

Return of a Native



From behind the steering wheel of a slow moving car they look more like deer than anything else: light brownish-grey moving along a ridge or down the slope of Santana Mesa on Ranch Road 170. They are usually alone or in small groups of maybe 3 or 4, running effortlessly in the desert heat. A closer look reveals a compact, muscular animal with horns, not antlers. On a mature ram those horns are large and curve back over the ears, then arc downward before curving back up to about eye level (The ewes have horns but they are only semi-circular, not reaching the size and mass of a ram's horns). Their white rumps quickly distinguish them from the aoudads that roamed these mountains for decades. Even a quick glimpse is enough to give you a rush: they are the big horn sheep, the native has returned.

Just before Christmas of 2010, dozens of desert bighorn sheep (*Ovis canadensis Nelsoni*) were released in Big Bend Ranch State Park, achieving a new milestone in the effort to return bighorn sheep to their natural place in Texas. The release included 12 rams and 34 ewes (many of them pregnant). Radio collars were affixed to thirty of the animals before their release so their location and activities could be monitored. These mammals were all but extinct in Texas by 1960. Today their future looks considerably brighter.

Since 1954 an international coalition of organizations has endeavored to bring back this magnificent, highly-adapted desert mammal. Consisting of federal, state, and private conservation entities the consortium conducted extensive studies and supported scientific research on both sides of the Rio Grande in an effort to fully understand the conditions of the desert the big horn once ranged across.

It was not an easy process. Indiscriminant hunting and diseases introduced by domestic livestock and introduced wildlife worked together to drive the big horn sheep to the brink of extinction. It has taken research in epidemiology and well as ecosystem studies and habitat analysis to understand the needs of the desert big horn sheep. The financial demand of all these studies was primarily met by private conservation groups and by hunters paying for special hunting permits. The big horn sheep seems to be ideally suited for the desert environment of Big Bend State Ranch. Its stocky build allows it to conserve energy during cold nights of the desert winter. Its body temperature can fluctuate several degrees daily as the animal goes from a cool night to a harsh summer afternoon. When the heat of late spring and summer really bears down, the animal seeks shade in rock overhangs, caves and the few trees it can find. Padded hooves and its ability to leap 20 feet straight up allow the animal to climb in its steep rocky terrain. Its keen eyesight allows it to spot lions and coyotes and cover the mountain habitat at speeds of 15 miles per hour, putting plenty of distance between it and its would be predator.

Even in the midst of a harsh drought the big horn can go days without visiting a water hole, getting some moisture from its food of leaves, twigs, yucca, cacti, and the few grasses it can find. The animal can lose as much as 30% of its body weight to dehydration and then rapidly rehydrate when it does find water. To help in its survival in its new habitat, water guzzlers have been placed at strategic locations around the release site to provide a few extra "water holes" for the desert's new arrival. Guzzlers are simple structures consisting of a sloping roof that allows any moisture, whether dew, frost, or rain, to trickle down slope into a collection barrel, creating an artificial water hole. It doesn't take much moisture to help the big horn survive.

For most of the desert year rams and ewes lead separate existences, staying in small groups of the same sex and foraging with no concern for the other sex. All of that will change during the mating season. This is when the rams will challenge each other for access to the females. During fall and early winter rams will gather up a small herd ewes (usually no more than 10 to 12) and fight with other rams for mating rights. A ram of about 7 years of age should be large enough and strong enough to mate with whatever ewes he wants and is willing to charge any rams in his way. From distances of about 10 feet away, rams run full tilt into each other, colliding at full speed in the horns. After each collision they stand looking slightly dazed before repeating the collision. At some point one of the rams walks away from the battle while the other remains with the ewes. The anatomy of the desert big horn is designed to survive such head bashings with a double-layered skull richly supplied with bone struts connecting the two layers and providing a cushion to absorb the blows from other rams. The spine and skull are attached with thick tendons that help the neck recoil from the impact.

Lambing season is usually from early winter through spring, depending on the time of mating. Gestation period is about 175 days and the ewe may deliver up to 3 lambs. This is the time of greatest danger to the big horn and the ewe will try to find a steep isolated area to give birth and care for her lambs. Eagles, bobcats, and coyotes, if they can reach the birthing site, will prey on the newborn sheep, but after as little as a week the lambs can follow their mom almost anywhere with ease. After just a few weeks the lambs form their own groups and return to the ewes only for nourishment. After four to six months the lambs are completely weaned.

As ruminants, desert big horn sheep can gain nourishment from even the dried grasses growing on the desert mountainsides. Mostly diurnal in the winter months they will feed on grasses on and off throughout the day, resting and regurgitating the meal for complete digestion. As the grasses become more scarce the sheep will browse on desert scrub vegetation, eating leaves and twigs until seasonal rains bring back the desert grasses.

With the changing desert climate it is hard to know what is in store for the newest herd of Texas big horn sheep. For now, it is exciting to know that they are out there and, for the time being, surviving in the Big Bend. (Photo Credit: TPWD/ Earl Nottingham)

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