

Wild Sheep Diseases

By Neil Thaggard

**EDITOR'S
REMARKS**

By nature, wild sheep are extremely sensitive to predation, disease, and other negative factors. The Wild Sheep Foundation has been aggressively working with state agencies and other organizations to help promote and protect wild sheep. We would like to thank Neil of the Wild Sheep Foundation for taking the time to write this article and increasing our awareness of the challenges facing wild sheep.

—Jason



Lungworm - domestic goats are normal hosts of the parasites but they can be transmitted to, and can infect wild sheep. The life cycle involves stages that eventually go to the lungs, where they mature and produce large nodules. Tissue which normally could be used for breathing is obstructed by the nodules. In heavy infections, lungs are weakened, making Bighorn sheep more vulnerable to secondary bacterial pneumonia.

Sore Mouth - is caused by a member of the Parapox virus family. These viruses cause small blisters around the mouth, on the lips, and even inside the mouth and/or on the tongue. These sores will prevent adult Bighorn sheep from feeding and their lambs from nursing. In extreme cases, this illness can cause low survival rates for Bighorn lambs. Domestic sheep and domestic goats are common carriers of this virus.

Pinkeye - is a bacterial infection common in domestic sheep and goats. In cases where it has been passed onto wild sheep blindness has occurred.

Disease is the number one limiting factor to wild sheep recovery in North America. It has been estimated that at one time in western North America there may have been as many as 2 million Bighorn sheep. By 1975, there was just a fraction of the Bighorn sheep that existed prior to early settlement.

The main culprit of the decline was disease introduced by domestic sheep and domestic goats. Today, Bighorn sheep numbers have rebounded from a low of less than 15,000 to just over 70,000 after aggressive and persistent management actions. However, to continue the recovery of Bighorn sheep, we must ensure they have suitable habitats and are protected from exposure to unnatural disease epizootics.

A few of the diseases that may be transmitted from domestic sheep and goats to wild sheep are:

Pneumonia - can be caused by a number of organisms and is often a fatal disease to Bighorn sheep. Domestic sheep and goats are carriers of a number of bacterial and viral species that can cause a large number of Bighorn sheep deaths. As much as 75% - 100% of the herd may die in a short period of time. Herd recovery after these die-offs is usually prolonged and expensive to manage. Domestic sheep and domestic goats can carry these organisms, often without illness. Wild sheep simply cannot mount the same immune responses to respiratory tract diseases that domestic species can. Contact and transmission of disease can then result in one infected animal transmitting disease to the rest of the herd, in many cases resulting in a large, all aged die-off of wild sheep.

Even with increased education and awareness, Bighorn sheep are still at risk. In just the past 10 years, numerous large pneumonia related die-offs have occurred throughout the Rocky Mountain Region of western North America. The use of domestic sheep and goats on public and private lands for weed control is on the increase. Growing in popularity with the recreational community is the use of domestic goats as pack animals. Domestic goats can cause severe ecological problems with wild sheep. For example, a recent case involving the illness and death (linked to local domestic goats) of a number of Bighorns in the Silver Bell National Monument in Arizona was settled out of court with the owner of the domestic goats paying more than \$3 million dollars to the state of Arizona for the loss of Bighorns that were infected by his domestic goats.

With the concerns of these practices, the Wild Sheep Foundation (formerly FNAWS) is working with the appropriate land and game agencies to develop and implement regulations that will disallow contact between the wild and domestic species mentioned in this article. Because of the influences of the Wild Sheep Foundation, historic Bighorn range that has been devoid of wild sheep may soon see their comeback. As hunters and conservationists, I hope that we will all make wise decisions when entering the wild places that we dearly cherish.

For more information or to talk about this issue call Neil Thaggard, Director of Operations, Wild Sheep Foundation, 307-527-6261.