered into what the natives called the "bad lands," where the short mountain spurs had been mingled together, as dice might be shaken from a box. He had refrained from signalling, however, lest he frighten the game, for he knew that both deer and turkey were in the woods. He got further and further from camp, entered a deep canyon, and when finally he did yelp and shoot the sound failed to reach his comrades.

Ben had left camp at daylight. At 2 o'clock in the afternoon he was sitting on a pine ridge overlooking Little River, hungry, tired and disgusted. He knew that by following Little River downstream to Cloudy he could

not miss camp, but he had only a vague idea of the distance, which might be many miles.

He had seen one big drove of turkeys, with several fine gobblers among them. This was along an open mountainside underneath the tall pines. The turkeys saw him the moment he moved, and broke for a precipitous bluff from which they launched, one and two at a time, and sailed to the security of the thickets in the opposite bottoms.

An hour later, the hunter had sat down to gather his wits, and decide whether he should try for camp by boldly choosing his direction, or undertake the longer and more certain route of following the river windings.

Far in the distance he heard the baying of two hounds, such as the natives use in putting up deer and bringing them over a run where the hunter lies in wait for a shot. This method of hunting deer is forbidden



Interlocked Antlers.

by law in Oklahoma, but in the Kiamitia country it is still employed.

The baying of the hounds grew clearer and shriller.

Ben knew that the deer had not passed. Taking position in front of a big pine, he waited for developments. There was strong probability that the run led across the pine-clad mountain-spur, where the grass was knee deep, but without underbrush.

A gray-brown body bounded into view from over the rim of the slope, lifted a magnificent pair of antlers as it paused a moment to scent danger, and then 'loped slowly ahead. The wind was in favor of the waiting

hunter. The buck, however, was moving diagonally.

Ben sighted for 300 yards, and got ready to pull the trigger the moment the buck should be passing a big pine tree. He is confident that the report of his rifle increased the speed of the buck to something like sixty miles an hour. He made a clean miss, his bullet boring the tree.

Fifteen or twenty minutes later two lop-eared hounds came bellowing along the trail and, without paying the slightest attention to the hunter, passed into the hazy distance.

The sun was slanting far westward when Ben reached the river and turned downstream. The woods were darkening. Just as he reached the spot where a mountainside came close to the river, a windy boom, followed by a cracking of twigs and small branches in the river bottom, struck his ear.

Turkeys! Coming to water and their roost along the river. Ben peered into the deepening shadows, straining his eyes for a glimpse of the stealthy fugitives. He could hear several running in the dry leaves. There was further booming and fluttering of wings, always toward the river.



The Hand that Rules the Camp.

Ben stopped in his tracks and stood still, as moveless as the shadowy trees about him. Twenty steps away was a growth of winter mulberry, its stems thickly clustered with red berries, relished by both turkeys and 'coons.

"Put! Put-put-put!"

The call was close at hand. With measured stride a turkey came into view and began feeding upon the mulberries, stretching its neck for the higher clusters.

Ben watched the turkey a moment, admiring its

size and grace, before lifting his rifle. The steel bullet went straight to the mark, and the turkey tumbled into a floundering heap in the mulberry thicket. Its companions, alarmed by the shot, began running and flying in all directions, some going up the mountainside and others across the river.

As Ben swung his turkey across his shoulder, he was startled to hear:

"Hoo-yi-a-a-a! Is that you Ben?"

Ben had walked and wandered all day to find a turkey roost within rifle shot of camp!

"We were getting kind of scared that you were 'blowed up' and lost," said Veatch, when Ben threw his turkey down beside the camp-fire.

"Lost! Why I never thought of such a thing. Just been having a good time loafin' round in the sunshine."

Then Ben turned his face away from the fire and grinned.



Fishing at Medicine Park, Near Lawton.

THE people of Oklahoma should give serious consideration to the propagation and maintenance of an abundant supply of game and other edible fish in all natural and artificial waters adapted to such uses.

There is no sound reason why a considerable portion of the revenues of this Department should not be applied to the maintenance of a State fish hatchery. There are numerous places where a hatchery could be operated in ideal surroundings. Lack of necessary approval for the expenditure of funds for this purpose has prohibited this undertaking.

Mr. J. Elmer Thomas of Lawton has been actively engaged for several years in an effort to establish a hatchery and, as a member of the State Senate, introduced a bill for that purpose. Mr. Thomas is preparing for introduction in the next Assembly a bill to regulate fishing in his home county, Comanche, which should be of interest to sportsmen throughout

Oklahoma. He will propose a closed season during the period of spawning; all bass under ten inches must be returned to the water, and not more than ten taken in one day; there will be a severe penalty for using bass minnows for bait, and the sale of fish, save from private ponds, will be punishable by heavy fines.

Many Oklahoma streams in which formerly there was excellent fishing are now practically without a scaled inhabitant. Ruthless violation of law is responsible for this situation. Dynamite, seines and nets



The Fisherman.

have depopulated their waters. The writer is convinced that the way to restore these streams to their former usefulness is to induce the people living near them to unite for the protection of the fish when the streams are re-stocked, not from the standpoint of law enforcement, but for the more practical and selfish reason, that just a little husbandry of local waters will yield an endless food supply and afford delightful sport for many months in the year. It should

be possible, under such circumstances, to increase the number of fish until there would be more than enough for everybody.

This Department is convinced that the carp is an undesirable fish in Oklahoma, for the reason that better fish thrive equally well. The carp is a scavenger, a menace to the finer varieties of fish, and a destroyer

of mosses and other aquatic vegetation that should be grown in abundance in lakes and ponds. The carp multiplies rapidly, and seems proof against dynamite. The writer knows of a beautiful Oklahoma lake, once heavily stocked with bass, where fishing has been ruined by carp.

Various cities and public service corporations, as well as private clubs, have done more than the State itself for fish in Oklahoma, by the building of large lakes and reservoirs for sources of commercial water supply. Lake Latonka, from which the City of Lawton draws its water, is the finest artificial body of water in the southwest, being about a mile in width and three miles in length, with a maximum depth of perhaps forty feet. It has been heavily stocked with game fish, and it is estimated that in a single season three thousand bass averaging two pounds each in weight, were taken from its depths. It is a favorite resort for all kinds of migratory waterfowl.

Recently, a railroad company built near Guthrie at a cost of about \$100,000 a reservoir that will have a water area of about one hundred acres, with great depth. This lake is being stocked with game fish, the company intending that the property shall be utilized for the welfare of the community.

During the year, this Department undertook the compilation of a list of the different streams and natural and artificial lakes in the various counties, particularly such as were adapted to fish. In most instances the data was furnished by officials of the respective counties. It is hoped that this information will stimulate the people of Oklahoma to take greater interest in these fine possessions. This list of questions was propounded:

1. Give the name and estimated length in county of all the different flowing streams; the names, surface area and average depth of all natural and artificial lakes.

2. The distance of the lakes from the nearest postoffice.

3. The kind of water in the streams and lakes, whether clear or turbid, salty or alkaline.

4. Specify such as are fed by springs.

5. To what extent are they frequented by waterfowl, and by what species.

6. Name the kinds of fish.

In condensed form, information received from a number of counties is given below:

Adair—Illinois River, 14 miles; Sallisaw Creek, 12; Caney, 10; Barron Fork, 18; Evansville, 12; all spring-fed, and water clear; bass, perch, suckers, catfish; nets, poison and gigs in common use.

Atoka—Clear Boggy, 2 miles; average depth, 5 feet; spring-fed, and water pure and clear; bass, buffalo, perch, channel catfish. Muddy Boggy, 25 miles; water muddy and alkaline. Chickasaw Creek, 18 miles; a pure mountain stream, fed by good springs all the year round; sandstone watershed; depth, 4 to 7 feet; width, 30 to 50 feet; bass, perch, channel catfish. McGee Creek, 30 miles; equal in every way to Chickasaw Creek, of which the same should be said of Potato Creek, 16 miles. North Boggy, 2 miles, moderately clear, and slightly alkaline. Railroad reservoirs: Five miles northeast of Limestone Gap, 100 acres, two miles long, 35 feet deep, clear water, stocked with bass. Two and one-half miles northeast of Atoka, 40 acres, one-half mile long, 18 feet deep, clear water. Three miles northeast of Limestone Gap, 50 acres, 10 feet deep, fairly good water, stocked with perch, bass and catfish. All these waters are frequented by large numbers of waterfowl.

Beaver—Beaver River, 60 miles; Kiowa Creek, 30; Mexico, 7; Clear Creek, 15; Six Mile, 10; Dugout, 10. Water clear in all streams, with occasional springs. Bass, perch and catfish.

Bryan—Blue River, 40 miles; Red River, 60; Wash-

ita, 20. Water clear in Blue River, turbid in others. Bass, drum, perch, catfish, buffalo.

Cherokee—Illinois River, 50 miles; Barron Fork, 12; Grand River, 28. Water beautifully clear; many large springs. Bass, perch, channel catfish.

Choctaw—Boggy, 25 miles, slightly turbid and not well adapted to bass, but abounds in carp, catfish, buffalo and perch. Kiamitia, 30, beautiful water, and fine stream for bass, crappie and perch. One Creek, 10, tributary of Kiamitia, fed by springs of freestone water, excellent for bass and sunfish. Long Creek, 12, and Sugar Creek and Gates Creeks, all celebrated for their fine fish and their fine water. Roebuck Lake, four miles long, 150 to 250 yards wide, 4 to 16 feet deep, generally clear; for fifty years a fishing resort; renowned for its black bass and white perch; one-half mile southeast of Grant. Everidge Lake, not so large as Roebuck, two miles from Frogville excellent fishing. Upton Lake, three-fourths mile long, one hundred yards wide, 5 to 10 feet deep, clear water filled with many kinds of fish especially bass and sunfish.

Comanche—Medicine Creek, 40 miles; Cache, 50; West Cache, 30; Post Oak, Blue Beaver, Sandy, Big Sandy, Persimmon, Chandler. Several of these streams are noted for their scenic beauty; most of them have good water and good fishing. Lake Latonka, 14 miles northwest of Lawton, covers about 1,000 acres; Clear



Black Bass.

Lake, 3 miles north of Cache, is 30 feet deep and has an area of about 5 acres.

Craig—Cabin Creek, 5 miles; West Cabin, 30; East Cabin, 23; White Oak, 9; Big, 12; Clear, 9; Russell, 10; Locust, 8; Mustang, 5; the last four are clear. In the northeast corner of county are ten lakes with an average depth of 5 feet, covering about 100 acres. Good fishing in practically all streams, save Cabin Creek, which is polluted with oil.



Wichita Mountain Stream.

Custer — Washita River; Canadian River; Turkey Creek, 20 miles; Barnitz, 30; West Fork of Barnitz, 15; Beaver, 18; Big Deer, 10; Little Creek, 18; Horse Creek, 12; Bear, 14; Panther, 13; Soldier, 10; Quartermaster, 15. All the smaller streams are clear and spring-fed. Fish, mostly catfish, buffalo and perch.

Delaware — Grand River, 30 miles; Cow-skin, 12; Honey, 14; Spavinaw, 30; Flint,

10; Horse, 8; clear water, largely from springs; bass, perch, catfish, carp, buffalo, and suckers.

Garfield—Turkey Creek, 40 miles; Skeleton, 40; Red Rock, 30; Black Bear, 25; water clear and fresh, save at flood time; bass, perch and catfish. Brook trout did well in an artificial lake near Enid, until they escaped by the breaking of a dam.

Haskell—Mountain Fork, 8 miles; San Bois, 39. San Bois Lake has an average depth of six feet, and a surface area of 40 acres. Mountain Fork is clear, and spring-fed.

Hughes—Few of the streams are clear, though many are stocked with bass; principal streams, South Canadian, North Canadian, and Little Rivers, and Gobble, Spring, Salt, Caney Boggy, Rock, Gunder, Graves, We-woka, Great, Geary, Tiger, Middle, Mill, Jacobs, Bird, and Center Creeks.

Kingfisher—Cimarron River, 35 miles; Turkey Creek, 15; Little Turkey, 15; Preacher, 15; Salt, 12; Squaw, 10; Cooper, 20; Kingfisher, 30; Uncle Johns, 30; Walnut, 15; Campbell, 15; Cottonwood, 10; Skeleton, 15; mostly fresh, with numerous springs; bass, perch, catfish, carp, gar, buffalo, shad, sucker; numerous frequented by waterfowl in season.

Kiowa—Washita and North Fork of Red River, boundary streams; Big Elk, 24 miles; Little Elk, 18; Tepee, 15; Grayback, 11; Otter, 23; Saddle Mountain, 10; Rainy Mountain, 18; Pecan, 12; Prairie Dog, 20; considerable alkali in a number of the streams; small lakes, some fresh-water, near Lone Wolf, Snyder, Roosevelt and Mountain View; commoner fish in all the streams.

Logan—Cimarron River, 36 miles; Skeleton, 25; Cottonwood, 20; Bear, 25; Beaver, 15; streams not clear, but formerly abounding in bass, with the exception of the salty Cimarron. Ellison Lake, 10 acres,



Mending the Seine.

2 miles from Guthrie, fine water; Santa Fe reservoir, 100 acres when filled, 2 miles from Guthrie; Twin Lakes, 12 acres, 15 miles from Guthrie, until recently well stocked with bass and crappie, but damaged by carp.

Love—Privately owned lake, 160 to 200 acres, 3 miles southeast of Thackerville, rich in natural foods for fish and waterfowl, and regarded as one of the best



Phenomenal Waves Advancing Upstream in Cimarron Flood.

lakes for ducks in Oklahoma; bass, perch and catfish. The establishment of a 500-acre game preserve surrounding the lake is contemplated.

McClain—South Canadian, boundry stream; Walnut Creek, 40 miles, Dibble, 15; water fairly clear; mostly the coarser fish. The Santa Fe lake at Byars, with a surface area of 160 acres of clear water and a

depth ranging from 5 to 20 feet, is one of the finest artificial bodies of water in the State; fed by springs and small creeks; contains bass, crappie, perch and catfish, with room for thousands more.

McCurtain—Red River, boundary stream, 40 miles; Norwood and Perry, 10 each, tributaries; Little River, 45; Mountain Fork, 50; Glover, 25; Onubbie, 12; Lukfata, 25; Cypress, 14, Yasha, 20. No finer streams in the coun-



Cimarron Whirlpool in Flood.

try; abound in all kinds of game and other fish native to this region; water from everlasting mountain springs. Many natural lakes, clear and deep, as follows: Lick-Skillet, Red, 66 Cutoff, Charles, Horseshoe, Colbert, Min-tubbe, Twin, all near Shawneetown; Victor, Snag, Harris, near Pollard; Highland, near Eagletown; Hailey,

Mohawk, Sunk, near Garvin; Pine, Kelley, near Idabel; Mirror, Onubbie, near Broken Bow. It is estimated that these lakes have an average depth of 8 feet and an area of 100 acres each. No nature-lover should fail to visit the streams and lakes of McCurtain County.

Mages—Grand River, 30 miles, average width 100 yards, average depth 6 feet; Spavinaw, 100 feet wide and 6 feet deep; Saline and Spring, underground in dry weather; Rock, 10; Chouteau, 12. Along Spavinaw are numerous lakes of various sizes and depths. Landrum Lake, 10 acres, and Clark Lake, 6 acres, near Strang; water excellent. The fish are black and rock bass, perch, jack salmon, buffalo, channel, blue and yellow catfish, carp and drum. All these waters should be heavily stocked and protected.

Murray—Washita River, 8 miles; Rock Creek, 12; Sulphur, 3; Buckhorn, 10; Colbert, 8; Lick, 8; Fall, 8. These are among the State's most beautiful streams, and are peculiarly adapted to game fish. Lowrance and Ramsey lakes, near Sulphur, afford excellent bass fishing. All these streams and lakes need stocking and protection.

Muskogee—Arkansas, Grand, Verdigris and Canadian Rivers flow across the county; Dirdence Creek, 40 miles; Bayou Menard, 30; Pecan, 30; Cane, 25. Ross Lake and Horseshoe Lake, both near Fort Gibson; lake near Braggs, 2,000 feet in length. The fish of Muskogee county embrace bass, crappie, perch, carp, catfish, buffalo, drum and suckers.

Noble—Arkansas River, boundary stream, 24 miles; Salt Fork, 4 miles; Red Rock, 24, with Bunch, Grass, Warren, Long Branch and Greasy as tributaries; Black Bear, 33, with Cow Creek as its principal tributary; none of streams clear, though in earlier days fishing was good in all of them; need stocking and protection. The larger streams have long been a favorite resort of waterfowl. There has been a marked decrease in the number of fish in the Arkansas and Salt Fork

during the last several years, which is attributed to waste crude oil along the lower reaches of the Arkansas. A privately owned lake at Perry, covering about 5 acres, is stocked with bass and perch.

Nowata—Verdigris river, 35 miles; California Creek, 19 miles; Big Creek, 32; Salt, 10; 'Possum, 12; Hickory, 6; Double, 10; Curl, 8; Snow, 9; Cedar, 8; Lightning, 19. Choteau Lake, 6 acres, near Coffeyville, Kan. Gooseneck, 8 acres, near Lenepah, Ok., Stone, 6 acres, near Delaware, are natural; Stevens' lake, 10 acres, near Watova, is artificial. The oil industry in Nowata County has destroyed most of its fish.

Oklahoma—Canadian River, 75 miles; Deep Fork, 35; Crutcho 6; Deer, 10; Spring, 2; Bluff, 5. Belle Isle Lake, with an area of 50 acres and a maximum depth of 35 feet, and Northeast Lake, 80 acres and 5 feet are close to Oklahoma City; both are artificial, and have been stocked with all kinds of desirable fish. Harrah Lake, near the town of Harrah, is about 5 acres in size, and 8 feet deep.



Lake at Byars.

Ottawa—Neosho and Spring Rivers, both streams of important size; Five Mile Creek, 8 miles; Warren's Branch, 4; Flint Branch, 5; Shawnee Branch, 3; Lost Creek, 20; Sycamore, 10; Tar, 10; Elm 5; Four Mile, 4; Hudson, 5; Horse, 10; Coal, 5. These streams are

mostly clear, and flow with rapidity. They are frequented by fish common to such waters. Refuse from lead and zinc mines has impaired the streams in eastern Ottawa County.

Pittsburg—This County is fortunate in its number of splendid artificial lakes, owned by municipalities and private companies. They are of large size, their water is clear, and practically all have been stocked with bass, perch, crappie and catfish. Under liberal restrictions, fishing is permitted to the public. These lakes are: "Katy" reservoir, 160 acres, near Kiowa; Pittsburg Lake,



Where Bass Are Big.

100 acres, 2 miles from Pittsburg; Lake Talawanda, 140 acres, belongs to City of McAlester; Dow Lake, near town of Dow; Hartshorne Lake, 100 acres owned by the City of Hartshorne.

Pottawatomie—North Canadian 86 miles; Little River, 30; Salt Creek, 27. There are three fine lakes in the County. Santa Fe Lake, 3 miles from Tecumseh, has an area of 80 acres and an average depth of 18 feet; Chillis Lake, 35 acres, 2 miles from Dale; Round Lake, 40 acres, 18 feet deep, 3 miles from McCloud.

Pushmataha—Kiamitia River, 75 miles; Little River, 38; Cloudy, Black Fork, Jack Fork, Dumpling, Beaver and other smaller streams, ranging from 15 to 20 miles. At Kosoma is a private lake of 25 acres, with an average depth of 7 feet. No county in the State has finer

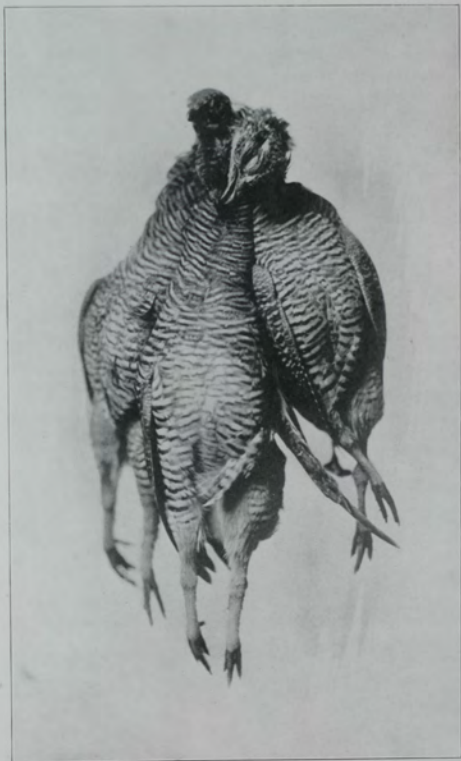
fishing streams than Pushmataha; all are clear, and spring-fed. Bass plentiful.

Sequoyah—Illinois River, 20 miles; Big Vian Creek, 15; Little Vian, 9; Big Sallisaw, 25; Little Sallisaw, 15; Big Skin Bayou, 10; Camp Creek, 11; Big Lee's Creek, 15; Little Lee's Creek, 8. The lakes are Grassy, Vian, and Big, their average area being about three square miles, their depth varying from two to eight feet. Big Lee's Creek is next to the Illinois in size. The water in all the streams is pure and soft, that of the Illinois being especially transparent and pure.

Wagoner—Principal streams, Grand and Verdigris rivers, and Gar, Nigger, and Bull creeks. Wagoner County is rich in natural lakes, the main ones being Nehi Lake, 200 acres; Vann's Lake, 1,000 acres; Grass Lake, 400 acres; Flag Lake, 100 acres; average depth, 4 to 40 feet. Grand River and all the lakes contain large numbers of bass, crappie, perch, drum and catfish. The crappie of Vann's Lake are renowned for their size. All the lakes should be improved by re-stocking. Gar are so numerous and destructive in the lakes that there is great need of their riddance. The water in all the lakes is live and clear.

Washita—Washita River, 35 miles; Cobb Creek, 10; Boggy, 20; Turkey, 10; West Elk, 20; East Elk, 10; water, pure and very clear, with numerous springs. The streams of Washita County are worthy of generous attention.

This list of lakes and streams of Oklahoma, that are of value from the standpoint of fish, is by no means complete, as in a number of instances county officials could not be induced to furnish the desired information. The large artificial lakes at Newkirk, Yost and Meramac should be included.



Prairie Chickens.



Wild Poppy.

PIONEERS of Oklahoma do not forget the low booming that made vibrant the early spring mornings at sunrise. The sound came from the countless host of prairie chickens which civilization had not dislodged from their primeval range. What fine birds they were! How delicious their gamey meat, roasted in a "Dutch oven" at the end of a toilsome day, when appetites were keen!

The Oklahoma country was adapted to their needs in every way. Beginning where the hills and forests leave off in the eastern part of the State, their natural feeding and nesting grounds extended west-

ward to the Texas Panhandle and beyond. In summer, insect food was unlimited in quantity and distribution; in winter, acorns and berries were abundant, especially in the western "shinneries"—wide expanses of acorn-bearing oaks reaching scarcely higher than one's shins.

In early days the prairie chicken was perhaps most numerous of all birds in Oklahoma. They increased rapidly, and were thrifty and hardy in all kinds of weather. Settlers declare that often in winter the prairie chickens flocked together in such numbers that when they rose the prairie itself seemed to take wing;—they were a pest in the land, descending upon the stacked grain and devastating a field in a week. The

cost of ammunition necessary to disperse or destroy them was prohibitive. The prairie chickens, accordingly, cackled and fed to their hearts' content, while the settler deplored the misfortune of living in a region where the fruits of his toil were so speedily devoured by insatiable feathered enemies.

But the prairie chicken was a dependable source of food in a land where the pinch of poverty was keenly felt in the first few winters, and without them there often would have been empty pots. Men who boast of having survived a steady diet of prairie chicken during the winter solstice, seem to regard the performance as almost superhuman.



A Lucky Hunter.

Old settlers are agreed that enough prairie chicken usually is too much, and that to subsist upon the rich meat day after day, when it is no longer relished as game, is a test of endurance, compared to which the eating of a quail a day for thirty days would be a highly frivolous affair.

Sportsmen who have given thought to the possibility of saving the prairie chicken from extinction in Oklahoma do not have a hopeful view of the situation. Next to the antelope, the prairie chicken seems unable to accommodate itself to a marked change in its natural surroundings—it requires the undisturbed freedom of a wide range, and disappears with an almost mechanical ratio as civilization advances.

A few scattered birds are said to remain on the prairies of the old Cherokee Nation, and a few flocks may be found in the northwestern part of the Osage Nation—in the big cattle pastures. During the summer of 1914 about one hundred birds were reported in a closely protected pasture in the Osage country. Else-

where, they are rarely to be seen outside the tier of western counties that border the Panhandle, running as far to the northwest as Beaver County.

Astonishing as it may be, there is an open season for the killing of prairie chickens in Oklahoma. Year after year, the automatic shotgun is exterminating the flocks. The practice that usually prevails in hunting prairie chickens at this day is highly disastrous. Finding it necessary to penetrate to remote localities to reach the range, hunters do not go alone, but in large parties, and often remain a week. The bag limit is a myth in most instances. Feeling that some other person will get the birds if any should be left, hunters of a certain kind blaze away without conscience until they have killed all they can find.

Worst of all is the criminal waste that follows this form of shooting in early fall. Without refrigeration of any kind, it is rarely possible to save the game from decay; often an abandoned camp is known to have been occupied by prairie chicken hunters by reason of the carcasses found rotting on the ground. Last season a hunter reported that he found more than two hundred carcasses of prairie chickens that had been thrown away at a camp in the Texas Panhandle.

Prairie chickens are still fairly plentiful in certain parts of the Panhandle counties. Short shrift is made of violators of game laws in Texas, yet the Panhandle region is so thinly settled that many hunters



In the "Shinneries,"

risk the odds and escape arrest. The automobile has become no less deadly to game than the automatic shotgun. In an automobile, a hunting party in a day can sweep over a wide scope of country, seeking out every likely bit of cover; if there is suspicion that an approaching stranger is an officer of the law, flight is easy.

Fairness requires the statement that most of the hunters who go on these long journeys to the range



Proud of Their Bag.

of the prairie chicken are honorable sportsmen, deeply concerned in every suggestion that might possibly delay or prevent the final disappearance of this splendid game bird.

In the Texas Panhandle and contiguous sections of Oklahoma the prairie chicken is making its last stand in the Southwest.

Who knows how to save them?

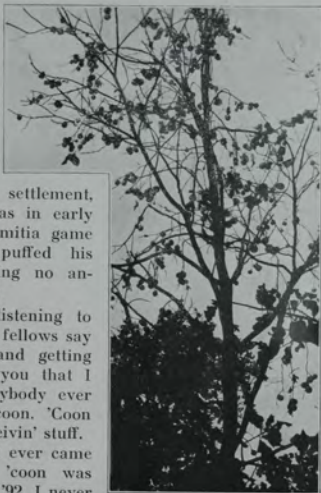
D'YE ever try to eat fried 'coon?"

The interrogator was "Cap" Bessent, who hunted in Oklahoma before the country was opened to settlement, going from Texas in early days to the Kiamitia game region. "Cap" puffed his pipe and, hearing no answer, continued:

"I was just listening to hear one of you fellows say that you had, and getting ready to tell you that I don't believe anybody ever did eat fried 'coon. 'Coon meat is sure deceivin' stuff.

"The nearest I ever came to eatin' fried 'coon was in the winter of '92. I never forget it. We had pulled

into the mountains from the railroad, leaving one wagon to follow behind, because the country was rougher than the Lava Beds. We had our extra supplies in that wagon, and, by some hook or crook, all of our bacon. A cold rain fell most of the day, and by night, when we reached our camping place, we were wet, stiff, tired, hungry and out of humor. At the mouth of a canyon, just as we were approaching camp, one of



Persimmon Tree.

the party shot a 'coon, the biggest old boar 'coon I ever did see. He cried like a child when he fell over, and I saw Sam, our negro cook, roll his eyes and shiver. Negroes, you know, are superstitious. The 'coon was thrown into the wagon and carried to camp.

"Tents were pitched, the horses staked out in a little valley meadow and a big camp-fire soon blazing. Sam was told to hurry supper, not forgetting to make about a washtubful of black, steaming coffee. Sam was soon industriously at work, and we waited in anticipation of a substantial meal. Now, if there is one thing more than another that a fellow wants in the woods it is meat, and plenty of it. Sam opened the chuck box and began looking for the bacon. He scratched around a while then announced, 'Dat bacon sure am gone, an' I kain't find it.'

"Everybody took a hand at frisking the grub box for bacon, but none was in sight—all of it, bushels of it, was behind in the last wagon, which was not due until the next afternoon. The more we thought about that meat, the hungrier we grew. Actually we got to feeling that there was only one thing in the world that we wanted, and that one thing, bacon. We began casting about for a substitute. Darkness had come on, and it was needless to hunt for game.

"Finally, it was suggested that Sam fry some 'coon steak.

"'Gen'lemen, yeh ain't gwine to ask me to fry some o' dat cryin' coon, is yeh?' asked Sam, with a shudder.

"'Go 'long, Sam, you act as if you thought that was 'hant' 'coon,' said old 'Baldy' Reed.

"Sam whetted his butcher knife and drew the 'coon across a log. At the first cut the 'coon uttered a post mortem gurgle. Sam fell back on the ground, staring at the carcass.

"'Mebbe this hain't no 'hant' 'coon,' he said, 'but I shore nevah saw a dead 'coon act like dat.'

"Nervously, Sam proceeded until he had sliced a skilletful of 'coon steak. The fire was hot, and the 'coon was soon sizzling.

"You can talk about tough meat, but a man that never saw old boar coon steak does not know what tough meat is. When the meat was first dropped into the hot skillet, both acted as if they were insulted.



In the Choctaw Country.

and drew away from each other, the coon humping itself in the middle and standing on edge like a big black tarantula. Sam was visibly agitated, and said that he believed he could hear a kind of whining noise coming from the skillet. He was told to make the 'coon lie down, or it could never be cooked. Sam flopped the 'coon over with a big fork, and immediately the 'coon began humping itself in the opposite direction, standing on edge. Sam was now showing the marble in his eyes, and sprang aside when an owl chattered and clashed its beak in a nearby tree.

"I pays no 'tention to a squeakin' 'possum," said Sam, 'but I jes' keeps hearin' that 'coon cryin' like when yeh shot him, an' ef yeh don't mind yeh're gwine to have a goophah on dis camp.'

"The 'coon had now been cooking half an hour, humped in the middle all the time. Sam was told to see if it was tender. The meat had turned a deadly black; the fork rebounded as if it had struck rubber. Worst of all, blood trickled from the gash, and immediately the crying sound came again from the skillet.



Persimmons.

The meat was raw, raw as at the moment it was first slapped into the skillet. The edges were beginning to burn and grow cindery. The odor of that 'coon meat filled the whole woods with a strange, wild, penetrating smell.

"Hungry hunters have appetites for anything that can be chewed, and we sat impatiently and waited for

the 'coon to get done. The coffee had boiled, and Sam's biscuits long since had been baked brown; still the 'coon whined and humped itself in the skillet, Sam looking as if he were frying a real 'hant.' Two hours passed, and the 'coon was more active than ever, the fork still showed red meat under the black outside. Going for water, Sam stepped on the hairy carcass of the 'coon beside the log and sprang into the air with a yell. He explained his conduct by saying that his nerves were 'teetery.'

"An expression of disgust was spreading over the faces of the hungry hunters. Finally, without a word, 'Baldy' Reed poured himself a cup of coffee, dived at the biscuit and began eating. The others joined in the frugal meal. Colonel Boyd was first to break the silence, by bluntly issuing this order:

"'Sam, keep after the son-of-a-gun until you cook him. If you need rivets to fasten him flat on the bottom of the skillet, you will find some in the camp kit.'

"It was now nearly midnight. Rubbing his hands together despairingly Sam pleaded:

"'I'se tired foolin' wid dat 'coon, gen'lemen, and I'se got to git some sleep if I'se gwine to cook breakfus' soon in de mawnin.' Please lemme go to baid.'

"As I dropped off to sleep shortly after midnight, the last thing I saw was Sam with a scared look standing by the fire, and the last thing I heard was 'coon frying in the skillet.

"Next morning we were up early, hungrier than ever for meat. The 'coon was still frying, though I suspect that Sam had abandoned the battle when we fell asleep, and had returned to the encounter before we awoke. The 'coon was still humping itself.

"'Let me have that 'coon just a moment,' said Colonel Boyd, whereupon he seized the meat and with a stone undertook to pound it on a log. The 'coon meat bounced from his hand, and actually seemed trying to escape.

"The situation had now resolved itself into a battle for supremacy between the crying 'coon meat and the hungry hunters and awe-struck Sam. Rain was still falling; there was little prospect of finding game without great discomfort. 'Baldy' Reed took his gun, however, and said that he would rather perish in the woods searching for game than to remain and witness the awful struggles of that 'coon meat.

"By 11 o'clock Sam was panicky. The 'coon shrunk hour by hour, and the smaller it grew the more agile it became as it waltzed round the skillet. Colonel Boyd occasionally scrutinized the skillet and its contents as if dubious of what he saw.

"Later in the day we heard the muffled boom of a gun through the mist and rain, and soon afterwards 'Baldy' Reed came in with a five-pronged buck.

"'Damn the 'coon,' said Reed.

"'Damn the 'coon,' said Colonel Boyd.

"Sam seized the skillet and tossed the 'coon meat over the brow of the hill. The whole camp was startled. That 'coon meat seemed to take on new life, bounding from rock to rock, jumping and springing as if it had escaped from captivity. As far as we could follow it with our eyes, that 'coon meat was seen travelling down the long rocky hill.

"'I'se done bin tellin' yeh, gen'lemen, dat was a 'hant' 'coon,' said Sam, ominously. 'My ole mammy tole me 'bout 'em when I'se a small chile, but I nevah seed one befoh.'"



IF there are virgin fishing streams remaining in Oklahoma, they must be sought in the Kiamitia country, for there dynamite and nets have not wrought the ruin so apparent in other streams of the State.

In the little pool on which was damascened the flight of the red-tailed hawk were enough bass and perch to entertain any reasonable fisherman for a week. This pool, no larger than thirty by fifty feet in size, lay midway between two chattering rflies, with big water above and below.

Sitting quietly on the bouldered brink, one found endless diversion in spying upon the domestic affairs of the pool's inhabitants. Much of the Kiamitia rock

At the End of the Trail.

formation is tipped at an acute angle, and in a number of streams the lamination has been broken by floods until the edges are tusked and jagged; such places cannot be waded or scined. Here are innumerable re-



Dogwood in Blossom.

treats for ambuscading bass, and crannies to which the small fellows may dart for safety.

An ivory-like crescent shines far down in the darkness of the pool, moving slowly, and reveals itself as the white underjaw of a bass whose moss-colored body hangs suspended in the clear depths. Ranging in

weight from one to four pounds, bass after bass swims into view. Perch swell the procession, from time to time increased by suckers and catfish.

Still-fishing, with a grasshopper for bait, fails to bring a strike. A native woodsman said that in mid-November the bass could be taken with artificial bait about an hour before sunset. At that time of day much commotion was observed frequently along the shallower reaches, where large fish seemed to be feeding.

In its plentitude of fish, this little pool was simply a remarque of the long stretches of river, from which a man would have risen with fish in his very pockets, had he fallen in.

An old logging trail on whose smooth stones the green moss is growing ends abruptly on a timbered bench of the Bokloosha. Across the river, a mountain ridge shaggy with pine turns the stream in a long bend; at the foot of the mountain, the water is dark and deep.

"Here," said a nature-loving Choctaw, "we shall lift our tent in April and live for a month, just fishin' and fishin.' Dogwood then blooms all along the river, and the south wind blows against the redbud, filling the air and dimpling the water with pink petals. Old Choctaws will tell you that fishing is best when the dogwood is in blossom. We shall find squirrels for pot-pies, wild onions for our digestion, and sassafras tea to drive the torpor of winter from our blood. I shall be waiting when you hear the first sound of Spring, whose



Dogwood Blossom.

"* * * *headgear is the golden sun,*
Her cloak the silver rain."



CONSERVATION of Oklahoma's wild life is a duty concerning which there can no longer be real differences of opinion among the people of this State. There should be fullest co-operation in making and enforcing our game laws. Farmers especially should lend their as-

sistance, for without their earnest help the best laws will be barren of right results.

During the last four years, this Department has steadfastly endeavored to impress the public with the fact that the granting of a license to hunt conferred no privilege of slaughter, but rather that its possessor had signified his obedience to laws intended to protect and multiply our game—to save, not to destroy our wild life.

This Department is maintained without cost to the tax-payers. Its funds do not belong to those who contribute them, but to the birds, the trees, the flowers, the fish and the four-footed inhabitants of wild places—they are to be used for the benefit of our young people as well as for the pleasure of sportsmen.

The State Fish and Game Warden believes that there should be further restrictions upon hunting in Oklahoma. He would recommend for Legislative action in 1915 a quail season of thirty days—from about December 15 to January 15; an extension of the closed season on pheasants for an indefinite period; a permanent closed season on prairie chickens; a smaller bag limit for wild turkeys, and no spring hunting of these birds.

There should be a State fish hatchery. Thousands of requests for fish have been received from farmers in all parts of Oklahoma, hundreds of whom say they

would gladly build lakes and ponds if it were possible to stock them with desirable fish. Fish hatcheries are successfully maintained in other States, and there is every natural condition for success in Oklahoma.

The Federal law enacted for the better protection of migratory waterfowl and migratory song and insectivorous birds is now receiving the support of many persons who at first opposed it. The purpose of such a law is indisputably good, regardless of any and all judicial interpretations. The laws of Oklahoma, in the opinion of this Department, should be adjusted to conform to these Federal regulations, should the latter stand the test of the courts.

During the last eighteen months the only enforcement of our game laws has been by sheriffs and assistant State game wardens, the latter serving without pay. There should be legislative recognition of the fact that our wild life is worthy of receiving the help of officers specially qualified for such duties and whose entire time should be devoted to that work.

Service of this kind is imperative in southeastern Oklahoma, our richest game region. Large areas, where game is most abundant, are thinly settled, and it is difficult for resident county officers to police their different localities. The State's game laws are violated with impunity at all seasons, not only by intruding hunters from other States, but by citizens of Oklahoma as well. This Department believes that four or five trustworthy mounted rangers could be employed to great advantage in partrolling this section, not only for the protection of game, but for the prevention of forest fires.

Boards of County commissioners should be authorized to designate sections and townships in the various counties as refuges for game birds and game animals. No hunting should be permitted in these refuges for certain periods. Such sanctuaries would greatly facilitate the increase of quail.

This Department was established June 9, 1909. To January 1, 1915, its total receipts were \$312,277.80; total disbursements, \$119,221.04. The latter item includes about \$25,000 expended in the propagation of game birds. This leaves an excess of \$193,056.76 over expenditures. Attention is directed to the fact that during the last eighteen months the Fish and Game fund received only twenty-five cents of each \$1.25 collected for licenses issued by County clerks, greatly reducing receipts. This is contrary to the purposes for which this Department was created, and should be changed by Legislative action. Of the balance of \$119,221.04 now standing to the credit of this Department the sum of \$72,081.50 is deposited with the State Treasurer; \$94,197.10 has been diverted to the State capitol building fund, and \$26,778.16 is on hand in this Department.

Finally, this Department appeals to the people of Oklahoma for the organization of an Audubon Society or similar association in every school district. Violation of laws enacted for the protection of our wild life can be reduced to a minimum if boys and girls are brought to a sympathetic understanding of its many values. During the year this Department in conjunction with the State Superintendent of Public Instruction published "Oklahoma Bird Day Book," to be used in the public schools on April 3, which Governor Lee Cruce by proclamation designated as Bird Day. The text and illustrations of this pamphlet delighted and instructed thousands of children.

THE END.

