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REPORT OF
GAME AND FISH WARDEN
FOR
NEW MEXICO
1910-1911

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Book N64

COMPLIMENTS OF
THOMAS P. GABLE
STATE GAME AND FISH WARDEN
SANTA FE, NEW MEXICO

SPIRIT LAKE.—Where Nature Surpasses Art.

New Mexico (Ter) Game and fish warden's dept.

First Report
Of
Game and Fish Warden
For
New Mexico

1909-1910-1911

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STATE OF NEW MEXICO,
Department of Game and Fish.

Santa Fe, New Mexico, December 31, 1911.

To Honorable William C. McDonald, Governor, and the First State Legislature
of New Mexico:

New Mexico became a State Jan. 6, 1912

I beg leave to submit herewith, my report, covering the period of two years
and nine months, beginning April 1st, 1909, to, and including December 31, 1911.

Respectfully,

THOMAS P. GABLE.
Game and Fish Warden.

HONORABLE WILLIAM C. McDONALD,
First Governor of the State of New Mexico.

INTRODUCTION.

I herewith transmit the first printed report made by the Game and Fish Warden's Department since the enactment of the game laws of 1903.

I have endeavored to treat concisely of the various subjects pertaining to game and fish, submitting also, my financial statement of the receipts and disbursements of this office, during the period of my incumbency.

This report will show that hereafter no appropriation will be needed from the legislature for the maintenance of this department, unless the legislature should enact laws authorizing the establishment of fish hatcheries and game preserves.

The printing of this report is authorized by Section 38, Session Laws of 1909.

Yours for the protection of our game, fish and song birds,

THOMAS P. GABLE,
Game and Fish Warden.

REPORT OF GAME AND FISH WARDEN.

New Mexico has no more valuable asset among all her endless treasures than her incomparable game and fish preserves, which are unrivaled by any other commonwealth in any nation of the world. Within her confines are more than eleven million acres in the forest reserves and approximately thirty-one million acres of unoccupied government lands.

There is not a man living, who is tossed about, month after month, in the bustle and bang of business life, who does not need a vacation. He needs it for his mental, moral and physical development. He needs the woods, the music of the streams, the rock-ribbed mountains, the warbling birds, and the chance to drive out the fetid air of the stuffy office and dusty street, and to fill his lungs with the pure, undefiled, vigorous ozone, found only in the mountains, the forest and open field. It is Nature's tonic, and she presents it freely, abundantly, to anyone who will accept the offering.

That man is a misanthrope, a misfit, a misfortune, who does not enjoy with genuine zest, the free, boundless outdoor life. There is something awry in the construction of the man to whom there does not sometimes come a longing for the camp fire by the rippling brook, within the shaded wood, with a frying pan over the glowing coals, from which steals out on the soft summer air, that alluring odor of speckled trout, fresh from the stream, growing both crisp and tender as they splutter in the bacon grease until they reach just the perfect turn. Thus, whether one finds the greatest delight in playing the gamey frout or in the quick beating of the pulse as the huntsman strikes the fresh track of deer, wild turkey or even some predatory animal, or as the whirr of quail or grouse sets his nerves a-tingling, it is the glorious outdoor life that lures the man in whose veins runs the red blood of health and vigor, and who possesses the spirit to appreciate the beautiful, the inspiring attributes which can only be found in a life in the broad and health giving open.

It is not exaggeration to say that here in New Mexico, are found attractions to the sportsman, the tourist, the healthseeker, the lover of the picturesque, the sublime, the uplifting, that are unsurpassed in all the world. Nowhere are more rugged mountains, lifting their snow-capped peaks up into the very clouds, mountains where big game abound in their natural surroundings, where they wander at will, through the vast tracts of unbroken forest, living the life that is theirs by nature, and undisturbed only when the huntsman enters that land of heart's desire, to find his wildest dreams fulfilled and his most ardent hopes gratified. No one who has not seen it, can fully appreciate the beauty, the grandeur, the marvelous attractiveness of this particular spot in Uncle Sam's big domain. Here Nature has fairly outdone herself; here she touched the landscape with her most brilliant

ONE OF THE BEAUTY SPOTS.

colorings; here she marked the channels for the most perfect, the purest, clearest mountain streams; here she builded her noblest mountains and clothed them with a varied and beautiful verdure; here she spread broad, fertile, productive valleys, freshened by rippling waters, and stocked them with game birds, at once the most beautiful, the most attractive, the most sought by the true sportsman and the experienced epicure. It is a veritable paradise for the huntsman and for all those who truly love the best life of all,—the life out of doors, with its pure air, its woodsy odors, its breadth, its beauty and its power to bestow health.

To our neighbors in other states, New Mexico extends a cordial invitation to come among us and enjoy with us the bounties which Nature has poured out here with such splendid abundance.

It is only within very recent years that the position of game and fish warden has been regarded as of great importance to the well conducted and progressive state government.

For generations the wild game of America was considered, without other thought, as the natural prey of him who wished to destroy it, and as the rightful booty of any who might discover the prize. It was this thoughtless consideration of this valuable and charming adjunct to the physical attractiveness of outdoor American life, that led to the absolute effacement of the buffalo, and the almost total depletion of wild game in our eastern states, and it was only when the birds had disappeared from the meadows and woodlands, the game from the mountains and the fish from the streams, that the people themselves awakened to the damage they had sustained and sought some method of restitution and a rehabilitation of that which they recognized as a distinct loss.

Then, when the preservation of game and fish became a subject of statutory enactment and a department was provided in many states for their protection, the opinion prevailed that this was but a play in the interests of the rich and that the poor were being discriminated against. The results have clearly proven that the opposite is true. The man of wealth, if he be a sportsman, can hunt where it pleases him. If game and fish are rare in his neighborhood, it is only at the expenditure of a little time and a small amount of money, that he is enabled to reach those points where the game which he might be seeking could be found in abundance; but to the average citizen this door was closed. He must find this recreation and enjoyment in his own locality or miss it altogether. The protection now given by statute to game and fish in nearly all our states, gives to the sportsman in every station of life, a full opportunity for the indulgence of his desires. The value of game protection has become generally acknowledged and the advantage accruing to all our people is a conceded fact. It has become a settled principle of law, sustained by the courts, that our wild game belongs to all the people, and not to a favored few.

Just what method of regulation is most desirable and effective has opened an experimental line of action, but it has now become almost universally conceded that the license system is the most satisfactory and the most equitable for securing funds for the maintenance and accomplishment of game protection and the enforce-

ment of the law. It is, as well, the only system that enables the sportsman of moderate means to share the field sports with his more fortunate neighbor.

With the revenues derived from this source the burden of expense for game protection rests upon those receiving the benefit,—the persons who hunt and fish.

In 1909, the legislature of New Mexico wisely enacted a license law for resident and non-resident hunters and for non-resident fishermen. The three years during which this law has been in force has thoroughly and conclusively proven the wisdom of it, and it is now accepted by the people generally, as the most satisfactory method of regulation. The hearty and generous support given by the press of New Mexico in publishing favorable comments regarding this system has been of very great assistance and has been highly appreciated by this department.

The system of non-resident licenses practically began in the United States in 1895, since which time nearly all the states have adopted the plan; the fees for licenses varying in different states and ranging from \$1.00 to \$5.00 for residents and \$15.00 to \$100.00 for non-residents and aliens. The fee of \$1.00 for bird and \$1.00 for big game for residents, and \$25.00 for non-residents and aliens, as charged by New Mexico, is recognized as being fair and reasonable, and is now fully accepted and highly regarded by the people of the state.

I am pleased to report that the revenue now derived from licenses issued by this office renders it self sustaining and no further appropriation will be needed from the legislature for the game and fish department, provided that body does not establish a fish hatchery in the state, which would, of course, call for an amount that could not be provided from the regular revenues that come naturally to this department. That the office of game and fish warden has become entirely self-sustaining is a fact that must appeal to the tax payers of the state, and it is naturally a matter of pride that this condition has been brought about under the administration of the present head of this now important department. In this connection it is a matter of interest to compare the amounts appropriated and expended by other states as shown by the following table taken from the official reports for the year 1910:

Illinois	\$76,047.89	Utah	\$35,850.00
Wisconsin	41,595.26	Iowa	31,846.00
Colorado	24,368.00	Montana	27,000.00
Indiana	34,079.49	Louisiana	71,871.18
Minnesota	51,164.49	California	77,012.00
New Jersey.....	19,877.07	Missouri	56,192.24
Michigan	27,738.24		

From this statement it must be readily admitted that New Mexico stands well to the front of other states in the economical administration of her game and fish laws, and I feel she is entitled to the congratulations of all who are interested in the successful operation of this important branch of state service, as the annual appropriation for salaries in this office is but \$2,300, all other expenses, including the purchase of game and fish being met by monies received from

the game protection fund. A complete statement of all receipts and expenditures may be found on another page of this report.

It is a significant fact that no state has ever repealed a license law when once such a law has been placed upon the statute books. The value of the license law is now universally conceded.

An article from "Forest and Stream," date of July, 1906, throws light on the system prevailing where the rights of the people are curtailed and the sportsman's pleasures are confined to comparatively few favored ones. A portion of the article is as follows:

"The news dispatches tell us that Henry Phipps, of Pittsburg, has rented the famous Glen Quoitich deer forest in Scotland. The estate comprises fifty thousand acres, or something more than seventy-eight square miles. The papers put the "total expenses" at \$500,000.00 a season; but this is a patent exaggeration, although the finances of deer forests are expressed in large figures. At the time of a recent computation there were, in Scotland, one hundred and ten deer forests, covering a total area of two million acres, and bringing an annual rental, if let, of one million five hundred thousand dollars."

This all brings us naturally to the question of

GAME PRESERVES.

As game and fish warden, a study of game and fish protection, and experience in building up this important industry, have led me to recommend to the biological survey the setting aside of a tract of land comprising seventeen townships in the Pecos National Forest Reserve, which extends into the counties of Santa Fe, San Miguel, Mora, Taos and Rio Arriba, which tract will be under the supervision of the United States government, as indicated by the following letter of Dr. Palmer, assistant chief of the biological survey:

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Biological Survey

Washington, D. C.

"Mr. Thomas P. Gable,

"Territorial Game and Fish Warden,

"Santa Fe, New Mexico,

"Dear Sir:

"I am in receipt of your letter of September 7, and I beg to thank you for the offer of the hearty support of your department in the establishment of a game reserve in the Pecos National Forest.

"It is very gratifying to know that you are so interested in the matter of game preserves, and I am glad that Mr. Cooper was able to go over the subject with you. His report has not as yet come to hand, but will be due in a few days. Judging from the correspondence which we have received, there seems to be a good deal of local sentiment in favor of the establishment of a reserve at this point and I hope the project may receive favorable consideration from Congress.

"There are, doubtless, several localities in New Mexico which are admirably adapted for game reserves. A reserve for antelope is greatly needed in one of the southern counties; another for elk and deer might be located in the southwestern part of the Territory. While it may not be possible to secure more than one National Reserve at present, it may be feasible to have one or two State Reserves, modeled after those of Wyoming, Montana, or California. I hope you will bear this matter in mind when your legislature convenes.

"Assuring you of my deep interest in this question, I remain

"Very truly yours,

"T. S. PALMER,

"Acting Chief, Biological Survey"

The map annexed shows the area covered in this proposed reserve. The plan is to place in this large reserve a number of deer, elk, antelope, mountain sheep, turkey and grouse, and to permit them to increase here, taking them at proper intervals from this reserve and transferring them to various points throughout the state. It is intended to protect this preserve by a prohibitive zone, three miles in extent on each side, which will prevent the slaughter of the game enclosed, by careless or reckless hunters, intentionally or otherwise. I consider this the best possible method of game propagation, as an adjunct to the natural increase in different parts of the state.

Aside from the preservation of our game in this large national park, it will serve as an interesting and attractive advertisement for New Mexico, partaking, as it does, somewhat of the nature of the famous Yellowstone Park, and furnishing, as well, a most delightful point for tourists to visit and enjoy. Within the enclosure, trails will be laid out, lodges and other buildings erected, and through it will be completed the "Scenic Highway," now being constructed by the state, which already touches the borders of this tract on the north and south. Perhaps no method of advertisement is more effective or attracts more tourists than that which offers an opportunity to see our wild game in natural haunts and at the same time opens to view the beautiful, matchless scenery of the west, which is no where more alluring or more satisfying than in the state of New Mexico, where the tourist and sight-seer has, in the past, been all too casually invited.

In an endeavor to bring about the establishment of this extensive preserve this department has had the earnest co-operation of T. S. Palmer of the biological survey, A. C. Ringland, district forester, and A. C. Cooper, U. S. game warden. Mr. Cooper has spent several months investigating the game conditions in New Mexico, and is enthusiastic over the state's resources and possibilities. Regarding the project of establishing this government preserve, Mr. Cooper says:

"Such a preserve would prove of untold good to the sportsmen of this state for it would serve the purpose of stocking the forests. Just as the water reservoirs are a good thing to save water for drinking and irrigation purposes, so a game preserve works to the advantage of the hunter, though he may not think so at first. The plan is to fence in about seventeen townships. In this preserve will be

SCENIC HIGHWAY IN NATIONAL GAME PRESERVES.

kept big game, turkey and grouse. There will be plenty of quail and turkey to get outside the preserve after the hatching season and these will furnish material for the sportsman to shoot at."

Thus, with the active co-operation of the United States government, this great preserve cannot fail to become one of the most attractive features of the west for both tourist and sportsman.

A NEW DEPARTURE.

The time is ripe, in my opinion, based on a close study of game and fish conditions in this country, and a knowledge of the subject which can only be gained by actual contact with these conditions, for a new departure in the matter of caring for and distributing our game and fish. I am a firm believer in the establishment of a private preserve for both fish and game, on a limited scale, of course, where they can be bred, raised, and sold for market. This new departure in the care and propagation of game and fish has been strongly urged during the past few years by the United States department of agriculture, and the suggestions have been adopted in some states, notably in Iowa, Illinois and Colorado, where the plan has worked with a large measure of success. In Illinois, Mr. Warren R. Leach has a large private preserve where elk, Virginia deer, European red deer, Japanese Sika deer and a small flock of sheep, dwell together in perfect harmony, free from the attacks of dogs, which occasionally dig in, but are quickly disposed of by the elk, as these kingly, antlered animals will not harbor the presence of a rank outsider.

The history of game preserves in the United States has been a series of experiments. In some cases success has been achieved and in some failure has resulted. These experiments, however, have been salutary and have tended toward a successful end. As the system becomes better understood and our population increases, the private game preserve will be more importantly considered, not only as a large factor in game preservation, but as a means of recreation and diversion.

Preserves may be established with especially good results in sections where game is not locally abundant. In some places, by sinking wells, making ponds, constructing dikes, artificial marshes may be formed, which attract large numbers of ducks and migratory birds, or small lakes may be formed for various kinds of fish. Regulated properly, by state control, the private preserve is bound to become a valuable adjunct to game and fish preservation and offers an additional method of supply. This system of game and fish conservation invites no danger from over production, no matter how many persons might establish a private preserve, as the demand could never be fully met. The Americans are a game loving people, delighting in an abundant amount for table use, and as the natural supply is being rapidly exhausted, and as the time of procuring it under the law is limited, there would never be a time, when the markets would be overstocked. In addition to this, a new field of industry would be provided for a large number of our citizens and the door would be opened to a new element of producers in the world of American business life.

HOLY GHOST LAKE, IN PROPOSED NATIONAL GAME PRESERVE.

Still another argument in favor of this plan lies in the fact that elk and deer, especially the former, are fond of a class of vegetation that grows wild in the mesa often preferring it to the fresh green feed or hay raised in cultivated fields, thus saving the expense that might otherwise lessen the profit in this province of big game propagation.

The domestication of deer and elk offers an interesting field for experiment, as well as remunerative returns for the investment of capital. Both these animals can be raised successfully and cheaply under conditions prevalent here, and no drawback presents itself that would prevent the raising of them as a source of profit to both the individual and the state.

The same conditions prevail regarding fish as are found in respect to game. The fish found in the wild and unbroken regions of New Mexico are the most sought after and enjoyed. No fish excites the admiration and delight of the American as does the speckled trout. He is generally recognized as the most delicate and delicious member of the fish family and would always be in demand on the market.

Safeguards against the destruction and sale of wild deer in place of domesticated are not difficult to enforce. For this purpose a system of licensing private parks, and of tagging deer or carcasses sold or shipped, so that they may be easily traced and identified, is recommended. There is no doubt that, with favorable legislation, much otherwise waste land in New Mexico may be utilized for the production of venison so as to yield profitable returns, and also that this excellent and much esteemed meat, instead of being denied to 99% of the population of the country, may become a familiar product in our markets and purchased at a price not higher than the ordinary meats now offered for sale.

How inconsistent our own game laws must appear in authorizing the issuance of a permit to dealers for the sale of protected game and fish, and yet prohibiting the keepers of hotels and restaurants from serving them on the table or naming them on their menu.

The following states have modified their laws so as to provide, under regulations, for the sale of deer from private preserves. Transportation and even export are included in some of them:

Arkansas.—Possession, sale, and shipment of deer or fawns is permitted when they have been raised in captivity for domestic purposes and are accompanied by an affidavit from the raiser.

Colorado.—Owners of private preserves under a license are permitted to sell and ship deer or other quadrupeds that are accompanied by an invoice. A fee is required for each animal sold.

Illinois.—Any person who raises deer for market may kill and sell them at any time in the same manner as other domestic animals.

Indiana.—The provisions of the law as to possession and sale do not apply to persons who have under ownership or control any deer raised in a deer park.

Massachusetts.—The owner may sell his own tame deer kept on his own grounds.

Minnesota.—Persons who desire to domesticate deer, moose, elk, or caribou

INDIANS IN CHARGE OF WARDEN AT MAGDALENA.

may secure a permit to do so from the state board of game and fish commissioners by paying a fee of 50 cents for each animal in captivity and a like fee for each animal added later by natural increase or otherwise. The animals kept in captivity may be sold or shipped within or without the state, by permission of the commissioners.

Missouri.—Deer or elk, alive or dead, may be shipped from any private preserve and sold in the markets of the state when accompanied by a tag furnished by the game warden of the county, showing whose property it is, and to whom shipped.

New Hampshire.—The Blue Mountain Forest Association may kill elk, deer, or moose in their preserve for one month after the open season, and at any time may transport them outside the state.

New York.—Deer may be sold during the open season; and moose, elk, caribou, and antelope from private parks may be sold during the same period. Common carriers may transport animals into the state for breeding purposes, but may not transport venison unless it is accompanied by the owner.

North Carolina.—Seventeen counties permit the owner and keeper of an inclosed game reserve, who raises deer for use or sale, to kill, sell, or use those raised or kept in said inclosure.

Pennsylvania.—Owners of game preserves who hold a game-propagating certificate may sell and transport deer or fawn alive for propagating purposes only, after securing the written consent of the president of the board of game commissioners.

In three or four other states game "under private ownership legally acquired," is supposed to be exempt from the general provisions of the game law; but in a test case as to its sale or export it is doubtful whether the courts would so hold without more specific provision legalizing such commerce.

VIOLATION OF GAME LAWS.

The strict enforcement of the game laws is not effected without some difficulty and requires constant vigilance and activity on the part of the game warden and his deputies. For generations the Indian has ranged over the broad tracts of this great western section of our country and hunted at will. It is no small task to teach them the law and demonstrate the benefit which comes to them, as well as to others, through its enforcement.

Up to two years ago nothing had ever been accomplished in the way of putting a stop to the reckless, wholesale slaughter of deer and all big game by the reservation and Pueblo Indians. They simply killed at will, in accordance with their long established and unmolested custom. Upon assuming the office of game and fish warden, in order to acquaint the people with the law relative to game and fish, and deeming this the most efficient method of securing compliance with the statute, I had printed several thousand copies of the law, in English and Spanish; also a synopsis on cards and cloth posters, sending them to all the county clerks, deputy game wardens, forest supervisors and guards, teachers at the various Indian pueblos and reservations, as well as to individuals and newspapers of the territory

AN INDIAN HUNTER.

for their information and distribution. The Indians had copies widely distributed among them with attention called to the license and limit proviso and they seemed to understand the meaning of the law, as they procured licenses; but, in the face of this they went on shooting and slaughtering all the game they could find, in reckless disregard of the prohibitory statute, until it seemed to me that some energetic and severe measures must be adopted to prevent the further unlawful destruction of the game. This department was constantly receiving reports from different sections of the territory detailing the violations of the game laws, the following being an example:

"Hunters say that a band of marauding Apaches from Arizona has butchered hundreds of deer in violation of the game laws, literally wiping the game out of one of the best hunting sections of the southwest. Ranchmen and rangers have seen stacks of hams and quarters piled breast high, and it is said the Indians are killing every deer they can find."

In the fall of 1910, five different bands of Indians were arrested. Each individual member of these bands was convicted and fined. One band of Pueblos arrested in the Datil mountains, about one hundred miles west of Magdalena, by deputy warden Bob Lewis and ranchman Earl Morley, had in its possession nearly one hundred head of deer, consisting of bucks, does and fawns. Valuable assistance was also rendered this department by Supervisor W. H. Goddard and his forest guards by the arrest and conviction of violators of the game laws in the Datil forest district. The accompanying picture presents a good view of this band when arrested and in charge of the warden. I took the whole posse of violators before the justice of the peace of Magdalena, where they were fined five hundred dollars, and costs taxed at one hundred and twenty-five dollars, all of which was paid.

In this matter great pressure was brought to bear by many prominent citizens in favor of the Indians, the argument being that they intended no wrong and believed they were but acting within their inherited rights; but it seemed to me that this was an opportune time to impress a lasting lesson, and I urged the fact that the Indians purchased licenses having the law plainly printed on the back, which was sufficient evidence that they were not entirely innocent of wrong doing. In two other cases where arrests were made the Indians attempted to get the hides and heads of their booty into the pueblo by sending special couriers away from the main body. This, in itself, seemed to me at least strong circumstantial evidence that the violators recognized the wrong. They were captured, however, and paid their fine.

While in these cases, the costs, including transportation, telegrams, long distance telephones and necessary expenditures, were considerable, yet, the infliction of fines, instead of a term of imprisonment, more than met all these expenses, and in addition to this the moral effect was sufficiently impressive to bring about the most satisfactory results.

There seems to be no doubt that the reservation Indians, when hunting on their reservations, are exempt from arrest for violation of the game laws, but court decisions seem to establish the principle that Indians found outside the

END OF THE CHASE.

Captured by Ruggles and Holder, Taos County.

reservation, with game illegally captured or killed, may be followed onto the reservation and arrested, or the game may be confiscated in transit, if found off the reservation, even though it was killed on Indian land. This ruling does not apply to the Pueblo Indians, they being classed as citizens. This legal status touching the relation of the reservation Indians to the game laws of the state is the cause of some difficulty in knowing always just where to draw the line. In the main, however, the Indians, at the present time, are causing but little trouble for this department.

I am now pleased to report that during the year 1911, I have had no complaint of the wholesale slaughter of deer, one of my deputy wardens whom I sent on a tour of inspection, reporting that he was "unable to find a moccasin track in the Datil mountains." The same is true in all other parts of the state, and I anticipate no further violations of the game law on the part of the Indians. It is gratifying also, to make note of the fact that our records show that the native people, comprising those of Mexican descent, have been consistent observers of the game laws, and it has become a generally recognized fact, among them, as among all others, that the protection of game and fish is both necessary and beneficial, giving as it does, an opportunity to procure game near home, without being compelled to go a long distance to secure it.

OUR GAME AND FISH.

New Mexico presents a field, unsurpassed anywhere in the world for that recreation and enjoyment so relished by the true sportsman. Its great mountain ranges are covered with a heavy growth of timber, while down their rugged sides flow inexhaustible streams of cold, pure water, heading in the snow-capped peaks of the majestic Rockies. Over the vast wooded areas wander deer and antelope, as well as a legion of predatory animals, always the delight of the ambitious hunter, the bagging of which causes the most supreme pleasure.

Those unacquainted with the habits of these wild beasts of prey, cannot fully appreciate the havoc wrought by them to the game which the state is endeavoring to protect. The mountain lions now very numerous in our rugged, lofty woodlands are, perhaps, the most destructive of all these savage creatures that roam the vast tracts of unbroken forests, and hide in the rocky canyons where the hunter finds difficulty in tracking the wary marauder into those hidden haunts he knows so well. It is estimated by students of the habits of these destructive animals that one mountain lion will kill a deer each week, a statement that will occasion surprise among those who only know this wily brute as one of the wild creatures of the west, or a rare specimen captured for exhibition in the red wagon of the circus parade.

In evidence of the destructive tendencies of the mountain lion, I would state that word was recently received at this office that Stephen Arnold, a ranchman on the upper Pecos, had lost fourteen colts and one full grown horse, killed by these noxious animals this last year.

As a matter of fact, the ruinous operations of the mountain lion constitute one of the problems for solution by this department. The only method of at least

THE WAY IT IS DONE ON THE UPPER PECOS.

lessening the depredations of this destroyer of game, as well as others of his class, such as the bob cat and lobo wolf, is to put a sufficiently large price on his head to induce lovers of big game hunting to make strenuous effort toward his elimination.

The bob cat, commonly known as the wild cat, is another predatory animal that is very destructive to the smaller wild game, the greatest sufferers from his depredations being the turkey and the grouse; he has been known also to kill fawn, when his cunning in the capture of his favorite food failed to meet the demands of his appetite.

Still another carnivorous and baneful animal is the lobo wolf, a species not uncommon in New Mexico. This free booter is an enemy to the sheep herds, one ranchman in Torrance county being reported to have lost as many as three hundred sheep in a single night, as a result of the bloodthirsty instinct of this animal. The lobo wolf does not kill for food only, but apparently from a spirit of pure enjoyment in the slaughter, like sheep-killing dogs; leaving his victims dead or dying.

While a good many bear, comprising the silver tip, cinnamon and black, are found in different sections, they are not seriously regarded, as it is but rarely that they kill other animals; the ranch cattle and burros being the only objects of their attack when their natural food becomes scarce. Of course, the bagging of a grizzley is always an ambition of the big game hunter, and here his desires in this direction may be fully gratified.

Bear are reported as being quite numerous on the upper Pecos, as the accompanying picture would indicate.

I am pleased to report that in spite of the depredations of these predatory animals, the actual amount of wild game in New Mexico is greater than it has been for many years, and the same is true of the game fish in our lakes and streams, a subject which will be touched upon later in this report.

In the mountain districts deer have increased in number and these sections are now well stocked. It is of interest to know, in this connection, that no New Mexico hunter going out during the past season, whose prowess and accuracy of aim entitled him to the prize, failed, on his return to bring with him the one pair of buck's horns to which he is entitled under the law. This result, as detailed, is a tribute both to the splendid hunting opportunities afforded here, and to the skill of our local nimrods. Recently, Sonorian or rock deer, have appeared in the Mogollon mountains, having apparently drifted into this district from Mexico, which is their habitat. They bid fair to become more plentiful in the future and will add another attractive element to the New Mexico sporting field. There is also a band of mountain sheep, aggregating, probably, from two to four hundred, in the Guadalupe mountains on the line between Texas and New Mexico, and a small bunch also have been reported near Truchas peaks in Rio Arriba county. These fine specimens of wild game once so plentiful in the mountainous regions of the west were fast becoming extinct before the ravages of the huntsman, but it is hoped that under the rigid protection of our game laws, they may increase rapidly in the state. The law provides a closed season until 1915.

The antelope, once so numerous all through the west, disappeared very rapidly as their feeding grounds were encroached upon by homeseekers, who took up these lands for cultivation, but in various sections a number are still reported in Colfax, Socorro and Valencia counties, while in southern New Mexico reports show as follows:

Carlsbad district, South 40 to 65 miles.....	50	antelope
" " Will Cravens Ranch.....	34	"
" " 9 k Ranch, 45 miles south.....	20	"
" " Rader Ranch, 15 miles south.....	13	"
" " 35 miles northeast of Carlsbad.....	50	"
" " 35 miles southeast of Carlsbad.....	50	"
" " northwest of Carlsbad.....	150	"
" " Barber Ranch.....	65	"

THE CLUB GROUNDS AT CAMP TOBERMORY, NOVEMBER 14, 1911.

From left to right: A. R. Streicher, Hugh Smith, A. L. Hobbs, W. H. Smith—Poke.

On the Sacramento mesa, Otero county, 350 head are reported and at Fort Stanton, also, 100 more. It is estimated that there are about 1,700 in the state.

Elk will soon become a prominent feature in New Mexico game life, and as the procuring of them is in the nature of a new departure, I will treat of them specifically on another page of this report.

The beaver, also, will have a special mention.

In the world of bird life, I feel a gratification in reporting that conditions are most favorable. Wild turkeys, which have always been attractive to the hunter, are rapidly increasing in numbers and these, together with the ever popular grouse,

are found more numerous than for a long period past, in the northern counties especially. A few wild pigeons have been reported in the counties of Rio Arriba, Taos, San Miguel, Eddy, Grant and Otero. The once plentiful and much sought prairie chicken is now again appearing quite extensively along the eastern border of the state. A few ptarmigan are still seen in Taos county, but they are very scarce and it can be but a short time when they will become extinct. The quail, Gambel, blue mountain and bob white, are becoming constantly more numerous. The various species of game birds will be specifically mentioned in another section of this report.

FISH OF NEW MEXICO

The fish of our state have become numerous both as to quantity and kind. The lakes and ponds have, as inhabitants, the ring perch, cat fish, carp, buffalo and black bass. Of these the perch and bass, of course, are greatly preferred, and really, the only fish that are especially attractive to the devotee of the rod and line.

As the lion is the king of beasts and the eagle of birds, so is the black bass the king of the fresh water fish. This splendid inhabitant of our inland waters is the delight of the angler on account of his gamey spirit, and on the table he is without a peer. As evidence of his popularity it is only necessary to state that on the market he brings the highest price.

In planting fish for propagation it is wise to study their habits, both as to kind of food and their relation to the body of water and the other fish in the same waters.

The black bass, a wary and gamey warrior, is particular both as to his surroundings and his food. While he may thrive under certain conditions, in rivers and creeks, his favorite habitat is in ponds, where clear water prevails and where aquatic plants abound or where he may hide around old tree tops, logs or brush piles that may lie in the water, the lily pads being enjoyed by this fish for spawning grounds. The spawning season for black bass is from May 15 to July 1st. Black bass, while voracious feeders, are very fussy about it, and want only the best the market affords. An old bass not only wants the best, but likes a change of diet, which accounts perhaps, for the fact that aside from small fish, cray fish and frogs are quite often found in the dissected stomach of black bass, and in some instances insects and even birds. Some difficulty has been found in bass culture on account of the cannibalistic qualities of this fish, as the bass does not hesitate to eat his own kind, when food to his liking is not at hand. To obviate this difficulty, ponds containing black bass should be stocked liberally with suckers, bull heads, and other rapidly breeding fish, to keep up the food supply without depleting the number of young bass, which would otherwise be destroyed by the larger members of their own family. The bass guard their eggs while they are being hatched from all those enemies which feed upon the spawn of fish, seeming to regard this food with the same delightful appreciation that the human family, the members of which can afford the luxury, seek for the delicate caviare. So protective of its eggs is this scrappy member of the fish family that he has been

known to kill fish much larger than himself, during the spawning season, by darting under the intruding enemy, striking with the sharp, knife-like fin, which the bass carries on his dark and shiny back. It has been proven by experience and actual test that black bass will clear a lake or pond of German carp, presumably by this means, and feeding upon the young. One instance clearly proving this statement is shown in the fact that one of the ten lakes owned by J. D. Hand, on his large estate in San Miguel county, which was stocked by the former owner, with German carp, and was literally alive with this undesirable fish, was stocked by the present owner with black bass. Five years later and at the present time the German carp have entirely disappeared and the kingly bass now reigns supreme in this lake where once the carp predominated. Inasmuch as the German carp, which was introduced into New Mexico some years ago, is a poor table fish, is a cannibal and a destroyer of other valuable fish, it is to be hoped and urged that those stocking lakes and ponds will no longer order carp, but will confine their orders to black bass, ring perch, crappies, cat fish and wall-eyed pike. These fish are suitable only for lakes and ponds, and those who possess waters of these kinds should stock them only with the fish mentioned above which can be obtained at present and free of cost, only through Hon. George M. Bowers, bureau of fisheries, Washington, D. C., to whom application should be made. The application must also be endorsed by one of our members of congress, or one of our members of the United States senate. The demand on the government for these fish is so great that it is only possible to fill requests in the order in which they are received and filed. No means have yet been found by which this class of fish can be successfully spawned and raised in hatcheries, although the government has spent large sums in experimental trials.

Those who have the water but no natural ponds can readily construct an artificial one. We give herewith some valuable suggestions along this line, offered by L. L. Dyche, game and fish warden of Kansas, an acknowledged authority on fish culture. Mr. Dyche says:

"After the dam or dike has been finished and the bottom of the pond has been put in proper condition to be filled with water, the owners are usually anxious to see the new pond area filled up with water either from natural drainage or such other sources of water as the locality may afford. It would really be better in many cases to allow the new dam and pond area to stand and settle for a few months or even a year. However, this is not necessary, as it is possible to fill new-made pond basins as soon as they are finished. Before the water is turned onto the ground that is to serve as the bottom of the newly-made pond it should be carefully examined for sandy, gravelly or porous places.

There should be natural or scooped-out places in every fish pond not less than six feet in depth (8 or 10 feet would be better); water on the bottom of a pond remains more even in temperature than that on the surface. The deeper holes in a pond provide cool places for the fish to rest in during the hot summer weather. It also furnishes them places of retreat where they can bed with more safety when the weather is cool and when the pond is covered with ice in the dead of winter. Unless the fish are surrounded by plenty of water at such times

LARGE-MOUTHED BLACK BASS,
(*Micropterus salmoides*).
About $\frac{3}{4}$ Life-size.

they may die for want of air. For many years we have noticed that many fish that have been bedded, either from necessity or by accident, in shallow water—water that was not more than one to two feet in depth—have died during the winter. They seem to become very numb and nearly frozen, so to speak, and apparently die for want of air; in this weakened condition they seem to be more susceptible to the attacks of the white fungus disease which, under such conditions, sometimes kills off great numbers of fish.

While spring water is usually considered to be very fine for fish, it is, perhaps, the poorest of all waters when it comes to furnishing the fish with food supplies. It contains practically no fish-food material, and when it comes from the ground is poorly supplied with air. It can be much improved and supplied with both food and air by carrying it for greater or less distances through open ditches, ravines or creeks, where there is more or less plant and animal life growing. Artesian water and water pumped from wells are as destitute of fish-food as spring water, but the quality of such water for fish purposes may be improved by running it into ponds that are well supplied with water plants and insect life.

Fish live in the water and breathe the air that is held in small bubbles in mechanical mixture with the water. They do not live on water any more than human beings live on air. We live *in* the air and breathe it; fish live *in* the water and breathe by passing the water through the gills (their lungs) and by this operation get or gather the oxygen from the particles of air that the water contains in the shape of minute bubbles. Hence, running water or water that is agitated into waves by the wind is always better for fish as it contains more minute air-bubbles for them to breathe in."

Bass are numerous in the Spring rivers, all the deep lakes in Chaves and Eddy counties, Salt Creek, the Seven rivers and Black river, in the last mentioned county; in fact in nearly all the clear water lakes and streams of the state.

Great sport is thus offered the fishermen of these sections and in addition, they find enjoyment in the substitution of this diet for the habitual one of mutton and beef.

An established and satisfactory method of preparing the bottom of an artificial pond, to prevent leaking, and where the soil is sandy, is to drive a herd of sheep or goats back and forth over a coating of clay, placed over the sand. This gives a hard surface which holds the water and gives a substantial and permanent bottom to the pond.

A fish perhaps as well known as any of the fish family, is the cat fish. The very name takes us back home, to the wooded pond, a mile or two from town, to which we tramped on stone bruised feet, bearing on shoulder the primitive fish rod and the hook purchased at the village hardware store for one copper cent. That boy has lost a good deal out of life who never knew the cat fish, his habits, his appearance and the flavor of his flesh. This fish has become a good deal of a favorite in recent years as evidenced from a government report which states that in one year twenty-three states reported a catch of 14,726,000 pounds; also that "both commercial fishermen and anglers throughout the country are showing in-

creased interest in catfishes, and requests for stocking public and private waters have recently been numerous." Catfishes are bottom feeders, omnivorous in their habits, taking more or less vegetable and a great variety of animal food. They have large mouths, heads, stomachs and appetities and are capable of adapting themselves to a wider range of conditions than most any other member of the fish family. This fact renders these fishes increasingly valuable for pond stocking. They will prosper in brooks inhabited by the bass tribe.

The crappie is another fish that is becoming popular as a pond fish. He belongs to the pug variety with his large mouth and protruding jaw, but is not, to any great extent, given to the destruction of other fishes. Their nature is not cannibalistic and they do not devour their own kind; their main food being vegetable matter mixed with insects and crustaceans of both land and water varieties. While the crappie is not classed as a game fish, yet he gives good sport to the angler and is very satisfactory in the frying pan.

To the true fisherman, who delights above all other sports, in the light rod and humming reel, no word has a greater lure than that magic one, "Trout." The locality which can offer a tempting field for the trout fisherman is sure to have a niche in the hall of fame in the sport world, and to bring to it every season, the out-of-door lovers from every section of the country. Colorado is reaping a veritable harvest from tourists, and furnishing great sport for the home angler. This state has established nine hatcheries, which are maintained by legislative appropriation, this being found necessary to meet the constantly increasing demand. The waters of that state have become so far famed and popular that during the past season a special train was run daily out of Denver, known far and wide as the "Daylight Train," which passed through Wagon Wheel Gap and stopped at Creede, where the fishing was superb. This enticing sport seems to have no rival in the estimation of those who love the camp life among the mountains where gambols the "speckled beauty,"—the fish that never fails to arouse the spirit of the angler. The far famed and greatly admired brook trout has habits and peculiarities which belong to him alone, though in some ways he resembles strongly the mountain trout which is his cousin. Alike, these two members of the trout family are gamey, wary, and most delectable. The distinct difference which distinguishes them lies in the coloring, marking and in their habits of spawning. The brook trout has clearly defined spots on the side, which are a clear red in color, while on the mountain trout the spots are dark brown or nearly black. One argument in favor of the brook trout, wherein he is especially beneficial and valuable, is based on the fact that this fish will breed and spawn where planted and will there remain, unlike the mountain and rainbow trout which go to the headwaters for the spawning season. The brook trout spawns in November, the eggs hatching during the winter months, even under the ice. The young fish coming out early in the spring have the advantage of a substantial growth before going into winter quarters, when they are large enough to escape from the attacks of other cannibalistic fishes that might otherwise destroy them. Another point of value lies in the fact that eggs of this fish are not as subject to freshets that wash the eggs ashore, where many of them are destroyed or become

BROOK TROUT.

COURTESY OF THE UNIVERSITY OF CHICAGO

worthless. Still another point of difference between the brook trout and others of this family, lies in the established fact that the brook trout will not cross with the mountain or rainbow trout, owing, perhaps, to the time of year at which the spawning occurs. The flesh of the brook trout is as dainty and delicious as any fish that swims, and this variety is especially desirable for propagation because, always remaining where first planted, it can be caught in July and August when other members of this popular family are at the head waters, spawning. Many a time, on the broad stream, a fisherman is heard to say, "Let's go up to the head of the stream and get some of the red fellows;" but, as a matter of fact, few, even among experienced anglers, understand that the distinctly rosy tint found in the flesh of the trout or the red color on his underside, is due to the diet consisting of very small shrimp. Up the stream, toward its head, grow masses of heavy sod and water cress. Underneath, among the roots, are thousands of these tiny red animals, which are considered a great delicacy by the trout, and they feed upon these diminutive creatures with supreme delight. In the lower waters this food is not found as abundantly and the trout loses the bright red coloring.

The mountain trout is a native of the rocky mountain region, and by many sportsmen is considered the chief of his tribe, for both food and qualities of gameness. In habits this most popular fish differs little, if any, from the rainbow, as they spawn during the same month of the year and seek the headwaters for that purpose. These two varieties cross very readily, so that it is difficult now to find these distinct species, except at the hatcheries, where, of course, they are kept carefully separated for breeding. It has become a well known fact to all students of fish life and culture, that crossing is beneficial. The same effect is produced as in the human and animal kingdoms, where it is now fully understood that interbreeding begets a stunted and less vigorous progeny. Before the introduction of the rainbow and mountain trout from other waters into the New Mexico streams it was a rare catch that landed a trout that exceeded four pounds in weight; the constant interbreeding had tended to decrease the size, but with the introduction of trout from streams in other sections there has been a decided and very noticeable change in the size and condition of these fishes in our waters. The interbreeding of the rainbow and mountain trout has had the same effect.

The rainbow trout, like other members of his tribe, is a thing of beauty and a joy forever, growing to a larger size than any other member of the mountain trout family. Within the last few years rainbow trout have been caught in large numbers, weighing from five to seven pounds and a few have tipped the scales at ten pounds. This trout is not a native of the rocky mountain region, but was brought here for trial and has thrived luxuriantly. When crossed with the mountain trout, the result gives a splendid fish for mountain streams,—very gamey and a great table delicacy. These two species of fish, spawning during months of June and July, travel many miles to reach the headwaters for this purpose. The frequent freshets during summer months and the destruction of the eggs from lizards, snakes and other enemies, necessarily greatly decrease the number of young

ALONE WITH NATURE.

fish that would otherwise find existence in the water, as but few of the eggs can reach maturity. This is partially due to the fact that the rainbow and mountain trout leave the spawning ground after depositing the eggs and then return to their former haunts. From these conditions it is readily seen that it is absolutely necessary, in order to keep our streams well stocked, to make good the loss by replacing fish fry or fingerling in the streams that are depleted through natural and unavoidable agencies. It is a well established fact that 95% of the eggs taken from fish and placed in the state hatcheries are successfully hatched, while only 10 or 12% of the eggs laid in the natural way in the mountain streams reach maturity. No stronger argument can be advanced to establish the necessity of restocking our streams each year with trout from hatcheries. "The demand for fish, either for food or sport, can no more be supplied by the natural increase than the demand for fruit can be supplied by the wild natural growths." Nearly all our states, realizing this fact, have established state hatcheries which are being operated with such success that the plan of establishing this important branch of state service has never been dispensed with in any state.

New Mexico having no hatcheries, we are necessarily compelled to depend on securing our fish from the government and by purchase from private hatcheries. It is for the legislature to determine whether it is desirable to build a state hatchery for stocking our streams, and it is well to consider the question on all sides when it comes up for serious consideration. The management and conduct of a fish hatchery demands experience, skill, and judgment on the part of the person who may be in charge, as indifferently conducted, a hatchery would be of no value to the state, and would be but a constant drain on the treasury, with no results.

The National government has been very friendly and liberal, having furnished for planting, to this department and to individuals, during the years 1910 and 1911, as shown in a detailed statement on another page of this report, 9,589,000 trout and 16,265 of all other kinds of fish. In addition, during the same period, I have purchased and planted 1,513,300 trout fry. The demand for fish, and especially the trout family, is growing greater each year, and naturally the price is constantly going up. Orders must be placed during summer and fall when eggs are taken for future delivery in order to secure them. I therefore placed an order for 500,000 trout fry for spring delivery of 1912.

The dynamiting of fish is one of the most inexcusable and pernicious practices indulged in by those who, lacking the spirit of the true sportsman, would procure fish in any manner and regardless of legal and just restrictions. So reprehensible is this practice regarded, that in some states it has been made a felony. This despicable offense should be punished by a penalty so severe that no one will hereafter have the temerity to indulge in it.

Young fish can be shipped almost any distance with proper care, and when judiciously planted, will nearly all live. Nothing lessens the vitality of trout so much as careless handling in transit, or afterward planting in water either much colder or warmer than that in the cans, or where the water is too deep, or the current too strong.

In case the distance from the station to place of planting* is more than three or four miles, or if there is any delay in transit, sufficient ice should be provided and placed in the cans in small quantities from time to time, to keep the temperature of the water about the same as when received. In case the water where the fish are to be planted is known to be warmer than that in the cans, the temperature should be equalized before planting. The temperature of the water should be kept substantially the same as when received, and the wagon kept in motion, but if a stop exceeding ten minutes is made, the attendant, having provided himself with a long-handled dipper, should, every few minutes, dip the water from the cans, pouring it from a height of a foot or more, to thoroughly aerate the water. This is better than a change of water.

At the time of planting there should not be more than three degrees of difference in the water in the cans and that in which the fish are to be planted.

This equalization can be effected by dipping the water from the stream or lake and pouring it into the cans until the temperature is about the same in both. This gradual change will have no ill effect on the fish. A thermometer is desirable but not necessary as the equalization can be tested by the hand.

In planting, pour the fish gently from the cans, if possible in channels or bayous where there are grass or willows, as the fish will then be in less danger from larger fish or birds.

I also wish to call attention to the necessity of having screens or paddle wheels placed at the head of irrigation ditches. So important has this matter become, in the estimation of those interested in this subject, that at the meeting of the American Fisheries Society, held last October in St. Louis, the following resolution was introduced by W. T. Thompson, who is connected with the U. S. biological survey, and adopted:

"This society deplores the large and increasing destruction of valuable food and game fish in the ditches of irrigation systems.

"Recognizing the recent and future great increase in irrigation projects of our nation, and the certainty that this loss will be largely augmented thereby, we urge upon the attention of state officials and legislative bodies in regions where irrigation is practiced that they spread knowledge of the means by which said loss may be averted and provide by a statute for the introduction of such apparatus at the intake of ditches and canals that the descent of fishes into these artificial channels may be prevented.

"We deem this of great importance, not only that the sums devoted by the state and nation to the propagation and culture of fish should bring adequate returns, but also, that so attractive a feature of outdoor recreation and sport, also so valuable a food material may be conserved for the people for its proper use."

The matter of the distribution of fish presents a problem that is, often times, most difficult of solution. The demand always exceeds the supply and an equitable distribution is not always possible, however desirous the warden may be to exercise absolute impartiality. I have endeavored to make proportionate assignment of trout fry, and in numerous cases I have planted them in places where I

thought they were most needed, even though no application was made therefor by any person in that immediate locality.

These facts clearly demonstrate that the opportunities for those who enjoy the sports afield are unsurpassed, and that the pleasures offered to the sportsman here are without limit.

OUR BIRDS.

In addition to the game birds in New Mexico, we have an almost endless variety of birds classed as "non-game," including songsters and insectivorous birds, which are rigidly protected under a law enacted during the legislative session of 1901. We can scarcely overestimate the value of these birds. Aside from their beauty and attractiveness, they are a positive benefit in the protection they give to crops, trees, gardens and all vegetation, by destroying the insects which infest them. I am in favor of the most rigid enforcement of the law which protects these birds.

It is a question if it would not be wise to shorten the season on turtle doves, if not indeed, to give them the benefit of a closed season, as is already done in twenty-six states. This lovely, harmless, and useful bird, trusting and friendly as it is, should not be put freely on the block for slaughter when the black bird and the crow are given the protection of the law. The turtle dove is a positive benefit, coming about the door yard, nesting in the orchard, and hunting out the wild seeds in the fields and waste places, destroying insects, but never injuring the grain crop nor devastating the product which is the result of so great toil. The reckless killing of this gentle creature should be at least curtailed if not prohibited altogether.

We quote the following paragraph from a booklet issued by the American Game Protective Association:

"This country stands today at the parting of the ways in the matter of field sports. It faces today the question whether free shooting shall continue or whether the European system of preserves and posted lands is to become universal."

The Albuquerque Morning Journal of January 8, 1912, adds these very pertinent paragraphs:

"Aside from the interest which all right-minded people will have in the preservation of harmless wild birds and animals, the question has a most practical financial side. It is estimated that between \$250,000,000 and \$300,000,000 damage is done annually to the crops and forests of this country by insects. The sole and only reason for the increase of these insects is the destruction of the birds and other animals which are intended by nature as a check on insect life. The birds eat not only the insects, but the eggs and larvae and the number of insects which a single bird will dispose of in a season is enormous. It has also been proven that the destruction of the bird means a great increase in various sorts of obnoxious weeds, the seeds of which would otherwise be eaten by the birds.

"There are many beautiful and valuable species of birds which have been

completely exterminated by reckless shooting and many other kinds which soon will be unless prompt action is taken. The legislation advocated by the American Game Protective association is moderate and much needed. It is to be hoped that the association will succeed in arousing public opinion on the subject before it is too late."

The turtle dove is a migratory bird. It has been advocated by sportsmen and hunters, that for this reason it should not be protected. It must be admitted that many of our migratory birds are fast disappearing, some of them being almost extinct. Among these are the wild goose, canvass back duck and snipe, of which there are numerous varieties. There should be a national law enacted, protecting all migratory birds during their mating and nesting time, with a closed season, on some of them. This, I believe, will be eventually accomplished.

QUAIL.

No bird classed in the game catalogue is more fascinating, pleasing and cleanly in habits than the cheery, beautiful, dainty quail. This bird belongs to a very large family, the members of which often vary but slightly in habits and appearance, though they are placed in different classifications, and bear distinct names. The quail most known and most numerous in New Mexico are the blue mountain which abound in the northern portion of the state, and the Gambel, sometimes called the California, which is found more numerous in the southern portion. The Gambel is a handsome bird, the head being adorned with a jet black recurving crest, and marked on the flanks with a bright chestnut, streaked with white. This quail is one of the most conspicuous and charming forms of desert life, and quickly repays favors received, by becoming semi-domesticated. There is something peculiarly attractive about this species of quail, adding, as it does, a touch of animation to the lonely stretch of mesa, and it is a most winning little figure as it struts daintily out across the road, with its feathered top knot nodding with every step. In 1910 and 1911 I had trapped in southern New Mexico, 2,306 Gambel quail, exchanging some of them with other states for bobwhite, and distributing the balance in the northern and eastern counties, where none of this variety had heretofore existed. It has been clearly demonstrated that they are non-migratory, remaining in the neighborhood where planted. They have proven, also, to be very prolific breeders.

All reports coming from deputy game wardens throughout the state show that quail are more abundant than they have been for a number of years past, the only exceptions being in the counties of Luna and Grant. Just as the devotee to the rod and reel waits for the opening day of the fishing season, when he can thresh the trout stream with the flashy fly and play the speckled beauties until at last landed on the grassy bank, so the sportsman, whose delight is with the gun, greets buoyantly the day when, unhampered by the game laws, he can listen for the joyous call of the bonny quail, and tramp the hills and woodlands in search of this comely bird. This graceful and beautiful member of the quail family is naturally coy and timid, protecting himself from those predatory animals which

FROM COL. F. M. WOODRUFF.

GAMBEL'S PARTRIDGE.

(*Callipepla gambelii*).

$\frac{1}{2}$ Life-size.

AMERICAN COURTESY, L. D. & N. Y.

are his constant and alert enemies by roosting in trees, but during the day he haunts the lands near farms, in the fields and bosques.

The blue mountain quail is found more on the open mesa, hiding under the malpais, cactus and sage brush. Both these species of quail which abound in New Mexico, are much sought after by the sportsman who finds no greater pleasure than in a full bag at the close of a day's hunt. The law on quail is, with gun only, October 1st to December 31st. Limit: thirty in possession at one time.

The bob white is distinctly an American bird and he has a popularity that is nation wide. Famed for his beauty and sought as a great table delicacy, the bob white has no rival among the game birds, being of great economic value as well, as his food consists of seeds and insects and he seldom does any injury to crops.

Bob white is a handsome fellow with his white throat and showy golden brown feathers, distinctly marked with lines of black and white, with ash colored tail. This bird has about him a most fascinating quality and seems to bear an atmosphere of cheer. He is naturally affectionate and can, with care and proper treatment, be domesticated, though of course, he is at his best in his favorite and native haunts. There are scarcely any among the smaller game birds possessing the peculiarly attractive qualities that belong to this charming member of the bird family. The bob white has been very little known in New Mexico heretofore, not being a native to this locality; but realizing the fact that he is a great favorite among sportsmen, and being satisfied that he would thrive here, if given a chance, I imported a few, during the year 1911, having exchanged them for our native quail, the laws prohibiting the shipping of game or game birds out of most of the other states, except in exchange for other game birds. The price of the bob white, purchased from game bird breeders is so high, as in the case of pheasants, that I have not deemed it wise to procure them through this channel. The few that have been brought here, through the medium of exchange, give promise of doing well, and under the protection given by the game laws, I have reason to expect a rapid natural increase, so that in the future his cheerful note will become one of the delightful features in the fields and woodlands of the state. The bob white is protected until March 18, 1914.

PHEASANTS.

The price of pheasants, ranging from five dollars for English, and forty dollars for Mongolian, per pair, has seemed to me almost prohibitive and I have not deemed it wise to go extensively into the purchase of these birds, though their beautiful plumage renders them unusually attractive, and their position in the world of game birds has made them extremely popular. However, by way of experiment I purchased, last year, thirty-one pheasants and intrusted them to the care of Captain M. S. Murray of Roswell, deputy game warden, who built breeding pens, purchased some bantams, and is endeavoring to raise them for distribution. The success achieved by Captain Murray, and the present condition of these birds is indicated in the following letter written August 9th, 1911:

"Mr. Thomas P. Gable, Game Warden,

"Santa Fe, New Mexico.

"Sir:

"In reply to your letter of 7th inst. I would state that the pheasants that were purchased for the purpose of propagating in this section of the country: All the birds purchased are still living and in good health. About fifty young birds were hatched, and apparently in good health.

"The hatch was much longer in coming than in other parts of the country where 23 or 24 days are required, usually. Some of those here required 29, 26 and 28 days. In addition, I believe they require more of a range to wander over than I have at present. I am practically convinced that the best way is to turn the birds loose in the mountains and let them get next to natural conditions. * * * * I am convinced, however, that this is the place for them, especially in the mountain country, as feed is abundant and shelter good. There are several places about here where a pen could be turned loose next spring and allowed to do for themselves. This, I believe, is the solution, as far as I can see at present. Other parties here who invested in the same variety, have not had as good success, not even hatching a chick, the eggs not being fertile. I regret that a better showing could not be made, but I have not lost heart. I believe next year, when the birds are acclimated, they will do much better.

"Very respectfully,

"M. S. MURRAY."

The following letter from William French of Cimarron, bears out the belief of Captain Murray that pheasants should thrive in New Mexico, and eventually become a popular game bird:

THE W. S. RANCH

Cimarron, New Mexico, Colfax County.

"Thos. P. Gable, Esq.,

"Territorial Game Warden.

"Santa Fe, New Mexico,

"Dear sir:

"Replying to your letter of January 4th, would say that I turned fifty pheasants loose here on the Ponil about ten years ago, twelve males and twenty-eight females, as near as I can recollect. There are still quite a number around this neighborhood, principally on the Cimarron river, as I think they do not like it where the brush is too thick for them to fly out. There are some on the Ponil, but not so many as on the Cimarron. Of course, they have a great many enemies, both human, as well as wild animals, but they have done well enough to show that when they are protected for a time they will increase and do well in this country.

"Yours very truly,

"WILLIAM FRENCH."

The pheasant is protected until March 18, 1914. I have also purchased and released twenty-two guineas during the past year, as an experimental trial in furnishing a new game bird in the state.

GROUSE.

The grouse is an inhabitant of the transcontinental coniferous forests from the northern border of the United States, east of the Rocky Mountains, to Labrador and Alaska. The male is an especially handsome bird, the markings being very distinct, and in the spring the brilliant red combs above the eyes add to the beauty of the cock as he struts along the trunk of a fallen log and drums in a peculiar way, similar to the eastern partridge. This grouse nests in May or early June and lays about a dozen buff colored eggs, handsomely marked in chestnut and brown. This grouse is strictly a bird of the forest, and does not appear at any time, to come into contact with agricultural products. The flesh of this bird is highly flavored, tender, juicy and regarded with great favor, but, as often happens with all game birds, the flavor of the flesh of the grouse, at certain seasons, is affected by the character of its diet.

ADIOS.

In some respects the grouse is a difficult bird to protect as he takes no precaution in protecting himself. Of one peculiar trait possessed by the grouse, Hon. Theodore Roosevelt writes:

"The mountain men call this bird the fool-hen; and most certainly it deserves the name. The members of this particular flock, consisting of a hen and her three-parts grown chicks, acted with a stupidity unwonted even for their kind. They were feeding on the ground among some young spruce, and on our approach flew up and perched in the branches, four or five feet above our heads. There they stayed, uttering a low complaining whistle, and showed

not the slightest suspicion when we came underneath them with long sticks and knocked them off their perches."

The grouse in New Mexico are becoming more plentiful owing to the rigid protection, largely due to the careful attention of the deputy wardens, assisted by the forest guards. The law on these birds is, with gun only, October 1st to December 31st of each year.

PTARMIGAN.

This bird, now fast disappearing, is naturally a dweller of the colder climes, and is found more numerous still in Alaska and the mountains of British Columbia. It ranges, to some extent, however, as far south as Colorado, and northern New Mexico, though seldom seen, and is regarded as sufficiently in the novelty class to be pointed out to tourists as one of the sights seen only in the west and far north. "The ptarmigan breeds in the higher altitudes, even reaching a height of 13,500 feet and often wanders to the lofty summit peaks one thousand feet higher. They nest early in June, and in winter they descend to the lower altitudes when the sexes separate into different flocks. The food of the ptarmigan consists largely of buds, insects, some kinds of flowers and sometimes small beetles." The flesh of this bird has never been considered of the choicest class, though it is said to be quite palatable. The ptarmigan, which is a trusting creature, takes no precaution in protecting itself, and is given the benefit of the closed season.

WILD TURKEY.

This splendid bird, distinguished as our biggest game bird, is designated under our license law in the big game class.

The following quotation from a bulletin, issued by Sylvester D. Judd, assistant in the biological survey, sets forth clearly the condition of the wild turkey at the present time and the cause of his elimination:

"The wild turkey, our biggest game bird, was formerly abundant over a wide area. It has been exterminated throughout much of its former range, and unless radical measures are taken it will become extinct in a few years. In early colonial days it was numerous in Massachusetts, coming about the houses of the settlers in large flocks. It is now totally extinct in New England. It is hard to realize that at the beginning of the nineteenth century turkeys were so abundant that they sold for 6 cents apiece, though the largest ones, weighing from 25 to 30 pounds, sometimes brought a quarter of a dollar. A big wild turkey nowadays would not long go begging at \$5. It is their value as food that it made it worth while to hunt turkeys to the very point of extermination. So-called sportsmen go out in the late summer ostensibly to shoot squirrels, but really to pot turkeys on the roost. Another practice is to lie in ambush and lure the game by imitating the call note of the hen in spring. The writer has personal knowledge of such methods of hunting in Virginia and Maryland, and they are largely responsible for the extermination now imminent. Trapping turkeys in pens—a very simple matter—has also accelerated the destruction of the species."

As with our tame turkey, the raising of the young wild turkey presents many difficulties as the chicks are very delicate and exceedingly sensitive to the wet. Audubon says, that during wet weather they are fed by their mothers with buds of spice brush much as human youngsters are dosed with quinine.

When the young wild turkeys are two weeks old they roost on low branches with the mother, as by the time they have reached this stage they have passed many of their early ills.

The condition of the wild turkey in New Mexico is most excellent, and they are

WHO WOULDN'T BE A BOY AGAIN?

increasing rapidly at the present time, now being very plentiful in the mountain districts.

I have reports from reliable sources that as many as one hundred and fifty wild turkeys have been seen together at one time this season in Rio Arriba county, where they are said to be found in great numbers. They are appearing, as well, in districts where they have not been seen for many years past.

Of course, the wild turkey is still, as he has always been, the prize for which the huntsman seeks with the greatest zest, and he holds his place without fear of rivalry, on the festal board; neither Thanksgiving nor Christmas being considered properly recognized without the presence of this cherished viand as the piece de resistance. If he is of the wild variety his value is greatly enhanced.

The food of the wild turkey is both animal and vegetable, the latter predominating; though nothing seems to be quite so satisfying to the turkey appetite as grasshoppers and crickets, but berries, seeds and nuts are not scorned. Even where wild turkeys are plentiful they have not caused any trouble to the ranchman or farmer by feeding on their grain. The flavor of the flesh of the wild turkey is often affected by their diet, as during certain seasons, when eating berries, especially the juniper, it becomes so strong that it cannot be eaten with relish. The flesh is most palatable when the turkeys are feeding on acorns and pinon nuts. The game law on wild turkey is: with gun only, November 1st to December 31st of each year. Limit: four in possession at one time.

THE PRAIRIE HEN.

This attractive and alluring bird is, I am much pleased to report, growing more plentiful in New Mexico, being found most numerous in Guadalupe and Curry counties. They have evidently drifted over the line from Oklahoma, driven out, it is presumable, by the encroachment of settlers as the farm lands were gradually taken up. In former years the prairie hen was very plentiful in Iowa, Kansas and Missouri, and even in the eastern states; but now is very rare east of the Mississippi, though everywhere they are being most rigidly protected, the open season being very short, even where their hunting is permitted at all. The prairie hen is very highly regarded as a table delicacy, the flesh being dark and having a most delicious flavor. Many sportsmen declare that there is no better sport than chicken shooting, as this bird is unquestionably one of the noblest of our game birds. This fowl is not as swift of flight as the bob white or ruffed grouse, and his preservation is more difficult than that of the former, as that beautiful game bird is far more prolific than the prairie hen, and does not require so extensive a range. Like every other bird this pretty denizen of the prairie has its own peculiar characteristics. "During the nuptial season they assemble at daybreak each morning on little mounds and hillocks, where the cocks strut about with drooping wings, the large orange colored sacs on the sides of the neck fully inflated, while at intervals they lower their heads and give forth a strange, booming love note that can be heard a mile away. It is one of the most welcome and striking of all the notes that go to make up the spring bird chorus. As a rule but one brood is raised in a season, and the young leave the nest as soon as hatched and run about in search of food."

No food seems as acceptable to the prairie hen as the grasshopper, any kind being agreeable, and this class of food is varied by consuming beetles and some miscellaneous insects, together with a small amount of vegetable matter. One notable feature of this fowl which makes it of especial value to the farmer lies in the fact that it is a consumer of those pests which are injurious to the farm and garden. On this account the farmers of the east have greatly missed the prairie hen as it became extinct in those sections where once it thrived. Efforts are being made among them to establish measures for its reintroduction and protection. However, in the winter when snow covers the ground, it visits the cornfield as a favorite place for securing sustenance. The law protects the prairie hen until January 1, 1915

PRAIRIE HEN.
(*Tympanuchus americanus*).

THE CROW.

The crow is now protected along with other non-game birds, but in my opinion is unworthy of this consideration. In some states the crows have become so destructive that the government receives their heads in lieu of taxes, at a small given price. Two serious charges are made against the crow, as regards its relation to other birds, in that it destroys the eggs and young of domesticated fowls and is even more destructive to those of wild birds. The testimony of observers is abundant and unimpeachable regarding these charges. Dr. John D. Godman, after years of careful observation, mainly in Anne Arundel County, Maryland, says:

"Where food is at any time scarce, or the opportunity for such marauding inviting, there is scarcely a young animal about the farmyards safe from the attacks of the crow. Young chickens, ducks, goslings, and even little pigs, when quite young and feeble, are carried off by them. They are not less eager to discover the nests of domestic fowls, and will sit very quietly in sight, at a convenient distance, until the hen leaves the nest, and then fly down and suck her eggs at leisure."

Crows are also very destructive to corn, the evidence being voluminous and conclusive. In addition to destroying corn in the milk, crows are fond of pulling the sprouting leaves, often causing very great damage to the fields of the farmer, who has come to regard this freebooter as a dangerous enemy. In my judgment the common crow should be taken from the list of protected birds.

OUR VANISHING SHORE BIRDS.

Regarding these birds, W. L. McAtee, assistant biologist, says:

"The term shorebird is applied to a group of long-legged, slender-billed, and usually plainly colored birds belonging to the order Limicolæ. More than 60 species of them occur in North America. True to their name they frequent the shores of all bodies of water, large and small, but many of them are equally at home on plains and prairies.

"Shorebirds have been hunted until only a remnant of their once vast numbers are left. Their limited power of reproduction, coupled with the natural vicissitudes of the breeding period, make their increase slow, and peculiarly expose them to danger of extermination.

"In the way of protection a beginning has been made, and a continuous close season until 1915 has been established for the following birds: The killdeer, in Massachusetts and Louisiana; the upland plover, in Massachusetts and Vermont; and the piping plover, in Massachusetts. But, considering the needs and value of these birds, this modicum of protection is small indeed.

"The above-named species are not the only ones that should be exempt from persecution, for all the shorebirds of the United States are in great need of better protection. They should be protected, first, to save them from the danger of extermination, and, second, because of their great economic importance. So great, indeed, is their economic value, that their retention on the game list and their destruction by sportsmen is a serious loss to agriculture."

BIG GAME OF NEW MEXICO.

Of all the big game found in the west the elk stands supreme in a class by himself. New Mexico has not known this noble specimen of the antlered tribe for many years, though formerly it was known as the elk's home. When the Indians roamed and hunted at will through this great hunter's territory, and held the lands as their own, as a supposed right of inheritance, they ruthlessly slaughtered the elk, and with no opportunity for natural increase, they were finally eliminated entirely from the confines of New Mexico. Even today the horns of this splendid animal are found in the mountain ranges, which is conclusive evidence that elk were formerly abundant in this region.

This imposing and kingly animal, often designated as the "Monarch of the Glen," is not surpassed for beauty and majesty in the game animal kingdom, New Mexico is the natural habitat of the elk, as the winters are not so severe, the feed is abundant and the range unlimited. The climate in this state is in strong contrast with that of Wyoming and other states of the extreme north, where elk abound, and where the long, severe winters, with deep snows, are most disastrous. From the Jackson Hole region, Wyoming, come most pitiful stories of starving elk, where, because their food is covered by the abounding snows or withered by drought, the poor creatures have died in great bands for lack of sustenance. The legislature of Wyoming appropriated money to buy food for these starving animals; likewise, the congress of the United States appropriated a large sum, and the farmers gave liberally of their supply of hay, but in spite of these efforts to aid and sustain them, the elk died, literally by thousands from actual starvation.

In the above named state where they are most numerous, elk are regarded as a valuable asset to the commonwealth, from a purely financial standpoint, as no animal is more attractive to the hunter after big game than the elk, and those coming from distant points from year to year, run into large numbers, more than willing to pay the non-resident hunter's fee of \$20.00. The habits of the elk are not generally known, yet make an interesting study. The bull elk shed their wonderful antlers each year, usually beginning about the first of March, though sometimes they are shed much earlier, and others carry them till May. During the period of shedding and while the new horns are growing the bulls assemble in bands, remaining entirely apart from the cows. Later on, about the last of September, when the horns are fully grown, a complete change comes over them and their gentle nature develops into one at once belligerent and irascible. At this time many a battle royal takes place between rival bulls, and the mountains echo with that peculiar whistle which ends with a deep roar. It is then that each bull endeavors to gather into a herd all the cows he can induce to follow him. Any interference with a bull at this time by any rival means a terrific fight. One characteristic of the elk is that they have no fear of dogs or coyotes, as they kill them by striking them with their front feet.

Realizing the importance of stocking our forests with these superb animals and recognizing the natural conditions so manifest here, I purchased with monies derived from the game protection fund, twelve head of three year old elk, in Routt

THE ELK.

As They Appeared When Brought Into New Mexico, May, 1911.

A Snap-shot of a Portion of the Same Band on Their Range, Near Cimarron,
November, 1911.

county, Colorado. This purchase included nine cows and three bulls, which I divided into three separate bands consisting of three cows and one bull each. One of these bands was released in Red River canyon, about fifteen miles north of Raton; a second in Gallinas canyon, twelve miles northwest of Las Vegas, and a third in the Cimarron canyon in Colfax county.

On the accompanying pages will be found a picture of these elk when received by me, and a second showing the present condition and appearance of the bunch which I released in the Cimarron canyon. It will be of interest to note the comparative appearance as shown in the picture when the elk were received in May and again when the second picture was taken in November, 1911. The raggedness and depleted condition in the one is in strong contrast to the splendid, flourishing appearance in the other. A close inspection of the larger picture will disclose two knobs on the head of the male elk where the horns are just beginning to grow, while in the smaller picture they are seen in full maturity, each prong indicating one year's age.

The accompanying letter describes the condition of one band of these elk at the present time:

THE URRACA RANCH.
Cimarron, New Mexico.

"December 16, 1911.

"Mr. Thomas P. Gable,

"Santa Fe, New Mexico.

"Dear Mr. Gable:

"I take pleasure in enclosing herewith several very good pictures of the band of elk which I have on the Urraca Ranch. These elk are doing splendidly and the two calves which were dropped shortly after their arrival are almost full grown. I find these animals very thrifty and not at all hard to handle. The bull, as you will observe, has become a splendid specimen. It is my opinion that if elk are imported to this section of New Mexico and held a sufficient length of time to become thoroughly acclimated and located, they will make no further effort to wander from this range and that it will be an easy matter to restock the ranges of the state which are adapted to their mode of living.

"I think your step in this direction is one of the best things ever done by any game warden that we have ever had. It will add immensely, in years to come, to the attraction offered new settlers and sportsmen to the state. I take pleasure at this time also in stating that as a result of your willingness to freely appoint game wardens in this section the game in this vicinity has been well protected and is remarkably on the increase. Both turkey and deer have been plentiful in this section this fall. Although I have been a careful observer, I have discovered no extensive abuses of the law. I think the system which you have established is good and I wish you at this time every success

in the efforts you are making to protect and advance the game interests of the new state.

"With the season's best wishes, I remain,

"Very truly yours,

"GEO. H. WEBSTER, JR.

W. H. Bartlett, proprietor of a big game preserve in Vermejo Park, has probably twenty-five or thirty head of elk, and Judge A. B. Fall reports that five head have been seen in Otero county, located in Indian Creek canyon, which is one of the branches of Three Rivers. It is not known how these elk came to be in this locality, nor from whence they came.

All of the elk released are in excellent condition, six calves having been born, and all are thriving finely. It is my desire and hope to secure from Wyoming at least two carloads of elk for distribution in other parts of the state.

The game laws of New Mexico make a closed season on elk.

THE DEER.

In respect to deer, I take great pleasure in reporting that these graceful, handsome, winning animals are certainly increasing rapidly, the numbers at present being far in excess of those for many years past. This is due, without doubt, to the more strict enforcement of the game laws, compelling a cessation of wholesale slaughter, the destroying of deer blinds and salt licks, maintained in districts where deer abound, and to the watchfulness and energy of the deputy game wardens who have had the hearty co-operation of the forest officers.

There is no more popular nor seductive sport offered the huntsman, than that afforded by the annual camp in the woods and mountains, where, gathered about the roaring night fire, weired tales are exchanged of past experiences, and hopes expressed for good fortune on the morrow. Perhaps there is no pleasure more alluring to the real lover of outdoor life than he finds in those hours of relaxation, far removed from care, anxiety and responsibility, when, with an untrammelled spirit, he can give free rein to pleasure and enter, without restraint, into the excitement and exhilaration of the chase. It is a pleasure to know that the state of New Mexico offers splendid opportunities of just this nature to the true sport lovers both at home and abroad.

One point to which I would call attention in the game laws, is that relative to the killing of deer with horns. This is an excellent provision and should be retained. It is protective in a further sense than to the game, being as well, a saver of human life. The killing of hunters has become a very serious matter in other states, during the deer season, and any provision of law that offers such protection is worthy of retention. In looking for deer in the woods, the huntsman is liable to become excited at the least noise and shoot without investigating, taking it for granted that he has a deer. If the law compels the hunter to discriminate between a buck and doe, he will stop long enough, at least, to find out what he is shooting at, and in that hesitation, lies the protection afforded by this law. Year by year the number of people killed and maimed by careless hunters is steadily on the

SATISFIED.

increase. The reports from game wardens in various states are fairly startling. In a recent season the total number of accidental deaths reached seventy-four, with seventy persons injured, some of them so seriously that death was likely to result. Any law that has a tendency to lessen this dangerous evil, can but be salutary in its results.

THE BEAVER.

Undoubtedly, the majority of people in New Mexico are of the opinion that the beaver is practically extinct in this state. As a commercial factor it is true, that the beaver ceased to exist some years ago, but it does not follow that this interesting and industrious little animal should pass entirely from those localities which he has so long known. The beavers are as prolific as muskrats and in former years were very abundant, before the entrance of the trapper who sought him for the value of his fur, which constitutes the beaver's chief worth; but he has other economic uses of great importance, as well. His practice is to construct extensive dams at the head of streams, thereby forming ponds, which make fine resorts for trout, and in a rainless season, when drought prevails, these ponds become available for irrigation purposes.

In building these dams the beavers display almost human intelligence, as they prepare their material by cutting down cottonwood and quaking aspens, going always above the dam site for these logging operations, and cutting the trunks through with their marvelously strong teeth which are as effective as a saw. They then float or drag the logs down to the point where the dam is to be constructed. After placing the larger logs they chink in the spaces as, in early days, the pioneer used to chink his log house. Recently on a trip of investigation which was made in answer to a complaint charging damage done by beavers, I found a great many pieces of young timber, cut in lengths of from two to four feet, piled on the bank of the stream to be used by these cunning mechanics in the chinking process, when constructing the dam. They lay these small pieces between the large logs, and plaster in the mud, using their tails as trowels.

The dams themselves cause no particular damage, but are really a benefit except in case of floods caused by extended rainfalls or melting snows which cause the water to rise to the overflowing point, when, in many instances, the adjoining lands are submerged and frequently the channel of the stream is entirely changed and valuable lands and crops are destroyed. In streams of the size and character of the Rio Grande the water is too swift and floods too numerous. I presume, for the operation of the beavers, as they have not made any attempt to construct dams there. However, there are a great many beavers on this stream from the neighborhood of Belen to Embudo. They burrow in the bank and build homes, where they rear their families, living on cottonwood and willows found in adjacent territory. In places where they have exhausted their favorite food they have become quite troublesome and destructive by attacking orchards, the bark of the apple trees being especially favored. I have been requested to issue permits for the trapping of beaver in several instances where orchards were being destroyed, and have not hesitated to give the permission requested, as I regard one

apple tree ten years of age as of more intrinsic value than a whole colony of beavers.

While beaver are more numerous in Colfax county, due to the protection given by the ranch owners who realize their benefit as storers of water, yet they are also found in large numbers in Taos, Rio Arriba, San Juan, Lincoln and San Miguel counties.

It is probably true that occasionally applications have been made by parties for the capture of beaver for the purpose of using the fur only, but in each case I have endeavored to ascertain definitely the conditions and facts from direct evidence, either by personal investigation or by reports from deputies before issuing a permit.

GENERAL OBSERVATIONS AND RECOMMENDATIONS.

It is the general purpose of the game and fish laws to protect the wild life in our forests, streams and woodlands from reckless slaughter and eventual annihilation. Not long would these beautiful, charming and valuable auxiliaries to our state's attractiveness and prosperity be left to us were the strong, protective edicts of the law erased from the statute books.

It is the highest duty of those entrusted with the execution of the law to prosecute without fear or favor those who wilfully violate it, and to use every endeavor not only to protect our defenseless wild game and fish from destruction, but to retain what we already have and prevent its depletion by constant restocking and adopting methods of propagation.

In the earlier days, when the protection of game and fish was first considered, and experimental methods were being tried, the whole matter was lightly regarded, and not deemed to be of much importance. As the subject was forced upon the people by the constant and rapid decrease of wild game, the question of protection and propagation assumed a grave significance and the sentiment has grown steadily, until now the department of game and fish is regarded in most of our states as second to none in importance. Touching this phase of the subject, I quote from the report of Jesse A. Tolerton, game and fish warden of Missouri, giving a synopsis of the speech of Dr. T. S. Palmer, in charge of National game preservation, Washington, D. C. The speech was delivered at a gathering of state and federal officials at the fifth annual convention of wardens and commissioners of the United States. The quotation is as follows:

"Dr. Palmer maintained that for the best results the system should be put on a basis where it would work automatically, even if the head suddenly resigned or was incapacitated for service for any reason. He advocated the building up of a body of men who give their whole time to the work. *Game warden should be a profession, not a job*, and that the position should be taken out of politics, as the subject was large enough and broad enough to require the best energies and the greatest amount of knowledge that could be put into it. Each state must learn of other states and foreign countries. Even South Africa leads America in some problems of game protection."

Further, on this subject we quote from Commissioner Kelly Evans, a distinguished authority on game and fish, as follows:

"Under the stress of modern civilization the jack-of-all-trades is rapidly being replaced by the specialist in every branch of business and commercial life. It is not sufficient for a man to be a respectable citizen, with just enough knowledge of his profession to enable him to disguise his own incapacity beneath a veneer of self-assurance. To get on in the world, to make good, a man must know his gun—lock, stock and barrel; his business from top to bottom and inside out. The professional man grasps this, and attunes himself to the situation; the business man realizes it, and, as employer, demands it of his employees. Unfortunately, however, in the machinery for the enforcement of the regulations, designed to conserve for the people some of the natural food resources of the province, this most important fact seems to have been neglected, or, at least, overlooked.

"The organization of the outside service of the department of game and fisheries is not the creation of any one man or of one political party. It is, on the contrary, the child of circumstance, nurtured by the partizan spirit of political patronage, and handed down from one administration to another. Though of late years a very distinct improvement has taken place, the briefest study of the system will disclose the necessity for radical reform.

"That the men entrusted by the government with the enforcement of the law on its waters or in its woods should be expert sailors or woodsmen, as the case may be, and physically capable of discharging their duties, none will be found to deny; as likewise the fact that to employ those who are not, is, in the efficacy of its pecuniary investment, closely akin to casting gold into a bottomless pit. * * * *

"That a subordinate officer, entrusted with the enforcement of the game and fishery regulations over a district comprising many miles of lake and woodland should be 90 years of age; that an officer of the outside service, occupying a position of some importance, should generally have the reputation among persons in his district of being unused to the handling of a boat, and timid of venturing his person on the water; that a game warden should have no woodcraft, and be afraid to venture alone into the woods; that another should attach himself to a shooting party and indulge with them in the illegal destruction of game during the closed season—these are, to say the least of it, absurdities; and yet they are but few of the instances brought to the attention of your commissioners. * * * *

"In the selection of officers for the outside service of the department of game and fisheries it would seem that the principal general requirements to be looked for are good character and sobriety, health, energy, strength, fearlessness, tact, thorough knowledge of the game laws and fishery regulations, and education sufficient to read and write; and that, in particular, for the fisheries protective service, knowledge of the different fishes, knowledge of the waters to be patrolled; and, in particular, for the inland service, know-

ledge of the denizens of the woods, their characteristics and habits, should be considered indispensable attainments."

CLERICAL WORK.

The clerical work of this department since the license law went into effect has assumed such proportions as to surprise anyone who has not given attention to the matter. A complete change of system became necessary and on many occasions additional office help was required to keep up with the work.

There are at present 148 collecting deputies who issue licenses. Every book of licenses sent out must be charged to the party receiving it, and this involves the keeping of an individual and separate account for each license collector, and each month, as the monies from the sale of the same are sent to the state treasurer, he in turn informs us of the amount which must be credited to the individual account of the person remitting it. Each license collector is required to make monthly reports to this office, the number of licenses issued, and the amount of money remitted to the state treasurer, which report is compared and must balance with that of the state treasurer. The bookkeeping referred to above is but a small proportion of the clerical work necessary. Every license is made out in duplicate, from a written and signed application, the licensee receiving the original, the duplicate or carbon copy being sent to this office, while the application is retained by the deputy issuing the license. When one stops to consider that the issuance of licenses annually, is over ten thousand, some idea can be gained of the amount of work that is necessary to handle this part of the routine alone.

At the beginning of each year when it is necessary to send out the packages of licenses to county clerks and other license collectors the same must be weighed, addressed, and either expressed or sent by registered mail, and a receipt for same sent to each individual collector for his signature and return to this office. This, in itself, is no small undertaking.

The correspondence received by this office, and which must be taken care of, has assumed proportions scarcely believable. When the license system first went into effect, hundreds of letters of inquiry were received and answered, some of them requiring lengthy explanations relative to the new law, an average of fifty to one hundred letters being sent out daily for some time. It will be readily recognized that the keeping in touch with over three hundred deputies, to say nothing of the numerous inquiries from private citizens, both in our own and from other states, entails a very extensive correspondence.

MINORS CARRYING GUNS.

It seems to me quite proper at this time to call especial attention to the danger of allowing children under seventeen years of age to carry fire arms. The joke books have had a wide range of material for fun making over the "gun that wasn't loaded," but in reality, fire arms in the hands of irresponsible or careless persons, are a source of very great hazard. But, aside from the danger involved, there is another important consideration, and that is the deplorable destruction of our

bird life. It is safe to say that more song and insectivorous birds are destroyed by boys with twenty-two rifles than by all other agencies combined.

In connection with this subject of gun carrying, it is a question if the best method of licensing hunters is not by gun license in place of the present method. The revenue from the gun license would be increased over the present one, and it would have a tendency to check the killing of game out of season. For instance, if the warden discovered some chap out with a gun in the closed season, and would ask him what he was doing with his gun in the field, it is easy to imagine the answer, "I am out hunting rabbits." Or, if the game hunter was out during the closed turkey and grouse season, and were called to account, it is but natural to say, "I am hunting predatory animals." A gun license system would obviate this difficulty. Under such a method no minor could carry a gun without legal permission, and this could not be secured without the consent of his parents or guardian.

In my opinion the proper handling of fire arms should be taught in our public schools, and the lessons should be given to both boys and girls. In these days, especially in our western states, the ranchwoman, as well as the ranchman, often has occasion to use a rifle or a gun, and, in her hands, understanding as she does, their mechanism and use, they are harmless as the rolling pin. Danger in the manipulation of fire arms would be entirely eradicated, if the children were given lessons in their use.

The operation of such a department as that of game and fish warden cannot be successfully carried out without the cordial confidence and active co-operation of the people in general, and from them must come, in greater part, the information regarding violations of the game laws. To render co-operation effective the sentiment of the citizens of the state must be with the cause of game protection and propagation; and, on the other hand, the officers of the department must have the confidence of the people. It is a well known fact that any information offered is given in the belief that the name of the informant will not be divulged, and with the understanding that he will be in no way connected with the prosecution. The information given is usually more or less indefinite as to the facts, and it then devolves upon this department to ferret out the evidence and substantiate the statements given. I am very much gratified to be able to state that this office has enjoyed the cordial co-operation above suggested. While the office of warden involves duties largely similar to those of the police, yet, being often far removed from headquarters, the deputies are frequently compelled to rely upon their own initiative and depend on their own judgment, as to the course of action they shall pursue.

All deputies, when appointed, are instructed as follows:

"It is not the policy of this department to be too officious in interfering with hunters or fishermen to the extent of making this office obnoxious. What is desired, however, is to pursue, without fear or favor, all those who knowingly, wilfully or maliciously violate the law."

The result of many investigations proves that complaints have been made

from motives of malice and a desire to persecute some one for personal reasons and with no wish to further the interest of game protection.

Following is a list of deputies in active service at this time. In making these appointments it has been my aim to comply with the wishes of the residents in the vicinity where the services of a deputy seemed necessary, without reference to their political affiliations, but with a view only to securing men who were competent, who would devote the requisite time to the work, and take an active interest in it. Owing to the great distance to the county seats, in some sections of the state, where the clerks are authorized to issue licenses, I have deemed it best to appoint collecting deputies by whom hunters could be readily accomodated, thereby debarring the offer of any excuse for hunting without a license. Many of these deputies, being ardent sportsmen, have sacrificed freely, their time and have expended their own money in the service, with no other return than the twenty-five cent fee, given on the issuing of each license. In this connection I desire to extend to these assistants my most sincere appreciation of their able, faithful and intelligent attention to their duties.

Monarch of the Glen.

DEPUTY GAME AND FISH WARDENS IN NEW MEXICO.

Santa Fe County.

Willi Gable Fischer, chief deputy,	Santa Fe.
Geo. W. Armijo,	Santa Fe.
W. H. Kerr,	Santa Fe.
Elmer R. Sayle,	Santa Fe.
W. A. Bernard,	Golden.
Jose A. Gomez,	Ildefonso.
T. F. Clifton,	Hyer.
James Coleman,	Cerrillos.
W. M. Taber,	Glorieta.
T. W. Hanna,	Lamy.
D. L. Miller,	Santa Fe.
T. J. Dilley,	Santa Fe.
A. D. Catanach,	Santa Fe.
James Leese,	Espanola.
Fred V. Plomteaux,	Santa Fe.
Gus Hunter,	Santa Fe.
J. W. Akers,	Santa Fe.
J. W. Giddings,	Santa Fe.

Bernalillo County.

A. E. Walker,	Old Albuquerque.
Tony Michaelbach,	Old Albuquerque.
Raymond B. Stamm,	Albuquerque.
Joe K. Platero,	Albuquerque.
J. Fred Klein,	Albuquerque.
H. B. Hammond,	Albuquerque.
J. F. Mullen,	Albuquerque.
Louis Holt,	Albuquerque.
William Brown,	Old Albuquerque.
Fred Snyder,	Albuquerque.
Herbert M. Gaines,	Albuquerque.
W. R. Mattoon,	Albuquerque.
L. J. Putsch,	Barton.
Chas. M. Douglas,	Albuquerque.

Colfax County.

E. G. Twitty,	Raton.
Douglas Wright,	Springer.
J. F. Hutchinson,	Springer.
Wm. B. Hickman,	Cimarron.
Ramon Abreu,	Springer.
J. Van Houten,	Raton.

Wm. T. Riley,	Vermejo Park.
J. A. Black,	Dawson.
J. F. Lail,	Cimarron.
E. H. Donaldson,	French.
J. A. Hurst,	Dawson.
O. E. Maulsby,	Koehler.
L. J. Edmunds.	Raton.
Geo. H. Webster, Jr.,	Cimarron.
W. L. Howard,	Cimarron.
E. R. Manning,	Cimarron.
Jno. Friend,	Cimarron.
Narcisso Valdez,	Cimarron.
Chas. F. Lambert,	Cimarron.
D. D. Steffel ,	Cimarron.
Abe Hixenbaugh,	Raton.
D. Baldwin,	Raton.
A. L. Hobbs,	Raton.
Wade Brackett,	Raton.
Geo. Young,	Vermejo Park.
Joseph Rich,	Ponil Park.
Dilo Chacon.	Vermejo Park.
Si Hickox,	Vermejo Park.
Chas. H. Coulter,	Raton.
Robert W. Denny,	Raton.
J. D. Williams.	P. O. Trinidad, Colorado.
Henry Anderson,	Vermejo Park.
E. B. Cropp,	Raton.
Phil S. Baker,	Vermejo Park.
Leon B. Ryan.	Koehler.
Wm. E. Inglis,	Vermejo Park.
Karl Raney,	Vermejo Park.
W. D. Walton,	Raton.
Ed. Flynn.	Vermejo Park.
Frank Curtis,	Vermejo Park.

Chaves County.

R. F. Ballard,	Roswell.
B. R. Buffam,	Roswell.
J. M. Johnson,	Roswell.
B. Cleve,	Elk.
J. C. Eoff,	Plainview.
D. R. Patrick,	Dexter.
M. W. Evans.	Lake Arthur.
Frank W. Crain,	Dexter.
A. C. Jones,	Hagerman.

THE BOSS OF THE PACK TRAIN.

Wm. P. Johnson,
M. S. Murray,
R. B. House,

Elk.
Roswell.
Roswell.

Curry County.

F. C. Blumlein,
F. P. Helm,

Clovis.
Clovis.

Dona Ana County.

Isidoro Armijo,
Edw. Ehle,
Benj. J. Viljoen,
Chas. T. Bartlett,
Austin Beasley,
Manuel R. Chaves,
James H. Knight,
J. R. Findley,
F. L. Nation,
S. T. Reynolds,
T. Roualt, Jr.,
D. W. Taylor,
J. M. Piersol,
C. O. Bennett,

Las Cruces.
Las Cruces.
La Mesa.
La Mesa.
Mesilla Park.
Mesilla.
Rincon.
Earlham.
Lanark.
La Mesa.
Las Cruces.
Rincon.
Hatch.
Las Cruces.

Eddy County.

A. R. O'Quinn,
G. P. Jackson,
L. E. Klebolds,
John Stewart,
James M. Wood.
C. O. Merrifield.
Mark A. Corbin.
Chas. W. Lewis,
Daniel E. Bass,
James Harp,
Doc. N. Vest,
James M. Berry,
H. M. Chilcoat,

Carlsbad.
Malaga.
Knowles.
Queen.
Lakewood.
Hope.
Artesia.
Carlsbad.
Queen.
Carlsbad.
Carlsbad.
Carlsbad.
Dayton.
Loving.

Grant County.

E. B. Venable,
S. A. Frey,
A. L. Bayne,
W. E. Watson,
Warren R. Huff,

Silver City.
Leopold.
Silver City.
Pinos Altos.
Central.

J. Crockett Givens,	Central.
B .B. Ownby,	Lordsburg.
Wm. T. Smith,	Gila.
Elza E. Poynter,	Fierro.
B. H. Cross,	Pinos Altos.
Cecil R. C. Reindorp,	Central.
M. H. Burford,	Silver City.
Murray Averitt,	P. O. Apache, Arizona.
Clayton M. Howells.	Silver City.

Guadalupe County.

F. D. Crespín ,	Santa Rosa.
Chas. J. Martin,	Santa Rosa.
Jaspar P. Brooks,	Ft. Sumner.
Raymundo Harrison,	Anton Chico.
Monroe Williams,	Vaughn.
E. D. Monsimer,	Isidor.
J. F. Harbin,	Cuervo.

Luna County.

Lee O. Lester,	Deming.
C. C. Fielder,	Deming.
Henry Mann,	Whitewater.
W. D. Close,	Columbus.

Lincoln County.

J. G. Riggle,	Lincoln.
I. W. Wingfield,	Ruidosa.
Chas. McMasters,	Carrizozo.
August Mayer,	Picacho.
Lewis J. Mundell,	Hollway.
Joseph Swain,	White Oaks.
Marshall D. Loveless,	Meek.
Raymond R. Rogers,	Lincoln.
James R. Coleman,	Lincoln.
John L. Bryan,	Nogal.
James A. Scott,	Capitan.
James H. Kinney,	Capitan.
James A. Lafferty,	Richardson.
Joseph Long,	Meek.
W. C. Munda,	Ancho.
H. D. Murray,	Tinnie.
W. E. Carter,	Ruidosa.
John V. Hobbie,	Richardson.
Ralph L. Bateman,	Glencoe.
Lee R. York,	Capitan.

McKinley County.

F. W. Meyers,	Gallup.
Dr. E. J. Davis ,	Zuni.
D. E. Harrington ,	Guam.
Tom Ransome,	Gallup.
Chas. P. Gage,	P. O. Fort Defiance, Arizona.
Clarence Johnson.	Gallup.
Edward G. Miller.	Guam.
Geo. K. Pradt,	Grants.

Mora County.

Alberto Valdez,	Mora.
E. D. Woodbury,	Watrous.
F. M. Hughes,	Solano.
E. J. H. Roy,	Roy.
Frank A. Roy,	Roy.
Geo. A. Viles,	Cleveland.

Otero County.

John H. Bowman,	Alamogordo.
Thos. H. Tucker,	Alamogordo.
Leo. Rogers,	Clouderoft.
H. L. Newman,	Newman.
D. S. Mills,	Weed.
Frank Curry,	Tularosa.
Sam E. Blocker,	Mescalero.
Saml. F. Miller.	Mescalero.
Peleg G. Kinney,	Mescalero.
J. B. Wingfield ,	Three Rivers.
Jesse A. Brubaker,	Alamogordo.
Verne Rhodes,	Alamogordo.
A. M. Neal,	Alamogordo.
James Madison,	Alamogordo.
L. L. Jones,	Alamogordo.
A. N. Bailey,	Alamogordo.
Fred A. Weir,	Alamogordo.
J. D. Allsup,	Pinon.
Jas. A. Simmons,	Clouderoft.
T. B. Longwell,	Clouderoft.
Wm. Jno. Anderson,	Clouderoft.
J. W. Belk,	Clouderoft.
Bert L. Hilburn,	Weed.
James G. Schultz,	Pinon.
J. H. Wallace,	Pinon.
D. D. Harkness,	La Luz.
Frank Maxwell,	Bent.

Quay County.

R. P. Donohoo,	Tucumcari.
W. I. Benner,	Obar.
A. P. Seigel,	Nara Visa.
M. B. Peyton,	Tucumcari.
W. C. Hawkins,	Tucumcari.
L. D. Hurst,	Quay.

Rio Arriba County.

Elicio Lucero,	Tierra Amarilla.
Max Quintana,	P. O. Ortiz, Colorado.
C. L. Pollard,	Espanola.
F. G. Blake,	Coyote.
Emmet Wirt,	Dulce.
J. W. Beck,	El Rito.
Carpio Archuleta,	Truchas.
Harry P. Huntington,	Chama.
Elias Clark,	Alcalde.
L. A. Shartzey,	Canjilon.
James P. Lease,	Espanola.
Geo. Ray,	Chama.
F. C. Irwin,	P. O. Ortiz, Colorado.

Roosevelt County.

C. P. Mitchell.	Portales.
W. E. Marsh,	Portales.
Jeff Hightower.	Portales.

Sierra County.

Andrew Kelley,	Hillsboro.
Thomas Verner,	Chloride.
Theo. Asselhofen,	Cutter,
C. M. Wells,	Engle.
G. F. Worden,	Las Palomas.
V. G. Trujillo,	Fairview.
W. S. Barnes,	Monticello.
S. Shanks,	Fairview.
Joseph W. Reid,	Kingston.
Reuben Pankey,	Hillsboro.
W. H. Weston,	Cutter.

San Juan County.

L. G. Eblen.	Aztec.
D. J. Craig,	Farmington.
M. L. Burrows,	Farmington.
O. F. Randall,	Aztec.

Socorro County.

E. H. Sweet,	Socorro.
Wm. Borrowdale,	Magdalena.
Frank Johnson,	San Marcial.
Lee Baldwin,	Reservé.
Powell Stackhouse, Jr.,	San Antonio.
J. A. McDonald,	Kelley.
C. B. Clark,	Mogollon.
W. J. Andrus,	Aragon.
E. V. Baca,	Socorro.
Pete McFarland,	Magdalena.
Albert C. Wagner,	Reserve.
Lee O. Carson,	Reserve.
Wm. Criswell,	Reserve.
J. J. Bruton,	Reserve.
W. G. Music,	Reserve.
A. H. Douglas,	Reserve.
R. F. Bathis,	Magdalena.
E. H. Crabb,	Magdalena.
J. F. Russell,	Magdalena.
R. S. Blatchford,	Magdalena.
B. J. Fischer,	Magdalena.
Geo. Beyer,	Magdalena.
Frederick Winn,	Magdalena.
D. F. Wells,	Magdalena.
W. H. Goddard,	Magdalena.
R. W. Lewis,	Magdalena.
Clinton A. Hodges,	Magdalena.
F. L. Carter,	Magdalena.
L. G. Haynes,	Magdalena.
W. S. Day,	Magdalena.
Benjamin F. Hooten,	Magdalena.
H. Basil Wales,	Magdalena.
W. B. Bunton,	Magdalena.
Geo. W. Miller,	Magdalena.
Ross M. Atkins,	Magdalena.
A. O. Reynolds,	Luna.
R. F. Rheinhardt,	Rosedale.
G. S. Exon,	Water Canyon, via Socorro
Owen Holt,	San Antonio.
F. P. Sickles,	Socorro.
Robert F. Reid,	Alma.
Earl B. Young,	Mogollon.
Herbert B. Fay,	Mogollon.

Sandoval County.

Alfred N. Montoya,	Bernalillo.
Julius Seligman.	Domingo.
J. W. Miller,	Jemez.
E. M. Fenton,	Jemez Springs.
Victor Mallett,	Bernalillo.
H. E. Freelove,	Senorita.
M. Martinez,	Cuba.
Edgar C. Kennison,	Pines.
Daniel W. Carter,	Pines.
Hipolito Lucero,	Jemez Springs.
Juan C. Chaves,	Algodones.

San Miguel County.

Lorenzo Delgado,	East Las Vegas.
Wm. Harper,	East Las Vegas.
John A. Rudolph,	Rociada.
Luther P. Raines,	Bell Ranch.
Ludwig William Ilfeld,	Las Vegas.
R. W. Smith.	East Las Vegas.
W. W. Tipton,	East Las Vegas.
G. M. Jones,	East Las Vegas.
L. H. Missemann,	Beulah.
Sostensen Aragon,	Fulton.
Clarence Wright,	Glorieta.
D. L. Williams,	Glorieta.
Victor Vigil,	Cowles.
W. F. Steadman.	Las Vegas.
F. L. Tracey.	Rowe.
S. W. Hill,	Rowe.
Pablo Martinez,	Pecos.

Taos County.

A. Clouthier,	Taos.
B. L. Ortiz,	Questa.
F. W. Drake,	Hodges.
A. A. Rivera,	Taos.
Fidel Martinez.	Penasco.
Daniel Martinez,	Penasco.
B. G. Phillips,	Taos.
E. F. Lawrence,	Taos.
Harry Martin,	Tres Piedras.

Torrance County.

E. W. Roberson,	Estancia.
Julius Meyers,	Estancia.
J. W. Collier,	Estancia.
C. L. Burt,	Mountainair.
C. E. Davenport,	Encino.
S. E. D. Sears,	Willard.
Fred Kroenig,	Mountainair.
J. H. Sherman,	Tajique.
T. W. Carscallen,	Mountainair.
Stephen Q. Garst,	Willard.
John S. Moore,	Estancia.
B. F. Nabours,	Progreso.

Union County.

J. A. Pacheco,	Clayton.
J. M. Martinez,	Folsom.
Lee E. Byrne,	N. Des Moines.
Benjamin F. Brown,	Gould.
L. E. Gallegos,	Clayton.

Valencia County.

J. M. Luna,	Los Lunas.
J. F. Tondre,	Los Lunas.
Alex McInnis,	McCartys.
Wm. Owens,	Belen.
W. D. Radcliffe,	Belen.
Samuel C. Young,	Bluewater.

Captain Fred Fornoff and his efficient corps of mounted police have rendered signal service to this department by the able and vigorous manner in which they have at all times co-operated with me in the carrying out of this important work.

The newspapers of the state have contributed much toward the success of the game and fish department in the zealous and hearty assistance they have unfailingly rendered in giving space freely to the dissemination of information regarding the law, and detailing the efforts being made to place New Mexico in her rightful position as foremost among the game states of America.

The district attorneys and judges of our courts have shown commendable zeal in the handling of cases coming under game law violations, and have ever been ready to take up these matters when brought to their attention. The sheriffs, justices of the peace and constables have also displayed a willingness to do their part in upholding the law and carrying out its provisions.

JUST ONE MORE BEFORE SUPPER.

During my incumbency of this office, the records show:

107 Arrests
99 Convictions.
6 Acquittals.
2 Cases Pending.

In the matter of establishing private game preserves in the state and the construction of private parks and ponds for the propagation of fish, and the disposal of the same in the market, I desire strongly to recommend this method of procedure, as I believe it would prove to be of great value to the people. In a previous chapter of this report, I have set forth the reasons that have led to this conclusion. Under this system, I conceive the most satisfactory method to be to issue a license to the proprietor of every private park or lake; such license to extend over a period of from two to ten years, the shorter period calling for the larger license fee.

There can be no question that the establishment of these private preserves would be of benefit alike to the owner and the people. Many ranchmen could, with little expense, construct these ponds without damage to the public waters, and from them they would reap an additional revenue from their land. This will apply as well to game parks. The benefits would not be alone to the proprietors, but to the people in the same degree, as they would have, continually in the market, a product now always scarce, and to many prohibited altogether. I can see no reason why the citizens of this state should not have the same privilege of selling game and fish from their own preserves as of selling cattle, sheep or chickens.

Another subject which seems to me of great importance and which I desire to mention briefly is that of the bounty on predatory animals. Section 1, of Chapter 105, Session Laws of 1909, New Mexico, reads as follows:

"The Boards of County Commissioners of the several counties of the Territory are hereby authorized and directed to levy annually a tax of not to exceed one mill upon the assessed value of all taxable property in their respective counties for the purpose of raising funds with which to pay bounties for the killing of wild animals. * * * * *

For each coyote, wildcat or lynx.....	\$ 2.00
For each lobo wolf.....	15.00
For each panther or mountain lion.....	10.00

While the lobo wolf, wildcat and coyote are all destroyers of game, yet the greatest enemy to game life and the most destructive, among predatory animals, is the mountain lion.

I recommend that an increased bounty be offered on all the above mentioned freebooters in wild animal life, as an incentive to hunters to go out after them, and aid in bringing about their ultimate extermination. They are in the nature of a pest and their existence in the mountains and mesas is a perpetual menace to the game which we are endeavoring to protect and propagate.

The best method of procedure I believe to be the levying of one half mill, which is one half mill less than is provided in the present law, on the taxable property in each county, to be paid into the state treasury as a "wild animal bounty

fund." The hides should be presented to the county clerk as under the present law, with an affidavit as to when and where captured. In the event that the person presenting the hides is unknown to the county clerk personally, some one must identify him. The clerk will then issue a receipt to him and forward the pelts to the game warden, who will properly mark or cancel the hides and dispose of them at the best price possible, depositing the money thus received with the state treasurer to the credit of the wild animal bounty fund. The game warden will issue to the owner of the pelts a certificate, designating their number and kind, which, when presented to the state auditor will be an authorization to issue his warrant on the treasurer for payment. This plan will give an absolute check, first on the owner of the hides; second, on the county clerk; third, on the game warden's office, showing the number of hides received and sold, and the amount deposited with the state treasurer. By this method any possible collusion will be thwarted and no chance will be given for the payment for the same pelts more than once. There is no doubt that with this levy and the money received from the sale of wild animal skins, there would be a sufficient amount to meet all payments for bounties.

I would recommend, also, that all non-residents, who pay one hundred dollars or more in taxes into any county in the state, should be entitled to a resident hunter's license.

FISH FURNISHED BY HON. GEORGE M. BOWERS OF THE U. S. FISH COMMISSION,
AND PLANTED IN NEW MEXICO WATERS, FROM JULY 1,
1909, TO OCTOBER 10, 1910.

Large-mouth Black Bass.

Water	Point of Deposit	Number
Laughing Water pond	Clovis	100
Kennedy's pond	Columbus	80
Ingram's pond	Corona	80
Burney's pond	Deming	100
Harris' pond	Deming	200
Hon's pond	Deming	100
Jacobson's pond	Deming	100
Kelly's pond	Deming	100
Brown's pond	Elida	100
McGill's reservoir.	Le Lande	100
Asylum lake	Las Vegas	100
Pecos river	Las Vegas	100
Palomas Springs	Montoya	80
Humble's pond	Portales	100
Twin Mills pond	Portales	100
Central Creek pond	Silver City	100
Stafford's pond	Texico	100
Buchanan's pond	Tucumcari	80
Gierhart pond	Farmington	255
Lake Togo	Farmington	255
Las Animas river	Aztec	510
San Juan river	Farmington	510
Las Animas river	Farmington	510
Schleuter's pond	Farmington	128

Rainbow Trout.

Water	Point of Deposit	Number
Aqua Fria creek	Cimarron	2,000
Canon Bonita creek	Cimarron	1,000
Cimarronciti creek	Cimarron	1,000
Cimarron river	Cimarron	1,000
Clear creek	Cimarron	1,000
Ponil creek	Cimarron	1,000
Rayado creek	Cimarron	1,000
Gallinas river, west fork	Las Vegas	2,400
Myrtle pond	Raton	1,200
Sugarite creek	Raton	6,000
Crystal pond	Roswell	2,000

CABRESTO LAKE.—The Home of the Big Ones.

Black-spotted Trout.

Water	Point of Deposit	Number
Canon Bonito creek	Cimarron	2,000
Cimarronciti creek	Cimarron	2,000
Cimarron river	Cimarron	2,000
Clear creek	Cimarron	2,000
Ponil creek	Cimarron	2,000
Rayado creek	Cimarron	2,000
Rayado river, west fork	Cimarron	3,000
Ute creek	Cimarron	4,000
Pecos river	Glorieta	14,000
Burro branch	Las Vegas	4,000
Gallinas river	Las Vegas	6,000
Fresinal creek	Mountain Park	15,000
Rio Tesuque river	Santa Fe	7,200
Cow creek	Glorieta	10,000
Nuteritus creek	Chama	9,000
Rio Brazos	Chama	9,000
El Rio Nambu	Santa Fe	12,500
Embudo river	Embudo	7,500
Pecos river	Glorieta	10,000
Cimarron river	Cimarron	12,000
Chama river	Chama	15,000
Rangel creek	Socorro	12,500
Cimarronciti creek	Cimarron	12,000
Santa Barbara river	Embudo	7,500
Turkey creek	Cimarron	12,000
Ponil river	Cimarron	12,000
Pueblo river	Embudo	7,500
Trampas river	Espanola	7,500
Santa Clara creek	Espanola	10,000
Rio Quemado	Espanola	20,000
Aqua Fria creek	Cimarron	12,000
Clear creek	Ute Park	12,000
Canon Bonito creek	Cimarron	12,000
Chama river	Chama	15,000
Santa Fe river	Santa Fe	12,500
Rayado river	Cimarron	12,000
Urraca reservoir No. 1	Cimarron	12,000
Ute creek	Ute Park	12,000

Rock Bass.

Water	Point of Deposit	Number
Cooper's lake	Ancho	200
Dark Canon creek	Carlsbad	225

Knowles' pond	Deming	100
Peterson's pond	Deming	100
Ramsey's pond	Deming	100
Adams lake	Colfax County	300
Crescent pond	Texico	100
Silver lake	Tularosa	200

Large-mouth Black Bass.

Water	Point of Deposit	Number
Clark's lake	Artesia	250
Pecos river	Carlsbad	500
Rocky Arroyo creek	Carlsbad	150
Adams lake	Colfax	254
Bishop's lake	Dexter	150
Ramah reservoir	Gallup	300
Wares' reservoir	Hagerman	150
Buena Vista lake	Las Vegas	280
Miller's pond	Santa Fe	100
Farmers' reservoir	Springer	320
Jaritas lake	Springer	320
Santa Clara Creek reservoir	Wagon Mound	195
Dulce lake	Lumberton	300

Brook Trout.

Water	Point of Deposit	Number
Spring Canon pond	Alamogordo	5,000
El Rito de la Arrhaw	Glorieta	2,000
Sapello river	Las Vegas	4,000
Rio Grande Livestock Co., lake	Santa Fe	2,000
Rio del Medio creek	Santa Fe	3,200
Santa Fe river	Santa Fe	2,000
Tesuque creek	Santa Fe	2,000
Glenwood pond	Silver City	4,000
Glenwood Springs	Silver City	5,000
Tilson creek	Wagon Mound	1,600
Brown Fork creek	East Las Vegas	3,200
Gallinas river, south fork	Las Vegas	4,000
Arroyo Hondo creek	Servilletta	3,200
Gallinas river, Elk fork	Las Vegas	3,200
Trout Springs creek	Las Vegas	3,200
Rio Grande lake	Santa Fe	3,200
Ponil river	Cimarron	5,000
Rayado creek, west fork	Cimarron	5,000
Rayado creek, north fork	Cimarron	5,000
Gallinas river, Wesner fork	Las Vegas	3,200

Gallinas river, Youngs fork	Las Vegas	3,200
Pecos river	Glorieta	3,200
Gallinas river, Burro fork	Las Vegas	3,200

Sunfish.

Water	Point of Deposit	Number
Harris' pond	Deming	150
Mesa lake	Elida	100

Yellow Perch.

Water	Point of Deposit	Number
Adams lake	Colfax	219

STATEMENT OF FISH PLANTED IN THE WATERS OF NEW MEXICO BY THE U
S. BUREAU OF FISHERIES DURING THE FISCAL YEAR
ENDING JUNE 30, 1911.

Catfish.

Water	Point of deposit	Fingerlings, yearlings, and adults.
Branum's pond	Anchor	100
Las Ammas river	Aztec	510
San Juan river	Aztec	660
XX Ranch pond	Cambrag	100
Howard's pond	Clovis	150
Laughing Water pond	Clovis	100
Ramsey pond	Deming	100
Rankin's pond	Elida	200
Gunshee pond	Espanola	150
Gierhart pond	Farmington	255
Lake Togo	Farmington	255
Las Animas river	Farmington	510
San Juan river	Farmington	510
Schleuter's pond	Farmington	128
Williams' pond	Melrose	100
Click's reservoir	Rodes	100
Dobson's reservoir	Rodes	100
Hale's reservoir	Rodes	100
Leatherman reservoir	Rodes	100
Shugardt's reservoir	Rodes	100
Timbrel's pond	Rodes	100
Veit's reservoir	Rodes	100
Fowler's reservoir	Roswell	100

ON THE DIVIDE.

Byert's Big reservoir	Socorro	100
Stafford's reservoir	Texico	100.
Reagan's reservoir	Tularosa	125
Willow lake	Tularosa	125
Shafer lake	Wagon Mound	200
Weil lake	Wagon Mound	200

Rainbow Trout.

Water	Location	Fingerlings, yearlings and adults.
Tajique creek	Estancia	1,600
Rio Tularosa	Tularosa	2,400
Silver lake	Tularosa	400
Red river	Ute Park	1,500
Hixon's pond	Willard	400

Black-spotted Trout (Native).

Water	Location	Fingerlings, yearlings and adults.
Chama river	Chama	30,000
Nuteritus creek	Chama	9,000
Rio Brazos	Chama	9,000
Aqua Fria creek	Cimarron	12,000
Canon Bonito creek	Cimarron	12,000
Cimarron river	Cimarron	12,000
Cimarroncito creek	Cimarron	12,000
Clear creek	Cimarron	12,000
Manning creek	Cimarron	10,000
Ponil river	Cimarron	62,000
Rayado river	Cimarron	12,000
Rayado creek	Cimarron	7,500
Turkey creek	Cimarron	12,000
Urraca reservoir No. 1	Cimarron	12,000
Ute creek	Cimarron	12,000
Embudo river	Embudo	7,500
Pueblo river	Embudo	7,500
Santa Barbara river	Embudo	7,500
Rio Quemado	Espanola	20,000
Santa Clara creek	Espanola	10,000
Trampas river	Espanola	7,000
Cow creek	Glorietta	10,000
Pecos river	Glorietta	10,000

Santa Fe creek	Raton	25,000
El Rio Nambu	Santa Fe	12,500
Santa Fe river	Santa Fe	12,500
Rangel creek	Socorro	12,500

Brook Trout.

Water	Location	Fingerlings, yearlings and adults.
Chama river	Chama	12,000
Clear creek	Cimarron	5,000
Ponil river	Cimarron	5,000
Rayado creek	Cimarron	14,200
Rayado creek, west fork	Cimarron	5,000
Ute creek	Cimarron	5,000
Van Houten creek	Cimarron	10,000
Valley creek	Cimarron	5,000
Whitney creek	Cimarron	5,000
Pecos river	Glorietta	23,200
Brown Fork creek	Las Vegas	3,200
Gallinas river	Las Vegas	3,200
Gallinas river, Elk fork	Las Vegas	3,200
Gallinas river, south fork	Las Vegas	4,000
Gallinas river, Wesner fork	Las Vegas	3,200
Gallinas river, Young's fork	Las Vegas	3,200
Front Springs creek	Las Vegas	3,200
El Rio Nambu	Santa Fe	3,200
Red Rock creek	Santa Fe	4,000
Rio Grande lake	Santa Fe	3,200
Arroyo Hondo creek, upper	Servilleta	3,200

Crappie and Strawberry Bass.

Water	Location	Fingerlings, yearlings and adults.
Ward's reservoir	Rodes	35
Hayne's lake	Roswell	35
Wilson pond	Roswell	35

Rock Bass.

Water	Location	Fingerlings, yearlings and adults.
Pendleton's pond	Elida	125
Honey pond	Folsom	125
Lawrence reservoir	Lake Arthur	125
Wheeler's reservoir	Roswell	125
Downing's pond	Sixela	125
Walter's pond	South Springs	125

Large-mouth Black Bass.

Water	Location	Fingerlings, yearlings and adults.
Rio Grande lake	Albuquerque	24
Wheaton's lake	Dexter	21
Wheeler's lake	Dexter	20
Van lake	Dexter	12
Dulce lake	Dulce	300
Lake Sumner	Fort Sumner	110
Ramah reservoir	Gallup	24
Lakes 13-20	Maxwell	24
Haymakers pond	Roswell	12
North Spring river	Roswell	50
Santa Fe Creek reservoir	Santa Fe	50
Jaritas reservoir	Springer	24

Sunfish.

Water	Location	Fingerlings, yearlings and adults.
Glen Mary pond	Rhodes	100
Cornforth reservoir	Mountain Park	100

RECAPITULATION.

Catfish	5,418
Rainbow trout	6,300
Black-spotted trout (native)	377,500
Brook trout	126,200
Crappie and Strawberry bass	105
Rock bass	750
Large-mouth Black bass	674
Sunfish	200
Total	517,204

**FISH PLANTED BY THE TERRITORY IN NEW MEXICO WATERS DURING
THE YEAR 1910.**

Water	Fry; variety.	
Arroyo Hondo	Mountain trout	50,000
Rio Pueblo	Mountain trout	70,000
Santa Barbara	Rainbow trout	50,000
Rio Medio	Mountain trout	50,000
Frijoles	Mountain trout	30,500
Santa Clara	Rainbow trout	30,000
Pecos river	Rainbow trout	200,000
Gallinas river	Mountain trout	133,000
Los Pinos	Mountain trout	50,500
Rio Quemado	Mountain trout	31,500
Chama river	Mountain trout	50,000
Santa Fe river	Rainbow trout	30,000

Total number of trout fry planted during 1910 823,500

**FISH PLANTED BY THE TERRITORY IN NEW MEXICO WATERS, DURING
THE YEAR 1911.**

Waters	Fry; variety.	
Gallinas river	Brook trout	45,000
Gallinas river	Rainbow trout	3,000
Pecos river, upper and lower	Brook trout	79,000
Pecos river, upper and lower	Rainbow trout	9,000
Rio Medio	Brook trout	27,000
Rio Medio	Rainbow trout	3,000
Ojo Caliente, and El Rito	Brook trout	22,000
Rio Lucero and Arroyo Hondo	Brook trout	37,000
Rio Lucero and Arroyo Hondo	Rainbow trout	3,000
Los Pinos river	Brook trout	72,000
Los Pinos river	Rainbow trout	3,000
Chama river	Rainbow trout	55,250
Brazos river	Rainbow trout	27,625
El Rito creek	Rainbow trout	27,625
Rio Medio creek	Rainbow trout	116,025
Lower Pecos	Rainbow trout	49,725
Pecos river, central	Rainbow trout	49,725
Pecos river, upper	Rainbow trout	27,625
Santa Fe river	Rainbow trout	33,150

Total number of trout fry planted during 1911 689,750

RECEIPTS.**As per Statement of Territorial Treasurer, from April 1st, 1909 to January 1st, 1910.**

Received from Legislative appropriation, Warden's salary.....	\$1350.00
Received from Legislative appropriation, Contingent expenses..	447.26
Received from sale of licenses and permits.....	7710.20
Received from fines for violations of Game and Fish Laws....	175.00

Total receipts	9682.46
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DISBURSEMENTS.**As Per Vouchers on File With Territorial Auditor, From April 1st, 1909, to Jan. 1st, 1910.**

Salary of Warden.....	\$1350.00
Salary of chief deputy.....	615.00
For printing.....	625.60
For telegrams and telephone messages and rent of office 'phone.	83.32
For office supplies, traveling and incidental expenses of warden..	428.25
Badges for use of deputy game and fish wardens.....	75.00
Typewriter and cover for use in warden's office.....	92.50
Postage and box rent.....	120.13
Express and freight.....	11.90
Paid deputy game wardens for special field duty.....	583.83

Total disbursements.....	\$4051.53
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Balance in hands of Territorial Treasurer to credit of The Game Protection Fund, January 1st, 1910.....	5630.93
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	\$9682.46
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RECEIPTS.**As per statement of Territorial Treasurer, from January 1st, 1910, to January 1st, 1911.**

Balance in Terr. Treasury to credit of Game Protection Fund..	\$5630.93
Received from Legislative appropriation, warden's salary.....	1800.00
Received from Legislative appropriation, contingent expenses...	533.15
Received from fines for violation of Game and Fish Laws.....	1428.60
Received from sale of licenses and permits.....	7745.45

Total receipts	\$17138.13
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DISBURSEMENTS.

As Per Voucher on File With Territorial Auditor, From Jan. 1st, 1910 to Jan. 1st, 1911.

Salary of warden.....	\$1800.00
Salary of chief deputy.....	825.00
For printing.....	407.90
For telegrams and telephone messages and rent of office 'phone..	209.19
For office supplies, traveling and incidental expenses of warden..	1071.55
Postage and box rent.....	117.75
Express and freight.....	40.35
Paid special deputies for field work.....	832.60
Overpaid the Treasurer by deputies and refunded to bal. acct....	22.50
Paid for fish and distributing in various streams.....	2520.72
Paid for quail and distributing.....	122.90
Paid for guineas and distributing.....	12.00
Total	<hr/> \$7982.46

Balance in hands of Territorial Treasurer to credit of The Game

Protection Fund, January 1, 1911..... 9155.67

\$11138.13

RECEIPTS.

As Per Statement of Territorial Treasurer, from January 1st, 1911, to January 1st, 1912,

Balance in Terr. Treasury to credit of Game Protection Fund..	\$9155.67
Received from Legislative appropriation, warden's salary.....	1800.00
Received from Legislative appropriation, contingent expenses...	356.00
Received from sale of licenses and permits.....	7128.00
Received from fines for violation of Game and Fish Laws.....	210.35

Total receipts

\$18650.02

DISBURSEMENTS.

As Per Vouchers on File With Territorial Auditor, From Jan. 1st, 1911, to Jan. 1st, 1912.

Salary of warden.....	\$1800.00
Salary of chief deputy.....	900.00
For printing.....	224.85
For telegrams and telephone messages and rent of office 'phone..	202.13
For office supplies, traveling and incidental expenses of warden..	367.65
Postage and box rent.....	93.08
Express	52.51
Paid special deputy for field work.....	219.25

Overpaid the Treasurer by deputies and refunded to bal. acct...	1.25
Paid for fish and distributing in various streams.....	2820.20
Paid for elk and planting.....	1400.75
Paid for pheasants and their propagation.....	151.43
Paid for quail and distributing.....	238.27

Total disbursements	\$8531.37
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Balance in hands of Territorial Treasurer to credit of The Game Protection Fund, January 1, 1912.....	10118.65
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\$18650.02

A CRITICAL MOMENT.

GAME AND FISH LAWS.

No person shall at any time shoot, hunt or take in any manner any game which is by law protected in this state without first having in his possession a hunting license as hereinafter provided for the year in which such shooting or hunting is done. Hunting licenses shall be issued by the county clerks, the state game warden and such deputies as may be designated for that purpose by the state warden.

A general hunting license shall entitle the person therein named to hunt game, quadrupeds and birds during the open season therefor.

A big game license shall entitle the person therein named to hunt game quadrupeds during the open season therefor. (Wild turkeys are classified as big game under the meaning of the act).

A bird license shall entitle the person therein named to hunt game birds other than wild turkey during the open season therefor.

Any person not a bona fide resident of this state, but who is a bona fide resident of the United States, shall be entitled to procure a non-resident hunting license.

Any unnaturalized foreign-born person who has lived in this state for six months then last passed, shall be entitled to procure a resident-alien hunting license.

The state warden and license collectors shall charge and collect the following fees:

For each guide license.....	\$ 5.00
For each big game license, resident.....	1.00
For each bird license, resident.....	1.00
For each general hunting license, resident.....	1.50
For each big game license, non-resident.....	25.00
For each bird license, non-resident.....	5.00
For each big game license, resident-alien.....	5.00
For each bird license, resident alien.....	5.00
For each bird license, non-resident alien.....	10.00
For each storage permit.....	1.00
For each importation permit, for sale.....	2.00
For each transportation permit.....	1.00
For each permit, to transport out of the state, deer (each).....	2.00
For each permit to ship out of the state, each lot of fish.....	1.00
For each permit to retain game animal in captivity.....	1.00
For each duplicate license, certificate or permit.....	1.00

All non-residents will be required to pay a fishing license of one dollar, but nothing in this act shall be construed to prevent persons under the age of twelve years from fishing during the open season. They will, however, be required to otherwise comply with all the laws as herein specified.

The right given by this act to take or kill game or fish is limited to two wild turkeys, six grouse, twenty ducks, thirty other birds, fifteen pounds of trout not

less than six inches in length, fifteen pounds of bass not less than seven inches in length, for each person in any one calendar day, and no person shall kill, take or have in possession in any one open season more than one deer with horns, nor have in possession at any one time more than four wild turkeys, six grouse, thirty ducks or thirty other birds nor more than twenty-five pounds of trout or bass and no game or fish shall be held in possession by any person more than five days after the close of the season for killing of same, except as in this act otherwise provided.

No game shall be pursued, wounded, taken or killed with a steel or hard pointed bullet, and in no instance shall fishing be done between the hours of 9 o'clock p. m., and 4 o'clock a. m., nor shall any person use in the pursuit, taking, wounding or killing any animal, birds or fish protected by this act, any net, seine, trap, cage, snare, salt lick, blind, scaffold, deadfall, pit, snag hook, trot line, artificial light or similar device whatever, provided that dogs, blinds, sinks and decoys may be used in hunting birds; nor shall any person engage in hunting or shooting within the limits of any city or town, except the town or city council may by ordinance fix a line within their limits permitting the same.

OPEN SEASON FOR GAME AND FISH.

Deer with horns—With gun only; October 15th to November 15th of each year. Limit, one deer to each person.

Wild Turkey—With gun only; November 1st to December 31st of each year. Limit, four in possession at one time.

Grouse—With gun only; October 1st to December 31st of each year. Limit, thirty in possession at one time.

Native or Crested Quail—With gun only; October 1st to December 31st of each year. Limit, thirty in possession at one time.

Doves—With gun only; August 1st to October 31st of each year. Limit, thirty in possession at one time.

Snipe, Curlew and Plover—With gun only; September 15th to March 1st of each year. Limit, thirty in possession at one time.

Ducks—Limited to thirty in possession at one time

Trout (all species)—With rod, hook and line only; May 15th to October 15th of each year. Size limit, not less than six inches in length. Weight limit, 15 pounds in any one calendar day, 25 pounds in possession at one time.

Bass (large and small mouth)—With rod, hook and line only. Size limit, not less than seven inches in length. Weight limit, 15 pounds in any calendar day, 25 pounds in possession at one time.

CLOSED SEASON.

Elk, Mountain Sheep, Beaver and Ptarmigan, killing capturing or injuring prohibited at all times.

Antelope, Bob-white, Quail, Pheasant and Wild Pigeons, killing, capturing or injuring prohibited until March 18, 1914.

Prairie Chicken, killing, capturing or injuring prohibited until January 1, 1915.

CONCLUSION.

In closing this report I desire to extend thanks to Hon. George M. Bowers of the U. S. fish commission; Captain W. E. Smith, superintendent of U. S. fish car number 3; Dr. T. S. Palmer, assistant chief, U. S. biological survey, and A. C. Cooper, of the same department; likewise to the game and fish wardens of other states for many favors received; to the Santa Fe system, and to the Denver and Rio Grande railroad company, which has, when requested, most cheerfully furnished a car for the transportation of fish for distribution along the lines of its road in this state.

In making this report I have had two objects in view: first, to acquaint the people of the state fully with the work of this department,—what has been done and what, in my judgment, should be done,—and further, to give to those outside the state, the information which has been frequently sought from this office, regarding the conditions of our game and fish.

I believe, in closing, it would be pardonable in me to say that there is very much more to the proper conducting of this department than is generally believed or known.

Having been always deeply interested in outdoor sports, I entered into the work with great interest and zest, and have devoted my entire time and best energies to the bringing about of the most beneficial results.

THOMAS P. GABLE,

Game and Fish Warden.

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