

WILDLIFE SESSION

DEER TRAPPING AND TRANSPLANTING IN NORTH CAROLINA

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The purpose of this report is to bring the project up to date with a recent change in personnel. The new Project Leader, who took office on June 15, 1949, wishes to make it clear that the credit for progress on this project prior to that date belongs principally to Frederick Mahan, previous Project Leader. The general objectives of Pittman-Robertson Project 21-D are: (1) to locate and restock with deer areas which are currently barren of deer; (2) to locate and alleviate overpopulated areas; (3) to develop a statewide big game restoration program; and (4) to develop big game management techniques for present and potential deer range.

As conceived in this project, deer trapping and transplanting benefits both the trapping site and the release area. Since deer trapping is usually done in areas of concentrated population where there are more deer than the range can support, removal of deer contributes to population control and balance of the food supply which results in the maintenance of body weight and trophy head size, as well as the continued sustained yield of wildlife and timber from the same area. In some places long-continued buck harvest has resulted in a badly over-balanced sex ratio, with ten to fifteen does being reported per single buck. This not only makes for poor deer hunting, but also detracts from the enjoyment of fox hunting since the excess does take the hounds off the track. The best use that can be made of such excess does is to transplant them to new areas to start new herds in currently unoccupied range. Deer trapping and transplanting can also serve a useful part in preventing the build up of populations to the point where they are subject to outbreaks of diseases and parasites. Lastly, removal of excess deer from agricultural areas where they are causing crop damage is also a public service in more ways than one.

The release of deer in unoccupied range results in several obvious benefits to the people near the release area. The establishment of new hunting areas benefits not only the hunters, but also the local hostleries and sporting goods establishments. It reduces the cost of hunting for the people in the vicinity of the release site since the local hunters do not have to go so far for their sport. The establishment of new hunting areas reduces the pressure on existing areas, thus allowing a larger percentage of the local hunters to shoot deer. This is especially important in North Carolina since many people buy county licenses which cost only one-fourth as much as statewide licenses.

TRAPPING AND MARKING

The first traps used in this project were pole-type box traps left over from the Uwharrie Deer Restoration Project (PR 19-D). These were not long maintained,

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however, since it was found that they rotted away rather quickly, and furthermore it is almost impossible to completely remove all knots and irregularities, so that deer were injured in the traps more frequently than they would be in traps with smooth-sided interiors. Consequently 167 board type traps were constructed early in the project at a unit cost of \$18.31. These traps were made of one inch oak lumber and oak two by fours, and many of them are still in good condition at the beginning of the fourth year of use.

These traps work very well in most locations, however, it was found that at least in one area they did not work at all well. This was on the Biltmore Estate south of Asheville which is characterized by many open fields of improved pasturage interspersed with woodlots. The poor success on this area was attributed to a great abundance of highly palatable foods which eliminated the attractiveness of the bait in the traps. Since there still appears to be an over-population of deer on this area we are contemplating the use of a corral type trap. Preliminary investigation reveals many degrees of success and failure in the use of this process. If there are any present who have had experience with corral trapping of deer we would be very pleased to hear about it, even if it was negative.

In addition to marking deer with the conventional metal ear tags we are planning to apply various combinations of colored dyes to the tail and rump patches. The functions of this type of marking may be listed as follows: (1) to identify individual released deer for data on dispersal from point of release as well as to secure data on cruising radius; (2) to determine the reaction of deer from various sources to each other and to the release site; (3) to serve as a Lincoln index in population estimation, as well as a base for checks on various conventional census techniques.

Two of the several dyes tested to date have proven very well adapted. One is nyanzol blue and the other is picric acid in alcohol. The nyanzol blue yields a purplish black while the picric acid produces a bright yellow. We are at present looking for an effective red, green, and light blue. Here, too, if any in the audience know of any permanent, easily applied dyes we would appreciate learning of them.

TRAPPING RECORDS

The first year 109 deer were caught on two different areas; the second year 283 deer were caught on three different areas; the third year only 52 deer were caught on two areas; and last year 89 deer were caught on one area.

The cost of trapping per head of deer has in general varied inversely with the number of animals caught; the greater the number of animals caught the less the cost per head. In 1946 - 1947, when 259 deer were released the cost was about \$65.00 per head, but in 1947 - 1948 when trapping success was very low due to a heavy mast crop, only 47 deer were caught and released, making the unit cost nearly \$150.00.

The records also show that trapping success was higher in the fall than in the winter. It took nearly twice as many days to catch a deer after January 1, as compared to the period October 15 to December 31. This, however, may have been due to the fact that most of the "gullible" deer are usually removed early in the season, and it may well be that if trapping were initiated January 1, we would meet with the same degree of success for a short period as has been experienced by fall trapping.

In most cases more does than bucks have been caught in both adults and fawns, and fawn catches numbered approximately one-third of the adults, or one-fourth of the total caught.

Current trapping prospects have been seriously curtailed by the outbreak of the as yet incompletely explained deaths among eastern deer. We had planned on trapping in two sections in the eastern part of the State, but do not contemplate carrying out this part of the program if the disease continues. At the present time our program calls for trapping on the Mount Mitchell Wildlife Management Area and one other western area. In addition to deer taken from these two places we plan to bring in 100 or more deer from Wisconsin.

RELEASE AREAS

Areas to be restocked with deer must meet several qualifications. They should be tracts of 10,000 acres or more in one contiguous block. It is necessary that a large tract be available so that the deer may move about freely and have an opportunity to select their home territories without endangering local agriculture. A large area is also necessary in order to build up a large herd that can support hunting on a permanent basis.

The area should be characterized by an abundance of browse as well as open grassy areas. Tracts of land that have been cut over during the preceding five years are especially well suited. The bulk of the area should be in timberland since establishing herds in agricultural areas merely leads to crop damage and antagonism from landowners.

Lastly, but of equally great or even greater importance, is the attitude of the local people. The most successful restocking has been done in areas where not only the sportsmen, but also the landowners are highly enthusiastic about the program. Where people are only lukewarm the program falls flat. This is especially important where restocked lands are owned by private individuals.

Under the present system of release, the area must be closed to deer hunting for a minimum of five years. In some places the local people are willing to close the land to all hunting for this period. It is especially important that dogs be kept out of the area since free-running hounds are perhaps the most important limiting factor in deer restoration in the western part of the State.

To date a total of 15 different areas have been restocked with a total of 491 deer. The best survival and herd development has been experienced on those areas which received the larger stockings and where adequate protection has been forthcoming through cooperation of the local people.