

## Recovery Actions

**Translocation** is one of our most important recovery tools. Bighorn are naturally slow to expand their range. We capture and release bighorn in new areas in order to aid their return to full use of their historic range. We also move animals from large herds to augment small populations. In March 2013 we implemented the first reintroduction in 25 years, creating a new herd unit at Olancho Peak

**Natural Colonization** has taken place, creating at least three populations in the last decade. While this is a slow and uncertain process, natural colonization will also help to expand the distribution of bighorn in the Sierras.

**Disease** is the single biggest threat to bighorn survival throughout the West. Contact between domestic sheep or goats and bighorn frequently leads to outbreaks of fatal pneumonia that can drive entire bighorn herds extinct. We use GPS collars to better understand bighorn movements and evaluate their potential risk of exposure to domestic sheep and goats. State and Federal agencies are currently working to ensure that there is a safe distance between these wild and domestic populations.

**Habitat Enhancement** projects have been carried out by Inyo National Forest since 1990. Prescribed fire can restore the open habitat that is preferred by bighorn. Open habitat has declined due to encroachment of pinyon forest. Collaboration with the Inyo National Forest will continue on a number of planned future projects.

**Predation** can quickly reduce bighorn populations, particularly since herds are already small and bighorn are slow to reproduce. Such predation problems can usually be attributed to one or a small number of lions that have switched their preference from deer to bighorn.

## Bighorn in the Wild



### Viewing Sierra Bighorn: Pine Creek

Climbing activity in Pine Creek has recently increased. This is important winter and spring lambing habitat for one of our largest herds. We hope users in this area will have the opportunity to view bighorn and also the respect to help protect them by giving them space and keeping pets under control. Next climbing trip, bring your binoculars and a leash.



### Let Us Know

If you have seen Sierra Nevada bighorn sheep and think your sighting may be unusual, please let us know. We are particularly interested in any information on animals from the Coyote Ridge, Taboose Canyon, and McGee Creek areas.

Please contact us if you see loose domestic sheep or goats in the wild.

Questions? Contact us at [asksnbs@wildlife.ca.gov](mailto:asksnbs@wildlife.ca.gov)



## The Sierra Nevada Bighorn Sheep Recovery Program



## Using Science to Protect and Restore an Endangered Species



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# Sierra Nevada Bighorn Sheep

*“The bravest of all the  
Sierra mountaineers”*

*-John Muir*

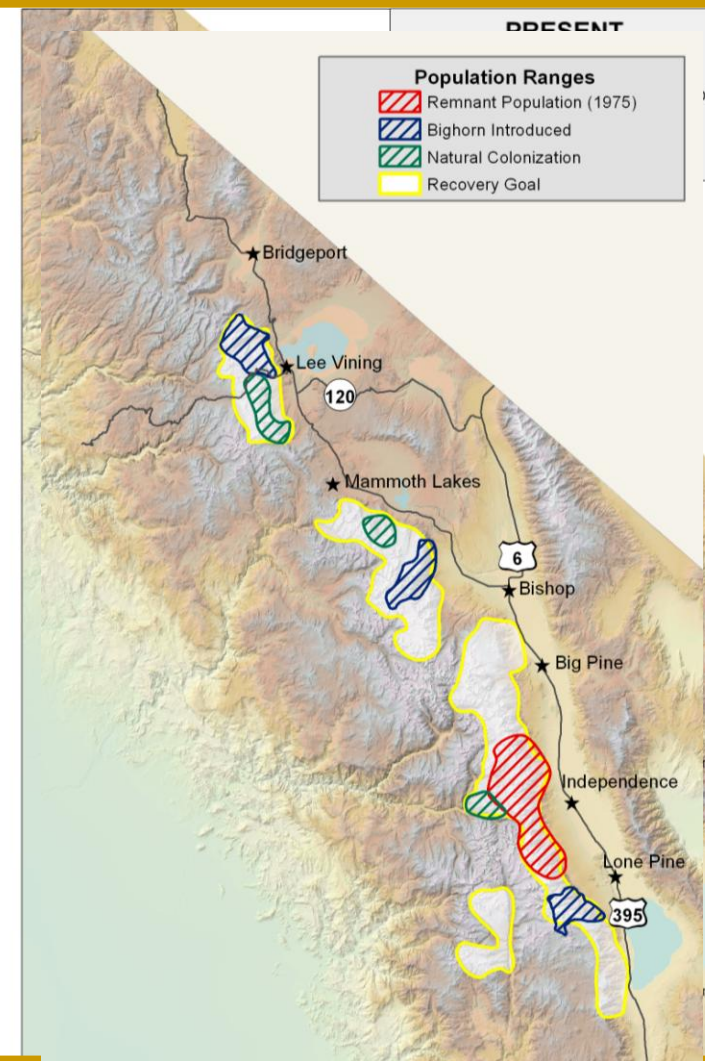
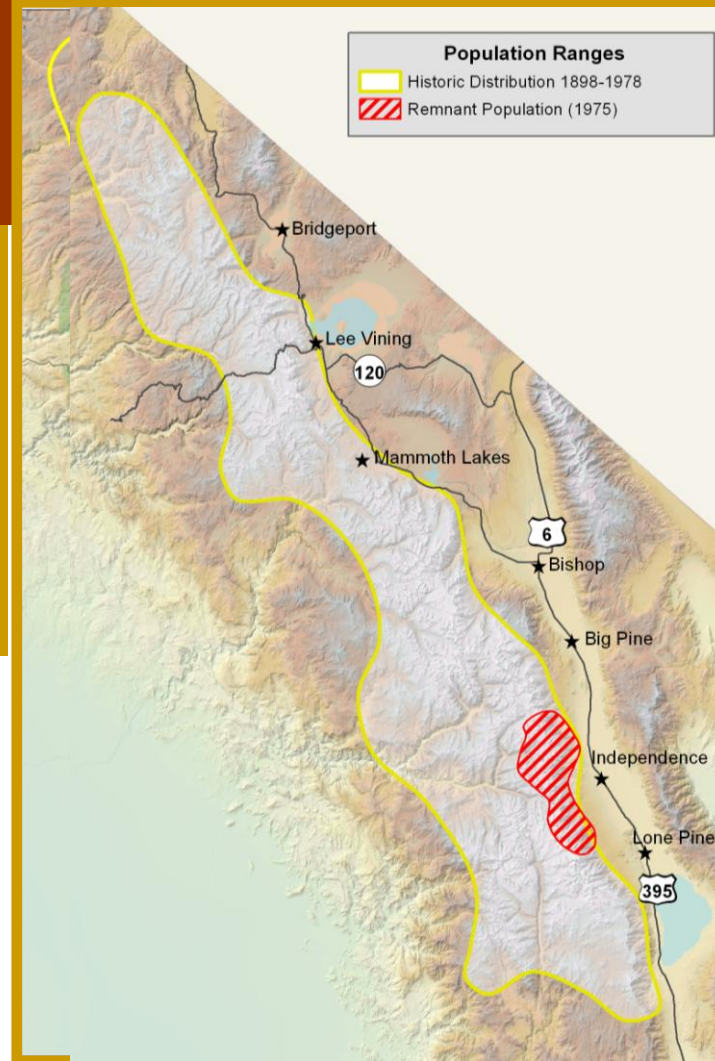
The California Department of Fish and Wildlife’s **Sierra Nevada Bighorn Sheep Recovery Program** is committed to implementing an adaptive conservation approach that relies on scientific data collection to guide management action in restoring this endangered species to its former abundance.

## A Unique Animal

The Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*) is native only to the central and southern Sierra Nevada. It is one of three subspecies of bighorn sheep and is believed to have diverged from neighboring desert bighorn about 400,000 years ago.

## On the Verge of Extinction

Sierra bighorn populations began declining by the mid 1800s, coincident with unregulated hunting and the beginning of domestic sheep grazing in the Sierra Nevada. Starting in 1972 the species was listed as “rare”, then “threatened,” under the California Endangered Species Act. By the late 1970s only two small neighboring populations of Sierra bighorn remained in the range, totaling approximately 250 sheep. The larger of these populations was used to re-establish three herds in vacant historic habitat between 1979 and 1988 (see maps). After reaching a population of about 300 in the mid 1980s, Sierra bighorn suffered a further decline. By 1995 only around 100 animals were left. In 1999 the species was listed as endangered under the Federal Endangered Species Act.



## Recovery Program

The goal of the recovery effort is to increase the size and distribution of Sierra bighorn populations to ensure their long-term survival. The California Department of Fish and Wildlife leads this recovery effort in collaboration with other state and federal agencies. The effort is guided by a recovery plan that was prepared by a diverse group of stakeholders following the species’ listing as federally endangered. Since this recovery program began, the total number of bighorn has increased from approximately 100 to 500.

(For more details read the Recovery Plan Online:  
<http://ecos.fws.gov/>)

## Recovery Goals

The Recovery Plan defines specific goals that must be met before Sierra bighorn’s endangered status can be changed. For bighorn sheep, the number of adult females (ewes) determines how quickly a population can grow or recover from losses. Because of this, the health of a population is often gauged by the number of ewes present. The Recovery Plan sets a goal of at least 305 ewes distributed among 12 specified herds. Currently bighorn occupy 9 of those herds. We estimate that their total population now contains 223 ewes. Our goal is to protect the species against future threats while using scientific tools to help its recovery.