

Mountain Goats at the Livestock-Wildlife Interface: A Susceptible Species

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ABSTRACT Mountain goats (*Oreamnos americanus*) were first introduced into the East Humboldt and Ruby Mountains of Elko County, Nevada in the 1960s. These contiguous mountain ranges are also home to other ruminant species, including native mule deer (*Odocoileus hemionus*) and introduced Rocky Mountain bighorn sheep (*Ovis canadensis*), and are surrounded by both public and private rangelands utilized for domestic cattle, sheep, and goats. Permitted and stray domestics have been documented between an elevation range of 2,743 m and 3,0481 m which is well within utilized habitat of the mountain goats. Since 2010, we have documented infection by *Mycoplasma ovipneumoniae* in adult ($n = 13$) and kid ($n = 1$) mountain goats. Nasal (i.e., all animals) and lung (i.e., kid) swabs from these animals were used to identify *M. ovipneumoniae* by reverse transcription polymerase chain reaction (RT-PCR) following broth enrichment. In addition to bronchointerstitial pneumonia, the kid had suppurative and hemorrhagic enteritis with lymphoid necrosis. Type 1a BVD virus was isolated from the kid's spleen. A female adult goat presented with ulcerative cheilitis and pseudocowpox virus was identified in this lesion by PCR and sequencing. These disease surveillance data suggest that interactions resulting in disease transmission occur between mountain goats and domestic ruminants and should be discouraged as part of a comprehensive management program for this species.

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KEY WORDS bovine viral diarrhea, livestock-wildlife interface, mountain goat, *Mycoplasma ovipneumoniae*, Nevada, *Oreamnos americanus*, polymerase chain reaction, pseudocowpox virus.

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