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Southwest Kansas

Outstanding State Parks, Pheasant Hatchery, Fish Hatchery, Game Preserve Located in Lower Western Corner of State

(Colorful Southwest Kansas offers a varied recreational picture. At state parks visitors may participate in fishing, boating, picnicking, camping and nature study, visit a pheasant hatchery, small fish hatchery and game animal preserve, observe wild game birds at large on a refuge and view some spectacular scenery.

They will find the region has many natural assets, an invigorating climate with an altitude that contributes to cooler summers than the rest of the state enjoys, hardy wild flowers blooming in profusion, particularly in the spring, bluffs and rugged valleys which appear unexpectedly on the prairie. A vivid cowboy and Indian past also makes the area more interesting, as does its present-day agricultural, mineral and industrial development.

Some of the scenic beauty of this section of the state, often thought of as flat, plains country, has been included in state parks and beckons visitors from the area and from other parts of Kansas and the nation.

Outstanding in this respect is the 1,243-acre Clark County State Park, located ten miles south and one mile west of Kingsdown, off U. S. Highway 54. The craggy hills of Bluff Creek canyon, a hideout for Indians in early days, form the sides of the 337-acre lake. Numerous points around the lake have been built up as picnic spots. These are equipped with fireplaces or ovens, tables and parking space. A shelter house, located at an advantageous point, also can be used by
picnicking groups. Additional shade trees and cedars have been planted at the park in the past year.

The park is well-known for its excellent fishing lake. Deep parts of the lake can be reached both from the shore and from a boat. Several coves also provide good fishing of a different type. A survey made this spring in a co-operative project of the University of Kansas and the fish and game commission showed fishing prospects to be good. Game fish were found to be plentiful, in excellent condition and making good growth. Carp were not abundant enough to be damaging to the lake as a whole.

Clark County State Lake is one of the four impoundments in Kansas to be stocked with walleyes in recent years by the fish and game commission. Five walleyes fifteen to seventeen inches in length were netted during the fisheries survey, indicating the plantings were successful.

Meade County State Park, another outstanding development of the state park system, also is located in Southwest Kansas. It is seven miles south and five miles west of Meade and may be reached from State Highway K-98. Attractive, shady picnic and camping grounds are scattered over the park. Winding roadways stretch over a large part of the park’s 1,240 acres. Fishing and boating are important activities on the 100-acre lake and an adobe bathhouse is available for use by swimmers.

Other buildings throughout the park are of adobe design. Peacocks roam the grounds and almost as many pheasants, quail and partridges are at large over the park as are on exhibit in the bird pens.

On smaller ponds over the grounds, swans, Canadian geese and other birds make their homes. In the spring swans build nests at the water’s edge and families of adult swans and cygnets can be seen on the ponds. Buffalo and elk also are exhibited in enclosed areas at the park and deer have the run of the grounds.

The state’s pheasant hatchery, housed in adobe buildings at the Meade park, produces between 25,000 and 30,000 pheasant chicks each year for release in replenishing the natural supply. The eggs hatch after twenty-six days of incubation. The chicks are first
transferred from the hatchery to warmed pens, then are moved to the brooder houses where they are kept about four weeks. After four more weeks in the “hardening” pens, they are ready for liberation.

A small fish hatchery which serves as an auxiliary to the main state hatchery at Pratt occupies part of the Meade park. The fourteen brood ponds on the grounds are used to produce all varieties of fish distributed by the state: bass, crappie, bluegill and channel catfish.

The newest recreational asset of Southwest Kansas is Grant County State Lake, a mile east and a mile south of Ulysses, off U. S. Highway 160. The lake of forty-three acres is filling as the result of spring rains. It will have a maximum depth of twelve feet. The lake supplies a long-felt need for additional fishing waters in the extreme southwestern part of the state. Many natural difficulties are encountered in building a lake in western Kansas due to the flat terrain and the large drainage area, much of which is under cultivation. Grant County State Lake was not designed to be a deep lake but promises to be of great recreational value to the area.

The largest body of water in Southwest Kansas is the 3,000-acre Kearny County State Lake, called Lake McKinney, and leased to the state by the owners, the United States Irrigating Company of Garden City. It is located two miles east of Lakin, off U. S. Highway 50. The lease enables the state to manage the lake for peak fishing and hunting use. New signs telling the location of the lake have been placed at the three roadways leading from the highway to the area.

Near the north edge of our imaginary boundary of Southwest Kansas is the Finney County State Park of 852 acres. It is eight miles north and three miles west of Kalvesta, accessible from U. S. Highway 50N. The 325-acre lake at this park is valuable for fishing and as a nesting and resting place for migratory waterfowl. A continuing program of lake improvement, including the seining of rough fish by state fisheries personnel, is in progress.

A herd of 109 buffalo is kept at the Finney County State Park. The male swan charges belligerently toward the photographer in the instinctive desire to protect the hen on the nest behind him. Swans are among the many birds to be seen at Meade County State Park.

This colorful Lady Amherst pheasant, one of the exotic birds on display at Meade County State Park, practically asks to have his picture taken as visitors walk by.

The state’s pheasant hatchery is located at Meade County State Park. At left is a tray of lively pheasant chicks immediately after they were removed from the hatchery. At right is a view of the heated pens in which they will be placed.
Game Preserve, one of the state's two such preserves. Many visitors stop each year at the preserve to see the buffalo, the elk, and other game. Surplus buffalo are sold each year to sportsmen's and civic clubs for buffalo dinners. The preserve is a nesting area for pheasants, quail and other birds. Many small animals also inhabit the area. The preserve of 3,600 acres is located south of Garden City on U. S. Highway 83.

**Cover Picture**

This panoramic shot shows Clark County State Lake nestled in Bluff Creek canyon. The lake is one of the outstanding beauty spots of Southwest Kansas, featured section of the state in this issue of KANSAS FISH AND GAME magazine.

Many birds have a poor sense of smell. The buzzard depends almost entirely on sight to locate his special diet and the horned owl's favorite dinner is skunk.

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**A Code Within a Code**

There are two codes for the guidance of conduct in every field of human activity. One is a legal code, which regulates the limits of action for everyone but within which there is room for independent action.

The other code is a moral one, acting as a guide to independent action within the limits of the law. It is possible to obey the law and yet destroy its spirit and purposes by evasion and infractions of the moral code.

In hunting and fishing, the moral code is called sportsmanship. It could be defined as the way a man deals with lesser creatures and with his fellow man, as a measure of consideration for the weaknesses of these lesser creatures and for the rights and interests of other hunters and fishermen.

Of these two codes, it is the pattern of sportsmanship that will determine the measure of satisfaction and benefit one gets from the outdoors. It is this code that will determine, in the long run, the future quality of outdoor sports. The legal code can do no more than set the outside limits for the sportsman; the methods by which game and fish can be taken, the most of each that any individual may harvest at any one time. By the moral code, these limits are not goals to be reached but barriers to be avoided. A man may limit his take and gain greater values in enjoyment.

The goal of wildlife conservation is full enjoyment, by everyone, of the out-of-doors; it is the use of surplus but the protection of capital stock. Only through a personal code of sportsmanship, one well within the legal code, can this goal be reached.—I. T. Bode, Missouri Conservation Commission.
Boy Scouts Study
Conservation First-hand

Boy Scouts of Wichita's Troop 704 received a practical lesson in conservation on a three-day camping trip at Kingman County State Park over the Easter weekend.

The boys visited the state quail farm on the park reservation and the state fish hatchery at Pratt headquarters of the Kansas Forestry, Fish and Game Commission. They also identified the kinds of ducks on the Kingman County State Lake and found time for a little fishing.

Their outdoor cooking skill improved as the three days progressed. On the first morning the bacon and eggs were slightly burned, but on succeeding days they could be served with pride. The boys used all the outdoor training they had been learning from books—how to make and maintain camp, how to keep it clean and neat, how to chop wood and a wide variety of nature lore.

With the nine members of the troop were the scoutmaster, W. P. Daugherty, and a troop committeman, Gene Jones. Daugherty, a consulting engineer, always has been a fishing and hunting enthusiast and he is anxious to help the boys know and love the outdoors.

The troop is newly organized under the sponsorship of the Westwood Presbyterian church. The members are Gary Moore, Dale Haskins, Jerry Fry, Jerry Green, Bill Daugherty, Jerry Neal, Lee Stonecipher, John McKay and John Rush.

If the current crop of Boy Scouts and Explorers has anything to say about it, there'll be some pretty good hunting and fishing in this country for a long time to come. As part of their National Conservation Good Turn, the major scout program emphasis for 1954, Scouts across the nation are concentrating now on such down-to-earth projects as planting food and cover patches for game species; stream and stream bank improvement activities; hunter safety training courses and good outdoor manners that are aimed at better landowner-sportsmen relations.
Kansan Honored by American Publicity Association

Harry F. Lutz, publicity director for the Kansas Forestry, Fish and Game Commission, was recently elected vice-president of the American Association of Conservation Information.

Forty-one states and two Canadian provinces are listed in the membership of the organization. The association was formed to facilitate free exchange of ideas, materials, techniques, and procedures bearing on Conservation Education and Publicity, to promote public understanding of the basic conservation principles, and to assist those states in setting up conservation education, publicity and public relations programs.

Remedy for Farm Pond Scum

Pond and lake owners who are troubled with that “all too troublesome” scum commonly associated with farm ponds, here is a recommended cure. By mixing one pound of copper sulphate with each 100 gallons of water and spraying the mixture on the pond’s water surface this algae or scum can be controlled. For the control of cattails and other brush around the edge, try 2,4-D and 2,4,5-T.

Pond and lake owners who wish to clear up the murky water conditions may use the following solutions: Alum or aluminum sulphate, 3 pounds per 1,000 cubic feet. Mix aluminum sulphate or alum in a small amount of water. Never use dry. Must be distributed over surface of pond or lake.

Antidote for High Speed Living

In one short paragraph Paul M. Barrett, of the Michigan Department of Conservation, clearly tells why millions of Americans are going outdoors for enjoyment, and ties in reasons for the preservation of natural resources. Barrett says:

“Aside from life itself which comes from the soil, there is peace of mind which comes from forests and fields, lakes and streams, sunshine and fresh air and from living things associated with the land. Wholesome outdoor recreation is a lubricant for high speed living without which the human machine may well grind itself out of existence. So it is vital to the well-being of people that land be so used that it will feed, clothe, house, produce raw materials for industry and provide recreation.”—Pennsylvania Game News.

Termites can live for thirty years or more.

Commission’s New Sound Film Available for Showing

“You and Your Farmer Friends,” the second sound moving picture authorized by the Fish and Game Commission, is now available for general use by sportsmen’s groups, schools, and other service organizations.

The film portrays the problem of farmer-sportsman relations—why there are so many “No Fishing” and “No Hunting” signs—and what the individual sportsman can do to help the situation. The film was authorized by the commission in the interest of better relations between the landowner and the hunter and fisherman.

Photography and script are by Steve Smith Pictures, Inc., of Topeka. Sound recording was done by the Calvin Film Company at Kansas City.

The picture is 16 mm., in sound and color, and has a running time of approximately 22 minutes. Five prints are available. Requests should be made to the Publicity Department, Kansas Forestry, Fish and Game Commission at Pratt, at least two weeks in advance of the date desired.

Brush and stone fish shelters have been built for El Dorado’s new Lake Bluestem by the Walnut Valley Wildlife Association. At top is one of the stone shelters which average around five feet in diameter and three feet in height. The brush shelter, below, was built by first piling up hedge stumps and roots, then covering with Christmas trees, anchoring with large boulders and tying down with galvanized wire. A truck and driver were sent to help with the work by both the Pete Ellis Trucking Company and the Frank Bailey Oil Field Trucking Company of El Dorado. Three of the brush shelters were built in one Sunday’s work.
A number of anglers try their luck at Kingman County State Lake. The lake has been highly productive this spring.

Poor Fishing Conditions Can Be Corrected

By Roy Schoonover, Fisheries Biologist

Sometimes fishing mysteriously becomes poor in a pond or lake. Years of study by biologists have shown that the three most common causes for this condition are: (1) Over-abundance of one or more species of pan or game fishes; (2) siltation which destroys fisheries habitat; and (3) effect of the presence of large populations of less popular species of food fishes, such as carp and buffalo.

Unsatisfactory fishing in a lake might be the result of any one, or a combination of several of the conditions listed above. Several practices have come into use that are beneficial in correcting these conditions, and they are now the basis for most lake improvement programs in the country.

Since overpopulation is a frequent cause for poor angling success in some of the "better lakes," as well as in many of those of marginal fishing value, it will be discussed first. This is probably the most common problem in lakes and ponds over the state. Overpopulation to some degree is present in many waters, although it may not have progressed to the stage where it needs correcting. By overpopulation is meant that condition where one or more species have multiplied rapidly and are present in such great numbers that they are all out of proportion to other species in the population. This condition is generally indicated by a slow rate of growth of the species involved, because the build-up in numbers occurs without any corresponding increase in available food or space. The species which most frequently become overabundant in lakes of Kansas are crappie, drum, bluegill, bullhead, and carp. Channel catfish have been found to be overcrowded in several lakes in recent years.

Too Many Fish

When overpopulation has become a serious problem in a lake, fishing success declines and most of the fish caught are too small to keep. The average angler believes that if he has caught no fish, or at best only a few small ones, after several fishing trips, he is justified in feeling that the lake has "no fish" in it and that it needs restocking. When this occurs, it is difficult to convince fishermen that the trouble is too many fish, and that the planting of thousands of additional fingerlings would not only be a waste of hatchery stock, but would aggravate the overcrowded condition, and produce no improvement in fishing.

What, then, can be done to improve fishing in a lake in this condition? Several management practices may be of value in correcting overpopulation. The area of water in the lake, depth, contour of the lake basin, species of fish needing control, suitability of lake for seineing, and degree of unbalance of fish population are all factors which will determine what methods of lake improvement are most appropriate.

If the lake or pond is still affording some satisfactory fishing but is known to be in the early stage of becoming overpopulated, water-level manipulation and a program of intensified fishing for the offending species may help to prolong the time when drastic reme-
dial measures will be necessary. A lake at this early stage will still contain a lot of desirable-size fish of almost all species which will provide good fishing at least periodically. The two techniques suggested will have some value for reducing the numbers of fish tending toward overcrowding, and will still not require the killing of a portion of the population, including some larger and more desirable fish.

Water-level manipulation would involve the lowering of the water level of the lake in the summer of each year or in alternate years. During the summer, the young-of-the-year and intermediate-size fish of many species habitually remain in the shallow water along shore, where they will have more protection from their enemies and where food will be more abundant. By lowering the water in the lake so that all shallow areas of the bottom are exposed, these small fish are driven out into the main lake basin, where they can be fed upon by predatory species such as bass, crappie, and larger channel catfish.

This serves to reduce the number of these small fish present, and thus helps in preventing them from becoming overabundant; it also promotes faster growth among the larger fish, by making more food available to them. This practice would be beneficial for both large and small lakes, but is particularly adapted to use in larger lakes where complete drainage would be undesirable, and partial removal with chemicals impractical or too expensive. It might also be possible to control partially undesirable species of fish by dropping the lake level rapidly, immediately after eggs had been spawned in the spring, thus exposing them to drying. However, other desirable fish are also spawning near shore during the same period and there is danger of destroying their eggs also; consequently, this practice requires more experimental work before it can be recommended. Another advantage in lowering the lake is that it makes possible the seeding of the exposed area to oats, sudan grass, or sweet clover. When crops of this kind are flooded, the fertility of the water is improved, and the turbidity may be reduced if it happens to be a problem.

Heavy Fishing a Solution

The program of intensive fishing for overabundant species of fish is of possible value only in the smaller lakes and farm ponds where heavy fishing is the rule. For example, in a small, heavily fished lake where bluegill are abundant, it might be possible to bring them under control by convincing the anglers that by removing large numbers, they can be helpful in efforts to improve fishing. There is little chance that a project of this kind would be successful on a larger lake for the reason that it is all but impossible to have sufficiently heavy fishing to remove enough of an overabundant species to make any significant difference in the population.

If a lake is seriously "out of balance" because of overabundant species, it will take more drastic action to correct it. Under these conditions, it will be necessary to remove all or part of the fish population outright. There are three possible methods of achieving these results, although each may be practical in some lakes and not in others. Since the object in doing this work is to improve fishing, the method chosen should be the one that would be expected to give the best results under the existing lake conditions. In most instances, draining of the lake and complete removal of the fish population will be the most successful method. When a lake is drained, it is possible to eliminate completely any undesirable species of fish that are present. This is one of the primary advantages of a drainage program. It also makes salvage operations possible, and the desirable fish can be removed and planted in other waters where they will be present for the public to catch. Still another advantage to a drainage project is that it makes possible further habitat improvement in the lake basin. The benefit derived from flooding a dense growth of vegetation has already been mentioned. These features of a drainage program make it the most desirable method of improvement so far developed.

The other two methods of controlling overpopulation are partial removal by seining and use of chemicals. These methods have proven effective under certain conditions, but they have disadvantages which must

Colossal catches from the Delaware river are shown by Delos Sherman, left, and John Ross, both of Perry. The whoppers were taken in April, 1954. The two flatheads held by Sherman weighed 24 pounds and 9½ pounds. Ross' flatheads weighed 10 pounds and 23½ pounds.
be taken into consideration. In regard to seining fish from a body of water to reduce overabundant species, there are few lakes in Kansas where this method will be successful. Most of these lakes do not lend themselves to efficient seining operations. Often, only small areas in the lake can be seined. Other areas contain obstructions such as stumps, brush, rocks, irregular bottom contours, or moss beds and are impossible to seine effectively. This method gives good results only if a major portion of a lake can be seined, or in those instances where it is the nature of the species of fish to be removed to concentrate in specific areas where seining can be successfully carried out.

Seining Sometimes Successful

Reduction of a population by seining will be a worth-while project only where the overabundant species can be removed in great numbers. In the case of such fish as bluegill and crappie, experience has shown that a reduction of one-third to one-half is the minimum number that must be removed to show any improvement at all. Unless seining conditions are exceptionally favorable, it is impossible to remove anywhere near this portion of the population. Then too, where carp or other less desirable fish are present, the goal is to eliminate them entirely. This is impossible when methods are used which afford only partial control. The primary advantage to a seining program in those instances where it will be effective in controlling the population, is that it does not destroy the desirable fish and allows fishing to continue.

In recent years, population control has been achieved by the use of a chemical which kills the fish. Since the general use of this material is prohibited by law, special permission must be obtained from the Forestry, Fish and Game Commission before it can be lawfully used. It is required that personnel of the Commission inspect the pond or lake to determine if it is one in which definite fisheries improvement is possible. This is necessary because occasionally, requests are received for the treatment of ponds which are too small, muddy, or otherwise unsuited to the production of fish, and permission would not be justified. Such ponds could not be made into good fishing waters, regardless of the amount of money and effort that was expended. All work of this nature must be conducted under the supervision of personnel of the Forestry, Fish and Game Commission.

The principal advantage to chemical control is that it provides a means of eliminating or reducing the fish population in waters not adapted to other forms of improvement. The restoration of good fishing conditions would otherwise be impossible in such waters because obstructions to seining and lack of drainage facilities make these methods impractical.

When at all possible, the Commission recommends a drainage program because of the advantages it has over chemical eradication. Most waters, even though the fish population is badly out of balance, have some desirable fish present, but chemical treatment destroys them. There is no opportunity to salvage them for planting in other waters where they could be caught by fishermen. The cost of chemical eradication is an important consideration, and may be prohibitive in
larger or deeper lakes which have enormous volumes of water.

Another important aspect of management is the field of habitat improvement which has a leading role in the rehabilitation of fishing lakes. This would include all activities carried on for the purpose of making the lake a more favorable place for the desirable species of fish to propagate and grow rapidly to catching size.

Some of the best examples of habitat improvement in fishing lakes are watershed treatment measures, such as construction of desilting basins, diversions, terracing, and establishment of grass sod around the lake and on its drainage area above. Another excellent project is the seeding of exposed areas of the lake shore, and the entire lake basin (where the lake has been drained) to various crops which will grow rapidly and produce an abundance of foliage. Since this latter practice has been discussed in detail elsewhere in this issue, it will not be treated further at this time.

Several other activities of the Forestry, Fish and Game Commission are highly important in reaching the goal of "more and better fishing" in Kansas.

The hatching and distribution of young fish for stocking in newly created lakes and ponds, and those waters which have been recently cleaned out by drainage or chemical eradication is the foundation upon which a sound fish management program must be built. No better example of the importance of fish hatcheries can be named than the conditions caused by the prolonged drouth existing in Kansas at the present time. Thousands of hatchery-reared largemouth bass, channel catfish, crappie, and bluegill will be used for restocking the hundreds of lakes and ponds which have gone dry as a result of the unusually long period of low rainfall.

The new lake-building program in which the Forestry, Fish and Game Commission is actively engaged, will provide hundreds of acres of additional fishing water in many localities of the state where the need is great and where suitable lake sites can be found.

These various activities of the Forestry, Fish and Game Commission are designed to meet the specific needs of the fishermen over the state. The purpose of this vast fisheries improvement program is to create new fishing lakes, promote the use of proper management practices in other lakes and ponds over the state so as to maintain good fishing, completely rehabilitate many older waters where less drastic measures fail to improve angling success, and further develop fishing in the strip-mine waters of southeastern Kansas.

Fishing Partners, Junior Size

Every so often a fisherman gets another reminder that he should take a child with him when he goes fishing. The slogan is: If you don't have a child, borrow one from your neighbor. This is good advice, but it may not be much fun for the youngster if the experienced angler doesn't realize that "even the simplest fishing methods are completely unknown to the youngster."

An article called "Fishing Partners, Junior Size," in a recent issue of The Fisherman Magazine by Lou Campbell, gives the experienced angler advice on this problem. The best place for the young angler to fish, he says, is from a bank or dock. "Especially during spring and fall, many species of fresh-water fish move into shallow waters where they can be reached by shore fishermen. A boat is much too confining and should be used only as a last resort."

The kind of fish isn't of any particular interest to the youngster—as long as there are fish. Keeping him interested is the main problem. The simplest kind of tackle is the best. A ten-foot cane pole with a line a foot shorter is good. "Tie a fairly heavy sinker to the end of the line and use a short leader so that the hook hangs two or three inches above the weight. Attach a small bobber and regulate its distance so that it rides on the surface."

The youngster who fishes is a happy youngster—and he will stay happy at his fishing if he is given a little leeway to find out for himself just what there is to fishing.

The arts of jet propulsion and smoke screening were mastered by the squid and the octopus long before man ever dreamed of such things. Water squirting through funnels propels the animals, and enemy pursuers are confused by the discharge of clouds of ink.
Walleye Shows Up More Frequently In Kansas Creels

Many a Kansas fisherman has been puzzled in recent years by the long, slender, dark-colored fish he has caught. Various characteristics, pictured in the drawing at right, would have identified it for him as a walleye, a new fish being stocked in the state's larger impoundments.

The eyes have it when it comes to making sure the fish is a walleye. No other fish has an odd, marble-white eye like the walleye. This, and its strong, sharp teeth, plus the black blotch at the rear of the divided dorsal fin, identify the walleye. The color ranges from a dark silver to a golden or dark olive brown mottled with brassy spots.

The fish is not a walleyed pike, but just a plain walleye. It belongs not to the pike family, which includes only the northern pike, muskellunge and pickerels, but rather is the largest member of the perch family.

Walleyes are stocked in Kansas with fry hatched from eggs imported from Minnesota. More than a million walleye eggs were received at the Kansas State Fish Hatchery at Pratt in May. They were shipped in trays in a wooden chest. A top tray of ice, constantly replenished on the trip to Kansas, kept the eggs at the required low temperature. At Pratt the eggs were placed in water which was gradually raised to the normal river and lake temperature for the state. They were hatched in special jars in the hatchery's fish house and fry was stocked in Fall River and Cedar Bluff reservoirs.

This was the second year walleyes were hatched successfully at Pratt. Previously they were planted at Cedar Bluff, Kanopolis, and Fall River reservoirs and at Clark County State Lake. The plantings all have proven to be successful.

As to lures favored by walleyes, plug casters have found that plugs with a lively wiggle, like river runts and tadpoles, take more walleyes than those with a wobbling action. Spoons fished deep and spinner-fly combinations, also are good. Walleyes are known to feed heavily at night. Fishermen are advised to try the sand bars, flats and shallow gravel bottoms.

The daily creel limit is five walleyes and the minimum size limit is 15 inches.

Retirement Prayer

Here is an excellent Retirement Prayer, which was sent in recently by a Kansas Fish and Game reader:

"May the Good Lord grant us a long time to fish, and may our best catch be Golden Age opportunities to serve others until our dying day. . . . After the last catch may we sleep peacefully in Our Master's landing net. In His mercy may we be judged good enough to keep."

Man's Vested Interest

"Perhaps the quickest answer to my question is the ever-widening appreciation of every citizen that he has a vested interest in the protection and development of every single natural resource in this country, that conservation is good business, safe business, patriotic business; that conservation is in reality a way of life essential to his personal security and that of his children and other descendants."—From a talk by Sherman Adams, assistant to the President, to the Soil Conservation Society of America.

The pelican derives its name from the Greek. It has a huge beak shaped like the great Greek pelekus, an axe.
Arrangement of Shelterbelt Planting Determines Its Value for Wildlife

By Richard Eggen, Horticulturist

The intensive, large-scale farming practices so common to central Kansas present a difficult problem for wildlife. When the crop rotation plan calls for wheat following wheat year after year, wildlife, and game birds in particular, find conditions unfavorable for living and reproducing. Rather than a diversity of food and cover types most favorable to wildlife, game is forced to accept a severely limited supply of both.

Nor does this constitute the whole problem. The concept of "clean farming" adds to the reduction of available food and cover. Fence rows, roadsides and isolated areas, in nature grown up to weeds and grass, are burned out or otherwise are kept clean. These weed patches before their destruction furnished much of the summer and fall foods for wildlife and, in many cases, were utilized for cover from nesting season on, often serving as about the only winter cover available.

In some areas of the central part of the state, a considerable amount of the cropland is devoted to row crops such as milo. However, there again large acreages tend to eliminate the diversity so essential to wildlife and, after harvest, little food or cover is left for winter.

The bright spot in the picture is the field windbreak or shelterbelt. Most of the field windbreaks and shelterbelts in this area were planted during the 1930's in the federal shelterbelt program. These plantings, now between fifteen and twenty years old, have long since reached a stage of growth which makes them invaluable both to the farmer and the wildlife on the farm.

Plantings of this type vary in size and effectiveness. However, they all fill a definite need. From a farming standpoint they break the wind and decrease damage from soil erosion; they catch snow and cause it to fall on the fields rather than blow off; they reduce the disastrous effect of hot summer winds on crops; and they provide homes for those species of wildlife which help to control harmful insects and rodents. They benefit wildlife by providing roosting areas, nesting areas, cover of all types and, in most cases, some food. They also tend to create the diversity and edge effect which most game birds prefer.

Although the pheasant is the principal game bird of the area benefited by these plantings quail utilize them heavily in the southern portion of the area.

In most cases the older shelterbelts have proven to be planted in a manner that decreases their value to wildlife. They include too many tall trees and too few shrub rows. The plants also are placed too close together. The trees do not grow and develop well and, when the crowns of the trees close, the shade is so dense that all ground growth and most of the lower branches of the trees are killed. This in time destroys the effectiveness of the planting and reduces its value to wildlife.

Wider spacing within the rows as well as between the rows and more low growing shrub rows with one or two tall species for height will produce a planting more effective over a longer period both from the standpoint of the farmer and wildlife and probably will produce it more quickly.

The wild things of this earth are not ours to do with as we please. They have been given to us in trust, and we must account for them to the generations which will come after us and audit our accounts.

—William T. Hornaday.
Brown County Park Seeding
A Community Affair

The park area of the new Brown County State lake was seeded in a single day’s operation early in May by farmers, sportsmen and other interested persons in the area. The work of these volunteers was supervised by the soil conservation district in Brown county. Seed was furnished by the Forestry, Fish and Game Commission.

Several firms and individuals in the area provided power equipment for the job. The equipment included thirteen tractors, six seed drills and other equipment. In addition, a large crew of men used rakes and other hand tools in the seeding, mulching and fertilizing.

Forty acres of the park area were planted with the grass seed and the dam was seeded and mulched. The seed mixture was composed of switch grass and Reed’s canary grass with oats for a quick cover crop.

Members of the Hiawatha, Robinson and Leona sportsmen’s clubs prepared the noon lunch. Arrangements for the day of work were made by Granville Bowen, chairman, of the Hiawatha Rod and Gun Club, Louis Sands of the Robinson Rod and Gun Club and Bud Weiland of the Leona Rod and Gun Club.

The lake, to be sixty acres in size, continues to fill steadily from big springs. The water area now is estimated at about twenty-five acres. The Brown county lake was one of the first to be completed in the current lake-building program of the fish and game commission. The park will not be open until the lake is filled and stocked and the grass has a good growth.

Conservation Education Material

A fifteen-page bibliography of “Free and Inexpensive Materials for Conservation Education” can be obtained from the National Association of Biology Teachers for ten cents. The bibliography was prepared by Muriel Beuschlein of Chicago as a part of the three-year Conservation Project being sponsored by the Association. Copies can be secured from the Project Leader, Dr. Richard L. Weaver, P. O. Box 2073, Ann Arbor, Mich.

Please!

Our Fish and Game magazine is growing. We take considerable pride in the work which goes into the writing and makeup of the magazine, and we want every sportsman who wishes to receive it to have his copy.

We would like to explain, however, that we cannot assimilate requests from sportsmen’s clubs or other organizations to add group listings or membership rosters to our mailing list. Both our own and the experiences of other states have been that it is best to receive individual requests from those who wish to receive the magazine. This insures a correct address, that it is not already being received, and that the reader wants it. It costs money to publish the magazine and it is our desire that this expenditure do the most possible good in telling Kansas sportsmen about their fish and game commission.

Please help us by not sending in group listings of names. Tell your organization members that if they wish the magazine, just drop us a postal card or letter. They will receive, by return mail, the current issue, if available, and all future issues.

Diving on its prey, a duck hawk often travels 180 miles per hour.
Outdoor Notes
By Joe Austell Small

High Fur

Ounce for ounce, the chinchilla is the most valuable little animal on earth. The lustrous, gray pelt of a chinchilla is worth approximately $250. A pair is valued at about $3,000. A chinchilla coat costs $20,000 and upwards. A California chinchilla ranch values their herd of about a thousand chinchillas at over $1,-500,000!

Crow Decoy

Now is the time for varmint hunting. If you’re going after crows, remember that a live cat makes an excellent crow decoy. They just don’t like cats—and they are disturbed when one is around.

Put a collar and six feet of fishing line on the cat and picket it in the open near your crowblind. After a little practice with a crow call, you will get some fine shooting.

Shortest Short Short Story

Will Swap: Shotgun, fishing tackle and camping equipment for a twin-sized baby buggy.

Keep Them Fishing!

"I have been Juvenile Court Judge in King County, Washington, for over twenty years. During that time I have handled some 45,000 juvenile cases. As a result of that experience, I have come to the conclusion that most youngsters go wrong simply because they do not have anything else to do. City kids do not have the chores that most of us had when we were growing up. It is more difficult for them to get out into the hills nowadays. Paved streets and alleys are not very wholesome places in which youngsters can give vent to their abundant energies and their hunger for adventure. Many of them turn to stealing cars and burglary for their outlets.

“It has also been my observation, however, that the same kids respond naturally when given an opportunity to hike and fish and climb, and I cannot recall a single case, in 20 years, of serious juvenile conduct involving a youngster whose hobby and recreation outlet was fishing.”—Judge William G. Long, Superior Court, Seattle, Wash.

Baby Rattlers

A rattlesnake will have from two to sixteen young. As all the "eggs" are not fertile, the average will be about eight or nine. The eggs of the snake are all in a string and look somewhat like a string of sausages. The infertile eggs look like a piece of cheese about two inches long. The snake lies on rocks that stay warm most of the night. This helps incubation.

After the young are born, the old snake leaves. The little ones lie by the rocks and feed on flies. It is generally smelly around those rocks and this attracts plenty of flies. The little fellows become very adept at catching them.

New Line

Gudebrod has come out with G-6 Dacron—a fishing line that shows terrific promise. For baitcasting and deep sea trolling this line is high in tensile strength, low in elasticity, tough, long-wearing and waterproof. Its small diameter is a real boon to the angler who is looking for extra ease in casting and longer distance per cast.

Gudebrod is the company that makes the handy Sportsman's Sewing Kit—which, if you don't have one you ought! It is free.

Write Gudebrod Bros. Silk Company, Inc., Dept. W-34, Philadelphia 7, Penn., for their new catalog showing lines for baitcasting, flycasting, and for salt water use.

The scent glands of the elk are located between the hoofs of the hind feet.

A Pittsburg lady angler, Dorothy Kirk, may have set a new national fishing record with this 41½-lb. black crappie. She caught the "whopper" the night of May 29, while fishing in the strip-mine lakes, three miles southwest of Pittsburg. She was using a live minnow for bait. While no authentic records have been kept, the Official Sport Fishing Guide by Sport Fishing Institute lists a 3½-lb. black crappie as the largest it had reports of. Whether or not her catch is a national record, Mrs. Kirk's crappie beats all state records that we know of.—Photo courtesy Guy Von Schiltz, Pittsburg.
Pure Logic

"Tom, you old loaf," said a friend to an old colored man who was headed toward the creek, "Do you think it's right for you to go fishing while your wife is over the washtub?"

"Sho, Colonel," answered Tom. "She's wuk jes' as hard effen I wuz home."

Woim Music

A soldier from Brooklyn was on maneuvers in West Texas. He strolled out into a near-by mesquite break during a rest period, and returned shortly with a rattlesnake rattle.

"Where did you get it?" asked one of his pals.

"I got it off a big woim," the Brooklynite replied.

Things You May Not Know

When resting or alarmed, wild geese will sometimes lie flat with their necks outstretched and without the slightest movement. On sand bars they resemble sticks of driftwood, and on open water they resemble anything but a goose.

Insects have no lungs. They breathe through tubes running all the way through their bodies.

The ferret is a domesticated race of polecat.

Pheasant cocks have been found starved in the winter. Their long tails froze to the ground and imprisoned them.

A boatman is legally responsible for the waves or wake created by his boat. This also applies to those "water cowboys" found around most lakes on Sundays.

The woodcock has its ears located ahead of its eyes.

Modern Samson

The flea is so tiny that hundreds of them could be placed on a quarter at one time. Yet they can jump three or four feet in a single leap. A man, if given the same strength in proportion to his size, could jump six miles!

The flea can lift one hundred and forty times his own weight. This means that a man, in proportion, could easily lift a ten-ton truck.

The average life of a flea is only six months, yet it can be taught to do all kinds of complicated tricks. Some have been taught to juggle, pull tiny wagons, dance, or even kick a tiny ball.

The only mammal that has wings is the bat.

Fresh water clams spend the early part of their lives as parasites on fishes.

There are probably very few animals which have played so important a part in the history of the world as the earthworm. Ten tons of soil passes through the body of each every year.
New Duck Stamps Feature  
Two Ringnecked Ducks  

A black and white watercolor featuring two ring-necked ducks—a drake and a hen—"slanting in" for a landing has been chosen as the design for the 1954-'55 Migratory Bird Hunting Stamp, the U. S. Fish and Wildlife Service has announced.

Harvey D. Sandstrom of Duluth, Minn., is the artist who drew the winning design for the fifth annual "duck stamp" competition. This will be the twenty-first stamp to be issued in the federal duck stamp series. There were eighty-seven contestants this year, many of whom submitted more than one design. They represented thirty-two states and Canada.

During the fiscal year ending June 30, 1953, a total of 2,296,628 duck stamps was sold to waterfowl hunters, conservationists, and philatelists.

The 1954-'55 duck stamps will go on sale soon at all first- and second-class postoffices across the nation.

Frog Legs  

Here is a good recipe for cooking frog legs, as found in a recent issue of the Fisherman Magazine:

"Frog legs can be disjointed or fried intact with the back. After washing, season to taste with salt, pepper and lemon juice. Then dip in egg batter and roll vigorously in bread and cracker crumbs. Fry for two or three minutes in deep, hot fat about 390° F. If you want additional seasoning or flavor, tartar sauce gets the nod."

A Good Point for Fishermen  

Don't neglect your basic piece of fishing equipment; the hook. Carry a small pocket hone in your tackle box to touch up the points and barbs of your hooks while fishing. In spite of good equipment and expensive tackle, a lot of fish are lost simply because they are not well-hooked.

“A good citizen cannot be one who is ignorant of the place that natural resources play in the life of the individual, the community, the region or the state.”—The Conservation Foundation.

Angler’s Dictionary  

REEL—A coffee mill invented by Satan and designed to snarl up at critical times, thereby inducing profuse profanity.

FISHING LINE—An expensive piece of string. It snarls, gets snagged, and is guaranteed to break at the right time, creating an alibi for that whopper you lost.

WHOPPER—A term used to describe all fish which get away. Associated words are whale, lunker, and sockdolager.

CREEL—The distinctive item of a trout-fisherman’s uniform. A fragile wicker basket in which to hide a worm can, carry a fly book, lunch, etc. Occasionally used to hold small trout.

WADERS—An effective means of carrying water from the stream to a convenient log. Guaranteed to keep the feet hot in summer and freezing in cold weather. Waders hold more water than boots and are preferred in putting out campfires.

FLIES—A feather imitation of nothing-ever-seen, with very fanciful names, and the favorite food of house moths. Flies are principally used to decorate fisherman’s hats and bushes along the stream.

BOAT—A leaky tub, with tomato can for bailing, and a pair of mismated oars. Antique boats command high rental.

Falcon have wonderful eyesight. They have been known to respond to a feathered lure from a distance of 5,400 feet away.
KNOW YOUR FRIEND—THE GAME PROTECTOR

Leon Hopkins

Leon Hopkins, 30, became a game protector of the Kansas Forestry, Fish and Game Commission in January, 1947, a month after his release from the air force. As a gunner and bombardier, he flew sixty-one combat missions in Italy and Japan. He was overseas nineteen months of his four-year hitch in the service.

Hopkins lives in Lincoln and works in Ottawa and Lincoln counties. His home town is Bridgeport, but he attended high school in Assaria.

His family includes his wife, Darlene, and two children, Larry, 8, and Melissa Sue, 3.

When he is off duty, he likes to go hunting or fishing.

The common toad eats about 10,000 garden pests a year. Its work is worth about twenty dollars.

Most birds lay only one egg a day. Some lay an egg every other day. But the brooding does not start until the last egg of the clutch has been laid, which causes an all-at-once hatching.

Pressley Piner

Pressley Piner, 32, is another veteran of World War II in the fish and game commission's game protector service. As a first lieutenant in the field artillery, he served in the army five years, twenty-two months in Europe. He volunteered at the age of 18.

From his home base in Ulysses, Piner covers Grant, Kearny, Hamilton, Stanton, Morton and Stephens counties. He started working as a game protector in July, 1952.

Piner's home town is Arlington. After his military service, he completed work for a B.S. degree at Sterling college and earned a master's degree in zoology at Kansas State college. He taught school at Potwin three years.

His wife, Dorothea, shares several hobbies with him. Right now he is interested in photography and copper craft.

It is time to recognize that conservation goes far deeper than the matter of bread and butter. It involves the whole conception of freedom, dignity, and the American spirit.—Paul B. Sears.
At one round-up in Kansas this spring, the “cowpokes” wore high rubber boots. They didn’t become covered with the dust of a busy corral, but they were soaked with river water several times.

They were rounding up the fat and sassy thoroughbred channel catfish at the state fish hatchery for the spring stocking of the hatchery’s brood ponds.

The big fish are kept in a few ponds at the Pratt "fish factory" during the winter. About the first of May they are loaded into containers on pickups and are brought to the hatchery fish house. There they are counted, groomed and sorted, like a herd of prize Herefords, and are distributed again, four males and five females to a pond.

In the fish house operation, the whoppers are dumped into tanks. Then, taking them one by one, fisheries workers remove parasitic leeches from around the eyes and whiskers of each individual with a pair of tweezers. The fish next are separated by sex and are taken in tanks to the brood ponds.

In ponds stocked with the nine adult fish, only natural foods are available. Three ponds were stocked this spring with 100 fish each in an experiment to determine if the larger number can grow and reproduce satisfactorily. These are fed carp, dog biscuits, corn and other foods. This experiment was termed “fairly successful” in its first year, 1953, and is expected to prove more effective in 1954.

The channel catfish really are the thoroughbreds of the Pratt hatchery. They require and receive more attention than the other species. To improve the percentage of hatchability of catfish eggs, fisheries men at Pratt have invented a special nesting device and incubator. Three nail kegs are placed in each catfish brood pond for nests to resemble the hollow logs and indented creek banks where catfish naturally spawn.

Every other day during the spawning season fisheries workers take the eggs from the nail kegs. They are transferred to the incubator in the fish house. There they are placed in baskets in narrow troughs. Paddles move constantly over the eggs to duplicate the movement of the tail of the male fish which fans the eggs until they are hatched.

The mass of channel catfish eggs is glutinous and almost sponge-like. The paddle movement is necessary to force the oxygen-laden water into the tiny spaces between the eggs. The eggs are under close observation in the incubator and bad eggs which
These huge channel catfish were among the more than 300 that were placed in brood ponds at the state hatchery this spring.

might contaminate the others can be removed. If the eggs were left in the brood ponds to hatch there would be considerable loss from adult fish eating the eggs.

A small water wheel utilizing water from the Ninnescah river moves the metal paddles over the eggs in the incubator. Bad eggs are removed from each basket daily. The eggs hatch in five to nine days, depending on the temperature of the water, and the young are siphoned off as they hatch. Yolk sacs attached to them provide food for several days. When the yolk sac has disappeared the young fish are ready to be removed to hatchery ponds where there are no other fish. About 75,000 fry are placed in each pond and are fed dried buttermilk and meat scraps until they are stocked at the end of the summer in lakes and ponds all over Kansas.

Under natural conditions in rivers, the young channel catfish take refuge in shallow riffles to escape their enemies, the bass, perch and other scale fish which usually inhabit deeper, sluggish water. The young catfish may stay there all summer, until they are able to take care of themselves in the channels of the river. A real warm-water fish, the catfish does not spawn until late June and, by then, the bass and crappie of the year are a month old, big enough to swallow them.

The incubator for channel catfish eggs was first developed at Pratt about twenty-seven years ago and produced the first artificially hatched channel catfish in the nation. It had evolved gradually from the experience of fisheries men as they observed catfish hatches. It has been improved over the years in the same manner. Other states have taken up the Kansas idea.

The brood stock remains at the hatchery for a few years, then is replaced with younger fish. The older stock is released in Kansas waters and probably eventually ends up on an angler's hook.

Yes, thoroughbred treatment is accorded the catfish, highly valued and properly appreciated in Kansas. Residents of the state will even tell you a channel, cooked just right, rivals the juiciest T-bone in table excellence.
News of Sportsmen's Clubs

A New Kind of Sportsmen's Club Organized at Linwood

Something new in the way of sportsmen's clubs—for Kansas—was that organized recently at Linwood in Leavenworth county.

The club is composed entirely of farmers who want to bring about better hunting and fishing, at least in their area. The club's bylaws and objectives recognize two fundamental facts in hunting and fishing today: (1) That "city sportsmen" buy most of the hunting and fishing licenses and actually pay most of the fish and game bill; (2) farmers and ranchers own most of the land and water and therefore hold the key to practically all hunting and fishing.

With a membership of more than twenty-five farmers, and more than 8,000 acres of land in one block, the club proposes to open the entire area to hunting and fishing. Not as a private hunting ground nor a game preserve, but an area where sportsmen may hunt and fish if they observe two rules: (1) Ask permission first; (2) that all state laws, rules and regulations are observed.

Officers of the new club are: H. L. Bryan, president; Henry Green, vice-president; Elmer Wickey, secretary; William Henak, treasurer.

State Game Protector Paul LeGer, who attended a meeting of the Linwood sportsmen, had this to say about the new club, "I was really impressed with their ideas and principles. They certainly are a fine group of fellows and we need more organizations of this kind in Kansas. Club members want to plant more cover where needed and also plant quail where additional stocking would be beneficial. They are really interested in improving hunting and fishing in their area and they want to work closely with the fish and game department. The only question they asked me was 'what can we do to help the Fish and Game Commission.'"

Kansas Rod and Gun Club Elects New Officers

New officers of the Kansas Rod and Gun Club of Kansas City, Kan., are Al Richards, president, and John Pickens, vice-president. They took over in May.

One of the most worthwhile projects of the club is the sponsorship of juvenile fishing at the Big Eleven lake. The club plans to continue sponsoring the special day of fishing weekly for children. It has been highly successful in the past.

A Conservation Club Organized at Ottawa

A new conservation club was organized in May at Ottawa. Known as the Ottawa Conservation Club, the club will work to conserve wildlife in that area and co-operate with the Kansas Fish and Game Commission. One of the club's immediate objectives is to help secure a state lake for Franklin county.

Officers of the new club are: Dun Huls, president; Carl Park, vice-president; Ralph Scott, treasurer; Wayne Gilliland, secretary. Additional members of the executive board are: Roll Hashman, Sr., Ray Koontz, Kenneth Andrews, Alex Telfer, Max Ward, Ruel Mitchell, Robert B. Anderson, Robert Duffield, John Gere, Harley Ivey and Howard Conrad.

Approximately 125 members were announced at the organization meeting. Membership is open to all who are interested in fishing, hunting and conservation of wildlife.

Louisville Rod and Gun Club Lists Achievements

The Louisville Rod and Gun Club can look back on the past year as one of achievement, according to Richard Shade, publicity director for the club.

In telling of the club's activities, Shade listed the following as some of the accomplishments:

During the hot and dry summer of last year, club members were active in rescuing fish from ponds and streams that were going dry and the fish were planted in active waters.

The club sponsored a Junior rod and gun club with much interest and enthusiasm on the part of the junior members.

Club members put in considerable time locating places to release quail acquired from the state game farms. Several boxes of quail were released in carefully selected places, and club members continued to look after and note progress of the released birds.

The club started a fish-tagging program, under the direction of Mr. Shade, to learn more about the growth and habits of fish in that area. More fish will be tagged this spring and summer.

Club members sponsored a "Sports Show" which was held in May. Several interesting sporting goods displays were an attraction at the show, which drew more than 200 in attendance.

New officers of the Louisville Rod and Gun Club are: C. R. Lintz, Jr., president; Elmer Younge, vice-president; Keith Blankley, secretary-treasurer. Board of directors includes William Scott, Tom White, Wallace Carley and Derrill McCormic.
Neosho Valley Hunting and Fishing Club Keeps Busy

One of the "doing" sportsmen's clubs of the state is the Neosho Valley Hunting and Fishing Club at Emporia. The club, under the able leadership of Bob Britton, keeps busy the year around, with club activities as varied as the interests of its members.

Britton, in a recent letter to the editor of KANSAS FISH AND GAME, tells of the club's efforts in behalf of wildlife, as follows:

"Although I haven't written you for a long time, we have been busy. Our biggest effort in the line of cover restoration has been successfully completed. We had eighty-eight Boy Scouts, about twelve Scout troop leaders, around twenty-five FFA boys and nearly twenty men from our club and from other interested groups working on the cover-planting project. Plantings were made on over thirty farms. If the weather had been a little more co-operative the complete success of the project would have been assured. As it is, some of the red cedars didn't survive the dry weather immediately following the planting. All in all, we believe that a large percentage of the trees and shrubs planted will survive.

"Our pheasant program is now under way. Friday, April 30, we set 125 eggs. They are being hatched for us by a hatchery here. We set another 85 eggs this morning. We believe we should be able to release at the minimum, 600 birds this summer. Reports from farmers and other interested people where we planted pheasants last summer, indicate that a considerable number of those birds have stayed at or near the release point. We now have more requests for birds than we can begin to accommodate.

"We are making scale samples on bass in this area and have the co-operation of Kansas State Teachers College at Emporia on this project. When we amass enough data, we will make it available to your fisheries biologist, Roy Schoonover. From this we hope to be able to tell how well the bass are doing at Lyon County State Lake.

"A representative from our club will appear at the Conservation Workshop which will be featured at Emporia State Teachers College this summer. Subject of his talk will be 'The Contribution of the Sportsmen's Clubs to Conservation.'

"Our club is very well pleased with the fine turnout of Boy Scouts in our planting project. Some of the Scout leaders have expressed interest in a similar project next year. One troop, led by Leon D. Peterson, has volunteered to stage a clean-up drive at Lyon County State Park in late May. An expert angler from our club will put on a fishing clinic for the Scouts and help qualify some of the troop for merit badges in fishing.

"We wish to thank the Fish and Game Commission for the splendid co-operation of Max Stone, District Game Management Supervisor, for his help with the planting program."

Mr. Britton recently was re-elected president of the Neosho Valley Hunting and Fishing Club. Other officers named included Loren Bratton, vice-president; Seymour Coman, secretary; Warren Jones, treasurer. Directors named were: Wally Long, Oliver Roberts and Dr. S. O. Somers.

The lips of the beaver are designed so that they close in back of the long, front incisor teeth, allowing him to work under water without getting water in his mouth.
What Every Parent Should Know
When a Boy or Girl Wants a Gun!

The purpose of this article is to help parents find a way to teach their boys and girls the safe and proper handling of sporting firearms. It has been prepared by the Sporting Arms and Ammunition Manufacturers' Institute, with the advice and counsel of authorities on the use of sporting firearms by the younger shooters.

The advice it contains is based on actual experiences of many parents and youth group leaders. Read it carefully even if you think you know "all about firearms."

How Old Is Old Enough?

How Old Is Old Enough for your boy or girl to handle firearms? Usually youngsters are ready to start shooting when they have shown a sense of responsibility in other fields. This may be at 12, 13, or 14 years of age.

How do you know when a boy has a sense of responsibility? Ask yourself some simple questions.

Would you trust him to carry the neighbor's baby across the street, or take a twenty dollar bill to the grocery store, or carry a really important and confidential message, or to look after the house while you are away for a day?

Your answer to these questions will help guide your judgment in the right direction.

Suppose You Decide to Say "Yes"—What to Do!

1. If you are not familiar with firearms, talk it over with someone who knows guns and shooting, and whose judgment you respect, preferably a member of a shooting club or association.

2. Arrange for your boy or girl to attend an instruction class sponsored by a rifle club affiliated with the National Rifle Association.

If no instruction classes are available in your neighborhood, ask one of your friends who is a competent instructor to help give your son or daughter the right start, or write for additional safe shooting information (Department 22, Sporting Arms and Ammunition Manufacturers' Institute, 250 East 43d St., New York 17, N. Y.).

3. Buy for your boy or girl, or better still, have them earn the money to purchase an inexpensive but modern safe rifle. The first gun is usually a rifle because it is easier to teach basic principles with this type of gun.

Who Is an Authorized Instructor?

Where Is He?

All rifle clubs affiliated with the National Rifle Association have members who are authorized instructors qualified to teach the safe and proper handling of firearms.

The National Rifle Association is not alone in its work with junior shooters. The 4-H clubs, Future Farmers of America, American Legion, Boy Scouts of America, high schools and colleges, and other organizations sponsor shooting instruction programs in cooperation with the association.

Completion of the instruction course does not mean that a boy is qualified to go target shooting or hunting alone. He needs adult supervision for a year or two so that he knows all the rules of safety and proper gun handling on the rifle range or in the woods and fields.

Proper introduction to the shooting sport gives a boy or girl an experience that will be beneficial all through life.

He will not only know how to shoot straight and how to handle guns with complete safety to himself and associates, but he will learn lessons in responsibility he will never forget.

New Lake in Leavenworth County Open to Fishing

The Happy Hollow Lake, near Leavenworth, was officially opened for fishing on May 23, according to Paul LeGer, state game protector for that district.

The lake was built by the Leavenworth County Fish and Game Development Association at a cost of $17,000, to provide a fishing lake for members of the club. Life membership for an entire family is $40, with $1 per year for club membership. The project is all paid for except for about $600.

The opening of the new lake was a grand success, according to LeGer. Over 150 fishermen were present for the opening and everyone caught fish. Bass, channel cats, bullheads, crappie, bluegill and warmouth bass were taken and all were nice size.

Club rules for the new lake require that all state fishing regulations must be obeyed. No motor boats are allowed on the lake and the use of bank lines, trotlines or set lines is forbidden. There is a creel limit of ten on channel catfish and bass, with a total of not over twenty fish of all kinds per day per family.

The Happy Hollow lake in Leavenworth county shows what an active sportsman's club can do when they want to get things done.

On the farm lands of the country we are now spending $200,000,000 a year for commercial fertilizers but wind and rain are annually taking 60 times that much fertility from the uncovered land.—Wisconsin Conservation Bulletin.
## ARRESTS—FEBRUARY, 1954

<table>
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<tr>
<th>Name and address</th>
<th>Offense</th>
<th>Date of offense</th>
<th>Fine</th>
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<tr>
<td>James Kates; Smolan</td>
<td>No hunting license</td>
<td>12-26-53</td>
<td>$5.00</td>
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<tr>
<td>Alfred O. Brex; Topeka</td>
<td>Taking ducks with unplugged gun</td>
<td>11-11-53</td>
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<td>O. J. Wamhoff; Ellisworth</td>
<td>No fishing license</td>
<td>10-19-53</td>
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<tr>
<td>Perry Bullard; Galena</td>
<td>No fishing license</td>
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<td>Gilbert C. Collier; Arvin, Cal.</td>
<td>No fishing license</td>
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<tr>
<td>Mark Brey; Joplin, Mo.</td>
<td>No fishing license</td>
<td>9-18-54</td>
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<tr>
<td>Otto Golley; Lawrence</td>
<td>Taking fish with nets</td>
<td>9-18-54</td>
<td>25.00</td>
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<tr>
<td>Ernest Higgins; Lawrence</td>
<td>Taking fish with nets</td>
<td>10-22-54</td>
<td>10.00</td>
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<tr>
<td>Clarence White; Sabetha</td>
<td>Operate trotlines in lake</td>
<td>11-15-54</td>
<td>10.00</td>
</tr>
<tr>
<td>Charles H. Bishop</td>
<td>No fishing license</td>
<td>10-29-54</td>
<td>20.00</td>
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<tr>
<td>James Anderson; Minden Mines, Mo.</td>
<td>Misrepresentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest L. Geisinger; Walsh, Colo.</td>
<td>Misrepresentation</td>
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</table>

## ARRESTS—MARCH, 1954

<table>
<thead>
<tr>
<th>Name and address</th>
<th>Offense</th>
<th>Date of offense</th>
<th>Fine</th>
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<tbody>
<tr>
<td>J. K. Farelli; Niles</td>
<td>No fishing license</td>
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<td>$5.00</td>
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<tr>
<td>Douglas C. Ford; Chanute</td>
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<td>5.00</td>
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<tr>
<td>Ernest N. Freeman; Lawrence</td>
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<td>3-11-54</td>
<td>5.00</td>
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<tr>
<td>C. A. Granada; Wichita</td>
<td>Misrepresentation</td>
<td>9-14-52</td>
<td>10.00</td>
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<tr>
<td>Charles Huffmaster; Humboldt</td>
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<td>3-20-54</td>
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<tr>
<td>David Jackson; Eureka</td>
<td>No fishing license</td>
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<td>10.00</td>
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<tr>
<td>James C. Jackson; Eureka</td>
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<td>3-14-54</td>
<td>10.00</td>
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<tr>
<td>Fred Mitchell; Parsons</td>
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<td>15.00</td>
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<tr>
<td>Myrleen Reed; Hiawatha</td>
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<td>3-7-54</td>
<td>5.00</td>
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<tr>
<td>W. J. Reed; Hiawatha</td>
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<td>3-7-54</td>
<td>5.00</td>
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<tr>
<td>Clyde A. Rhoads; Dodge City</td>
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<tr>
<td>Thomas J. Rose; Wichita</td>
<td>No fishing license</td>
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<tr>
<td>Roger D. Sexton; Independence</td>
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<tr>
<td>Paul Strait; Concordia</td>
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<tr>
<td>James C. Treel, Jr.; Great Bend</td>
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<tr>
<td>Richard Varney; Salina</td>
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<td>Norwood Waltman; Joplin, Mo.</td>
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<tr>
<td>Harvey Squire; Kansas City</td>
<td>Operate bank lines in mouth of stream</td>
<td>3-6-54</td>
<td>10.00</td>
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<tr>
<td>Gene Hedges; Colony</td>
<td>Seining fish</td>
<td>3-23-54</td>
<td>10.00</td>
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<tr>
<td>Max Hedges; Elk City</td>
<td>Seining fish</td>
<td>3-23-54</td>
<td>10.00</td>
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<tr>
<td>Franklin Dare; Wichita</td>
<td>Hunting and killing wild ducks in closed season</td>
<td>2-28-54</td>
<td>25.00</td>
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<tr>
<td>Jack Immenschuh; St. Marys</td>
<td>Hunting and killing wild ducks in closed season</td>
<td>2-28-54</td>
<td>10.00</td>
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<tr>
<td>Milian W. Rutherford; Wichita</td>
<td>Hunting and killing wild ducks in closed season</td>
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<tr>
<td>Gary Stenger; St. Marys</td>
<td>Hunting and killing wild ducks in closed season</td>
<td>2-24-54</td>
<td>10.00</td>
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<tr>
<td>Clarence W. Hatch; Lecompton</td>
<td>Hunt, pursue wild geese during closed season</td>
<td>3-12-54</td>
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<tr>
<td>Julius L. Henderson; Eudora</td>
<td>Hunt, pursue wild geese during closed season</td>
<td>3-13-54</td>
<td>10.00</td>
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<tr>
<td>Bruce S. Henry; Linwood</td>
<td>Hunt, pursue wild geese during closed season</td>
<td>3-7-54</td>
<td>25.00</td>
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<tr>
<td>Robert LaGru; Leavenworth</td>
<td>Hunt, pursue wild geese during closed season</td>
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<td>10.00</td>
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<tr>
<td>Ed Rezac; St. Marys</td>
<td>Hunt, pursue wild geese during closed season</td>
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<tr>
<td>Al W. Simon; Colwich</td>
<td>Hunt, pursue wild geese during closed season</td>
<td>3-25-54</td>
<td>5.00</td>
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<tr>
<td>W. L. Cassell; Kansas City</td>
<td>Trespassing</td>
<td>11-29-53</td>
<td>5.00</td>
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<tr>
<td>Hugh Dover; Kansas City</td>
<td>Trespassing</td>
<td>11-29-53</td>
<td>5.00</td>
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<tr>
<td>John F. Munmun; Kansas City, Mo.</td>
<td>Misrepresentation</td>
<td>3-20-54</td>
<td>5.00</td>
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<tr>
<td>Paul Willard; Kansas City, Mo.</td>
<td>Misrepresentation</td>
<td>3-20-54</td>
<td>5.00</td>
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## ARRESTS—APRIL, 1954

<table>
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<th>Name and address</th>
<th>Offense</th>
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<th>Fine</th>
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<tbody>
<tr>
<td>Charles Alger; Chanute</td>
<td>No fishing license</td>
<td>4-5-54</td>
<td>5.00</td>
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<tr>
<td>Jack Arnswald; WaKeeneey</td>
<td>No fishing license</td>
<td>4-6-54</td>
<td>10.00</td>
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<td>Floyd E. Bogart; Silverdale</td>
<td>No fishing license</td>
<td>4-10-54</td>
<td>5.00</td>
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<tr>
<td>Wilbur Brick; Tisonen</td>
<td>No fishing license</td>
<td>4-25-54</td>
<td>5.00</td>
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<tr>
<td>Kenneth Brackeen; Sublette</td>
<td>No fishing license</td>
<td>4-16-54</td>
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<tr>
<td>Tommy Broges; Topeka</td>
<td>No fishing license</td>
<td>4-10-54</td>
<td>5.00</td>
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<tr>
<td>T. R. Brown; Beloit</td>
<td>No fishing license</td>
<td>4-25-54</td>
<td>5.00</td>
</tr>
<tr>
<td>Fred L. Clark; Chanute</td>
<td>No fishing license</td>
<td>4-15-54</td>
<td>5.00</td>
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<tr>
<td>Raymond Ford; Norton</td>
<td>No fishing license</td>
<td>4-21-54</td>
<td>5.00</td>
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<td>Robert L. Frank; Hutchinson</td>
<td>No fishing license</td>
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<tr>
<td>Donald Fugate; Haven</td>
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<td>4-17-54</td>
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<tr>
<td>F. Eugene Ful ; Wichita</td>
<td>No fishing license</td>
<td>4-4-54</td>
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<tr>
<td>Rex Gandy; Empire</td>
<td>No fishing license</td>
<td>4-22-54</td>
<td>5.00</td>
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<tr>
<td>Gary Gibson; Empire</td>
<td>No fishing license</td>
<td>4-22-54</td>
<td>5.00</td>
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<tr>
<td>Ralph R. Green; Fredonia</td>
<td>No fishing license</td>
<td>4-30-54</td>
<td>5.00</td>
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<tr>
<td>Martin Hageman; Riley</td>
<td>No fishing license</td>
<td>4-13-54</td>
<td>5.00</td>
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</table>
The universally successful lure has not, in spite of the advertisements, yet been invented. But, year in and year out, if you give wobblers a chance to do their stuff, you will find that as a class they are one of the most dependable of artificial lures. — Ed Howard, *Fisherman’s Magazine*.

"White animal" is the meaning of the opossum’s name. It comes from either "wabassin," an Ojibway word, or "apasum," an Algonquin word. Some authorities claim the name comes from the fact that the opossum has opposable first hind toes, meaning that these toes work very much like human thumbs.
"I guess I'm the wrong breed, or maybe senile, or just too dagnabbed knotheaded to understand it, but I'll be a sidewinder if I can understand what all this bawling, squalling, and griping is about." He sucked in about five pounds of smoke along with enough air to cause a reverse thrust to the pine needles along the path, and continued.

"Every day or so, I read or hear about somebody fussing 'cause he didn't get his limit of fish or game when he took off. Folks seem to think that a license is a guarantee to a limit every time, and scream long and loud to all and sundry, when they fail to fill the basket or the deep freeze!

"Why, I've lived a long time and can remember many a time when I didn't get any birds in a day afield, or a deer in a week's hunting. And those were in the 'Good Old Days' when game and fish were supposed to be running out our ears. Now it seems to be either a contest to see that everybody makes par for the course or the fish and game department had better head for a bomb shelter!

"I can't figure what's the matter with people. They seem to be all turned around in their thinking. Their approach to this use of a grand natural resource is beyond comprehension. Why can't they just hunt and fish to have a good time—enjoy the beauties and wonders of nature—and be thankful for what they have?"

I imagine he knew that I either couldn't think of an answer, or else that I agree with him, because he never slowed down enough to let me insert even a grunt.

"I reckon there isn't much you or I can do about it except to try to convince a few folks as we go along and maybe help wherever we can to let our new generation of youngsters know that fishing and hunting is for fun and not a contest to beat that other feller, or fill the bag limit every time they go afield."

It sort of looked that way to me, too.
I give my pledge as an American to save and faithfully to defend from waste the natural resources of my country—its soil and minerals, its forests, waters, and wildlife.