



## **Indian Springs Ridge Domestic Goat and California Bighorn Interaction June 2012, Izzenhood Range, Elko County, Nevada, USA**

On June 6, 2012 Newmont Mining Corporation environmental employee Matt Maples was conducting a cliff nesting raptor survey as part of requirements issued by USFWS and BLM for an expansion of the Twin Creeks Mine in western Humboldt County, NV. Precipitous terrain within a 10-mile buffer around the Twin Creeks project boundary was surveyed by helicopter to document nesting status of Golden Eagles and to document previously unknown eagle nests. When the Newmont crew surveyed the rocky east-west running ridge on the far north end of the Izzenhood Range known as Indian Springs Ridge a white domestic goat and two bighorn ewes was observed. The pilot and an unidentified consultant sitting in the primary observer seat up front concluded the white domestic goat was an albino bighorn; however Matt Maples, who was the backseat observer, noticed the goat had floppy ears and was much shorter in stature. Mr. Maples was unable to convince the pilot to turn around to obtain a location, however he did make a quick assessment of the helicopters location on Indian Springs Ridge. Upon ending the survey, Matt Maples contacted Matt Jeffress, NDOW Area 6 game biologists, and left a detailed message of the encounter. Due to field work, Matt Jeffress did not receive the message until the evening of Thursday June 7<sup>th</sup>.

After clarifying the observation with Mr. Maples the evening of June 7<sup>th</sup>, Matt Jeffress contacted the NDOW Eastern Region Supervising Game Biologists, Ken Gray, in an effort to obtain permission to use the NDOW Bell 206 helicopter stationed in Elko, NV to dispatch all three animals the following morning. After several hours of convincing NDOW management that removing all three animals was the best option, Matt Jeffress received the go ahead to proceed with aerial gunning and subsequent removal of all three animals. NDOW Pilot Dale Coleman was contacted at 9:00 PM Thursday night as was Jeremy Lutz, NDOW Area 15 game biologist stationed out of Battle Mountain. A plan was set in place to have Jeremy locate the domestic goat and two bighorn ewes from the ground near the area identified by Matt Maples. Tyler Johnson, NDOW summer intern, would drive the NDOW fuel truck to Indian Springs while Dale Coleman and Matt Jeffress ferried to the location after the animals were spotted. Soon after sunrise on Friday June 8, 2012 Jeremy Lutz located the three animals within a few hundred yards of the point provided by Mr. Maples. It was determined the ridge was too dangerous to attempt removal from the ground so the motion was set in place for aerial gunning of all three animal. In accordance with the NDOW/ NV State Ag MOU for domestic sheep & goat and bighorn interactions, the ranch manager for Squaw Valley Ranch, Jesse Braatz, was contacted to obtain permission for lethal removal of the domestic goat. Jesse gave permission, but indicated he did not think the goat was part of the weed goat flock Squaw Valley Ranch had been running for weed control trials for close to a year. Tyler Johnson left Elko for Indian Springs with the NDOW fuel truck while Jeremy Lutz maintained watch of the subject animals. At the Elko Airport Dale Coleman and Matt Jeffress went over safety procedures for aerial gunning and checked the safety equipment, primarily the net-gun harness to be used to secure Matt Jeffress to the backseat of the helicopter. Additional discussions covered safety procedures for safely operating the compact 12GA shotgun and BB shot shells in the aircraft with doors off. Soon after the helicopter arrived on scene the animals were located. Radio communication between the helicopter and ground crew was essential for locating the animals and the goat was put down first. After approximately 40 minutes of searching the two bighorn were located in a rock cliff and were dispatched as well. Given the precipitous terrain, the helicopter was toed into the hillside near the bighorn ewes and Matt Jeffress was let off to

secure a rope to the animals. The two bighorn ewes were slung off the mountain first and the goat was slung off the mountain last. As soon as everyone convened at the basecamp around 11:00 AM, a call was made to NDOW staff bighorn biologist Mike Cox and NDOW wildlife veterinarian Peri Wolff. Both happened to be attending a meeting in Winnemucca approximately 1 hour away and they indicated they would be available to shuttle samples back to Reno. All three animals were field necropsied by Matt Jeffress and placed on ice. Soon after finishing the last necropsy Mike and Peri arrived. Both looked at the carcasses and Peri noticed the abscesses found on all three animals resembled *Caseous lymphadenitis* (CL). Sample results indicate the abscesses were indeed CL and an exact strain type match was made between *Mycoplasma ovipneumoniae* (Movi) found in the domestic goat (Animal 1239) and Movi found in both bighorn ewes (Animals 1237, 1238).

Indian Springs Ridge is a mere 4 ½ miles from occupied bighorn habitat on the Snowstorms. California bighorn were first reintroduced to the Snowstorms in 1985. Starting in the 1990's sporadic reports of young bighorn rams around Indian Springs has been reported. These reports were concerning given the permitted BLM domestic sheep trailing route that runs along the north and south face of Indian Springs Ridge. In 2011, several thousand domestic goats were observed on portions of Squaw Valley Ranch. Jesse Braatz indicated the goats were being used for experimental trials to remove and/or greatly reduce weeds on portions of the ranch. Double fencing was employed (electric with and outside barbed wire fence) as was herding dogs to reduce dispersal of domestic goats from private land to surrounding public land. According to Jesse, goats spent most of the year on Squaw Valley Ranch and were trailed through the Upper Clover and Lower Clover Ranches to be wintered on the White House Ranch along the Humboldt River approximately 25 miles west of Squaw Valley Ranch. White House, Lower Clover and Upper Clover Ranches are all administered by Squaw Valley Ranch (owned by Barrick Mining Corporation). No identifiable markers were found on the domestic goat dispatched by NDOW on Indian Springs Ridge. According to the owner of the domestic goats, Lance Knudsen, who was leasing goats to Squaw Valley Ranch for weed control, all of the goats on Squaw Valley Ranch private land had small ear tags in their ears. To date this was the first and last report of bighorn or domestic goats being observed on Indian Springs Ridge.

Results of the pathogen sampling were shared with Jesse Braatz of Squaw Valley Ranch in 2013. Following the 2013 grazing season goats have not been grazed on Squaw Valley Ranch.

Submitted by:

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