











Catalina Bighorn Sheep Reintroduction Project March 17 - 30, 2014

## **LAMBS**

Biologists observed another newborn lamb on Friday, March 28, 2014, bringing the known birth total to four for this season. It is encouraging to see a fourth lamb added to the population with still another month in the peak lambing season. In addition, all known lambs have been recently observed and continue to survive. Because females with new lambs are especially sensitive to disturbance, there are trail restrictions in place inside the Bighorn Sheep Management Area to minimize any negative impacts from human disturbance on the sheep. Both trailhead notices and volunteers on the trail have been reminding hikers of the potential adverse impacts to the sheep caused by dogs or by people hiking more than 400 feet off-trail within the bighorn sheep recovery area during lambing season. For additional information, please visit the U.S. Forest Service webpage at <a href="https://www.fs.usda.gov/coronado/">www.fs.usda.gov/coronado/</a>.

#### **BRIEFING**

The following is a summary of Catalina Bighorn Sheep Reintroduction activities on the Coronado National Forest. This project status update covers the period from March 17 - 30, 2014. For project background and previously-reported information on project events, please see the earlier project status updates available at <a href="https://www.azgfd.gov/catalinabighorn">www.azgfd.gov/catalinabighorn</a>.

Additional project information can be obtained by visiting the Arizona Game and Fish Department Facebook page at <a href="https://www.facebook.com/azgafd#!/CatalinaBighorns">https://www.facebook.com/azgafd#!/CatalinaBighorns</a>, the Arizona Game and Fish Department webpage at <a href="http://www.azgfd.gov/catalinabighorn">http://www.azgfd.gov/catalinabighorn</a>, the Arizona Desert Bighorn Sheep Society webpage at <a href="http://www.adbss.org">http://www.adbss.org</a> or by visiting the Catalina Bighorn Advisory Committee webpage at <a href="http://www.catalinabighornrestoration.org/">http://www.catalinabighornrestoration.org/</a>. This update is a public document and information in it can be used for any purpose.

## **TO SUBSCRIBE**

If you would like to receive project updates as they are published please send your email address to jsacco@azgfd.gov.

#### **CURRENT POPULATION STATUS**

No mortalities occurred during this reporting period. The original release of 31 sheep consisted of 21 adult females or ewes, three yearling/juvenile ewes, five adult males or rams, and two yearling/juvenile rams. Thirty of the released sheep were outfitted with satellite GPS collars to provide managers with upto-date information to help make adaptive, data-driven decisions. As of March 30, 2014, 14 of the 30 collared sheep were known to be alive on the mountains.

To date there have been 16 bighorn sheep mortalities. Fourteen of the sheep were killed by mountain lions, one died as the result of predation by an unidentified cat such as a small mountain lion or a bobcat, and another died from myopathy. To date, three lions associated with bighorn sheep kills have been removed, and the most recent of these lions was believed to have killed multiple sheep.

# **COMMUNICATION AND COORDINATION**

The next written briefing will be provided on April 18, 2014.

# **CONTACT**

Mark Hart is the Public Information Officer for this project and can be reached at (520) 628-5376.

# **RESEARCH PROJECT FIELD NOTES**

Research biologists continue to monitor both individuals and small bands of sheep to observe and document ewes with lambs, changes in group dynamics, and sheep movements and behaviors. The lambs we have observed on the Santa Catalina Mountains appear to be healthy and are growing quickly.

# **OTHER REMARKS**

At their peak, North American bighorn sheep numbers were estimated at 2 million. Desert populations have since fallen to about 20,000 and Rocky Mountain populations are at about 45,000. Arizona's bighorn population, consisting of both **desert** and **Rocky Mountain** bighorn sheep, is estimated at approximately 6,000 animals. The causes of population declines, which occurred primarily between 1850 and 1900, are not well understood but the introduction of domestic livestock is believed to have played a significant role, primarily via the introduction of new diseases.

## **Life History**

**Bighorn sheep** show considerable differentiation between the sexes. Adult desert bighorn rams weigh between 160 and 200 pounds with a maximum weight of 225 pounds, while adult females range from 75 to 130 pounds and average 110 pounds. **Rocky Mountain** bighorn rams can weigh up to 340 pounds and a full grown male may stand over 3 feet tall at the shoulder.

One of the most noticeable differences between bighorn sheep rams and ewes is the size of their horns. Ewe horns are generally 10 to 13 inches long with a basal circumference of 5 to 6 inches, whereas ram horns may measure 30 to 40 inches along the outside curl with a basal circumference of 13 to 15 inches. The horn core is honeycombed with chambers, or sinuses, which reduce the weight of the skull.

Newborn bighorn lambs weigh 8 to 10 pounds and are active within minutes after birth. At birth, lambs have dark gray fur and dark eyes. As they mature, their eyes take on the characteristic golden or amber color and within several months their coat takes on the typical adult coloration which tends to be darker brown in their northern range and pale buff in southern portions of their range. Color accents are a white muzzle, rump patch, eye rings, and edging on the rear legs, with a black tail. Bighorn sheep have a life expectancy of 10 to 12 years, but can reach 17 or older.

Usually one, rarely two lambs will be born. Young rams stay with their mothers until they are 2-3 years old. Older rams tend to spend much of the year in bachelor herds, and join females groups primarily during the breeding season.

#### **Behavior**

Rams as young as six months are physically capable of breeding, they typically don't breed until they are 2-4 years old, due to the dominance of older rams. Females may first become pregnant when they are 1.5 years old, producing a lamb when they are 2 years old, but most females recruit their first lamb when they are 3 years old. In Arizona, the breeding season extends from early June through October, and in most areas peak rutting activity occurs in August. The gestation period is 179 days.

Bighorn sheep are diurnal and social animals, and may be seen in small groups or in herds of 50 or more.

Bighorn sheep eat a wide and diverse diet, which can include grasses, forbs, shrubs, and cacti. Preferred plant species vary by location, season and species availability.

Mountain lions, golden eagles, bobcats, and coyotes have all been implicated as predators.