

KANSAS



FISH AND GAME

VOL. X

APRIL, 1953

No. 4



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KANSAS FISH AND GAME

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What Makes a Fisherman?

One of the easiest ways to a kid's heart is through a fishing pole. There is hardly a fisherman reading these lines who cannot recall his first fishing trip, and countless pleasures down through the years. A lowly cane pole is suddenly transformed into a magic wand the instant a kid is found at one end with a lively fish at the other. That magic wand has the power to instill memories that live forever, and many a tired grown-up finds his mind wandering barefooted, back to the old fishing hole.

In those days he had a rusty hook or a bent pin, grocer's twine, a nail for a sinker, a can of red worms, a pole of some sorts, and the burning desire to play hookey and tangle with a big one. Today he has the finest hooks metallurgical science can devise, nearly invisible lines of fabulous nylon, lead sinkers of clever designs, the finest glass rods money can buy—and the burning desire to play hookey and tangle with a big one!

But for every tired, wishful grown-up who would like to retrace those happy steps over a once familiar path, there are countless kids who will never know such thrills, such precious memories, according to Heddon's research department. There are new paths to be worn and a new generation eager to be shown how, why and where this fishing thing is done. Heavily on the shoulders of all fishermen rests this responsibility. In every neighborhood, or just around the corner, lives a kid who will never know these hallowed memories which come from "just fishin'" unless some fisherman puts an arm around his or her shoulders and shows the way.

Your oldest, dog-eared fishing outfit would be "big stuff" to a youngster who has nothing to fish with except mischief. Now is an excellent time to resolve that this season you'll do it—you'll find an eager kid and teach him or her the things about fishing you've learned to love.

And you know something, declares Heddon. When this season rolls to an end it will be one of the finest of your entire lifetime for you will have new memories to augment the old. And what's more, you've created a pretty wonderful character—a fisherman!

Little Things That Count

Since we are starting another fishing season, it's time for us fishermen to pay attention to the little things that fool big fish.

Too many fishermen carefully plan only the big things like wangling the time to go fishing, locating a boat, a place to fish, out-talking the wife, etc., and neglect to remember these tidbits which Heddon's staff of experts point out as "all important to him who would mess up a skillet."

ACCURACY. Learn to be an accurate caster. Overshooting or undershooting the target not only louses up the good holes but it tears down your estimation of your own fishing ability. Gain confidence in yourself by developing accuracy at home, in your backyard, or in your parlor. Pick out any target and cast at it until you can hit it without thinking about fundamentals. Once you have mastered accuracy you have surmounted the greatest obstacle facing most fishermen.

STEALTH. The Indians used this more than accurate shooting in killing game. A fisherman must do the same, he must actually stalk the larger game fish. Wear dark clothes, stay down in the boat, and be super-quiet when approaching a likely hole.

Fish are alarmed by your stumbling against rocks, splashing the oars or anchor, scraping the tackle box on the bottom of the boat, running the outboard motor too close to where you intend to fish, or squeaky oarlock. In other words, avoid vibrations. *The only noise a fish should hear is that of your lure falling on the water.*

CHOOSE LURES WISELY. If you are fishing in weedy waters, don't use a lure that is constantly hanging up. Try an ace spoon or a stanley weedless hook with a pork chunk. Don't use a shallow running lure in deep water, put on a go deeper river runt that will dive down to where the fish are feeding.

If the water is calm, try a topwater chugger and vary its action. First try a noisy retrieve, then a fast one, then a quiet, slow one. Try to give the fish something it hasn't seen before in the way of tantalizing action.

Try different colors. At times an all black lure

will take fish when a black lure with white eyes draws a blank. Don't ask why, it's one of those unanswerable questions like, "Why are women's hats?"

DON'T BE BASHFUL about setting the hook, slam it home with gusto. If it's a small bass, pike, walleye, northern pike or muskellunge, it won't be harmed by your strongarm tactics, and you can always turn it loose. If it's a man-sized fish, you'll be glad you set the hook like a man should, then play it out, well out, before bringing it in the boat.

KEEP HOOKS SHARP. Dull hooks have lost plenty of fish for between the flex of your rod and the stretch in your line, plenty of the power is lost when you strike a fish. So, if the hooks are not sharp they will not penetrate and hold "Old Knucklebuster" who already has calloused jaws from biting down on dull hooks.

BUT REMEMBER. You will get skunked, blanked and white-washed on certain days, no matter what you do or how skillfully you fish. These are the days the Good Lord set aside to insure man would never learn how to continually outsmart a fish.

For then there would be no fish, it's that simple!

Find Rare Fish Which May Be "Missing Link"

One of the biggest fish stories of them all was that of Prof. J. L. B. Smith, one of South Africa's outstanding scientists, when he returned recently from a remote Indian Ocean island with a carefully preserved five foot specimen of what he described as "the rarest fish in the world."

His prize was a prehistoric coelacanth latimeria, which first made its appearance on the earth about 300 million years ago and which, until recently, was believed to have become extinct at least 50 million years ago.

Smith and many other scientists believe it will prove to be the long-sought "missing link" in the evolution of land animals from the age when the earth was populated only by fishes. Discovery of the rare fish, whose elongated fins resemble legs and arms, was the culmination of a fourteen-year search for such a specimen by the South African ichthyologist.

Only one other specimen ever has been known to have been caught. That one, brought up by a trawler near East London, South Africa, in 1948 was largely decomposed before scientists had a look at it and only the skin and skeleton were saved. The latest find was caught by a fisherman on a lonely Indian Ocean island in the Comora group, between Madagascar and the East African coast.

Game Protector Dean Passes

John Dean, veteran state game protector, died February 16 at the Norton Sanatorium, after an illness of about two years. Mr. Dean had been a district game protector for the Kansas Forestry, Fish and Game Commission since July 1, 1943, being on sick leave at the time of his death.

John was a true sportsman. He loved the outdoors and conservation work and was always on the job. An ardent fisherman, he was particularly adept at fly fishing and was never too busy to take time to teach young or old the art of using a fly. Many a fisherman around Arkansas City and Emporia had taken lessons from him. He had a wide host of friends.

Services for Mr. Dean were held on Thursday, February 19, at Arkansas City. Fellow game protectors acted as pallbearers and honorary pallbearers.

Mr. Dean is survived by his wife, Anna, of Arkansas City.

Shoots Banded Duck

A banded duck, shot on the Smoky river, near Winona, Kansas, the week of November 9, 1952, by W. D. Gfeller of Winona, picked up its band at Valmont Reservoir, Boulder county, Colorado, on January 28, 1949, the U. S. Fish and Wildlife Service has reported. The duck, a mallard drake, made excellent eating, according to Mr. Gfeller, who was surprised that the duck had been able to avoid the hunters' guns as long as it did.

The studies and investigations of the migrations and life histories of the birds of North America are always interesting and provide much useful information. Hunters who kill banded migratory waterfowl are urged to send the bands to the U. S. Fish and Wildlife Service, Patuxent Research Refuge, Laurel, Maryland.

Cover Picture

This month's front cover picture is a closeup of some of the buffalo at home on the 2,560-acre Maxwell Game Preserve in McPherson county. The Kansas Forestry, Fish and Game Commission has stocked the preserve with deer, elk and buffalo and these big game animals are a major attraction to all who visit the newest of the commission's state park properties.

How Fast Does a Bass Grow?

By ROBERT HILAND, Supt., Federal Fish Hatchery,
Farlington, Kan.

How much does a fish grow in a year? What makes it grow?

Those are two of the questions often asked by fishermen.

A game fish grows mostly from the amount it eats, and that usually means the number of smaller fish it consumes during a given period. The more he eats, the larger he gets, at the expense of his own smaller brothers. It's a simple answer to both questions, since there is no set rate of growth per year for a fish, such as bass.

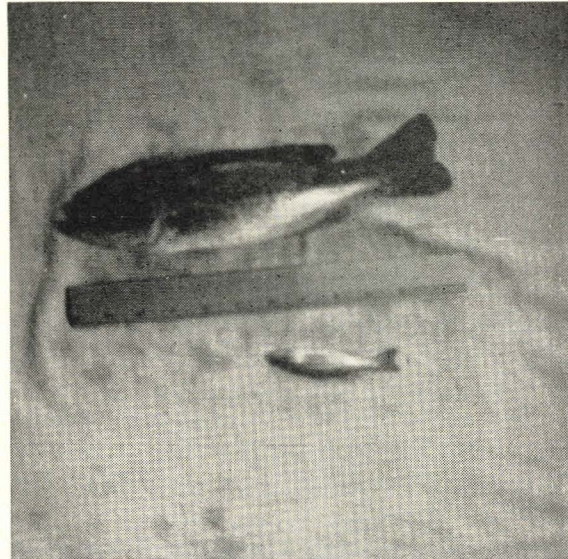
The accompanying picture gives two answers on how fast does a bass grow. These fish were taken from the same rearing pond at the federal fish hatchery, located at the Crawford County State Park, near Farlington. Both fish hatched in May and the picture was taken early in November, 1952. Both fish when fingerlings were placed in one of the Farlington holding ponds. The smaller fish is the normal size for fall distribution. The larger bass grew faster because he is a cannibal and started feeding on his relatives at an early age. The more he ate the faster he grew and the more he could consume. The smaller one fed on insects and larvae in the pond. Sometimes bass two inches long will be taken from a pond along with the same sized fish as shown in the picture.

Why is there this much difference in the same aged fish? It seems likely that the individual variation in size is due to the natural inclination of each. One fish is unafraid and when it sees something that might be good to eat, it grabs it. The smaller fish is wary, and when it sees something that might be good to eat it is cautious and waits "to see." Consequently the larger fish spends its time feeding and grows rapidly, and the smaller in hiding or waiting and does not get as much feed nor grow as fast.

We have cleaned about forty of the big ones out of a pond at one time and then a little later took about fifty more foot-long bass out of the same pond. The second time there was a check, about half the smaller fish had disappeared, apparently devoured by the few big fish remaining.

The large fish settle into the "kettle" or deep hole in one end of the pond, while the smaller ones remain in the shallower parts or hide in the brush along the banks to escape from the big fish. It's hard to clear out all of the big ones from the "kettle," and they make heavy inroads into the smaller fish who are not such greedy cannibals.

The larger individuals are saved for brood stock (parent fish at the hatchery) to improve the strain of



Why big fish get that way. Bob Hiland, director of the Federal Fish Hatchery at Farlington, says the two large-mouth bass shown in this picture are the same age. One is a real fish cannibal and got his growth by eating the little brothers, such as the small one below the foot-long ruler. The more he ate, the larger the bigger one grew. The big one weighs about a pound, the three-inch one about half an ounce, despite their same birth date.—Photo courtesy U. S. Fisheries Station, Farlington.

bass. It is believed this strain will enable us to furnish a faster growing fingerling for stocking waters in the state and do a better job of keeping bluegill numbers in check when stocked with them in farm ponds. We also hope the larger and unwary type individuals will bite better for fishermen.

In 1952, we stocked 550 ponds in Kansas from this hatchery. There were 170 other ponds scheduled to be stocked, but were found dry when the fish were ready. Fish scheduled for the dry ponds were either distributed in nearby running streams or returned to the hatchery, to be held for stocking the same ponds this month, if sufficient rainfall or snow have refilled the ponds.

Farmer-owners of these ponds will be given first chance at the fish, if they want them, and should write the Federal Fish Hatchery, Farlington, Kan., for a new application blank.

Catfish Bait

Most fishermen like to make their own lures, bait, etc. Here's a dilly of a catfish bait formula: Mix thoroughly 1-lb. of old soft limburger cheese and a 1-lb. can of wallpaper cleaner (the doughy, putty-like kind). Add twenty drops of oil of anise. Keep in tight can or jar. The cleaning agent in the wallpaper cleaner keeps bait soft. It stays on hooks and it really takes the cats!

Only 22 Whooping Cranes Return to Wintering Grounds

Only twenty-two whooping cranes have returned to their wintering grounds in Texas, the National Audubon Society has reported. The present count, which has been determined by an aerial survey conducted by the U. S. Fish and Wildlife Service, is one less than last year's total of twenty-three cranes. Only two young of the year have been identified, though further surveys may reveal that some of the others are young.

All that remains of the original wild population, these stately white birds migrate from their breeding range in the far north to the Aransas Wildlife Refuge on the Texas coast.

At least two cranes fell to guns of law-violating gunners, as they made their annual flight toward Texas last fall, the co-operating conservation agencies reported.

One of the cranes was found near Sharon in Barber county on October 30. Thane Robinson of the Kansas University Biological Survey was called hoping that



A Whooping crane that was found in Barber county last October, a victim of law-violating gunners. Only twenty-two of the species are known to remain of the original wild population.—Photo courtesy of Thane Robinson, Kansas University Biological Survey.

the injured bird could be saved, but it died the next day. The other crane was shot south of Regina, Saskatchewan. The U. S. Fish and Wildlife Service sent a plane from La Crosse, Wisconsin, hoping that the injured bird could be flown to San Antonio, Texas, where it would receive expert attention at the San Antonio zoo. Despite forced feeding of barley and milk and doses of penicillin, the crane died enroute to Texas.

The continental whooping crane population now stands at twenty-four, which figure includes two crippled captives at the Audubon Park Zoo in New Orleans. These are the birds that attempted unsuccessfully to raise young at the Aransas Refuge.

Each year it becomes more apparent that illegal hunting is the major factor in reduction of the numbers of whooping cranes and in increasing the threat of their extinction.

One Sportsman's Club That Points Way to Activity

Sportsmen's organizations over Kansas might take a leaf from the activity book of the Southeast Missouri Sportsman's Association if they are looking for something to do toward furthering conservation.

According to the Missouri Conservation News letter, an itemized list on the club's activities reads something like this: Hired additional legal counsel to prosecute an illegal deer-kill case; maintain fund for reimbursing landowners for damages caused by thoughtless hunters; each year invite all 4-H club chapters and leaders (24 clubs) to a free banquet for a get-together and gripe session; purchased thirty wildlife bundles and gave them to Poplar Bluff FFA chapter for planting under direction of vocational agriculture teacher; staged kid's fishing derby for 150 participants; turned fifteen acres of ground over to FFA chapter for wildlife refuge management—all types of wildlife food and cover furnished to boys for planting.

Distributed 500 signs to farmers of the "HUNTING BY PERMISSION ONLY" type; successfully opposed, with aid of civic clubs and individuals in two counties, the commercial cutting of timber in the Wappapello area proposed by the Army Engineers; maintain two rearing ponds, with 30,000 fingerling fish furnished by the Conservation Commission, which will be harvested by the club and released in southeast Missouri streams; maintain standing reward of \$200 for information leading to arrest and conviction of persons illegally killing deer; have lecture series with eminent personalities for members and friends.

"Otherwise, the club has just been marking time," according to the Missouri Newsletter.

Is Our Game Becoming "Too Smart to Kill"

For years now, some hunters have been maintaining that game is becoming just too blankety-blanked smart.

Nowadays you can't bring home as much meat as Dad and Grandpa used to because wild critters have become educated enough to make a monkey of man—so goes the complaint.

This idea appears to be gaining, and may soon rival in popularity the old alibi of "there ain't no game no more."

Well, IS our game changing its nature, becoming smarter?

Some have denied it, claiming the change has come about in hunters instead of in the hunted. Modern man, they say, sticks to his desk or workbench practically the year around; he doesn't have the experience, skill or endurance in the outdoors that old-timers had; he can't expect to make like Daniel Boone when opening day comes. There's something to that, so far as a good many hunters are concerned, but is it the whole story?

There's an answer from a well-known biologist, who throws his weight on the side of those who claim our game is indeed, changing. Roger M. Latham of the Pennsylvania Game Commission penned a piece called "Too Smart to Kill!" for a recent issue of *Hunting and Fishing*.

Here are some of Latham's points:

1. More and more rabbits are diving into holes before your dog instead of circling back to you as well-mannered cottontails should.
2. Pheasants don't flush as dependably as they once did. Instead many of them run, giving pointing dogs fits and euchering you out of shots.
3. Bobwhite quail run, too, and when they do rise they promptly streak for heavy brush where you can't get them out.
4. Ruffed grouse used to be so tame that our forefathers killed them with sticks—and you can do the same today in the deeper Canadian wilderness. But in American hunting territory the grouse now have a formidable bag of tricks. They take off before you get in range; or they wait until you have passed and flush behind you; they fly so as to put a tree between themselves and you.
5. Ducks leave the marsh at daylight, sit it out on some bay or river while hunters fret in their blinds, and go back to the marsh after shooting hours. When ducks move, Latham solemnly asserted, many of them fly so high they have to wear oxygen masks to keep from getting nose-bleed!

Latham not only maintained that game is becoming highly educated, but also pointed out the mechanism bringing about the change. It is not primarily a matter of individual birds or animals becoming wiser with experience. In fact, it is not a matter of "brains" in the usual sense.

What happens is that hunters shoot off game having characteristics which make it easy to kill. That leaves, as breeders, those individuals with patterns which save their lives. The life-preserving characteristics are largely inherited. Thus there is a constant process of selective breeding in the direction of game that is hard to kill.

How's the hunter supposed to feel about all this? Latham infers that he ought to be glad. If game couldn't adapt itself to survive modern heavy hunting pressure and fast-firing long-range guns, then obviously there would soon be no game to hunt.

The next time you're outwitted by some wily bird or animal, Latham admonished, don't cuss him out—admire him. And when you get something in your game bag, stick out your chest—because maybe Daniel Boone himself would be skunked sometimes if he were to match wits with today's educated game.—*Wisconsin Conservation Bulletin*.



Lake Wabaunsee near Eskridge is one of the more popular fishing lakes in Kansas. Pictured here are Mr. and Mrs. Summers, of Topeka, with a nice string of channel cats and drum they took from the lake.

THE CHEYENNE BOTTOMS

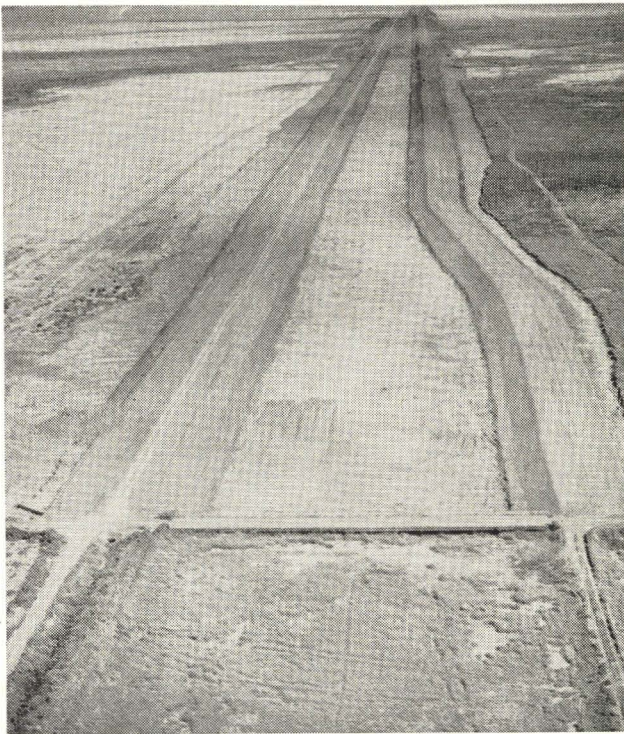
By HUGH JENCKS, Great Bend Tribune

In almost the exact center of Kansas, men and machines are working day and night to carve out of a vast, treeless plain what will eventually be the largest migratory wildlife refuge in the United States.

The work is being done in storied Cheyenne Bottoms, a great natural basin some 18,000 acres located in the center of Barton county. The job is a big one, but when it is finished man will have created a sort of super-service station for migratory birds which ply their way along the great Central Flyway.

The work began back in 1949 and is now about 75 percent completed. It is a project of the Kansas Forestry, Fish and Game Commission. Federal money is bearing three-fourths of the cost and the U. S. Fish and Wildlife Service must approve every step of the project, but the title to it is vested in the state. And the state will have full control once the big job is finished.

The plan calls for the creation of a series of five lakes covering about 12,000 acres of the 18,000 in the Bottoms. There will be one central lake with four smaller lakes around it. Water will be furnished by an inlet canal which now taps the Wet Walnut, a nearby creek, and which eventually will draw from the Arkansas river fifteen miles away, what is de-



This is the point where the Bottoms "begin" as far as engineering work on it is concerned. The wooden bridge marks the southwest corner of the great area. It is also the end of the 3.5 mile inlet canal from the Wet Walnut creek. The aerial picture was taken looking east. —Photo courtesy Great Bend Tribune.

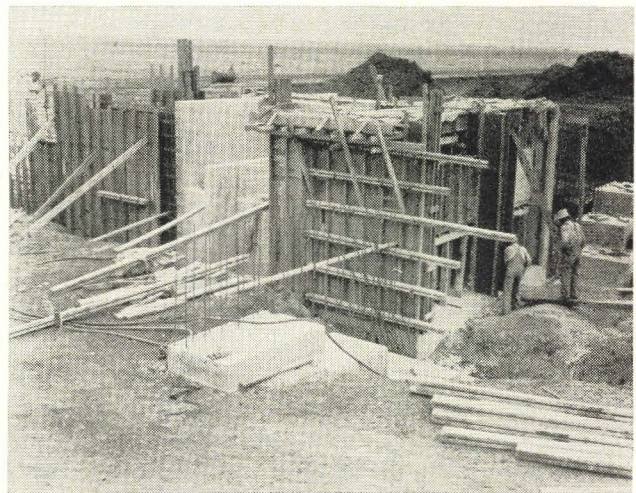
scribed technically as "unappropriated water." The Bottoms has no natural outflow, so an outlet canal has been built to keep the water in the project freshened. An idea of the tremendous amount of water that will be impounded is given by the fact that the central lake alone will have a greater surface area than the Kanopolis reservoir, which is at present the largest body of water in Kansas.

The normal evaporation of water in the Bottoms in a year is 55.28 inches. The normal annual rainfall is just over 24 inches. That explains the necessity for tapping outside sources in order to maintain the water level in the project.

Sportsmen in the area had hoped that the Bottoms last fall would provide them with ideal duck hunting, but Mother Nature decreed otherwise. Although the duck "crop" was reported almost as big as Kansas' record-breaking wheat crop, the state remained in the grip of a prolonged drouth and, consequently, the Bottoms during the duck season was dry as a bone and was, in truth, a "dust bowl."

While the prospect there now is a dusty one, most sportsmen and businessmen in the area are cheerfully taking the long-range view of things. They know that the completed project at the Bottoms will provide the most important hunting and recreation attraction in Kansas. They foresee that it will draw enthusiasts not only from Kansas but from the entire Mid-West, and that fact is going to mean a lot of money in Barton county cash registers.

Recreational facilities definitely will be a part of the Bottoms project although the plans for them have not been worked out in detail. It is fairly certain that land will be made available for cabins, and a basin for sailboats is likewise to be constructed. The water of the five lakes is to be stocked with fish by the state,



One of the 11 reinforced concrete structures being built inside the Bottoms by the Western Engineering Co. of Harlan, Iowa, is nearing completion. This structure is located at the southeast corner of the central pool.—Photo courtesy Great Bend Tribune.

and a vegetation program is now under way. The fish and game commission plans to build 430 blinds for hunters.

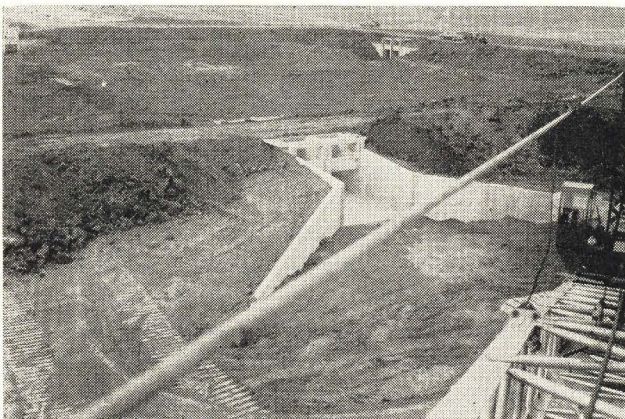
All of this means that the area will serve as a magnet for vacationists and tourists, as well as for hunters and fishermen, and Chambers of Commerce and businessmen in these parts are rubbing their hands over that prospect.

Equally alive to the possibilities, sportsmen of the area two years ago founded the Cheyenne Bottoms Sportsmen's Club. The founding members were drawn from four Barton county cities located equidistant from the four corners of the Bottoms—Great Bend, Hoisington, Claffin and Ellinwood. The idea of such a club caught like a prairie fire and the membership now has spread to fifteen central Kansas counties. The object of the club is to promote the Bottoms and to work with the fish and game commission in its planning and operation.

Dave Leahy, director of the commission, observed recently that the Bottoms is a project under the commission's jurisdiction which has had the co-operation of sportsmen in the area while it is being built. In most cases, he pointed out, sportsmen have formed clubs after the project is finished and then complained about the manner of its construction. In contrast, the Cheyenne Bottoms club has grown with the project itself and has submitted ideas which have been welcomed by the commission and have been incorporated into the plans.

The work is being done in six steps, three of which are completed. The fourth step is now about eighty percent complete. Steps five and six remain on the drawing boards.

In the order of their completion and their place on the schedule, the six steps are:



The Collection basin, located at the southeast corner of the Bottoms, is shown in this picture. It is the key instrument in controlling the water level in the project's five pools or lakes. The basin is approximately the size of a city block. Three of the four control structures may be seen. Water will be shunted through these gates to raise or lower the lake levels.

1. A 3.5-mile inlet canal from Wet Walnut creek to the Bottoms, begun in June, 1949, and fully completed.

2. A diversion dam on the Wet Walnut at the inlet canal's point of origin, now completed.

3. The outlet canal from the Bottoms to Little Cheyenne creek, also completed.

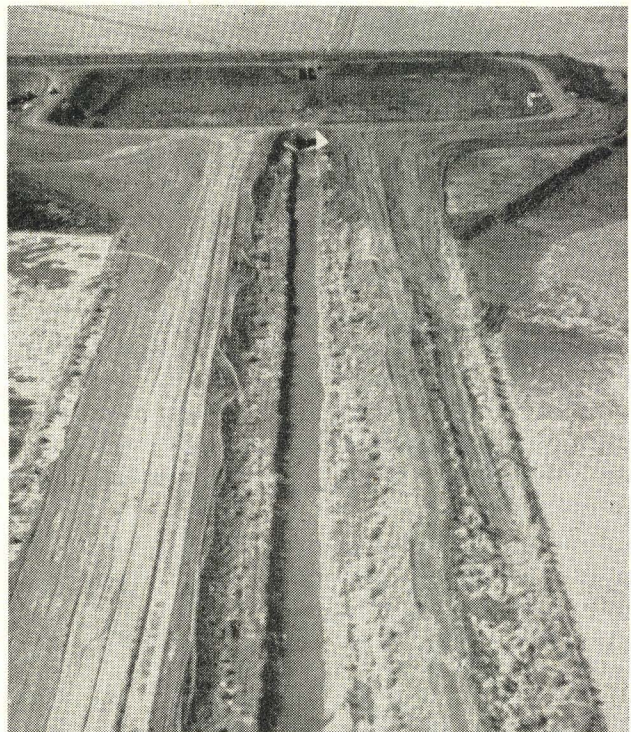
4. Construction of twenty-three miles of dikes within the Bottoms to form five lakes, plus erection of eleven control structures which will permit complete control of water levels in the lake. This work is now being done and is approximately eighty percent complete.

5. An inlet canal from the Arkansas river to the Wet Walnut, fifteen miles long.

6. A diversionary structure across the river.

The cost of the work done to date, plus that of step No. 4, comes to \$1,481,433.44, of which \$1,185,097.42 was paid for by federal (Pittman-Robertson) funds and \$296,336.02 was paid from state fish and game funds. The cost of \$19,575 acres of land which was bought for the project with title vested in the state of Kansas, amounted to \$588,394, of which \$441,325.35 came from federal funds and \$147,068.65 from state fish and game funds.

The Bottoms is one of the few natural water-collecting basins in Kansas. Such a large depression,



This aerial photo gives another view of the collection basin. What appears to be a stream in the foreground is the outlet canal, leading to Cheyenne creek, a distance of five miles. The outlet canal is necessary because there is no natural outlet for water from the Bottoms and will be used in lake-level control.—Photo courtesy Great Bend Tribune.

located in a table-flat region, would be bound to play an important part in its history, and many legends have grown up about the Bottoms. In the days when the buffalo roamed the prairie and other game abounded, the Bottoms was a watering place and a choice Indian hunting ground. The commonly accepted version as to the origin of its name is that the Cheyenne Indians defeated the Pawnees in a ferocious battle for its control around 1825 and gave it their name.

Early settlers found it a haven for game and a lifesaver for them and their families in years of crop failures. Millions of waterfowl made it a mid-point refuge, seeking food and a nesting place on their way north or south.

Geologists are not certain as to what made this great depression in the earth's surface. It was once believed the Bottoms was the bed of an inland sea, but that theory has been proved wrong. Another belief was that the Bottoms was the result of the solution, at great depths, of gypsum which caused the land surface to "cave in." A third belief is that the alluvial fill was responsible for the present contour of the terrain.

The current project is the second attempt in a little more than half a century to do something about the Bottoms. It is perhaps significant of our times that the present project is being done by the government while the first was strictly a private enterprise.

In 1897, two brothers, F. B. and W. H. Koen, conceived the idea of digging a ditch from the Arkansas to the Bottoms. Their aim was two-fold: to provide farms along the way with water for irrigation and to make a resort area of the Bottoms. Glowing pictures of a thriving spa with luxurious hotels dotting the lakeshore were drawn in the prospectus that the Koen brothers distributed to potential investors. They succeeded in raising the money needed to dig their ditch, and water poured through it for more than 100 days. But the farmers along the way became disgruntled and heavy rains eliminated the immediate need for irrigation. Lawsuits and mysterious breaks in the ditch, believed caused by unhappy farmers, doomed the enterprise.

It might be noted in passing that F. B. Koen, who was in charge of the construction work, is given high marks for his engineering by the men in charge of the Bottoms work now. They said that the surveys made by Koen in 1897 have been of great value to them, and the route followed by the old Koen ditch may be followed, with a few minor changes, in construction of the diversion canal from the Arkansas to the Wet Walnut.

Throughout the years the Bottoms has acted as a

magnet for hunters. One of the favorite stories told by old timers, in these days of the most strict regulation of hunting, is that of the commercial hunting at the Bottoms in the early days of the century. Man showed his same disregard for conservation principles in this activity that he had shown earlier with the buffalo. The "hunting" actually was commercialized slaughter of the migratory birds, and there can be no doubt that it helped to speed the enactment of Kansas' hunting and fishing laws. Hunting groups would establish camps on the shores of the water area and operate full blast for two months in the fall of the year. Companies were formed to haul away the kill. It became routine to see wagons piled high with cargoes of game birds on the way to the nearest railroad point for shipment to market.

On two occasions in recent times the big basin has been filled with water. The first was in 1927, when the entire countryside was flooded, and the second in 1951, when floods were common all over Kansas.

When the lake appeared in 1927, it opened the eyes of naturalists and sportsmen to what might be made of the Bottoms. The Izaak Walton League took up the campaign started by local sportsmen, and late in 1927 Rep. Cliff Hope introduced into Congress a bill calling for an appropriation of \$350,000 to create a wildlife refuge.

The Hope bill, its allocation cut to \$250,000, was passed in 1930 and four years later the first survey was made. Much of the data gathered at that time is being used in the current construction work.

After the survey in 1934, nothing further of importance occurred until 1942 when the Pittman-Robertson law was enacted by Congress. This proved the "open sesame" to the Bottoms project and things started to pop. A word of explanation on the way in which this law operates may be appropriate here. It levies an excise tax of eleven percent on all firearms and ammunition sold for hunting purposes. The money thus collected is administered by the U. S. Fish and Wildlife Service, and it is returned to the state on the basis of area and the number of hunting licenses sold in each state.

The money is given to the states to be used on federally-approved projects which are financed, as in the case with the Bottoms, in the ratio of \$3 of federal money to \$1 of state money. One provision of the law is that the state must actually pay for the work done before it gets any money from the P-R funds. Thus, the fish and game commission has to keep a large pile of cash on hand to finance the work that is being done. Then, it is repaid on the basis of \$3 for every \$4 that it lays out. The reason for this is to make sure that the work is done in compliance with federal plans,

and also that it is spent for wildlife projects and not for a highway that may be a pet project of some state politician.

Leahy expects that the work at the Bottoms will be finished late in 1953 or early in 1954. When that happy day arrives, the hunter and the fishermen, the tourist and the vacationist, will take over on the 18,000-acre playground to test their skill and take their ease on the Bottoms.

Well, What's Fishing Doing for You?

Fishing is supposed to make a new man of you. It's restful, relaxing, good for the nerves, an antidote for the wearying effects of today's fast-paced jobs and living—that's the idea.

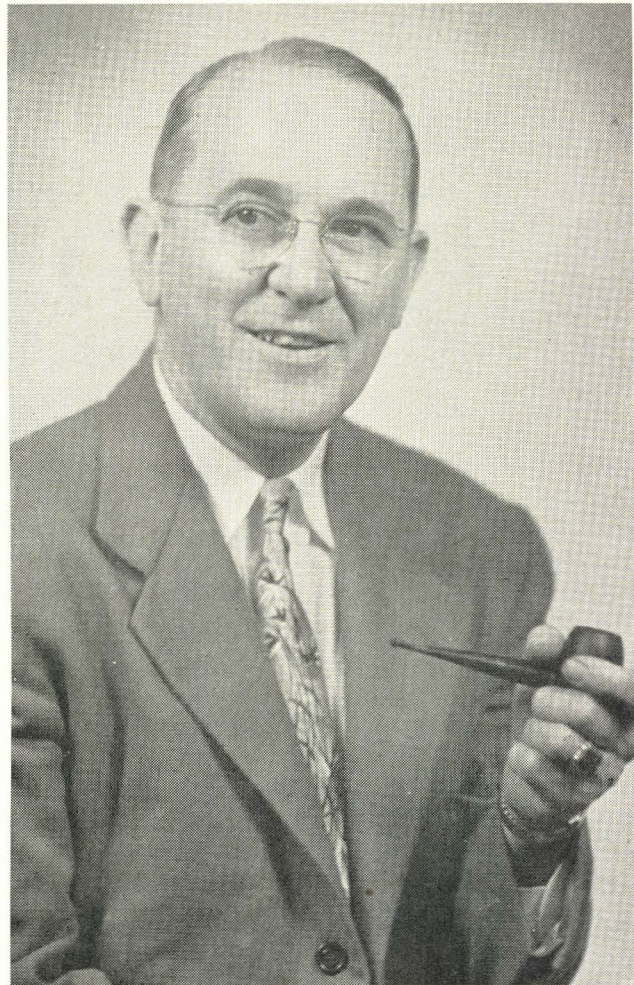
But does fishing do what it's supposed to do? Usually, but not always. It depends on how the angler goes about it. The trouble is, many go about fishing as they do everything else; hard, fast, bearing down, knocking themselves out over it. Such an angler tears off to his fishing water at eighty miles an hour, narrowly escaping catastrophe every mile—if he escapes. He didn't allow enough time. He didn't sleep enough the night before. He didn't eat a good meal before he left. He packed in a rush. Hurry, Hurry! Arriving at the lake or stream, he works hard, very hard. At the end of the day he's tired, very tired, and painfully sunburned.

Like similarly constituted hunters, he has his heart set on a bag limit. Just as on his daily job and in his daily living, he tries desperately to "make good", to keep up with the Joneses, to excel if possible. If he gets half a bag limit, he's disappointed. If the fish aren't as big as they might be, he's frustrated. I've failed, he tells himself.

He certainly has failed—not because he didn't catch enough fish or big enough fish, but because he didn't allow a fine outdoor sport to do what it CAN DO for him. His attitude was wrong. He'll go back to his job in worse shape than before.

Some of the best examples of fishing success are offered by small boys and old men. You've seen them, happily dangling a hook from a shady bank, a pier, or a country bridge. They're under a disadvantage—they have no boats, waders, or fine tackle. Fishing does what it is supposed to do for them, not because of their poverty, but in spite of it. Their attitude is right. Catching anything? Maybe, but no matter. They're *fishing*, aren't they? They're having fun!

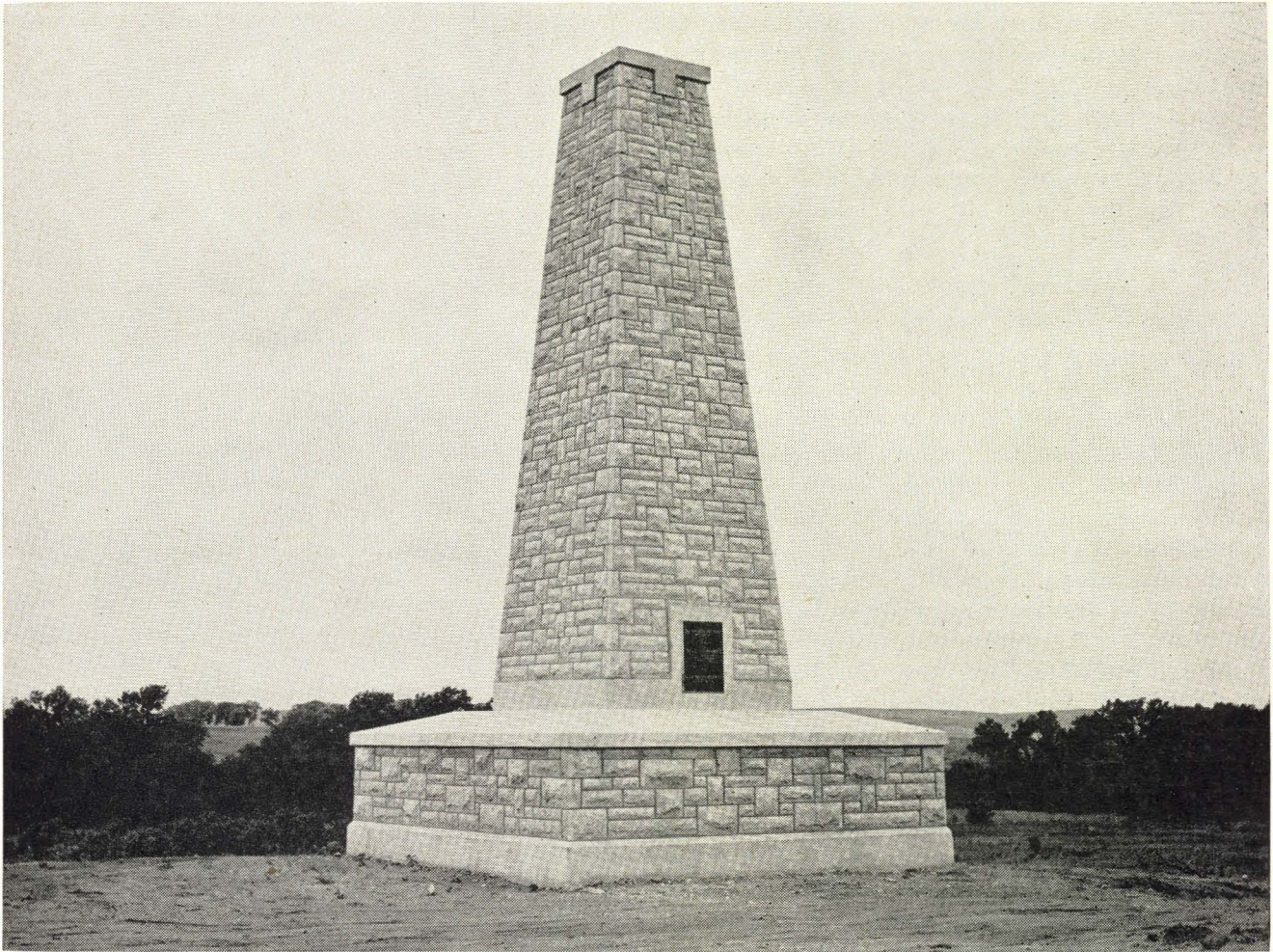
If you really want fishing to serve as a tonic, remember: TAKE IT EASY.—*Wisconsin Conservation Bulletin*.



NEW COMMISSION MEMBER—Charles E. Kaup, prominent Manhattan businessman and ardent hunter and fisherman was appointed in January to a four-year term on the Kansas Forestry, Fish and Game Commission by Governor Edward F. Arn. Mr. Kaup succeeds Mr. Jay J. Owens of Salina, who had been a member of the commission since 1939. The new commissioner's district comprises the following counties: Clay, Cloud, Dickinson, Ellsworth, Geary, Jewell, Lincoln, Marion, Marshall, McPherson, Mitchell, Morris, Ottawa, Republic, Riley, Saline, and Washington.

Ralph Myatt Heads Anderson County Sportsman's Club

Ralph Myatt is the new president of the Anderson County Fish and Game Association, succeeding Judd Watts, who served during the two years since the association was organized. Other officers elected included: Whitney Smith, first vice-president; Herb Ratliff, second vice-president; Walter Buchholz, secretary; Floyd Powell, treasurer, and David Booher of Kincaid and Al Collins, directors. The club held a big 'coon feed in January with approximately 200 in attendance. Ira Stockebrand, of Independence, put on his show for the club after the feed. Representatives of the Kansas Forestry, Fish and Game Commission were also present.



The monument erected at the preserve as a fitting memorial to the Maxwell Brothers, donors of the property.

THE MAXWELL STATE GAME PRESERVE

Newest addition to the expanding network of state parks and game preserves under the supervision of the Kansas Forestry, Fish and Game Commission is the Maxwell State Game Preserve in northeastern McPherson county.

This 2,560-acre preserve located seven miles north of Canton, was a gift to the commission by the estate of the late Henry Irvin Maxwell, a former McPherson, Kansas, businessman, and has been developed in accordance with the stipulations of his will.

The entire area, all rugged pasture land, has been fenced and stocked with buffalo, deer and elk. A home for a caretaker was remodeled and a full-time caretaker assigned to looking after the preserve. A fitting memorial to the donor of the property has been erected and a parking area on the highest point of the preserve has been established. Corrals, feeding shelters, fire guards, windbreaks and other facilities have been constructed and additional improvements are planned.

Quail, pheasants, beaver, raccoon, coyotes, badgers and other small game abound in the area. At the present time there are 30 buffalo, six elk and eight deer at home on the preserve.

Harry Edwards New President Of Parsons Sportsman's Club

Harry Edwards, well-known sportsman of Parsons, is the new president of the Sunflower Sportsman's Club at Parsons, succeeding Ray Bicknell. Other officers to serve during 1953 are Roy Adams, vice-president; Mose Kraft, secretary-treasurer; and Leonard Pokorski, publicity chairman. Board of Directors are Ted Schiebner, W. N. Taylor, Kirk Clary, Fred Haley, Charles Wesolak and Ygnacio Cortez.

The ears of a woodcock are located in front of they eyes.



Fence maintenance at the preserve is a problem. Pictured above is Caretaker Clair Andes repairing one of the breaks in the six-wire enclosure.



A herd of thirty of the once free and majestic buffalo roam contentedly upon the lush grass found in the preserve.



A colony of beavers have moved into the preserve area and are busy building dams along the stream which flows near the caretaker's home.



A bull elk at home on the preserve. He is one of a herd of six that may be seen roaming the area.



A view of the rolling hills and rugged pasture land of the Maxwell State Game Preserve in McPherson county. The rugged country provides good habitat for the game animals with which the area has been stocked.

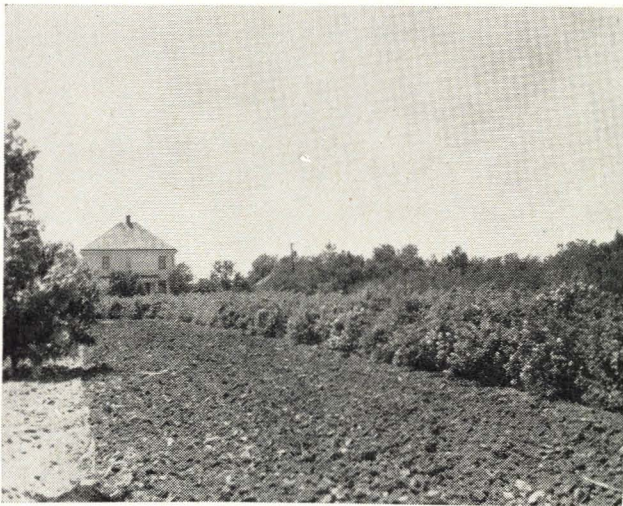
Maintenance of Habitat Plantings

By RICHARD EGGEN, Game Management Supervisor
Kansas Forestry, Fish and Game Commission

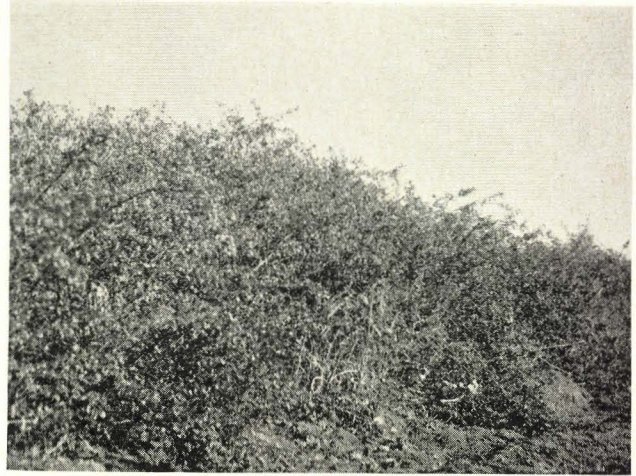
With another planting season at hand and the growing season approaching, it is time to give considerable thought to insuring the success of habitat plantings. The benefits in increased outdoor sport derived from the increased wildlife are great. Much can be done in this respect by the widespread distribution, on the agricultural land of the state, of feed, cover, and nesting sites. The successful establishment of these plots can be accomplished only with proper care and maintenance.

The principal objective of these habitat plantings is to provide the maximum amount of food, cover and protection on the restricted land area available for this type of work. To achieve this objective, not only is it necessary that the design of the planting stock be good but also that survival of the planting stock be high enough to make the planting effective. A good design, good intentions, and good planting stock are all necessary in a good wildlife planting but all are to no avail if the planting after it is established becomes ineffective due to poor care and maintenance. Ineffectiveness can result either from poor planting techniques, lack of vigorous plants resulting in growth and little seed production, and competition from weeds and grasses. It is the purpose of this article therefore to suggest methods by which, with the minimum of expense in time and labor, the effectiveness of your wildlife planting can be enhanced.

The planting of wildlife habitat, whether it be in the form of a shrub fence, a plot of grain, or perhaps a shelterbelt is nonetheless a farming operation and requires the same methods required by any crop. Preparation of the ground to be planted is of prime



This three-year old Multiflora rose hedge planting in Mitchell county shows a healthy, vigorous growth as a result of proper planting and good care.



A two-year-old planting of multiflora rose, near Garnett, in Anderson county.

importance. A poor seed bed has resulted in many failures in the planting of wildlife habitat as it has in farm crops. A seed bed suitable for a cash crop is none too good for the shrubs and trees used in wildlife plantings. The amount of preparation needed, of course, will vary with the planting site. More care is needed in the preparation of a site located in a pasture than one located in last year's wheat ground. Well prepared ground does much to give the newly established planting a good start and to eliminate competition from weeds and grasses as well as being better able to receive and hold moisture.

The actual planting of the planting stock and the manner in which it is handled during planting has much to do with the eventual success of the planting. Plants should never be exposed to the sun or wind more than a very short time. If the roots are allowed to dry out the chances of that plant surviving are small. It is best to carry the plants in a bucket of water or wrapped in burlap that has been soaked in water. In the actual planting operation care should be taken not to set the plants either too shallow or too deep. The plants should be set only slightly deeper than they were grown in the nursery. This depth can be determined by the soil mark on the stem of the plant. Take care that each plant is well packed after planting to eliminate any possible air pockets which might have formed around the roots during the planting process.

Maintenance of the planting after it has been established is probably responsible for more failures in wildlife plantings than any other one factor. The competition offered by weeds and grasses even in times of good moisture conditions has been responsible for many failures. These failures range from almost complete loss of plants to losses sufficient to destroy the effectiveness of the planting of either food, cover or



A two-year-old planting of multiflora rose in Bourbon county.

protection. Cultivation to destroy competition and to improve moisture conditions in the soil is then of great importance. Most all of the plants used in wildlife plantings in Kansas will respond favorably to shallow cultivation. Deep cultivation is not advisable as it might be injurious to the roots particularly of the shrubs like multiflora rose. In many cases mulching between the plants within the row will eliminate competition in those areas that cannot be reached with mechanical tools and will do much toward conserving moisture and keeping the roots cool during the hot, dry periods in the summer.

A good mulching material for use in tree and shrub plantings should be coarse and not one which is likely to mat and heat as well as cutting off air circulation around the base of the plant. A mulch of fine twigs and brush is good.

In most areas in Kansas, cultivation is necessary for the first three years of the life of the planting. It should be remembered, however, that until such time that the planting has developed sufficient size and vigor to resist the encroachment of weeds and grass and to compete favorably for moisture, frequent discing is definitely beneficial. As was mentioned earlier, good, strong, vigorous plants are necessary in the planting designed to offer the maximum in food, cover and protection.

In many cases plantings will be made on soil that is of poor fertility. In such cases every effort should be made to plant species that are tolerant to such conditions. However, even those species will make better growth in fertile ground. It is possible therefore to increase the growth and vigor of plants through the use of fertilizers. One pound of complete fertilizer such as 4-12-4 may be used for every forty feet of row at the time of soil preparation. A side dressing of ammonium nitrate at the same rate is helpful the following year.

If the above suggestions are followed, vigorous plants can be successfully grown even on pastureland, provided the young seedlings are protected from livestock and damage from agricultural implements; particularly during the first few years after planting. Protection from fire must be provided for the entire life of the planting. In some instances fire will not completely destroy a planting. However, in most cases, damage will be great enough to destroy their effectiveness as a wildlife planting.

It has been the purpose of this article to outline generally those care and maintenance methods which apply to the several types of plantings made by the state fish and game commission. Those plantings include Multiflora rose hedges and fences, windbreak or shelterbelt type plantings which include several different types of shrubs and trees, and field border and odd corner plantings which consist mostly of shrubs and shrubby trees. These several types of plantings are designed to fit into the farming practices of the areas in which they are used, and serve more than one purpose. It has therefore been necessary to treat the subject generally. More specific problems concerning the care and maintenance or any other question concerning habitat plantings should be addressed either to the Game Management Supervisor who established the planting or write to the Forestry, Fish and Game Commission, Pratt, Kan.

TO A YOUNG FISHERMAN

*Did you ever take your kid out fishing
And watch closely as he sits there wishing
For the big one that he's often dreamed about,
Be it catfish, panfish, bass or trout?
Did you notice his tenseness as he felt the tug,
His scream of delight? He's got the bug.
He is a fisherman.*

*Did you hear him then as he described his catch?
Was there ever a fish that could possibly match
The size and beauty of the one he caught?
And his expression; it could never be bought.
Well, you asked for it, brother, you have what you sought.
He's a fisherman.*

*Did you ever awake in the early dawn,
Watch him bounce out of bed with scarcely a yawn,
See the excitement shining there on his face?
This is a memory time can never erase.
'Tis a wonderful moment, we head into space.
Going Fishing.*

*Yeah, he's a pretty good pal though he's only a boy,
For now a rod and reel has replaced every toy.
He has entered a new world of happiness and joy.
He's a fisherman; God bless him.
He's your Boy!*

—Jimmy Hales in Florida Wildlife.

The elephant's trunk is one of the most extraordinary adaptations by nature for a specialized life. It is an elongated nose, but the elephant uses it as one would a hand or an arm.

Outdoor Notes

By JOE AUSTELL SMALL

Drowned Duck

It has been dry for a long time in the Southwest. Cattle have suffered terribly. One rancher was telling me about the condition of his cattle. "They're so poor," he said, "that we put them side by side, place a piece of carbon paper between them, and brand two cows at the same time!"

This story might lend some credulity to the following. A Rogers, Texas, farmer phoned a Temple paper that his pet duck, eighteen-months old, drowned in a puddle of water after a recent downpour—the first rain his duck had ever seen, the farmer added.

Good Shot

Did you ever stop to wonder how bird shot could be made so round and perfect, yet be so very small? No, tiny midgets do not sit pouring hot lead into minute forms. Brother, would the price of shot go up if they were made this way!

The big ammunition companies have "shot towers." The process of "dropping shot" has been practiced for hundreds of years, yet very few people know about it. Molten lead pours through perforated "skillets in the sky" from these towers. This drop transforms it into spherically perfect pellets. The Winchester shot tower is nine stories high.

Geese Cotton Choppers

One Texas farmer has not only solved his farm labor shortage but has created a new field of income for himself.

Dean Stahmann, who has a big farm in the Mesilla Valley near El Paso, has been experimenting with a new technique of keeping his cotton fields clean of weeds and other foreign growths. He uses geese for cotton choppers. Stahmann introduced a herd of 14,000 geese to his huge cotton acreage and they kept it clean as the proverbial hound's tooth. The pretty part is that the goose, with his insatiable appetite for greenery, has a peculiar aversion to domestic plants—he never touched the cotton.

One herder can handle 4,000 birds, and ten geese can keep an acre of cotton clean all year. There is no feeding problem since they exist on what they find

in the fields, and goose droppings make excellent fertilizer for the land.

Stahmann plans to utilize the geese even further. He is going to put in an incubator and dressing plant. He will hatch goslings in the spring, use them for farm labor during the summer, and market them in the fall. But for the farmer who merely wants a good, dependable hand, the goose can't be beaten. He is practically indestructible and has a life expectancy of 60 years.

DON'T Get Caught

Using the old fashioned hooks, that is, say users of the new Big Bend Hooks. The distance from barb to shank in this new hook is twice what is found normally. The barb design is in the horizontal plane rather than the vertical. These features make it possible to catch fish from either side, or front, at a rate of more fish per strike. The company says: "We guarantee these hooks to have twice the hooking area and hooking ability of common fish hooks! As glass rods have taken over the rod field, so will Big Bend hooks take over the fishing hook field."

New to the line are the ringed-eye, turned-up eye and snelled salt water hooks—a boon to salt water fishermen. Also, their new bait treble hooks—the needle goes through shrimp, minnow, etc., and a snap-on treble hook at the other end makes for sure-fire hooking.

So that you can actually make a field test, the company will send you seven assorted sizes of their hooks for the special rate of 25¢. Roll up a coin and head it toward Big Bend Hook Company, Dept. W, Sioux City, Iowa, for something really new and "hot" in fish hooks.

Artistic Little Stinkers

Dr. J. B. Maddy, Director of the Interlochen Music Camp, has issued an S. O. S. to the Michigan Dept. of Conservation for advice and help. The trouble is skunks—melody-loving skunks whose affection for the music-makers is not reciprocated.

The skunks took up residence under log buildings of the camp. When the music started playing, they walked right in, strolled the aisles and even swayed rhythmically before the footlights, during practice sessions they circle about the harpists adoringly, but gave the brass sections a wide berth. The boys at Interlochen at least know their music is appreciated by something. . . .

Snake-Eating Turkey

A two-foot snake was just another worm—to one California turkey, at least.

Bill Duncan was looking through his binoculars at an old field, hoping to spot a buck, when he noticed a flock of turkeys. One of the birds was striking at something in a patch of dead grass. The old gobbler finally got hold of what he was after—a snake about two feet long! Immediately, the reptile started to coil around the bird's neck.

Standing on one foot, the old turk hooked the toes of its other foot under the snake's coil and pulled it loose. Standing on the reptile then, the turkey "stretched the snake out" by pulling at one end with its bill and standing on the other. This none-to-gentle procedure continued until the snake was dead. The rest of the flock had fed on by this time. The snake-biting gobbler picked up his victim, ran to catch up, then stopped and proceeded to swallow the reptile. For awhile it looked like the old bird would choke trying to get the snake down. But the two-footer finally disappeared. The turkey went right on like nothing had happened.

Bill says he's heard of snakes swallowing turkeys all his life, but it's the first time he's seen the tables turned.

Indian Steam Cooking

If you want the most delicious venison, steak, chicken or even fish you ever put between your dental work, try cooking it this way. It is the old-time Indian method of steaming tough meat to tenderize it and make it more palatable.

First, dig a hole in the ground about a foot deep and two feet across. Beside the hole have several flat stones heating in a hot fire. When the stones are sizzling hot, push them into the hole and cover with wet leaves. Place the salted, seasoned meat on top of the layer of leaves and cover with more wet leaves. Hold a thick wooden stake in the center and push the dirt back into the hole, packing it down with your feet. Then remove the stake and pour a quart of water into the hole left by this stake. Stamp the hole shut with dirt. The steam caused by water on the hot stones will cook the meat tender in a short time.

If a human family ate in proportion to a family of birds, the daily grocery list would include something like 50 loaves of bread, 25 pounds of hamburger, 30 doughnuts, 10 pounds of spinach, 6 heads of lettuce and one gallon of ice cream.

Short Snorts

The smoke from a green pine needle smudge will remove skunk odor.

Snakes have no ears. They hear by receiving sound vibrations through their tongues.

Eight North American animals hibernate during the cold winter months; the bear, raccoon, jumping mouse, woodchuck, chipmunk, badger, bat and gopher.

Humming birds do not live entirely on honey. When hovering over a flower, "hummers" are often seeking tiny insects which are attracted by the honey.

It has been found that fish utilize oxygen in water most efficiently because the blood in their gills flows in one direction and the water in another.

Crows can sometimes be taught to talk. Contrary to popular opinion, however, the tongue need not be slit. That would be unnecessary cruelty. Birds produce vocal sounds within the body from the syrinx.

There has never been a buffalo in North America—except those in zoos. Our so-called buffalo is a bison. The true buffalo are found only in Africa and Asia and have no humps such as do the American bison.

Tip for Sportsmen

To quickly dry boots, waders and other footwear, connect tank type vacuum cleaner hose to the exhaust end. Run vacuum cleaner a few seconds to blow dust from hose, then place end of hose in toe of boot or wader and leave in this position until inside of footwear is thoroughly dry. This method is fast and will dry leather footwear without causing leather to harden.—Joe Foncannon's column, *Emporia Gazette*.



One of the better coon hunters of Kansas is Roscoe Kishpaugh, route 3, Independence, who is pictured above holding a thirty-one pound raccoon which his orang airdale treed for him on a hunt in January, along the Elk river, northwest of Independence. Kishpaugh has had several coats made from the pelts of coons taken on his hunts.

"As Ye Sow"

Life is a game of "put" and "take"; a mild gamble with unknown and unforeseen hazards which may spell success or failure; and it is certain we shall take nothing worthwhile out of it, unless we make a definite contribution on our own behalf.

What the sportsman continues to take from the wild-life field will depend upon what he is prepared to put into it. Conservation is a co-operative endeavor in which all must play their part. It is not a negative policy which prohibits take, for it is based primarily upon wise use, and it is this factor which necessitates co-operation. Game and fish are self-renewing resources, but unlimited take would ultimately destroy the power to reproduce. Protective laws and administrative policies are intended to forestall such a danger while restocking is intended to secure the take at a more or less constant level.

The sportsman is expected to assist in keeping the pot replenished by making a personal contribution to the success of every conservation measure intended to guard his sport. He can do this by observing the laws himself and by making it less easy for others to break them; by co-operating with the enforcement officers to the same end; by avoiding waste and by restricting his take to his immediate personal needs, within the limits set by law. These are conservation measures of importance from the standpoint of those who love to spin the recreational top which represents the sports of fishing and hunting.

PUT—and—TAKE; for "As ye sow so shall ye reap!"
—By J. MACARTNEY, Courtesy Sylva, in *Virginia Wildlife*.

Organize Junior Fish-Game Group at Leavenworth

Boys of high-school age in and around Leavenworth got together and organized The Leavenworth County Junior Fish and Game Development Association. The club is patterned after the senior organization which has been active in that city for many years. A. J. Wiley is president of the junior organization. Other officers include Henry Flora, Jr., vice-president; J. W. Rutledge, secretary; and John Whyte, Jr., treasurer.

Boys are eligible for membership who are residents of Leavenworth county, of high-school age, but not necessarily enrolled in high school. One of the first missions of the new club was to acquire a large and representative county membership of boys of that age interested in fishing, hunting, game conservation and other outdoor sports.

It Saved My Life

It was hot when I passed through Denver last summer. I stopped at a gasoline station to fill up, and told the man to put in a can of Pyroil.

"That stuff saved my life once," he said.

Naturally, I had to hear the story. Wheeler N. Getty is the man's name. He was out in Kansas in below zero weather last winter. His fuel line went haywire. What to do—sit there and maybe freeze, or try it on in?

Mr. Getty had Pyroil in his gasoline as well as crankcase. He crept along at ten miles an hour for forty miles to the nearest stop. The fuel line was repaired the next morning—and he never had to put a wrench to the car. "I'm a garage man myself," he said, "and it was almost unbelievable to me! That stuff is wonderful!"

The Pyroil story is a fascinating one. Send for the free booklets direct to Pyroil Company, 200 Main St., LaCrosse, Wisconsin.

Here's a story about Daniel Boone that has a moral for anyone who is worried about the world situation.

A friend of Boone's once asked the old hunter if, in all his years in the wilderness, he had ever been lost. Boone thought for a moment and shook his head.

"No," he answered. "I've never been lost in the woods. But I was once confused for four days."

—Missouri Conservation News Letter.

A female white bass usually produces more than half a million eggs per year.



Scores of sick and dead ducks were found among the huge flock gathered on the Reeves lake northwest of Ulysses. Examination revealed they were victims of lead poisoning, from shot the afflicted pick up from the bottoms of ponds as they feed along the way in their migrations. It often takes several weeks for the poison to kill a duck after it has eaten enough of the pellets to become sick. The Reeves lake, in the center of wheat and maize fields near Ulysses, has been a favorite stopping place for ducks, ever since it was formed in the spring of 1951 by a flood along Bear creek. An estimated 25,000 ducks were on the lake this past winter.—Photo by H. E. Sherman, Ulysses.

McPherson County Sportsmen Organize

Sportsmen in the McPherson area got together in January and organized a new sportsman's club to be known as the McPherson County Fish and Game Association. Tony Voshell, McPherson, was elected the first president. Other officers named were: Burdette Fernberg, vice-president; Elmo Koger, secretary; Merrill Hiebert, treasurer. All were from McPherson.

A board of twelve directors were elected. They are: Chester Murrey, Conway; Charles Stone and Jim Maupin, Lindsborg; Pete Ginder, Canton; Marvin Krehbiel. Frank Janzen and Galen Bretches, McPherson; Milton Nordstrom, Roxbury; John Duesberg, Marquette; Ted Krehbiel, Elyria, Dick Neufeldt and Philip Spohn, of Inman.

Dues were set at \$1.50 per member with fifty cents of each membership going for dues in the Kansas Association of Wildlife.

The following pledge of good sportsmanship, which was taken by each member, is printed on the back of the membership card: "I hereby recognize that the privilege to fish and hunt is a pleasure which should be common to all, and I hereby agree not to infringe on the rights of other sportsmen who are enjoying this privilege. I agree to recognize and protect the personal rights and property of all landowners and agree not to trespass. I further agree to abide by the bylaws of the McPherson County Fish and Game Association, the fish and game laws of the United States government, the fish and game laws of the state of Kansas and all regulations of the Kansas Fish and Game Commission. I understand that any willful violation of this pledge by me will render me subject to being expelled from membership in the McPherson County Fish and Game Association."

Strange Battle

One of the strangest outdoor dramas he'd ever even heard of was witnessed by Game Ranger Henry Stotts of the Arizona Game and Fish Commission. Stotts was patrolling near Blue Point on the Salt river when he heard a commotion in the brush. Upon investigating he found four badgers locked in mortal combat. These normally shy animals were so engrossed in their fight that they paid no attention to Stotts. He watched the battle for twelve minutes from a distance of only fifteen feet.

Stotts said the fight appeared to be a free for all—every badger for himself. When he finally stepped in to break up the melee, all four animals were covered with blood. As they scattered, one was dragging a broken leg.

"I Resolve - - -"

To many of us good intentions and light resistance, annual resolutions to improve ourselves and conditions in general are things to be avoided because we think we cannot, or will not, keep them. Too often we let the fact that we did not live up to the resolutions made last year dissuade us from making new resolutions.

"Just because we failed once is no reason why we should not try again," says Henry P. Davis, public relations manager, Remington Arms Company, Inc., Bridgeport, Conn. "There is every reason why all sportsmen should begin now with a definite set of Sportsmen's Resolutions and wind up this span with these determinations unmarred by periods of laxity.

"There is only one way in which we can improve our own outdoor recreational opportunities. That is by DOING SOMETHING about them. Sure, it takes more than resolutions to get the job done, but if they serve no other purpose than to bring home a realization of our *own* responsibilities in the sporting scheme of things, they will have made a considerable contribution to the future pleasure of ourselves and others. Regardless of how we feel about making formal resolutions, here are a few suggestions that are worth adoption.

"I will

- "1. Join a Sportsmen's Club and take an active part in its program to better hunting and fishing conditions in my own community.
- "2. Support and, to the extent of my ability, participate in the efforts of national organizations dedicated to wildlife restoration.
- "3. Obey the game and fish laws and encourage others to do the same.
- "4. Take no more than my fair share of game and fish regardless of bag and creel limits.
- "5. Make friends with a number of farmers, and try to bring about a better farmer-sportsman relationship by both precept and my own example.
- "6. Make occasional trips into the field during closed seasons and gain more first-hand knowledge about habitat conditions.
- "7. Try to apply this knowledge in constructive suggestions for my club's activity program.
- "8. Respect the rights and opinions of both the landowner and my fellow sportsmen.
- "9. Take a youngster hunting and fishing at least once during the year.
- "10. Help teach novice hunters the principles of safe gun handling and encourage, in every way I can, reduction of hunting and fishing accidents."

The thick, ungainly tail of the Gila monster acts as a food reservoir storing up nourishment for the reptile to be used during times when forage is scarce. When food is plentiful, the tail becomes thick and swollen. When food is scarce, the tail is thin and attenuated.

The black seadevil, which inhabits the dark depths of the ocean, carries on the end of her nose a phosphorescent head light to blind and lure her prey into her cavernous mouth.

News of Sportsmen's Clubs

Cheyenne Bottoms Club Elects New Officers

Joe Bloomer, of Claflin, and Robert Williams of Larned, were named president and secretary-treasurer, respectively, by the directors of the Cheyenne Bottoms Sportsman Club at a meeting held in Great Bend in February.

The meeting was preceded by a two-hour tour of the Bottoms area.

A grounds and blinds committee was appointed to work with the Kansas Fish and Game Commission in the matter of constructing duck blinds and other facilities in the refuge area. This committee was composed of Joe Bloomer, Claflin, chairman; Sharon Foster, Great Bend; Dr. Edward Atkin, Hoisington; Robert Williams, Larned; Phil Hoke, Bushton; Dr. George Kutina, Great Bend.

The club is sponsoring a field trial February 28 and March 1, near Larned. Jess Hayslip, professional trainer and a member of the American Field Trial Association, was in charge of the meet.

Fin and Feather Club at Shawnee-Mission High

A new Fin and Feather Club has been organized at Shawnee-Mission High School at Merriam in order to satisfy the desires of boys who are interested in hunting, fishing, and game conservation. The club consists of about fifty-five boys and is divided into two sections in order to give each boy a better opportunity to participate in weekly meetings.

Some of the club's most recent projects consisted of gathering about 300 quail wings which were mailed to the Kansas University Biological Survey; the feeding of birds and wildlife during severe snow or ice storms; a crow shooting contest; raising of money for club activities, and the boys made a thirty dollar contribution to Ducks Unlimited. Plans have also been made for the planting of Multiflora rose seedlings, forest seedlings and other shrubs and plants during the spring on many tracts of lands in eastern Kansas.

The club's sponsors, Felix Shular and James McCullough, are extremely pleased with the boys' interest and enthusiasm, and feel that the club should make for better sportsmen among its members.

Leavenworth Club Has Plan To Eliminate Coyotes

In an effort to increase the numbers of small game in Leavenworth county, the Leavenworth Fish and Game Development Association has a plan working to kill off some of the large coyote population in that area.

Under the plan, representatives of the 4-H clubs in the county met with members of the fish and game association to learn how to use steel traps to catch coyotes. These boys go back to their clubs and teach the rest of the membership how to use traps. On a given date, farmers in the area were warned to keep their dogs tied up, and traps were set all over the county. Approximately 200 boys were in on the project.

The fish and game association furnished scent for bait, and also furnished traps at cost to those who didn't have any.

Spring Hill Man Heads Miami County Sportsmen

Lloyd Wilcox, of Spring Hill, is the new president of the Miami County Sportsmen Association. Other officers include, Charles G. Kelly, Louisburg, vice-president; W. Howard Barker, Paola, secretary, and Woodrow Winkler, Paola, treasurer. New directors are Harry Stoner, Osawatomie; John Fruit, Edgerton; Dewey Watts, Bucyrus; Clarence Low, Fontana; Fred Fickel, Paola.

Over two hundred persons attended the annual game dinner and entertainment of the association, which was held in December. Five different kinds of game were reported served at the buffet-style dinner. In appreciation of his service and untiring efforts as secretary of the club for the past six years, W. Harold Barker was presented a Shakespeare glass casting rod and Pflueger reel.

Walnut Valley Wildlife Group Elects New Officers

Ernest Martin is the new president of the Walnut Valley Wildlife Association at El Dorado. Ray Callo-way was named vice-president, and Fritz Nicodemus was re-elected secretary-treasurer. Named to the Board of Directors were Hoyt Green, Virgil McCune of Towanda, Jerry Kelley, retiring president, Fred Barton, Jack Weber, Bill Haxby, Harold Griffith, C. A. Nuttle and H. C. Wilcox.

Gene Brosseau Heads Geary County Sportsmen

The new president of the Geary County Fish and Game Association at Junction City is E. V. "Gene" Brosseau. Robert LaShelle is vice-president and Ray Woolard, secretary. The Geary county club plans as

new projects for 1953 the following: raising bullhead catfish in several ponds for stocking streams in the county; formation of small coyote hunting groups to co-operate with farmers in elimination of the predators, and investigation of the possibility of building a lake in Geary county. The club meets the third Tuesday of each month.

ARRESTS—NOVEMBER, 1952

Name and address	Offense	Date of offense	Fine
Ronald Broulett; Hastings, Neb.	No hunting license	11- 2-52	\$15.00
Glenn Gilmore; Wichita	No hunting license	11-29-52	10.00
Jesse E. Hattery; Cardin, Okla.	No hunting license	11-30-52	15.00
Elmer Knight; Wichita	No hunting license	11-27-52	10.00
Dale D. Lyerla; Overland Park	No hunting license	11-27-52	10.00
Loren McNeeley; Pittsburg	No hunting license	11-28-52	5.00
Melvin Meyers; Muscotah	No hunting license	11-27-52	5.00
Wayne Quinn; Wichita	No hunting license	11-27-52	10.00
Troy L. Redden; Picher, Okla.	No hunting license	11-30-52	15.00
Howard Rice; Wichita	No hunting license	11-29-52	10.00
Joseph Robert Sharbutt; Cardin, Okla.	No hunting license	11-30-52	15.00
Robert E. Suter; Wichita	No hunting license	11-29-52	10.00
Robert B. Walker; Joplin, Mo.	No hunting license	11-27-52	10.00
Clifford E. Watkins; Wichita	No hunting license	11-27-52	10.00
Eddie Biffle; Wichita	No hunting license—No quail stamp	11-27-52	30.00
Bill Earnest; Wichita	No hunting license—No quail stamp	11-27-52	Case dis.
Bill Henderson; El Dorado	No hunting license—Trespassing	11-20-52	15.00
James Jeakins; El Dorado	No hunting license—Trespassing	11-20-52	15.00
Boyd Gilmore; Wichita	No hunting license—Killing game animals in closed season	11-29-52	10.00
H. W. McCullough; Wichita	No hunting license—Killing game animales in closed season	11-30-52	20.00
Marvin John; Topeka	Killing game animals in closed season	10-21-52	10.00
Irwin E. Ladd; Wichita	Killing game animals in closed season	11-30-52	10.00
Ralph Nelson; Fort Dodge	No hunting license—Hunting rabbits in closed season	11- 9-52	20.00
Marvin Carpenter; Winfield	Hunting rabbits in closed season	11-26-52	10.00
Charles D. Fountain; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Claire Fountain; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Cyrille Fountain; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Fred Hayward; Baxter Springs	Hunting and possessing raccoon in closed season	11-19-52	10.00
Grant Oliver; Galena	Hunting and possessing raccoon in closed season	11-19-52	10.00
Ray Peckham; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Floyd Scott; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Lee Scott; Hill City	Hunting and possessing raccoon in closed season	11-14-52	10.00
Frank J. Sontag; Plainville	Hunting and possessing raccoon in closed season	11-14-52	10.00
Raymond Scott; Cimarron	Pursuing and possessing one wild deer	11- 8-52	Case dis.
Franklin R. Taylor; Lawrence	Shooting squirrel from auto	11-27-52	10.00
W. L. Carter; Osborne	No quail stamp	11-13-52	5.00
Thomas P. Courthwaite; Derby	No quail stamp	11-13-52	5.00
Kenneth Gerhardt; Hasville	No quail stamp	11-13-52	5.00
Paul Lewick; Lincoln	No quail stamp	11-23-52	10.00
Jack Stitt; Shawnee	No quail stamp	11-15-52	15.00
Leonard Crabtree; Wichita	Killing quail in closed season	11-21-52	10.00
Bill Moore; Wichita	Killing quail in closed season	11-21-52	10.00
Everett Thompson; Wichita	Killing quail in closed season	11-21-52	10.00
Everett C. Baskerville; Topeka	Killing quail in closed season—Shooting quail while not in flight— Trespassing	10-26-52	15.00
Marvin Ott; Kiowa	Killing quail in closed season—Shooting quail while not in flight— Trespassing	11-28-52	30.00
Otto Schrick; Atchison	Taking quail after legal shooting hours	11-15-52	10.00
Hanley S. Jackson; Oswego	No duck stamp	11- 8-52	90.00
Robert C. Jackson; Oswego	No duck stamp	11- 8-52	90.00
Wilhelm Fischer; Great Bend	Killing wild ducks in closed season	11- 7-52	10.00
Clifford Hansford; Topeka	Killing wild ducks in closed season	11- 9-52	16.00
Terry Hansford; Topeka	Killing wild ducks in closed season	11- 9-52	16.00
Hubert T. Allen; Scott City	Killing wild ducks after legal shooting hours	11-24-52	15.00
Duane Beckley; Atwood	Killing wild ducks after legal shooting hours	11-17-52	20.00
R. M. Summers; Scott City	Pursuing and killing ducks from motorboat—exceeding daily bag limit	11-16-52	50.00
Henry Martinek; Rossville	Killing quail, rabbits and squirrel in closed season	11-10-52	10.00
Charles P. White; Rossville	Killing quail, rabbits and squirrel in closed season	11- 9-52	10.00
Ralph Barrett; Lewis	Hunting pheasants in closed season	11-24-52	50.00
Marshall Williams; Junction City	Hunting pheasants in closed season	11-14-52	50.00
Warren Keagle; Canton	Possession of hen pheasant—Killing pheasant in protected territory	10-25-52	15.00
R. F. Vahsholtz; Canton	Possession of hen pheasant—Killing pheasant in protected territory	10-25-52	15.00
Robert Bowers; Eskridge	Hunting prairie chicken in closed season	10-20-52	15.00

Name and address	Offense	Date of offense	Fine
Allen Wall; Eskridge	Hunting prairie chicken in closed season	10-20-52	15.00
Gerald D. Hayes; Pratt	Shooting game birds while not in flight—Trespassing	11-27-52	10.00
Carl Trout; Medicine Lodge	Shooting game birds while not in flight—Trespassing	11-27-52	10.00
Gerle Trout; Medicine Lodge	Shooting game birds while not in flight—Trespassing	11-27-52	10.00
Frank Brown; Kansas City	Trespassing	11- 2-52	10.00
Jay Brown; Ottawa	Trespassing	11-13-52	20.00
W. E. Cook; Topeka	Trespassing	11-21-52	5.00
Jim Cowley; Independence	Trespassing	11- 3-52	5.00
Eugene Davis; Kansas City	Trespassing	11- 2-52	10.00
Wayne Easter; Harper	Trespassing	11- 1-52	10.00
Floyde E. Fosdick; Kismet	Trespassing	10-26-52	25.00
Kenneth Hall; Kansas City	Trespassing	11- 2-52	10.00
Dean Henry; Topeka	Trespassing	11-21-52	5.00
Eddie Johnson; Topeka	Trespassing	11-21-52	5.00
Bryon J. Lewis; Topeka	Trespassing	10-29-52	10.00
G. M. McClellan; Salina	Trespassing	11- 2-52	25.00
Herbert Mathes; Harper	Trespassing	11- 1-52	10.00
Wilford Mathes; Harper	Trespassing	11- 1-52	10.00
Homer Schemahom; Milton	Trespassing	11- 1-52	10.00
Rubin Wright; Kansas City	Trespassing	11- 2-52	10.00
F. R. McClellan; Horton	Trespassing—Hunting after legal hours	11-22-52	30.00
Bill Miller; Treece, Kansas (Okla. side)	Misrepresentation	11-29-52	20.00
Rudy Schreppel; Girard	Trapping out of season	11-30-52	25.00
Dale Peterson; Randolph	Handfishing	7-13-52	10.00

ARRESTS—DECEMBER, 1952

Name and address	Offense	Date of offense	Fine
Celestine B. Boeckman; Kansas City, Mo.	No hunting license	12- 7-52	10.00
George Brown; Topeka	No hunting license	12-14-52	5.00
Lee Carins; Abilene	No hunting license	11-24-52	5.00
Floyd Crain; Joplin, Mo.	No hunting license	12- 2-52	15.00
Herbert A. Drake; Wichita	No hunting license	12- 7-52	10.00
Wilson Everest; Kansas City, Mo.	No hunting license	12-17-52	5.00
Harry Harden; Abilene	No hunting license	11-24-52	5.00
Harry H. Harris; Kansas City, Mo.	No hunting license	11-30-52	10.00
William Hensley; Kansas City, Mo.	No hunting license	11-30-52	10.00
Kenneth Knox; Boicourt	No hunting license	12- 8-52	5.00
P. M. Locklear; Kansas City, Mo.	No hunting license	11-30-52	10.00
John McDaniel; Mission	No hunting license	12-17-52	5.00
K. Cedric Mayer; Kansas City, Mo.	No hunting license	12- 8-52	10.00
Max F. Mayer; Kansas City, Mo.	No hunting license	12- 7-52	10.00
Sylvester G. Morgan; Arkansas City	No hunting license	11-26-52	10.00
William Murfin; Kansas City, Mo.	No hunting license	11- 3-52	10.00
Richard Rainey; Lawrence	No hunting license	11-23-52	5.00
Paul Shinn; Wichita	No hunting license	11-29-52	10.00
Howard Wideman; Bloom	No hunting license	10-25-52	15.00
H. D. Brusby; Wichita	No hunting license—Killing rabbits in closed season	12-14-52	20.00
Billy Gilstrap; Wichita	No hunting license—Killing rabbits in closed season	12-14-52	20.00
Howard Johnson; El Dorado	No hunting license—Killing rabbits in closed season	12- 7-52	15.00
Leo Johnson; El Dorado	No hunting license—Killing rabbits in closed season	12- 7-52	15.00
Ray Lawson; Wichita	No hunting license—Killing rabbits in closed season	12-13-52	20.00
Curtis Rice; El Dorado	No hunting license—Killing rabbits in closed season	12- 7-52	15.00
Jess Albertson; Wichita	Killing rabbits in closed season	12- 7-52	10.00
John Austin; Valley Center	Killing rabbits in closed season	12-14-52	10.00
George F. Chamberlain; Wichita	Killing rabbits in closed season	12-13-52	10.00
Warren Coulter; Wichita	Killing rabbits in closed season	12-14-52	10.00
Ray Farrington; Lucas	Killing rabbits in closed season	12- 7-52	10.00
Alex Heinze; Lucas	Killing rabbits in closed season	12- 7-52	10.00
Louis Hicks; Wichita	Killing rabbits in closed season	12- 7-52	10.00
Glen Holmes, Jr.; Topeka	Killing rabbits in closed season	12-14-52	10.00
Phillip C. Butler; Ruel, Texas	Shooting game birds out of season—No hunting license	12-25-52	75.00
Berry Warner; Wichita	Shooting pheasants out of season—No hunting license	12-26-52	50.00
George C. Urban; Pfeifer	Shooting pheasants out of season, while not on wing, shooting from auto—No hunting license	12-28-52	35.00
John J. Urban; Pfeifer	Shooting pheasants out of season, while not on wing, shooting from auto	12-28-52	25.00
R. G. Andrews; Topeka	Shooting ducks with rifle—No duck stamp—Shooting squirrel out of season	12-10-52	25.00
John Curran; Topeka	Shooting game birds and game animals out of season—No hunting license	12- 7-52	15.00
William Curran; Topeka	Shooting game birds and game animals out of season	12- 7-52	10.00
Harold Thierson; Inman or Topeka	Shooting game animals in closed season	12- 1-52	10.00
Kenneth Blackney; Frankfort	Possession of quail and pheasant out of season	12-24-52	25.00
Roy A. Jones; Liberal	Shooting game birds from auto, while not in flight, from public road without permission of landowner	11-23-52	50.00
Gary Piper; Topeka	Shooting ducks with unplugged gun	12-12-52	25.00
B. C. Gerety; Topeka	Shooting ducks with unplugged gun—No duck stamp—Late shooting	12-10-52	None

<i>Name and address</i>	<i>Offense</i>	<i>Date of offense</i>	<i>Fine</i>
Adam Lucas; Topeka	Shooting ducks with unplugged gun—Late shooting	12-10-52	10 days jail
Roy D. Spain; Wichita	Shooting rabbits out of season—Shooting ducks out of season— Shooting ducks with unplugged gun	12- 7-52	10.00
Edward Huber; Wichita	Shooting rabbits in closed season	12-14-52	10.00
Alvin Hutchinson; Wichita	Shooting rabbits in closed season	12- 7-52	10.00
Watson Jones; Kansas City	Shooting rabbits in closed season	11-28-52	10.00
John Larsen; Salina	Shooting rabbits in closed season	12- 7-52	10.00
Harlan McDow; Wichita	Shooting rabbits in closed season	12- 6-52	10.00
Jack E. Meakin; Topeka	Shooting rabbits in closed season	12-14-52	10.00
Ellis Miller; Wichita	Shooting rabbits in closed season	12- 6-52	10.00
Irvan Pearson; Wichita	Shooting rabbits in closed season	12-14-52	10.00
R. H. Stillman; Kansas City	Shooting rabbits in closed season	11-28-52	10.00
C. N. Stoughton; Wichita	Shooting rabbits in closed season	12-14-52	100.00
Samuel Woolsoncroft; Topeka	Shooting rabbits in closed season	12-14-52	10.00
Allen Aksamit; Lucas	Hunting pheasants in closed season	12-18-52	25.00
Homer Allen; Abilene	Hunting pheasants in closed season	11-24-52	25.00
J. R. Baucum; Hope	Hunting pheasants in closed season	12- 4-52	25.00
Don D. Libal; Lucas	Hunting pheasants in closed season	12-18-52	25.00
Walter Lunkugel; Bremen	Hunting pheasants in closed season	12-30-52	15.00
John J. Perrett; Concordia	Hunting pheasants in closed season	12- 1-52	10.00
James Smith; E. Dorado	Hunting pheasants in closed season	12-27-52	50.00
Bill Walker; Harper	Hunting pheasants in closed season	11-29-52	20.00
Johnnie Filbeck; Liberal	Hunting rabbits in closed season—Late shooting on ducks	12-14-52	20.00
John Miller; Liberal	Hunting rabbits in closed season—Late shooting on ducks	12-14-52	20.00
Lloyd Coleman; Kansas City	Possessing squirrels in closed season	12- 7-52	10.00
Fred C. Lewis; Wichita	Possessing squirrels in closed season	12-14-52	15.00
W. D. Winegarner; Wichita	Possessing squirrels in closed season	12-14-52	10.00
George Cook; Wichita	Trespassing	12- 8-52	15.00
Bernard Dixon; Winfield	Trespassing	12-18-52	5.00
John B. Nottingham; Wichita	Trespassing	12- 8-52	15.00
Walter Schwintz; Winfield	Trespassing	12-18-52	5.00
Otis M. Walker; Wichita	Trespassing	12- 8-52	15.00
Harley Beaver; Quinter	No trapping license	12-16-52	5.00

ARRESTS—JANUARY, 1953


<i>Name and address</i>	<i>Offense</i>	<i>Date of offense</i>	<i>Fine</i>
Lemogne Berry; Kansas City, Mo.	No hunting license	1-11-53	10.00
Merle Bonjour; Onaga	No hunting license	12-21-52	5.00
Darrell Buell; Wichita	No hunting license	1-25-53	5.00
Mark Choate; Council Grove	No hunting license	12-18-52	5.00
Carl Clark; Fowler	No hunting license	1- 1-53	5.00
John P. Hankins; Sunflower	No hunting license	1-10-53	5.00
Charles Hill; Kansas City, Mo.	No hunting license	1-24-53	25.00
Charles Lessor; Salina	No hunting license	11- 2-52	5.00
George Redfern; Girard	No hunting license	1-18-53	5.00
W. E. Rice; Wichita	No hunting license	1-17-53	10.00
Warren Schriener; Huron	No hunting license	12-28-52	5.00
John E. Hanlin; Independence, Mo.	No hunting license—Hunting quail during closed season	1- 2-53	50.00
Carl Benitz, Jr.; Wathena	Hunting quail during closed season	12-27-52	10.00
Robert Benitz, Troy	Hunting quail during closed season	12-27-52	10.00
Herbert E. Haynie; Kansas City, Mo.	Hunting quail during closed season	1- 2-53	15.00
Howard Newton; Wathena	Hunting quail during closed season	12-27-52	10.00
George Butt; Friend	Hunting, shooting and possessing pheasants during closed season	1-18-53	20.00
Ted Davis; Wichita	Hunting, shooting and possessing pheasants during closed season	12-26-52	50.00
Robert Rhoads; Friend	Hunting, shooting and possessing pheasants during closed season	1-18-53	20.00
Daniel Green; Wichita	Shooting game birds out of season	1- 6-53	25.00
John H. Vigeron; Havensville	Taking game during closed season	11-14-52	10.00
Donald Keys; Great Bend	Shooting game birds out of season—Trespassing	1-30-53	10.00
Jake Stremel; Great Bend	Shooting game birds out of season—Trespassing	1-30-53	25.00
Willard Lathrom; Sunflower	Trespassing	12- 5-52	5.00
Caryol Runyan; Eudora	Trespassing	12- 5-52	5.00
Lyman T. Hall; Salina	Hunting squirrels in closed season—Shooting from highway— No hunting license	1- 4-53	15.00
James M. Tabor; Arkansas City	Hunting rabbits after sunset—Hunting from auto—No hunting license	1-20-53	30.00
Wilhelm Fischer; Great Bend	Taking ducks with unplugged gun—No duck stamp	11- 7-53	50.00
Ray Hallopeter; Caney	Take ducks with gun capable of holding more than three shells	10-26-52	25.00
Robert L. Markus; Jetmore	Take ducks with gun capable of holding more than three shells	11-17-52	25.00
Galen L. Mitchell; Eureka	Take ducks with gun capable of holding more than three shells	11- 2-52	25.00
Walter Connelly; Arkansas City	Hunt from motor car	1-17-53	10.00
Elmer Shoate; Fort Smith, Ark.	Destroying den of fur-bearing animal	12-27-52	None
Victor W. Shoate; Wichita	Destroying den of fur-bearing animal	12-27-52	None
John Helms; Belpre	No trapping license	12-17-52	5.00
Clarence Tamerius; Belleville	Operate more than 20 steel traps	1- 3-53	10.00
Francis Budder; Riley	Illegal fishing method	1-11-53	20.00
Jerry Criswell; Manhattan	Illegal fishing method	1-11-53	20.00
Howard F. Lober; Manhattan	Illegal fishing method	1-11-53	10.00
Roy L. Lober; Manhattan	Illegal fishing method	1-11-53	10.00
Dean Alstatt; Marquette	Illegal fishing method—Possess illegal fishing device	12-28-52	20.00
John Criswell; Manhattan	Illegal fishing method—Possess illegal fishing device	1-11-53	20.00

THE CYCLE OF LIFE

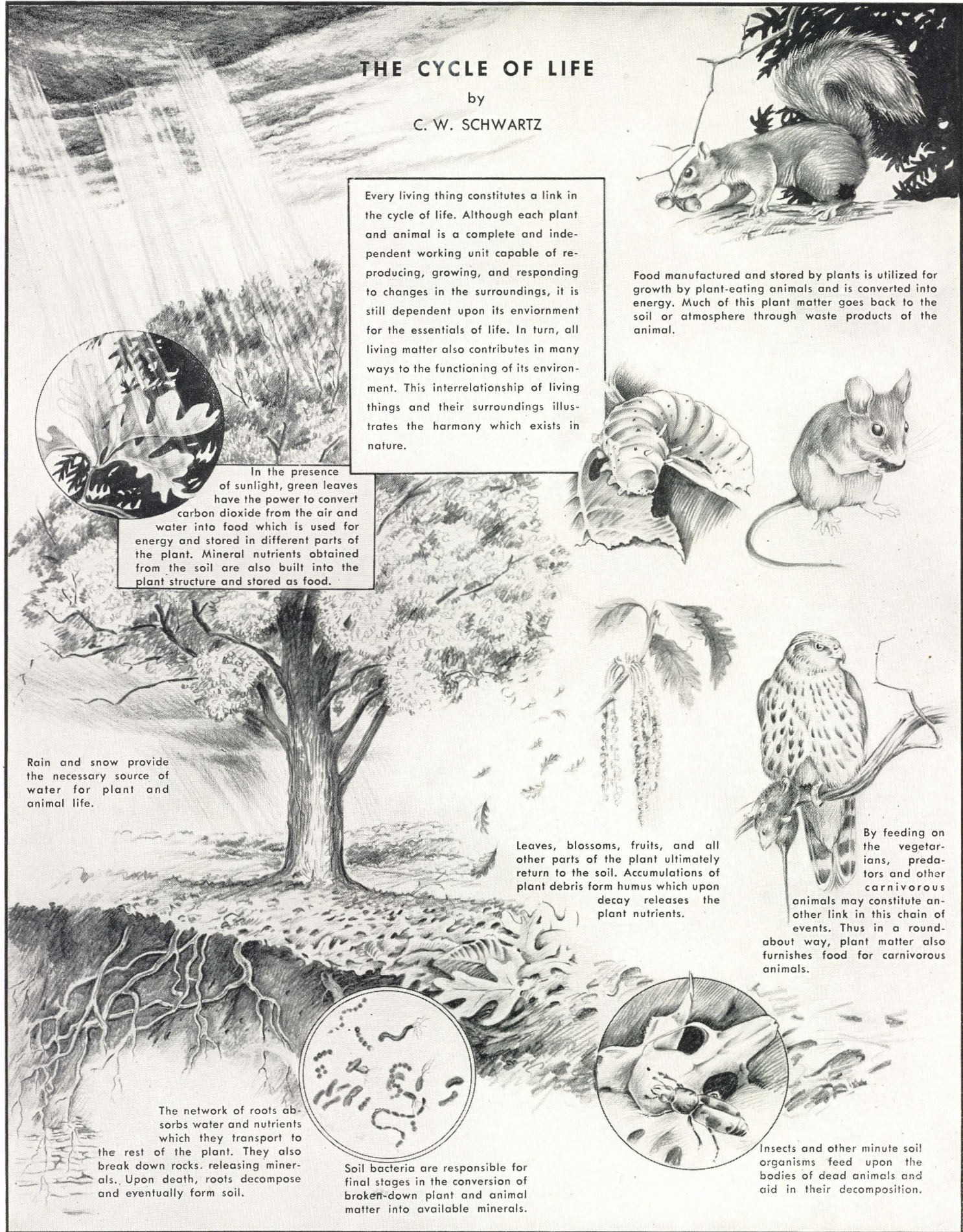
by
C. W. SCHWARTZ

Every living thing constitutes a link in the cycle of life. Although each plant and animal is a complete and independent working unit capable of reproducing, growing, and responding to changes in the surroundings, it is still dependent upon its environment for the essentials of life. In turn, all living matter also contributes in many ways to the functioning of its environment. This interrelationship of living things and their surroundings illustrates the harmony which exists in nature.


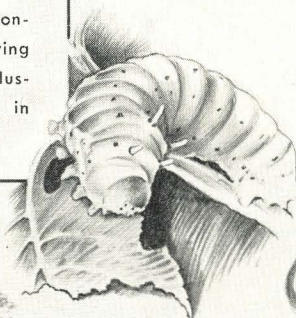
Food manufactured and stored by plants is utilized for growth by plant-eating animals and is converted into energy. Much of this plant matter goes back to the soil or atmosphere through waste products of the animal.




In the presence of sunlight, green leaves have the power to convert carbon dioxide from the air and water into food which is used for energy and stored in different parts of the plant. Mineral nutrients obtained from the soil are also built into the plant structure and stored as food.




Rain and snow provide the necessary source of water for plant and animal life.



Leaves, blossoms, fruits, and all other parts of the plant ultimately return to the soil. Accumulations of plant debris form humus which upon decay releases the plant nutrients.

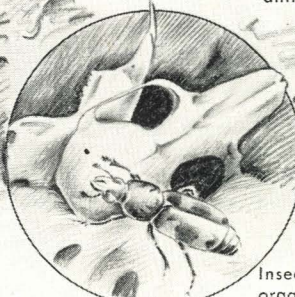


By feeding on the vegetarians, predators and other carnivorous animals may constitute another link in this chain of events. Thus in a round-about way, plant matter also furnishes food for carnivorous animals.



The network of roots absorbs water and nutrients which they transport to the rest of the plant. They also break down rocks, releasing minerals. Upon death, roots decompose and eventually form soil.

Soil bacteria are responsible for final stages in the conversion of broken-down plant and animal matter into available minerals.



Insects and other minute soil organisms feed upon the bodies of dead animals and aid in their decomposition.