

PRELIMINARY REPORT

Rocky Mountain Bighorn Ram #10-566

Euthanized on August 1, 2009 in the South Fork of Tunnel Canyon (NAD83 UTM 11S 721647E, 4423808N)

History:

The week of July 28th 2009, a guide noted that the Ram was displaying clinical signs of depression and possible respiratory disease. On August 1, the animal was viewed by a Nevada Department of Wildlife (NDOW) biologist who observed nasal discharge from the animal. Per established Memorandum of Understanding between NDOW and the Nevada Department of Agriculture (NDOA) the decision was made to euthanize the animal. On August 1, 2009 at approximately 20:00 the animal was euthanized via gunshot to the neck. The gross necropsy was performed by a NDOA veterinarian/pathologist and was started at approximately 22:00 hours.

Gross / Visual Examination:

- Nasal discharge - bilateral
- A patch of hair loss approx: 6-9 cm on left shoulder
- Body condition score = to 5/10
- 2 nasal bot larvae (*oestrus ovis*) in the left sinus. Mucoid to mucopurulent material within the sinuses.
- Multiple, firm nodules were found in the dorsal portion of the lungs.
- The liver contained 2, well defined, small (1 mm), white, circular lesions.
- The rest of the tissues examined showed no significant findings.

Microscopic Examination:

- The lungs showed evidence a mild, chronic infection with lung worms (*protostongylus sp.*). This would account for the presence of the nodules on the gross examination. There was also evidence of recent congestion and hemorrhage which was believed secondary to cardiovascular collapse following the gunshot.
- There was no significant inflammation within the tissues of the sinuses.
- The liver showed evidence of a mild, chronic bile duct hyperplasia. In some of the ducts there are remnants of parasites, most likely flukes (*Trematode sp.*).

- The patch of hair loss on the shoulder showed evidence of a moderate dermatitis, but no inciting cause was noted.

Culture Results:

Lung

Multiple sections of lung were taken for culture. Culture results included:

- Mixed bacterial growth
- Many *Pasturella trelahosi*
- Moderate numbers of *Bacillus* species

Mycoplasma culture - Pending

Fecal culture

Negative for *Salmonella* and *Vibrio* sps.

Parasitology:

Fecal exam

- Bearman test for Lungworms – negative
- Flotation - coccidia sps. - 27 eggs per gram of feces (this is clinically an insignificant amount)

Trace Mineral Screen - Liver:

Levels outside of the reference ranges (primarily based on adequate values in domestic sheep) include:

Selenium 0.19 ug/g (reference range: 0.25-0.8 ug/g)

Low selenium levels have been a consistent finding in bighorn sheep across the western states.

Iron 140 ug/g (reference range: 40-100 ug/g)

Molybdenum 1.1 ug/g (reference range: 0.4-0.8 ug/g)

Iron and molybdenum levels could be high from levels within the soil. However they are not considered to be within a toxic range.