

The Big Horn Sheep of AZ Route 260

By Diane Tilton, AZGFD Information and Education Programs Manager

Have you noticed the sheep crossing highway signs on Highway 260 heading east toward Springerville and Eagar? Many people have asked me what those signs are for. Over the last few years, Arizona Game & Fish (AZGFD) has translocated Rocky Mountain bighorn sheep from the Morenci Mine to the South Fork of the Little Colorado River area near Greer. This translocation had two objectives. The primary objective was to reestablish the bighorn sheep in an area where we knew they had historically been. Until recently, this area was not considered suitable habitat for a release because of a domestic sheep allotment on U. S. Forest Service land. Domestic sheep can very easily transfer diseases to our native sheep. When a sheep allotment was turned into a cattle allotment, we thought it would be a good time to move some sheep back into the area.

In Arizona, we have two different subspecies of sheep. Both sheep are the same species, *Ovis canadensis*, bighorn sheep. But we have two separate sub-species, the Rocky Mountain bighorn sheep and desert bighorn sheep. The main difference between the two is their size. Their shoulder height is about the same (40 inches for the Rocky Mountain and 39 inches for the desert) but a Rocky Mountain bighorn sheep will weight up to 250 pounds and a desert usually won't get over 175 pounds. The Rocky Mountain sheep are more adapted to living in colder climates, where it's an advantage to be bigger. Bighorn sheep are ungulates and in the Bovidae family. Bovids are grazers, with unbranched, permanent horns. The only other native member of the Bovidae family is the bison.

With the removal of the domestic sheep from the area and habitat changes from the Wallow Fire that reduced vegetation making the area more suitable for bighorn sheep, AZGFD thought we could use this opportunity to move sheep from the Morenci Mine to decrease sheep-vehicle collisions. Between 2002 and 2014, 212 sheep had been killed in vehicle collisions on and around the mine.

In the Fall of 2013 into the Spring of 2014, AZGFD started baiting a drop-net site and monitored a capture pen that were both on the Mine. The baiting site was unsuccessful but, in late October 2013, 20 sheep were captured in the pen. A decision was made that since AZGFD didn't have tracking collars at the time, the sheep were released.

After the lambing season in Spring 2014, baiting at a new site began in June 2014. The sheep responded almost immediately and a drop-net was set up to allow the sheep to acclimate to it. In late June, we captured eight ewes (female sheep) and four lambs and transported them to the release site in South Fork near the Little Colorado River. Around this same time, sheep started showing up in the capture pen. In early July, AZGFD captured a ewe and her lamb and transported them to the same location in South Fork. Later in July, we captured another ten sheep, including three yearling rams, five ewes and two lambs, in the capture pen and transported them to Fish Creek above the Little Colorado River. That brought the total sheep moved from the Morenci area to the South Fork of the Little Colorado River area to 24 bighorn sheep. Six of the ewes were fitted with GPS radio-tracking collars to help AZGFD monitor their survival and movements. All of the sheep were ear tagged and biological samples were taken to monitor for diseases.

Using a dart gun with a reversible drug, we moved three rams in December 2014 and two more in June 2015. The dart gun allows us to capture the rams which were not as easy to catch in the drop-net or capture pen.

In the Spring of 2015, we were thrilled to see that lambs had been born to ewes that we translocated in 2014! In June 2015, we captured and released 21 more sheep, including two rams, into South Fork and another four rams were moved in 2016.

This project, so far, seems to be very successful with over 50 sheep translocated. The sheep can often be seen by the cinder pit as you pass the Greer turn-off heading towards Springerville and Eagar. These sheep are very comfortable on roads, so please slow down when you are in the cinder pit area. So far, we have lost a few sheep to vehicle collisions. The collars are no longer working (their battery life is short) but AZGFD staff see the sheep often and we get reports of them in our Pinetop office regularly. If you see one with an ear-tag, you know that it was one that we translocated and if there's no ear-tag, it means that it has been born in their new location. There are a few out there with non-working collars on them too!

This project was done with a lot of help and cooperation with the Freeport-McMoRan Mine and the Arizona Desert Bighorn Sheep Society.