

## HISTORY OF TRANSPLANTING MOUNTAIN SHEEP – ARIZONA

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Bighorn sheep in Arizona were once relatively abundant, and much more widely distributed than at present. Once numbering in the tens of thousands and occurring in almost every major mountain mass in the state, by the late 1930s Arizona's bighorn sheep population had been reduced to only 1,000 desert bighorn sheep along the Colorado River and its tributaries (Brown 1989).

In 1955, the Arizona Game and Fish Department (AGFD) began efforts to reintroduce bighorn sheep into historic ranges. Since that time, in some 70 transplant operations, over 1,200 animals have been captured in areas of relatively abundant populations and released into historic habitat. Additional captures have been made to provide transplant stock to other states to augment their bighorn populations. To date, 208 desert bighorn sheep have been provided to other states, including 99 desert sheep sent to Colorado in trade for Rocky Mountain bighorn sheep (RMBS).

On May 10, 1979, 8 RMBS captured in Rocky Mountain National Park were released near Bush Creek in the Upper Blue River area of Game Management Unit 27 (Table 1). On March 20, 1980, 12 additional RMBS captured near Tarryall, Colorado were released at Bush Creek (Table 1).

Table 1. Rocky Mountain bighorn sheep releases made into Arizona.

Capture Date	Capture Site	Release Site	Number Captured	Number Released
5/9/79	Rocky Mountain National Park, CO	Bush Creek, Blue River (GMU 27)	8	8
3/19/80	Rocky Mountain National Park, CO	Bush Creek, Blue River (GMU 27)	12	2
2/9/94	Colorado Springs, CO	Blue Admin. Site (GMU 27)	21	21
1/24/95	Gunnison, CO	XXX Ranch, Blue River (GMU 27)	28	27

The New Mexico Game and Fish Department transplanted RMBS into the Gila National Forest along the Arizona-New Mexico state line. In 1964, 10 RMBS were captured in Banff National Park and released near Turkey Creek. In 1965, 16 RMBS were captured in the Sandias (which had previously received sheep from Banff) and released along the San Francisco River near the state line. Some of these animals occasionally moved into Arizona. The present population of RMBS in Arizona is, therefore, derived from the original transplants directly from Colorado, and indirectly via New Mexico.

Since these original transplants, little work had been done with Arizona's RMBS, with management efforts and public interest directed towards desert bighorn sheep. With the opening of a hunting season and the allowance of a once in a lifetime RMBS to go along with a once in a lifetime desert bighorn sheep, interest in the RMBS increased dramatically.

During summer 1992, AGFD developed a project to acquire additional information regarding RMBS, to help ensure the success of future transplants and to answer several other management questions regarding the sheep: distribution and movements; mortality patterns and causes; whether there was still movement across the Arizona/New Mexico state line; survey observation rates in the habitat types inhabited by RMBS; and domestic livestock disease titers and vitamin deficiencies in the RMBS population. Results of this work were presented at the Desert Bighorn Council Meetings (Heffelfinger et al. 1995).

The AGFD retained their interest in transplanting additional RMBS to further establish the subspecies in Arizona by forming a contiguous population. In 1994 and 1995, 48 RMBS were captured in Colorado and released along the Blue River in Game Management Unit 27 (Table 1). These animals are

currently being radio-tracked to determine their distribution and level and cause of mortality. The RMBS populations in Arizona have been very productive. The present population is estimated at 500 animals.

#### LITERATURE CITED

- Brown, D. E. 1989. Early History. Pp. 1-11 in *The desert bighorn sheep in Arizona*. R. M. Lee, ed. AZ Game and Fish Department, Phoenix, AZ.
- Heffelfinger, J. R., R. M. Lee, and D. N. Cagle. 1995. Distribution, movements, and mortality of Rocky Mountain bighorn sheep. *Desert Bighorn Council Trans.* 39:10-16.

