

## ECONOMIC IMPORTANCE OF THE ARKANSAS DEER HERD

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### History of the Whitetail

In the history of the North American Continent, the wildlife with which our country was so bountifully blessed, played a major role in the development of this "new world". It was the wild turkey in the New England states that helped to prevent the early pilgrim from starving, and the American elk or "Wapiti" which supplied both food and clothing to the early pioneer of the Appalachians. In the great plains region of the west, the American bison or buffalo provided furs for warmth and food for sustenance to an army of workers that built our railroads and pushed our civilization westward. It was the beaver in the northwest, just as much as gold in California, that lured deep into the wild beyond our early trappers and traders who blazed new trails for settlement.

Of equal significance in the history of our country, and particularly Arkansas, was the whitetail deer which once ranged from the Atlantic seaboard west to the Rocky Mountains and from the Gulf of Mexico north to the provinces of Canada. The deer furnished the pioneers with venison as one of their principal sources of food and buckskin for their garments. Hunting of the whitetail taught our forefathers woodcraft and rifle marksmanship.

From the notes of Lt. Wilkinson, who with three companions in 1807, descended the Arkansas in two canoes, we receive some idea as to the abundance of deer and the big game in this state. He wrote "of the presence and abundance of game found on this journey, particularly on the upper portion of the river, - - - the borders of the Arkansas river may be termed the paradise of our territory for the wandering savages. Of all the countries ever visited by the footsteps of civilized man there never was one, probably, that produced game in greater abundance, and, I believe there are buffalo, deer, elk, and bear sufficient on the banks of the Arkansas alone, if used without waste, to feed all the savages in the United States territories one century".

The exploitation of this wildlife is an old story which has been retold many times. With the settlement of the country and the development of railroads, hunting became a sport rather than a necessary means of procuring food. Then market hunting began in earnest. The elk and buffalo were entirely exterminated, the bear reduced to but a few individuals, and the deer depleted to a remnant of their former abundance.

The low ebb of the deer population in Arkansas was reached during the period from 1920 to 1930, at which time the herd numbered less than 1,000. These deer were distributed in small and widely scattered bands seeking refuge in the rugged fastness of our highlands, the extension forests of our coastal plains, or in the deep bottom lands of our delta.

### Restoration

The turning point in the population trend of our deer herd dates from the establishment of our first federal big game refuge in the Sylamore District of the Ozark National Forest in 1926 and

the first state game refuge in 1927. Today, Arkansas is served by twenty-seven state big game refuges comprising an area of over 470,000 acres, nine federal refuges comprising 143,000 acres under the direction of the U. S. Forest Service in cooperation with the State Game and Fish Commission, and two wildlife refuges consisting of 134,000 acres under the supervision of the United States Fish and Wildlife Service.

This represents a total refuge area of over 747,000 acres exclusive of state parks, federal ordnance plants, war training areas, and other federally owned lands upon which hunting is restricted.

The first of our big game refuges were established in areas where a small remnant of the original herd existed and which served as breeding stock. In more recent years, however, as our restoration program advanced, the refuges have been established in areas extremely suitable for deer production but on lands where there were no deer or where the breeding stock was inadequate. This problem is being met by an intensive stocking program. At the date of this writing (April, 1945) a total of 779 deer have been planted during the past four years.

### Present Population

The estimated population of our deer herd, today is approximately 33,565 head. The distribution, abundance, kill, and hunting pressure in 1944 is shown in the following table.

Table I

Region	Population	Kill	Hunters
Ozark Mountain	11,375	532	6,422
Delta	8,465	228	2,465
Ouachita Mountain	6,225	397	2,795
Coastal Plains	7,480	399	2,298
Arkansas (total)	33,565	1,606	14,000

From this table it may be seen that the deer are somewhat evenly divided in the four major game regions of the State. Actually there are some deer in 66 of the 75 counties in the state although the bulk of the population is located in a few centers such as the herds in the Sylamore District (Stone and Baxter Counties), Desha & Chicot Counties, Grant, Dallas, Howard, Ashley, Perry and Polk Counties.

### Economic Importance

The actual value of the deer in the state of Arkansas may be figured at the rate of \$50.00 per head or a total of \$1,678,250.00 (Actually, the deer purchased from the Sandhill Game Farm in Wisconsin cost us \$60.00 per head). This is an increase of \$1,628,250.00 over the original stock valued at \$50,000 represented by 1,000 head of deer. Each year since 1927 we have been paid dividends in the form of sport and deer bagged.

Last year during the 12 day (1944) season of two periods (six days each) approximately 14,000 hunters went to the field in the pursuit of the Whitetail and bagged 1,606 deer valued at \$80,300.00.

For the privilege of hunting each of the 13,800 resident sportsmen held a \$1.50 hunting license and each of the 200 non-resident sportsmen possessed a \$25.00 license. The sum total of these licenses was \$25,700.00. This money is paid into the general game protection fund and used in maintaining and promoting our game restoration program.

The recreational and esthetic values of Arkansas' Whitetails cannot be overlooked. A hunter goes to the deer woods and feels rewarded if he gets sight of the animal.

Deer hunting as an outdoor sport is exhilarating, supplying exercise and escape to an army of sportsmen.

Indirectly, Arkansas benefits from the expenses incurred by the hunter in making his trip. He first procures a gun for which he must buy shells. To many sportsmen the proper attire is important so he fits himself in hunting clothes of special design. Then there's the "grub" to be bought for camp, and camping equipment plus operational expenses on his car. If he owns any of the 3,500 deer dogs in the state there will be dog food to buy. Guide service is engaged by a few who are not familiar with the country. Then there's the liquor bill too, which seems indispensable to a few. All in all, the average deer hunter spends at least \$40.00 on his sport which enriches his fellow man by the same amount. Thus it may be figured that over \$560,000.00 was spent by the Arkansas deer hunters in hunting deer last season.

#### Future of the Whitetail

And what of the future of deer hunting in Arkansas? There are approximately 33,744,000 acres of land in this State. Of this 75% is in forest of which approximately 16,000,000 acres represents either actual or potential deer range. This is enough territory for more than 320,000 Whitetails based on an estimate of only one deer to every fifty acres. This population would sustain a kill of at least 50,000 deer annually affording sport for more than 100,000 hunters.

An analysis of the economic significance of such potential deer population is shown in the table below:

Table II

Stock Value: 320,000 deer @ 50.00	\$ 16,000,000.00
Annual Dividend 50,000 deer @ 50.00 (Seasonal Kill)	2,500,000.00
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License fees paid to game protection fund	
(a) 95,000 resident licenses @ \$1.50	\$ 142,500.00
(b) 5,000 non-resident licenses @ \$25.00	\$ 125,000.00
<b>Total License Sales</b>	<b>\$ 267,500.00</b>
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Indirect Value to State through purchase of guns, shells, food, gas, hunting equipment, etc.:	
100,000 hunters @ \$40.00 per head	\$ 4,000,000.00

Is this actually possible? Permit me to refer to records compiled on the Sylamore herd which disclose a deer kill of 2 in 1927 and 463 in 1944 and an increase in the number of hunters from 80 in 1935 to 5,000 in 1944. The Sylamore district comprises a gross acreage of only about 170,000 acres. The deer herd in this district is estimated to number from 4,000 to 8,000. As indicated previously in this paper there are 16,000,000 acres of actual or potential deer range in the State.

As further evidence we need only to refer to the statistics presented by the States and recorded by the Fish and Wildlife Service in their research report #8 entitled, "Big Game Resources of the United States". From this report the following table is prepared showing whitetail deer population estimates and kill in leading deer states.

Table III

State	Deer Population Estimate, 1942	Deer Kill - 1942
1. Pennsylvania	750,000	27,770
2. Michigan	734,000	75,736
3. Wisconsin	604,625	40,000
4. Minnesota	472,503	76,806
5. New York	300,060	13,740

The foundation of a great deer herd has been laid. Public cooperation is needed in the protection of the deer we now have. At the present rate of increase we may expect to achieve our objective of 320,000 deer by 1960.