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Veterinary Services Newsletter January 2016

Veterinary Services Staff

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Wildlife Necropsy Summary

Case of the Month

Wyoming Game and Fish Warden Biff Burton responded to a call of an apparently blind mule deer buck walking in circles south of Saratoga. Diagnostics identified inflammation of the cornea and conjunctiva consistent with infectious keratoconjunctivitis (IKC), often referred to as pinkeye. In this case, the bacteria *Trueperella pyogenes* was cultured out of the 3rd eyelid. IKC is typically caused by a bacterial infection in the eye. Multiple bacteria have been associated with IKC in wildlife, but in most cases some type of inciting factor must be present to allow that bacteria into the eye. Usually this is trauma (such as UV light exposure or mechanical abrasion from dust or blowing snow) or an underlying viral infection such as a herpesvirus.



IKC occurs sporadically in wildlife throughout Wyoming and is most frequently seen in deer and moose, although pronghorn, elk, and bighorn sheep may also be affected.

Mule deer with keratoconjunctivitis.

Eleven wildlife cases were submitted for diagnostics in December.

Species	Date Received	County	Diagnosis
Elk	12/3/2015	Campbell	Rib infection
Elk	12/4/2015	Carbon	CWD, bacterial infection
Goose	12/4/15	Carbon	Pending
Elk	12/8/2015	Sweetwater	Pending
Elk	12/8/2015	Sweetwater	Pending
Elk	12/8/2015	Sweetwater	Pending
Bighorn Sheep	12/10/2015	Albany	Unremarkable
Mule Deer	12/17/2015	Carbon	Keratoconjunctivitis
Bighorn Sheep	12/19/2015	Park	Pending
Elk	12/29/2015	Natrona	Pending
White-tailed Deer	12/29/2105	Albany	Pending

Thorne/Williams Wildlife Research Center

And more sheep facility construction....

This month found us here at the Thorne/Williams Research Center continuing construction of our new sheep handling facility. Along with fence construction we have also been building the alleyways and welding the many gates it takes to make our alleyways work. In addition, we built a 20' X 10' shelter so the sheep have a way to get out of the elements. For those of you that don't know - it tends to get a little breezy here in the canyon. Next on the list is hooking up automatic waters, building catch pens, and then finally putting sheep in the pastures at the end of January.



View of our new sheep handling facility, holding pens, and pastures.

The Future of the TWRC:

We've also been spending time over the last few months discussing the future of the TWRC. Our facility has a long history of productive research and education over the past 60 years; however many parts of the facility are beginning to show their age. We are beginning the slow process of re-evaluating the facility; updating our research, management, and husbandry; and brainstorming ideas for our future. As disease becomes an increasingly complex issue on the landscape and new advances in technology for management become available, there is a strong need for captive wildlife work to research and validate new tools and techniques for management. We are currently putting together a long-term plan to prepare our facility for new research, education, and opportunities.



Loafing shed to provide captive sheep with shelter from the wind and sun.

Wildlife Health Laboratory

Surveillance updates:

Brucellosis surveillance in hunter-killed elk is almost complete for the season. By the end of December we have received 1,107 blood samples in the laboratory with 759 (69%) of those being suitable for testing. As we mentioned in our October Veterinary Services newsletter, the focus of our surveillance is the Bighorn Mountains, from which we have received 665 samples, with 482 (72%) being testable. From these samples, 448 were from yearlings or adults (considered the most valuable for brucellosis surveillance). Brucellosis surveillance in the Bighorns is complete for 2015 and no positive animals were identified! Surveillance will continue for the foreseeable future.



Florescence polarization (FPA) reader; one of three instruments used to test blood samples for brucellosis.



Collecting a retropharyngeal lymph node for chronic wasting disease testing.

Surveillance updates (continued):

CWD surveillance in deer, elk and moose is complete for the 2015 season. In total, we received over 1,800 samples. Sixty-seven hunter-killed samples have been identified as positive for CWD, and letters have been sent notifying the hunters of the positive test results. Nine new hunt areas have been documented as having CWD this year; deer hunt areas 1, 24, 100, 112, 171, and elk hunt areas 11, 12, 21, and 34.

Respiratory Disease Surveillance in Bighorn Sheep and Mountain Goats

Laboratory staff and Kevin Monteith's crew from University of Wyoming Cooperative Fish and Wildlife Research Unit was out and about in the field this December capturing 33 bighorn sheep for disease research. This cooperative project is designed to determine how body condition may influence what species of respiratory pathogens a particular sheep (or herd) may carry. As part of this research, bighorn ewes are captured twice a year (December and March), sampled for respiratory pathogens, and their body condition is assessed by measuring their fat depth ultrasonically. Several northern herds were selected for this research including Whiskey Basin, Jackson and Absaroka.



Capturing bighorn sheep near Sacagawea Ridge in Whiskey Basin

In other happenings, Mary and Hank attended the bighorn sheep working group meeting in Dubois and the bighorn sheep, domestic sheep interaction working group meeting in Lander. Terry Creekmore assisted with blood and tissue collection for brucellosis surveillance in the Bighorn Mountains. Hally Killion and Jessica Jennings-Gaines completed (and aced!) their courses in Molecular Biology for the fall semester.