A HISTORY OF DEER RESTORATION IN TENNESSEE

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The oldest deer harvest records we have in Tennessee are from 1949. In that year, 113 deer were harvested in the Ocoee and Tellico Units of the Cherokee National Forest. In 1952, 171 deer were harvested statewide in 5 counties (Anderson, Campbell, Monroe, Polk and Union) and an additional 351 deer were harvested on 5 Wildlife Management Areas (WMA's). These WMA's included Andrew Johnson (Greene County), Chuck Swan, Ocoee, Shelby Forest (Shelby County) and Tellico. By this time, The Tennessee Wildlife Resources Agency (TWRA), then known as Tennessee Game and Fish Commission, had been stocking deer for 12 years. By 1985 (33 years later), 9,029 deer had been stocked in Tennessee and the harvest that year exceeded 60,000. During the 2003 season, Tennessee hunters harvested over 158,000 deer.

As successful as the reintroduction of deer into Tennessee has been, very few people (even within the Agency) know a great deal about the history of the program. There is much to learn about today's deer herd from the stocking efforts of 20-60 years ago. We often get questions about the genetic lineage of Tennessee's deer herd. For example, why are the deer in one county usually much larger than in another? Many people know deer were stocked from Wisconsin, Michigan, Virginia, and others. However, where these deer were stocked and in what quantities is little known.

The following is a synopsis of the deer restoration effort in Tennessee. Much of the information comes from a TWRA Wildlife Research Report written in 1991 (91-1). It is supplemented by additional archived data and interviews with biologists directly involved in deer restoration.

The Early Years:

Although "official" restoration efforts began in 1940, earlier stockings took place on three WMA's prior to 1940. Historical data reveals that 14 deer from North Carolina were released onto the Central Peninsula (Chuck Swan WMA) in 1937. This area would eventually provide over 30% (3,121) of the deer stocked. In 1936-37 approximately 190 deer from North Carolina were released at the Tellico and Ocoee WMA's. Official restocking efforts got underway in 1940, with 16 deer from Schowalter, Wisconsin were released into a breeding pen at Cheatham WMA. An additional 126 deer from Michigan and Maryland were added in 1941. The intention was to use deer from the breeding pen to stock other areas. These populations would then be used to stock the remainder of the State.

As planned, 101 deer from the breeding pen were released at Catoosa, Cheatham, and Prentice Cooper WMA's during 1943-44. Unfortunately, the program hit a stumbling block when the Cheatham herd was decimated by disease in 1945. From 1946-50, 636 additional deer were purchased from Wisconsin and released directly onto 7 WMA's and 3 counties. In summary, approximately 800 deer were relocated by the TWRA between

1940 and 1950. In addition to TWRA's efforts, the United States Navy released deer from Texas and Oklahoma into what is now Fort Campbell. Deer from this area would be used extensively in future stockings.

The Next Step:

By 1951, deer populations on WMA's were doing very well. In fact, some populations were to the point that in-state sources could be used for stocking. Chuck Swan provided the majority of these deer (1071) with Ft. Campbell providing an additional 200. By the mid 50's, efforts were focused on private lands with 27 different counties receiving deer. By the end of the decade, 2239 deer had been stocked and the herd was beginning to grow.

Big Things on the Horizon:

Between 1960 -72, over 3,000 deer were relocated. By the end of this period, stocking in middle and west Tennessee was essentially completed with the bulk of the deer coming from Ft. Campbell. Additional deer from Chuck Swan were released in the eastern portion of the State. Deer season was open in many counties with a harvest of over 4,700 in 1972. The harvest would almost double 2 seasons later.

Something New:

During 1966-67, 75 black-tailed deer purchased from Oregon were released at the Volunteer Army Ammunition Plant. They were used in an experimental breeding program until 1973. At that time, the 46 remaining black-tailed deer were released in Hamblen County and the hybrids were released at Milan Arsenal. Because of the black-tail's susceptibility to meningeal worm, the gene pool is believed to have been eliminated from Tennessee.

Wrapping up the Program:

Focus in the mid-70's shifted to east Tennessee. While Chuck Swan and AEDC continued to provide many of the deer, new areas were used as sources for deer. These included Oak Ridge National Laboratory, Cherokee Islands, Henderson Island, Holston Army Ammunition Plant, and Cades Cove in the Great Smokey Mountains National Park. There is no record of deer ever being stocked into the Smokey Mountains. Therefore, these deer are considered native. In addition, 176 deer from Virginia were released into Anderson, Cocke, Hawkins, and Sullivan counties.

In 1985 the stocking program came to a close with 360 deer being released into 5 counties. Three years later, all 95 counties had deer seasons. Table 1 lists Tennessee's stocking history. It is interesting to note that some of the counties that currently have the highest harvest figures were never stocked.

Methods:

Many techniques were used to capture the deer moved within the state. Some of the earlier efforts involved rocket nets and drop nets. This proved to be labor intensive and trapping was the preferred method. Box traps were used extensively with salt being the preferred bait. Traps were left in place and open at all times allowing deer to become accustomed to walking into the box. When a stocking was scheduled, traps were set and captured deer were loaded into cages and transported with trucks. Darting with immobilization drugs also was a common method of capture.

Of course, other methods were used when situations called for innovative thinking. One example was the method used to capture deer on Henderson and Cherokee Islands. Dogs were used to "run" the deer across the island and into the water. When the deer began to swim across the lake, biologist would pull along side in a boat, lasso the animal and pull it out of the water. The deer were then sedated and transported to the release site. Amazingly, no serious injuries, to deer or humans, were ever reported with this capture method. It's no wonder that many biologists say that some of their fondest memories of working involved deer trapping.

Sources of Deer:

Often, we get inquiries about the genetic lineage of a particular deer herd. This is not always an easy question to answer. Most counties were stocked multiple times and many times stockings came from different areas. There were 3 primary sources for deer from within the state. These are Chuck Swan, Ft. Campbell, and AEDC. These 3 areas alone accounted for 6,678 (74%) of the deer moved. In addition, most of the other in-state sources can be traced back to one of these 3 areas.

The Chuck Swan deer herd originated from North Carolina. 14 deer were stocked in 1937. In 1968 and 1969, 147 deer were released at Chuck Swan from Ft Campbell. The Ft. Campbell deer herd originated from Texas and Oklahoma. This herd was used to stock AEDC in 1960. In summary, the bulk of the deer in Tennessee can be genetically traced to North Carolina, Oklahoma, or Texas. Figures 1 and 2 show which counties were stocked with deer from these areas.

Figure 1. Counties where deer from Chuck Swan were stocked. Chuck Swan was stocked with deer from North Carolina and Ft. Campbell.

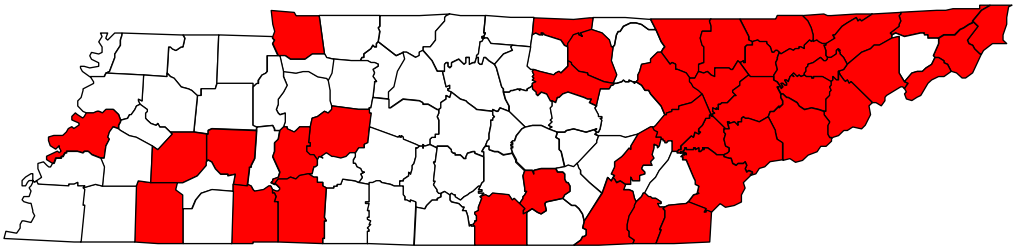
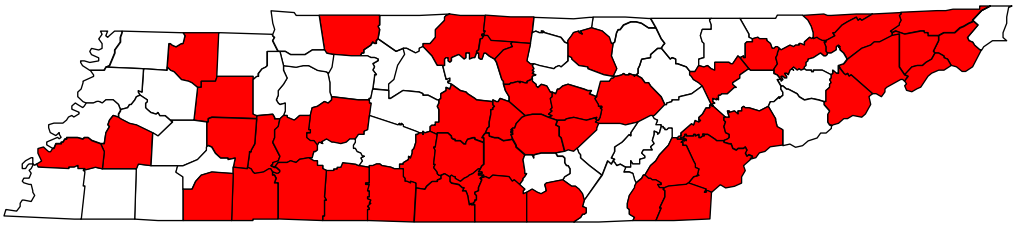


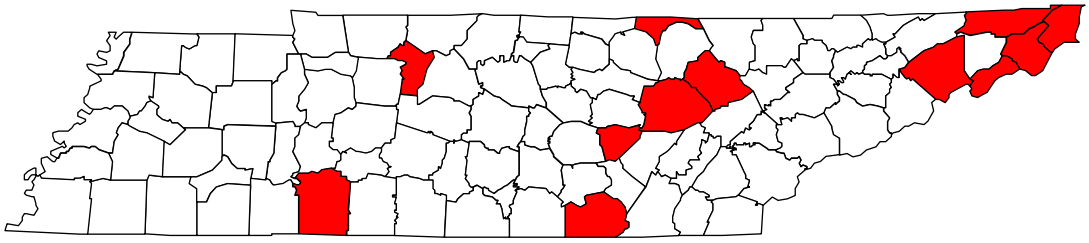
Figure 2. Counties where deer from Ft. Campbell and AEDC were stocked. The AEDC herd originated from Texas/Oklahoma deer stocked at Ft. Campbell.



The Wisconsin Influence:

We often get questions concerning the deer that were stocked from Wisconsin. Records indicate that 652 deer were purchased from Wisconsin. The bulk of these deer went to Catoosa WMA and portions of upper east Tennessee. All of the eastern counties were stocked with additional deer from in-state sources during the 70's and 80's. While there still may be some Wisconsin "influence" in upper east Tennessee deer population, it is generally assumed that the only area where the Wisconsin gene pool still has an impact of the local deer herd is on the Cumberland Plateau in Cumberland, Morgan, and other surrounding counties.

Figure 3. Counties that were stocked with deer from Wisconsin.

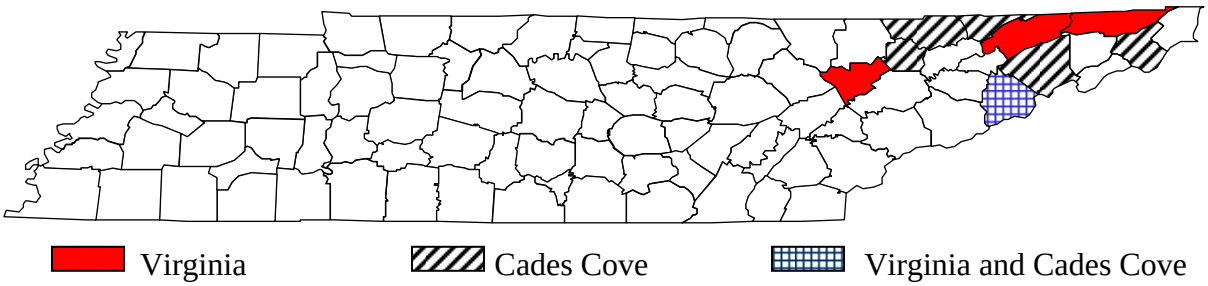


Other Sources:

In 1978, 60 deer were purchased from Virginia, these deer were released in Hawkins and Sullivan Counties. An additional 116 deer were purchased in 1985 and released into Anderson and Cocke Counties (Figure 4.) During the earliest years of stocking deer from Michigan and Maryland were used in the Cheatham breeding pens. However, their genetic influence was all but eliminated from Tennessee with the disease die-off in 1945.

During the last few years of the program a new in-state source was used. Cades Cove, located in the Great Smokey Mountains National Park, provided 328 deer for restocking in 6 eastern counties. There are no records of deer ever being stocked at Cades Cove. Therefore, these deer are considered native.

Figure 4. Counties that were stocked with deer from Cades Cove and Virginia.



Setbacks:

When attempting to re-introduce a species, there are usually setbacks. This program was no exception. The first major problem has already been mentioned, the disease outbreak at the breeding pens. The primary problem with this "change in plans" was the fact that deer had to then be captured from the wild. Much more manpower was spent trapping than would have been needed to just move them from the breeding pens. In addition, without this setback the entire makeup of the Tennessee deer herd may have been different. Remember, over half of the initial stockings of the breeding pens were deer from Michigan and Wisconsin.

In some areas, the deer just didn't expand as well as expected. For example, Unicoi County had an initial stocking of 102 deer in 1947. Additional stockings of 36 deer were made in 1951 and 1952. However, the harvest 20 years later was only 109 (1971) and 101 (1972). Even today, Unicoi County's annual harvest is usually 375-450 deer with a total of 231 deer being stocked. Of course, much of this is habitat related. Counties along the Mississippi River such as Lake, Dyer, and Tipton Counties also are examples of herds that never have expanded to what was expected. As stated earlier, we have no records of deer ever being stocked in counties with some of the highest annual harvest figures.

Poaching probably played a role in slowing efforts in some areas. While Wildlife Officers did an outstanding job protecting the deer herd, there were not enough of them and there certainly were not enough hours in the day to do the job. A recent case that Wildlife Officers worked indicates the impact that poaching may have made in one county. Officers arrested an individual who had in their possession documentation that indicated they alone illegally killed 30+ does in a small portion of the county during a period when only bucks were allowed and annual harvest was less than 250. There is no doubt that these types of activities had a dramatic impact on local restoration efforts.

To say that the deer restoration program in Tennessee was a success would be an understatement. Due to the hard work and sacrifices of many individuals, most of whom have retired, today's Tennessee deer hunter has a great resource to enjoy. In fact, the deer have become quite a problem in some areas. While biologists continue to encourage growth in some Mississippi River and eastern counties, they are implementing new

harvest strategies to deal with high populations and depredation in middle and western counties.