L. D. Young, Jr.
Director
Louisiana
Wild Life and Fisheries Commission

In the last few years, we have seen encroachment of industry and increasing population, development of agriculture, and other phases of our economic growth literally taking away hundreds of thousands of acres of woodland and field habitat which would normally be plentifully populated by game.

No doubt your grandfathers have told you of their hunting and fishing experiences—you know, “the good old days”, when one had but to venture a short way from home to return with all sorts of game for the table, but these were the days before your game habitat dwindled in the face of economic pressures and before your streams were buried under a mass of “beautiful blooming hyacinths”.

In grandfather’s day, if he traveled five or six or ten miles to go hunting or fishing, he “went a fur piece”. Today, fishermen and hunters think nothing of driving hundreds of miles for their outdoor thrills.

As the population has increased by leaps and bounds, so has the number of outdoor sportsmen increased by hundreds of thousands, each one seeking at least his legal limit for bag or creel. Thus has the hunting and fishing pressure increased beyond the bounds of ultimate satisfaction.

Game and fish restocking as a means of easing this pressure is just like pouring sand in a rat hole, unless provision is made for survival.

Less than a score of years ago there was a heavy quail population throughout most of Louisiana. That population has dwindled to an alarming scarcity, and this can be attributed to several things, but mostly to the lack of suitable habitat. Game and birds must eat to live and must have cover for protection. Without this, you can have no return to the hunting Utopia you dream about.

There is a bright side to this situation. It can be alleviated, if not remedied, by the planting of lespedeza, multiflora rose and other seed-bearing plants along fences and ditches, and by the establishment of food and cover plots adjacent to woodlands. Even the building of brush piles and rock piles on the edges of fields would be a great boon, and these things can be done easily and very cheaply.

To estimate their value in assisting our efforts for restoration and protection of our game is almost impossible, but if every land owner and sportsman in Louisiana would make a sincere effort to do these simple things, your goal and ours could be reached much sooner.

The response from thousands throughout Louisiana has been so favorable that we know our conservation program will be successful because you are lending us your assistance in every possible way.
DEER IN LOUISIANA

PART I

by

Lyle St. Amant and Carrol Perkins

What is known about deer and deer conditions in Louisiana? How many deer do we have? Where are they? What's the history of deer in the State? Will we ever have deer all over the State? How do our deer herds rate with other southeastern states? These are questions we believe you're interested in, and we are proud to present here the first of a series of articles designed to answer these questions and many more. Dr. Lyle St. Amant and Carrol Perkins are intimately familiar with Louisiana wildlife, and we think that you'll be surprised to learn just how much is known about our deer herds.

The information upon which these articles are based comes from deer studies made in Louisiana and in other states, representing the efforts of numerous game technicians. In Louisiana most of the information was obtained on several Pittman-Robertson projects that have been carried out since 1936.

In this part one you will learn something of the history of deer in Louisiana and certain biological facts about deer.

INTRODUCTION

Not infrequently one hears, in conversations centered around hunting and game conditions, references made to the "good old days" when game was abundant and could be found with ease in all parts of the land. Actually many such references barely go beyond pure supposition, since factual early histories of game conditions in the State are few and far between. Nevertheless, the history of game is important to the game management technician, because by a study of the past, the factors bringing about and controlling present game conditions are revealed in many cases and from these factors sound restorative measures and management practices can be derived. If one studies the available references to game and game conditions in the early writings of Louisiana and follows this study through to the present time, two facts are outstanding: (1) The changes in game conditions are closely tied in with the history of the area in question and particularly with changes in forest and farm lands, industrialization, and with fluctuating human populations. In other words, the land use pattern has governed the game picture more than any other single factor. (2) The second fact is that most historical references indicate Wilder ness Louisiana and the amount and distribution of game within its boundaries to be quite different from that pictured in the minds of most Nimrods.

EARLY DEER RANGES AND DISTRIBUTION IN LOUISIANA

In order to correct some of the erroneous ideas and to make the facts concerning the history of deer clearer, let's take a look at Louisiana through the eyes of Du Pratz and other explorers who gave more or less detailed accounts of their travels in the State between 1700 and 1800.

Contrary to what one might expect, Louisiana was not clothed in a solid primeval forest from one boundary to the other, nor did all types of game abound in all sections of the present State. Apparently many large areas besides the prairies of southwest Louisiana were open meadow type lands. Such areas were principally found in what are now East Baton Rouge and the Feliciana Parishes, the Avoyelles, St. Landry, Rapides area, and on the Macon Ridge. These large grasslands, dotted with clumps of hardwoods and cut over by wood-ed creek bottoms, abounded with many types of game. Fires were an annual occurrence in such grasslands during the fall and winter. Some fires were of natural origin, but most of them were set annually by the Indians apparently to reduce the tall grass for easier traveling and hunting. Deer were reported quite abundant on such burned areas, seeking the fresh new growths which sprouted after the burn.

The remainder of the State, excepting the marsh, was rather heavily forested, but not all areas offered ideal deer range or contained high populations. Deer were plentiful in all of the pine-hardwood areas of northwest Louisiana, in parts of what are now the Florida Parishes, and in any area where the understory of the forest was not too thick and offered a variety of foods. Surprisingly enough, the Mississippi River bottomlands and the large cypress-tupelo swamp areas of South Louisiana, which now contain over 90% of the State's present deer herd, were reported to contain few if any deer in early times. The lack of deer in these areas was apparently due to poor range conditions. The understorey of the bottomland presented an almost impassable tangle of switch cane, which, coupled with shading by the dense canopy of hardwoods, prevented suitable deer foods from growing. In the swamp areas heavy shading, constant standing water, and spring flooding which prevailed before the advent of levees evidently kept the deer out. It was not until many years later, after the bottomlands were cut and the understorey opened up to sunlight and drained, that these areas became suitable for high populations of deer.

The longleaf pine forests which covered most of the terrace lands in Louisiana presented to the early traveler a solid park-like stand of majestic pines. The understory was clean and except for shrubs and small hardwoods on the creek bottoms, offered little food for deer. Du Pratz and other explorers looked upon these great pine areas as sterile when compared to other sections and did not consider them suitable for settlement because of sparse game supplies and poor sandy soils.

The coastal marshes and parts of the western prairies of Louisiana are not well described because early explorers considered them not suited for settlement.

THE ORIGINAL DEER POPULATION

Trying to estimate the number of deer in Louisiana during early times verges on guesswork and a large percentage of error is probable. Nevertheless, certain facts may be noted that should give some idea about early populations. First, it is clear that there must have been between 20,000,000 and 25,000,000 acres of occupied deer range.
in the State prior to 1700 and most of this area had fairly good populations. From our knowledge of present day conditions, it may be assumed that the population density ranged from one deer to 50 acres to one deer to 100 acres on the original range. This would mean that originally the present State of Louisiana contained between 250,000 and 400,000 deer. If we assume that the original herd numbered some 300,000, how does this compare with present day conditions? At present there are approximately 70,000 deer in Louisiana on 7,500,000 acres of range. This represents a 77% decrease in deer population and a 68% decrease in range over the past 250 years (see graph). The present condition does not represent the lowest point reached, however. Apparently the lowest deer population occurred around 1920, and we are now well on our way to re-establishing a large deer herd in Louisiana.

WHAT HAPPENED TO THE ORIGINAL DEER HERD AND WHEN DID IT HAPPEN

The story of the decrease in deer population and range in Louisiana is not a new one. It's the age-old story of progress, the encroachment of civilization, the building that has been wrought to natural resources of an empire, and the resulting damage. Until 1850 much of Louisiana was still a virgin wilderness and had not yet felt the axe and saw of the lumber interests. Much of the original deer population ranged over the State; huntable populations were reported in 48 of the 88 parishes in existence at that time. Of the 10 parishes not reporting deer, four were in the coastal marshes, two were in the prairie lands where deer were never plentiful, and three were areas settled early with large urban centers and high human populations. The remaining parish not reporting deer was Madison. This is believed to be in error.

With the advent of railroads and sawmills, a great change in deer range and deer populations occurred. Between 1890 and 1930, all of the choice upland pine-hardwood ranges were stripped and in many instances burned. The virgin cypress swamps were invaded and cut, and the longleaf pine plantations were left a denuded barren. This process of stripping the range of timber forced the deer to seek out a much decreased range area in the small branch bottoms and in fringing sub-marginal wooded areas. Under such conditions, they were at the mercy of man and dog during an era of too liberal or unenforced bag limits, hunting laws, and conservation measures. The result was wholesale slaughter. This condition continued until their numbers became dangerously low and conservation laws had to be enacted. It was during this period, 1920-25, that Louisiana's deer population reached its lowest ebb. There was an estimated population of 30,000 or less deer in the State at that time, and such areas as Tensas, Madison and the Maurepas Swamp, which now furnish excellent deer hunting, then had so few deer that hunting was impractical.

From 1930 to 1950 Louisiana's deer herds have more than doubled, increasing from approximately 20,000 to more than 50,000 in the uplands. This has been possible because a breeding nucleus was able to survive in the more inaccessible swamp and backwoods areas. From this nucleus the present population has resulted. The vast tangles of second-growth brush and scrub type trees that filled in much of the cut-over areas offered a better deer range than the original. This resulted in an increase in population despite continued hunting pressure, but a shift in deer distribution has occurred. Although populations have increased markedly, deer have not repopulated the pine-hardwood ranges to a great extent for three reasons:

1. Many of the pine-hardwood areas are only now restored to the extent that they constitute good deer range.
2. Many suitable ranges could not be easily repopulated because they were cut off from a source of deer by barriers such as farmland and settled areas.
3. Much of the pine-hardwood range does not have suitable escape areas to protect deer from dogs and hunters. Such areas can only be repopulated with better protection, refugees, and perhaps some restriction on dog hunting.

At the present time, Louisiana has deer present in 41 of its 64 parishes; with 22 of these parishes showing populations dense enough to afford hunting.

SOME FACTS ABOUT THE BIOLOGY OF THE DEER

According to Lowery, 1943, there are two distinct races of white-tailed deer in Louisiana. Odocoileus virginianus lousianae is the common upland and swamp-inhabiting deer while O. v. melthenyi is a small-bodied, large-footed race occupying the coastal marshes and its fringes. The life cycle and general biology of the white-tailed deer in Louisiana is not startlingly different from that of this species in other parts of the United States. Occurrence of the species is primarily confined to rather densely wooded, brushy or swampy second growth areas where there is ample food and cover. Escape areas are particularly necessary in the State since dog hunting and free ranging dogs are prevalent in Louisiana.

GENERAL BIOLOGY OF THE ADULT DEER

Deer belong to the same general group of animals as do cows and goats. In Louisiana the average size of deer is not yet...
THE FACTS ABOUT ANTLERS

Deer, like many other cud-chewing animals, have antlers. The antlers of deer are different from the horns of cattle in that they do not have a hollow bony covering over a core of bone. In deer, the bony structure grows out from the skull pushing the skin out with it. This skin covering, called velveteen, does not rub off once the antlers have completed their growth. Antlers occur only in the male deer and are a result of sexual maturity. Occasionally a male deer will be mealy and never grow horns. One such animal was trapped in Louisiana in 1933. Male deer lose their antlers each year. The adult male deer sheds his antlers each year, usually in February, but antlers may be dropped as early as November if the deer are in poor condition. New antlers begin to grow in March and April and are completed by July. The antlers harden, the "velveteen" dries and is rubbed off, and the antlers are polished in August and September.

One point sure to start a discussion among sportsmen is the question of the number of points on the antlers as an indicator of the age of a deer. This idea has been disproved by many studies on deer. After maturity the number of points on an antler are determined by the amount and kind of food a deer is able to find. Normal, well fed deer, will have antlers with five to eight points at 18 months of age. In succeeding years the rack may vary from four to eight points or even more or less than this number in the same deer. Spike antlers are usually associated with very young or very old deer but much data now points to the fact that spike antlers may be a result of poor food conditions. In several overcrowded areas in Louisiana, spike buck's are the rule with good racks the exception.

THE BREEDING HABITS OF DEER

Deer are polygamous and one buck may claim and service several does. For optimum breeding, however, the sex ratio of the herd probably should never exceed five breeding does to one breeding buck.

Breeding or rutting occurs from October through February and reaches a peak about the middle of November. In areas where there is a distorted buck-to-doe ratio and there are more than five does for each buck the breeding season may last longer.

The gestation period of deer is from 207-210 days. The fawns are born from May through September, but the peak of fawn production is reached in June.

The average production of fawns per breeding doe in a normal herd is 1.5. This figure is explained in the following manner. About 30% to 40% of the yearling does will breed, and in most cases this breeding results in a single fawn. After the first breeding season a doe usually has twin fawns, but triplets are not uncommon. Does may continue to produce at this rate for 10 to 12 years. Variation from this normal fawning rate may occur in overcrowded areas where does may average only one fawn per year or in old deer which may produce only one fawn or become barren. Barren does are rare except in overcrowded conditions where the sex ratio is distorted to the extent that there are so many does for the bucks to service.

GROWTH RATES AND HERD COMPOSITION

Fawns normally weigh from four to seven pounds at birth and are able to stand on the second day. Fawns usually do not follow the mother doe until their fourth week. This fact has led many casual observers to believe that fawns are normally dropped a month later than they actually are. Fawns are spotted at birth, which makes them protectively colored and very difficult to be seen in their natural habitat. They normally lose their spots at from 3 to 5 months of age during September and October.

During the second year a deer is generally called a yearling. In normal herds yearling deer are rapidly approaching maturity. About half the yearling does will breed in the second year, and the yearling bucks may grow four to eight point racks and begin to service does by 18 months of age. In overcrowded herds, however, growth rates are much delayed, along with sexual maturity and antler formation.

In a normal herd an equal number of does and bucks are born each year giving a buck-to-doe ratio at birth of one to one. In a normal unshot herd this ratio of one buck for one doe will be maintained indefinitely, but this ratio should not be confused with the ratio of antlered bucks (legal bucks) to all other deer (illegal) in a herd. In a normal unshot and unmolested herd there will be one antlered buck to every two other deer, because antlerless fawn and yearling bucks must be added in with the does.

In areas where only legal bucks are shot the ratio of legal bucks to the illegal deer in a herd may rapidly change from one to six to as high as one to thirty-five. In this latter case the great distortion of herd composition is not due to selective buck shooting alone but is compounded by too high a population and poor food conditions. In overcrowded areas yearling bucks and even three year old bucks may fail to have legal antlers. This greatly adds to the number of illegal deer in the area. Recent studies of heavily populated areas in Louisiana have shown the legal buck to illegal deer ratio to be so distorted as one buck to approximately thirty-five illegal deer. This point will be discussed more thoroughly in a later article in this series.

PREDATION

In past years the most important predators of deer were probably cougars, wolves, and bobcats. Today the most important predators are probably stray dogs, bobcats, and vultures. Stray dogs undoubtedly destroy large numbers of fawns and yearlings each year. Buzzards prey on newborn fawns.
Game managers use airplanes and airboats to catch as many as 100 deer a day for transplanting to areas where they will have plenty of food.

The deer are not set down two or three at a time without their accustomed herd of companions. Twenty or more are moved together, enough to compensate for natural attrition and to insure the herd's increase. Because deer normally range less than 10 miles in any direction they soon became acclimated to the spot designated by the commission—and they have plenty of the food best suited for them.

Deer thrive on acorns, buds, leaves and twigs. Surprisingly they develop better on this wild forage than on soybeans, corn and winter crops—but that doesn't keep them out of farmers' fields.

The solution to this problem, says the Wild Life and Fisheries Commission, is a very simple one: Just shoot the deer—during the hunting season.

However, some farmers and sportsmen don't want female deer shot even if crops have been ravaged and the herd is threatened by overpopulation. According to the traditional sportsman's honor, a reputable hunter does not shoot a doe. "Nonsense," answers the commission. "When we authorize doe season in an area, that means we want the herd reduced."

By autumn nearly all that year's young have grown into adults able to fend for themselves. However, if hunters see a fawn they often want to catch and tame it. "Leave it alone," says the commission. "The doe will return for it as soon as you leave. The fawn will be much happier in its natural habitat than in your backyard."

Deer breed once a year, usually in autumn and early winter, beginning when 1½ years old. In the open (as opposed to zoos) they live only four or five years.

Deer hunters have to be pretty stealthy woodsmen if they're out for more than just spending a relaxing day in the woods. For many, hunting is an excuse to get out of the office, get exercise, admire the autumn foliage—and feel like a youngster again.

Others consider deer hunting a fine art, because deer have acute senses. They can see behind them because their eyes are on the sides of their heads. They can smell acutely and hear amazingly well. They can also outrun a racehorse for short distances, leap a six-foot fence without breaking stride and dart aside with surefooted dexterity. Also they can swim for miles, partially because their hair is hollow. It floats and buoy the deer.

They can also warn each other of danger by snorting, bleating and stamping their hooves. One hunter reported that he was taking aim at a "fine, big 180-pound buck" when another deer behind and downwind of the hunter snorted. His buck dashed into the undergrowth and "was gone."

Deer have other advantages over hunters who enter the deer's habitat for possibly the first time. The deer live there, feel at home and are likely to
sense the presence of an intruder. Then like smart animals they remain stationary, stay hidden. After the first few days of hunting season, the number of kills decreases sharply. Deer know they're surrounded by hunters; they hide, almost invisible, in the shrubbery.

Not surprisingly, out of over 943,000 hunting expeditions (many hunters went often) last year, the hunters killed 23,000 deer. That's about one per 30 hunting trips, according to commission statistics. The kill was 6,000 in 1950, before transplanting took hold.

The most practised method of hunting is to hide close to a path deer use habitually and shoot the deer as he comes along. But that's not so easy. Deer change their browsing areas according to weather, time of day, season, and available food. They also change their habits if they don't feel safe. A hunter has to find his "bide" (the stalked deer may sense exactly where the hunter is lurking) in an often unfamiliar forest.

Some hunters actually handicap themselves by using bow and arrow instead of shotgun or rifle, simply because it's more fun. The more of a disadvantage, the more competition with the animal and the more sport to the hunt. Shooting season begins a month or so earlier for the bowmen so they can get into the woods before deer are "spooked" by gunfire. Over 1,000 bowmen hunted in Louisiana last season. At least that many are expected by the commission this year.

This year, the archery season opened on October 7 and, depending upon regulations in various areas, will continue through January 10. The regular season opens on November 24, and days for hunting are scheduled in various areas through January 10.

The Indians used bows and arrows as well as snares of intricate design to hunt deer. Also, they seem to have had great respect for the handsome, graceful animals. According to historians, braves wore headdresses of buck's antlers for ceremonial dress, may have emulated the deer's qualities and spent much of their time chasing them.

Deer have few natural enemies in Louisiana. Although fawns are threatened by bobcats, such predators are scarce. Wild dogs, however, which are not really natural animals because they are generally raised and then lost or abandoned by men, hunt in packs. They can catch and kill doe with young and an occasional buck. But the most serious threat to deer is overpopulation. Deer, as do cattle, need a certain amount of food per acre to grow and thrive.

If deer exhaust their browsing area, they lose strength, become susceptible to disease, especially intestinal parasites, and are less able to reproduce at a normal rate. Bucks, if well fed, weigh about 100 pounds at maturity. In some overpopulated regions of the state they have been found weighing only 100 pounds. That's one reason the Wild Life and Fisheries Commission transplants deer.

Antlers (which have no feeling) are cut for deer's safety en route. The stately headpieces fall off anyway in late winter, early spring.
The Fair Grounds
And Its Colorful Past

By Betsy Petersen

The past lives at the Fair Grounds.
Visitors to the venerable New Orleans racetrack
(Of the major tracks, only Pimlico and Saratoga are
said to be older), pass through the same gates that
graced the entrance when the Fair Grounds really
was a fairgrounds, home of the Mechanics and Agricul-
tural Fair; the stately live oaks in the infield and
around the barns were already grand old men when
the Louisiana Jockey Club held its inaugural meeting
in 1872. And the saddling bell, which began life on
an ante-bellum plantation, rings now as it rang nearly
100 years ago, 15 minutes before each race.

Those who watch the races from the elegant club-
house can see there the brightly colored scraps of
satin on which were printed the official "programmes"
of meetings in the '90s. One for January 31, 1899—
ladies' day—announces "musical selections by Prof.
Wolff's Crescent City Orchestra."

Indeed, the forebears of our modern sportswriters
seemed to attend the races as much to watch the

Right, view of Fair Grounds grandstands in
'20s. Below, more recent picture. Stands were
first to be glass-enclosed and steam-heated
in the world, says Fair Grounds management.

Fair Grounds saddling bell is run 15 min-
utes before each race. It came from ante-
bellum plantation to racetrack in the '70s.
Whenever deer in Louisiana reach the overpopulation point, the only logical way to reduce the deer herd is to legalize the taking of both sexes. When, and if, this time comes, sportsmen should be ready to accept this sound management practice rather than have animals die of malnutrition and starvation.

--- Photo by Margery

Some parishes will find it necessary to prohibit the use of dogs in deer hunting in order to re-establish large populations.

--- Photo by Graham

This acorn trap is part of the program of determining the most productive species of oaks, thus their value (or lack of it) in furnishing food for wildlife.

--- Photo by Graham

The deer, otherwise too many bucks will be taken annually and the buck-doe ratio (optimum for breeding is 1 or more bucks to 5 does) become distorted. The study of deer in Louisiana also indicate that in certain other localities, such as the upland pine lands, the continued use of hounds for hunting deer makes it virtually impossible to re-establish deer in large numbers. Therefore it is thought that in an intelligent deer management program certain parishes should prohibit the use of dogs in deer hunting.

Although a lot of basic information has been gathered on deer, there is still much to be learned through research about our Louisiana deer. Our present deer trapping program affords an excellent opportunity for certain phases of this research. This information will not only help make a more efficient trapping operation but will also aid in planning a management program in the future.

The biologists in charge of the trapping operations record data on general weather conditions, such as temperature, barometric pressure, wind direction and velocity, and rainfall. All trapped deer are cartagged and information is recorded on the deer's age, weight, sex, physical condition, place of release, and the number of points and the size of the antlers.

An intensive study of deer food conditions is another type of research that has been conducted for several years. In this study a large number of sample plots are selected annually throughout the deer range. Records are kept as to the various species of trees and shrubs present on each plot and the extent to which deer are feeding on each species.

Along with these browse investigations, the most production of certain species of oaks is being studied to determine the value of the various oaks as producers of deer food. The results of these investigations will enable the game technician to determine the number of deer that any area will support.

In conclusion, it may be stated that since deer respond very readily to intelligent management, the Louisiana deer hunter can expect far better hunting in the future than he has ever experienced in the past.

--- THE END

--- Photo by Graham

Deer enclosures such as this one are designed to determine the effects of a given number of deer on the available food within the enclosure.

--- Photo by Graham

All of the deer research being done in Louisiana is for one purpose—to make more big bucks like these available to the hunter.
Dear Mr. Fish and Wildlife Service

August 6, 1953

Director
U. S. Fish and Wildlife Service
Washington, D. C.

Dear Sir:

We have received the migratory bird regulations approved July 30, 1953. Since the mourning dove is such an important game bird in Louisiana and the entire Southeast, we feel the Fish and Wildlife Service should give more attention to the scientific facts that were gathered during the last four years through the cooperative dove study. As you are no doubt aware, the ten (10) Southeastern States spent approximately $200,000.00 as direct cost in gathering the best management data available and many thousands of dollars indirectly in assisting in this study. Louisiana alone has spent approximately $100,000.00. This study was encouraged and after submitted for Federal Aid approval, it was approved by the Fish and Wildlife Service. The reason the study was needed as outlined in the perspective of the preliminary project statement are, "There has been much controversy over certain points which affect the regulation of dove hunting. The argument concerns chiefly the opening dates of the shooting seasons, and the duration of the seasons in different areas." The objectives of the work plan, a part of the document, as approved are, "To study dove movements, breeding reactions, population densities and distribution, and hunting effects. To recommend proper management and hunting regulations based on the resulting data. To present the data in periodic reports and final publications to inform cooperative States and the public." The objectives of Job E as approved in the work plan by the Fish and Wildlife Service states, "To formulate a state policy and technique for management of the mourning dove, inclusive of hunting regulations." We believe the intentions of the Fish and Wildlife Service and the States while this project was in the planning stage was clear, that is, information would be gathered and then future management would be based on this data.

The Progress Report of the Cooperative Study from August 1948 until June 30, 1953 has been received. In analyzing the data gathered in Louisiana and those presented in the above-mentioned report, we believe the Fish and Wildlife Service has ignored the findings of the Cooperative Dove Study and the recommendations made by the Louisiana State Fish and Game Research Board.

Based on the Cooperative Study and substantiated by the work undertaken in Louisiana, the following facts are set forth for consideration:

1. The hunter is responsible for less than 20 percent of the annual mortality.
2. Eighty percent of the doves do not live to be one year.
3. There is an unknown annual mortality of more than 50 percent, a part of which could be harvested by the hunter.
4. The fall population is dependent upon the success of the breeding season.
5. That far more birds are present after the hunting season ends than are needed to replace any reasonable fall population.
6. The heaviest mortality is during the late summer and early fall.
7. The hunter kill only a very small number of breeding adults during September seasons.
8. That more than 90 percent of the bag during the September season are birds of the year.
9. That there is no differential in the shooting of age classes.
10. That the dove population is made up of distinct segments.
11. These segments are consistent in their movements regardless of food supply, weather, hunting pressure or other factors.
12. That few sportsmen travel far to hunt doves.
13. That the average daily bag is only about five birds.
14. There has been no material change in the overall dove population during the last 30 years.
15. There has been a wide dispersion of doves due to changing agricultural practices in the Southeast.
16. That production rate, nest mortality and other factors that influence populations have not changed materially.
17. That factors adversely affecting the production and population of doves are infrequent and short in duration.
18. That temporary fluctuation in the dove population is stabilized following one year of normal production.
19. That late hunting has a more detrimental effect on the dove than September shooting.

When analyzing the above facts it is evident that the resource is not being adequately utilized. In other words, the unsound and unnecessary restrictions placed on the dove hunter do not permit him to harvest a sufficient number of doves to keep a large part of the population from dying of natural causes, which benefit no one. There was no evidence based on a half million dollar study that the present restrictions are saving doves, nor is there any doubt that the same stringent restrictions if more birds need to be carried over to the breeding season.

To permit the sportsmen to more fully utilize the resource and enjoy the sport of dove shooting, we believe the Fish and Wildlife Service should put into effect the recommendations listed below:
1. Once and for all set a hunting season framework between September 1 and January 15 throughout the country.
2. Permit the States to select the season within this framework based on the annual harvestable population.
3. Let the States select a continuous or split season of two periods if they choose.
4. The State should be allowed to choose a split season of unequal length periods. There is no valid reason why each period must be equal in length.
5. There should be no penalty for a split season.
6. There is no valid reason to prohibit zoning, therefore, zoning should be permitted. It should be limited to two zones per State and be based on ecological and physiographical regions. The study shows that few hunters will travel far to shoot doves, therefore, very few or no more doves will be killed under zoning.
7. Increase the bag to at least 10 birds and more if the facts indicate that additional birds can be harvested.
8. Increase the length of the season. The present bag or season does not permit adequate harvesting.
9. Permit all day shooting. There is no reason to believe it will hurt the dove population, and it discriminates against many sportsmen.

The requests mentioned above are designed to give the Louisiana sportsmen the same opportunity to enjoy dove hunting as given hunters in certain other States. We see no reason why Illinois, Missouri and parts of Texas should be allowed all day shooting and those States in the Central Flyway including Texas be given two additional days if it is poor management to allow the same in Louisiana. We believe the facts will show that Illinois and Missouri kill as many or more birds than Louisiana and probably many other Southwestern States. Why should those hunters be favored over ours? I have heard arguments that there is less hunting pressure on birds in the Central Flyway than in the Eastern part of the United States. We would like to see the facts on which you have based your assumptions. We have definite proof that the bulk of the doves passing through Louisiana go into Texas. Why should the people in Texas be given a full day and two extra days to shoot the birds we Louisianans hunters are permitted to shoot only during the afternoon?

... We have good information that has proved beyond question that we are not properly managing the dove. We demand that the data be used and quit "dilly dallying around using guesses as you have in the past.

Very truly yours,

Geo. C. Moore, Chief
Fish and Game Division
Taking no chances with this third place cobia are (left to right) George McNess, R. J. Savant and M. J. Waguespack, Jr., all of Lake Charles.

Sixty-pound, 11-year-old Miss Rac Dein Cummings with her 35-lb. cobia.

W. J. ‘Bill’ Cleveland, Crowley, is just a wee bit happy about his 41-lb. first-place cobia.