



## Sierra Nevada Bighorn Sheep

### What is a Sierra Nevada Bighorn Sheep?



Sierra Nevada bighorn sheep are one of the great symbols of wilderness. Well suited to their mountain environment, bighorn sheep use the steep, rocky terrain for safety from predators by bedding down on ledges and steep slopes at night. Because they use their keen eyesight to detect predators, they prefer habitat that is very open to see predators from a long distance. The great naturalist John Muir wrote of them, *“Possessed of keen sight and scent, and strong limbs, he dwells secure amid the loftiest summits, leaping unscathed from crag to crag, up and down the fronts of giddy precipices, crossing foaming torrents and slopes of frozen snow, exposed to the wildest storms, yet maintaining a brave, warm life, and developing from generation to generation in perfect strength and beauty.”*

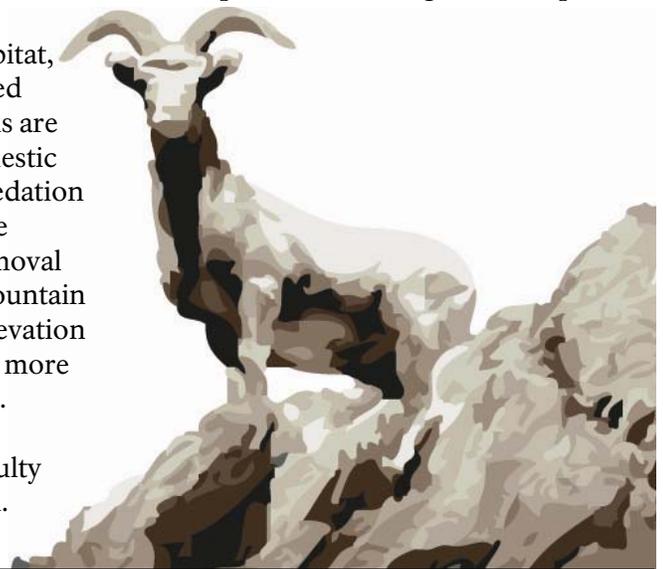
These wild sheep are a unique subspecies of bighorn that evolved in the eastern portion of the southern and central Sierra Nevada of California, separated from other populations of bighorns for thousands of years. They belong to a select group of endemic plants and animals that call these mountains home.

### How many Sierra Nevada bighorn sheep are there?

Although the number of Sierra Nevada bighorn sheep before contact with domestic sheep is unknown, it is assumed that they occupied all available habitat and possibly numbered several thousand. In the late 1940s, a University of California study estimated a population of 390 sheep. In the 1970s, a study by the California Department of Fish and Game approximated a Sierra Nevada population of 250 sheep. By 1999, the Sierra Nevada population had dropped to 100 or less – a loss of 90%. After the sheep were given federal and state designations of Endangered Species, the Sierra Nevada bighorn sheep population began to rebound. Range-wide, the total population is estimated to be 400. The subpopulation near Yosemite number approximately 40, and they appear to be expanding in range and population size.

### Why causes the population of bighorn sheep to decline?

The primary reasons for the original population declines are thought to be disease from domestic livestock, overhunting during the area’s mining boom, and predation from mountain lions. Domestic sheep carry strains of bacteria that cause fatal pneumonia to bighorn sheep. Although domestic sheep are generally not permitted to graze within bighorn sheep habitat, some have strayed from the flock and entered bighorn sheep ranges. Additionally, bighorns are capable of traveling long distances into domestic sheep grazing allotments. Mountain lion predation decreases the population in 2 ways. First, the number of sheep drops due to the direct removal of sheep from the herd. Second, to avoid mountain lions, bighorn sheep avoid going down in elevation for the winter. At high elevations, survival is more difficult due to the cold and scarcity of food. Ewes (females) have fewer lambs due to poor nutrition, and young lambs have difficulty surviving the harsh winters at high elevation.



#### **FAST FACTS**

**Scientific Name:**

*Ovis canadensis californiana*

**Habitat:**

Steep, rocky alpine slopes

**Federal & State Status:**

Endangered

**Current Population:**

Approximately 400

**Threats:**

Diseases from domestic livestock; excessive predation

## What protection exists for the Sierra Nevada bighorn sheep?

Because of a precipitous drop in population size, conservation actions were taken in early 1999 through petitions to state and federal agencies. First, the California Fish and Game Commission classified these sheep as a California Endangered Species. Next, the U.S. Fish and Wildlife Service followed suit, classifying them as a Federal Endangered Species on an emergency basis, and bestowing full Endangered Species status in January 2000. Attaining federal listing drew attention to bighorn survival and support for recovery efforts, which were now bolstered by law. Sierra Nevada bighorn sheep are the only Federally Listed Endangered Species within Yosemite National Park.

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## What does the National Park Service do to manage Sierra Nevada bighorn sheep?

**Reintroduction:** In 1986, 27 Sierra Nevada bighorn sheep were reintroduced into the Lee Vining Canyon Area. In the fall of 1986, 3 ewes and 2 lambs moved on their own to Mt. Gibbs and established a small population that continues to inhabit the area around Mono Pass. Many did not survive the first winter. 11 more bighorn sheep were introduced 2 years later in 1988. By 1994, the population in and near Yosemite had grown to almost 100. However, bad winters in 1994- 1995 led to a loss of about 60% of the population, followed by several years of continued decline, to about 20 surviving animals. The good news is that herds are finally increasing. Currently we are up to approximately 40 Sierra Nevada bighorn sheep in the Yosemite region, with our first recorded lamb born in the park on Excelsior Peak in 2006.

**Interagency Recovery Team:** The National Park Service is currently working as part of an interagency recovery team. This team is tasked with preparing the *Sierra Nevada Bighorn Sheep Recovery Plan* that addresses bighorn sheep habitat protection, population recovery, domestic sheep allotments on federal land to minimize the chance of contact with Sierra Nevada bighorn sheep, and mountain lion control to reduce predation. This interagency group also includes the Forest Service, Fish and Wildlife Service, California Department of Fish and Game, Bureau of Land Management and public stakeholders including domestic sheep grazers and bighorn advocate groups. One tool has been to track mountain lions to determine movement patterns of lions relative to bighorn sheep ranges and to determine which lions pose a threat.

**Public Education:** The National Park Service recognizes that the public plays a key role in conservation. Educating the public about the endangered Sierra Nevada bighorn sheep builds connections with the animal so that the public will take an active role in protecting this unique species.

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## Public Participation

Public participation is essential for the success of this and all other park projects.

Here are some ways to stay involved in the park:

- **Attend a National Park Service public open house** to talk with project specialists and obtain more information on this topic. Visit the park's planning website (listed below) for upcoming dates.
- **Add your name to the park's planning list** and receive the *Planning Update* newsletter as well as other planning- related notices. You can also submit your email address to receive the park's periodic electronic newsletter.
- **Additionally, you can submit comments with your thoughts about this topic or any other project in the park by any of the following means:**

**Mail:** Superintendent  
P.O. Box 577  
Yosemite, CA 95389

**Phone:** 209/379-1365; **Fax:** 209/379-1294

**E- mail:** [Yose\\_Planning@nps.gov](mailto:Yose_Planning@nps.gov)

- **Visit online:** [www.nps.gov/yose/planning](http://www.nps.gov/yose/planning)