

## WYOMING'S BIGHORN SHEEP TRANSPLANTS

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Wyoming's bighorn sheep trapping program was initiated in 1934, but did not operate consistently until 1956. A total of 722 bighorns have been transplanted since 1956. The grand total since 1934 is 762 head. Several areas within the state have received sheep from the Whiskey Mountain area, as well as the states of South Dakota, New Mexico and Utah. Some of these areas in Wyoming now have or will have hunting seasons as a result of the transplanting program. A few recent plants cannot be fully evaluated as to their success or failure at this time. Some of the plants made did not expand as desired, but token populations still exist in these areas.

Wyoming's bighorn sheep trapping program was initiated in 1934 in Flat Creek Canyon out of Jackson, Wyoming. Twenty sheep were caught and taken to the Big Horn Mountains. No further trapping was recorded until 1949. The trapping in the Whiskey Mountain area at Dubois, Wyoming was started in December of 1949. However, this was not on a continual basis until 1956. At this time, the trapping program was carried out to provide animals for our Sybille Research Station located southwest of Wheatland, Wyoming. The main objectives were to furnish bighorns for research studies and use the surplus from the herd increase for transplanting to other areas. However, the sheep taken to Sybille never increased fast enough to provide any stock for transplanting. The idea of having "brood stock" to furnish animals for transplanting from Sybille was abandoned. It was determined that any sheep for other sites would have to come from the regular trapping program in the Whiskey Mountain area.

Since 1934 we have transplanted 762 bighorns. Since there was little trapping done between 1934 and 1956, the majority (722) of the sheep have been captured between 1956 and 1973. Our yearly catch has ranged from 0 to 136. The best season we have experienced was during the winter of '72-'73 when we caught the 136 head. We have furnished bighorn sheep to South Dakota, New Mexico and Utah.

We try to take one ram for every seven ewes, but the selection of a good ratio of ewes and rams in trapping is not always feasible. Early in the trapping period there are usually sufficient numbers of rams available to capture with the ewes and lambs. Toward the end of the season many of the rams are not available because they have gone to higher elevations. The rams we transplant are the yearlings, two-year olds, and three-year olds. Rams are not usually placed in the trucks until all the ewes and lambs are loaded. They are put in the box with the adult ewes when there are too few to be taken in a separate truck.

The sheep we capture are given an injection of Bicillin before they are put into the pickup box used for transporting them. All sheep are eartagged in both ears. The date of capture, sex and age of each animal is recorded

for the corresponding numbers. Normally, the adult ewes are fitted with plastic neckbands to aid in identification of the transplanted animals. However, we have found that some of these neckbands have been tightened (probably by other sheep pulling on the stubs sticking out of the buckle). There have been several instances where this has resulted in death to the sheep. This problem can easily be remedied.

The sheep are transported in specially constructed boxes that cover the backs of the four-wheel drive pickups we use. The boxes are designed to provide good ventilation and are high enough to allow the adult sheep to stand. Adequate ventilation is a must for the sheep, especially for the time immediately after loading. The bed of the pickup is covered with a layer of sawdust. This gives the sheep adequate footing and comfortable bedding.

The technique we try to employ at the release site is to park the pickups side-by-side with the back of the trucks facing uphill toward the area the animals are supposed to go. All boxes are opened at the same time to allow the sheep to escape at once. This has proven to be satisfactory on most of our releases, but we still get a few animals that "run blind" and go in any direction they please - including back into the truck. The sheep are released in, or as close as possible to the area we want them to become established in. Attempts to hold bighorns within fenced pastures at the transplant sites have met with both success and failure. The successful attempt was on a plant made to a pasture of about 40 acres that was fenced with 5-1/2 foot net wire. Only one ewe jumped the fence during the holding period from February to July, but she would jump in and out at will. The unsuccessful attempt was due to the snow that drifted over the fence. This allowed the sheep to simply walk out over the drifts.

Most of the early transplants made were relatively small, numbering about 20 animals. In the mid-sixties, attempts to introduce more animals into an area were initiated. This has been accomplished in varying degrees. Most areas have received more sheep, but some of these have required successive plants that have spanned two or even three years. The success of trapping sheep in our state is extremely unpredictable. This is the reason for some of the plants being strung out over two or three years. Even with the extended period of transplanting, we appear to be getting positive results in most instances. The important criteria seems to be the introduction of a sufficient number of animals into the area before ceasing the transplanting.

Transplanting bighorn sheep in Wyoming has resulted in varying degrees of success. It has been instrumental in establishing populations in several areas. A few plants have not developed as we had hoped they would, but they have established small populations. These small herds may only need to be augmented with additional plants to reach the threshold population required to produce significant increases. The initial plants of approximately 20 animals are not felt to have been adequate. Our present attitude is that a minimum of 40 sheep is necessary to establish a new herd.

The trapping and transplanting of bighorn sheep in Wyoming has been a major factor in contributing to the establishment of hunting seasons in at least three areas. An additional area will be opened for hunting in the near future if the herd continues its present rate of increase.

Two other areas have received bighorns recently, but it is too early to prognosticate the results of these plants. We have two areas with small herds. Although these herds may only need additional animals brought in to give the necessary stimulus for expansion, they are faced with problems of greater magnitude that could neutralize all transplanting efforts. These particular problems are: (1) competition with livestock and other big game species, (2) poaching and accidental killing by deer hunters, and (3) relatively small habitat areas.