

October 2015



## Veterinary Services Staff

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# Veterinary Services Newsletter

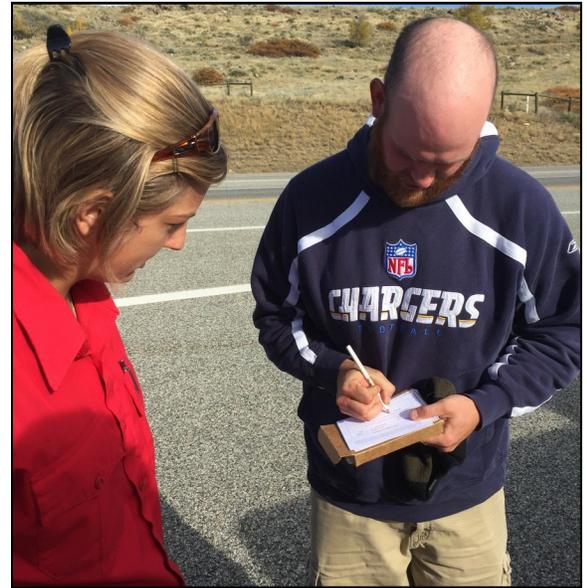
## October 2015

## Wildlife Disease Laboratory

### Surveillance updates:

Brucellosis surveillance in hunter-killed elk is well underway. By the end of October we have received 695 blood samples in the laboratory with 490 (71%) of those being suitable for testing. The focus of our brucellosis surveillance is again on the Bighorn Mountains, where seropositive elk were first identified in 2012. Since their initial discovery, a total of seven seropositive elk have been found over the past three years. Wildlife Disease Laboratory staff assisted in surveillance in the Bighorns by helping out at check stations at Cutler Hill and Buffalo, as well as camp checks in the Bighorns and Shell. To date, we have received 325 testable samples from the Bighorns.

CWD surveillance in deer, elk and moose is also well underway, with 908 samples received as of the end of October. Forty eight hunter-killed samples have been identified as positive for CWD, and letters have been sent notifying the hunters of the positive test results. While the letter does not specify if the meat should be consumed, it does give the hunter the legal right to dispose of the carcass (in a landfill) if they wish. Two new hunt areas have been documented as having CWD this year; deer hunt area 1 in the northeast, and elk hunt area 21 near Baggs.



Kylie collecting accurate location data from a hunter at the Buffalo check station for Brucellosis surveillance in the Bighorn Mountains.



Testing for CWD using the IDEXX ELISA.

### Other happenings:

Mary and Hank attended the United States Animal Health Association meeting where Mary presented the preliminary results of our CWD vaccine study in elk, and Hank presented the results of the Pasteurella ring test and on Brucellosis in the State of Wyoming. Mary and Hank also represent the Department on several committees, including the Brucellosis, Wildlife Disease, and Captive Wildlife and Alternative Livestock committees.

## Thorne/Williams Wildlife Research Center



*View of the new sheep pasture from above.*

### Bighorn sheep pasture complete!

This month saw the completion of a fencing project for our new sheep pastures. We took one of our large pastures and split into two different double fenced pastures to house the sheep at the TWRC. This project has been 2 years in the making and we're very excited to finally have it complete! Along with completion of the fence, we also made great progress towards completing the new sheep handling facility. A large part of the chutes inside the building are done. Next up we will finish running water lines for the building and also to the pastures, and construction of the alleyways. Lots of work left but the end is in sight!!!

### Working sheep and modifying pens

We managed to take a little break from construction to handle our sheep, sample them for bacteria, and trim their hooves. This little change in the day to day was well needed to refresh our minds and backs a little. The pen that currently holds our sheep was not originally designed for bighorn sheep. As a result, it can be very difficult to coax them out of the pen and into the handling building. This month, we built a modified wing fence to make getting sheep out of the pen and into the handling building much easier.



*Modified wing fence for improved sheep handling.*



*Utah state wildlife veterinarian, Dr. Roug stopped by to give our elk calves some treats after spending a day with us to receive training in sheep sampling and chemical immobilization.*

### Training and Education

This month we hosted the Utah state wildlife veterinarian for a day of training on sampling sheep and chemical immobilization. We try to utilize every animal handling opportunity at the TWRC as an educational and training experience. We can provide hands on training in wildlife handling, chemical immobilization, disease sampling, and sample handling that is not available anywhere else in the country. By providing good training in these areas, we can help to promote safe wildlife handling and quality disease sampling practices in the field.

## Wildlife Necropsy Summary

Twenty-two wildlife cases were submitted for diagnostics in October.

Species	Date Received	County	Diagnosis
Cottontail Rabbit	10/5/2015	Laramie	Trauma
Elk	10/5/2015	Sweetwater	CWD Negative
Mule Deer	10/6/2015	Carbon	EHDV Negative
Pronghorn	10/6/2015	Campbell	Hemorrhagic Disease
White-tailed Deer	10/7/2015	Weston	Hemorrhagic Disease
Mule Deer	10/5/2015	Albany	CWD Negative
Pronghorn	10/9/2015	Carbon	Necrobacillosis/Foot Rot
Pronghorn	10/9/2015	Carbon	Pending
Mule Deer	10/13/2015	Carbon	EHDV Negative
Mule Deer	10/13/2015	Sheridan	Necrobacillosis
Bat	10/16/2015	Fremont	Rabies Negative
Moose	10/16/2015	Carbon	CWD Negative
Red Fox	10/19/2015	Albany	Sarcoptic Mange
Bighorn Sheep	10/19/2015	Carbon	Pending
Mule Deer	10/20/2015	Bighorn	Pending
Mule Deer	10/20/2015	Bighorn	Muscle Abscess
Turkey	10/20/2015	Sheridan	Granulomatous Hepatitis
Bighorn Sheep	10/23/2015	Park	Nasal Tumor
Bighorn Sheep	10/23/2015	Unknown	Nasal Tumor
Mule Deer (2)	10/27/2015	Fremont	Pending
Badger	10/29/2015	Carbon	Pending

### Case of the Month – Necrobacillosis

Wyoming Game and Fish biologist, Tony Mong, submitted the carcass of a pronghorn found west of Baggs where at least four additional pronghorn were seen with similar lesions. On necropsy, the right front foot of this animal was swollen with an ulcer between the toes. The tonsils were abscessed and the lungs were covered with a yellowish fibrin. Diagnostics indicate the foot and tonsil lesions were caused by the bacteria *Fusobacterium necrophorum*. The lung lesions were caused by a secondary bacterial infection.

*Fusobacterium necrophorum* is an anaerobic bacteria found in the normal GI tract and feces of mammals. The bacteria cannot penetrate normal, healthy skin; however, under certain conditions it can cause disease. This can be confusing because it causes a variety of conditions depending on the point of entry of the bacteria: through the hooves (hoof rot), through the mouth (necrotic stomatitis, calf diphtheria, necrotic laryngitis), and through the GI tract (hepatic necrobacillosis). Collectively, these diseases are referred to as necrobacillosis.

Entry of bacteria through the mouth can be due to coarse feed or eruption of new molars in calves/fawns causing abrasions in the mouth. Hoof lesions are often associated with skin punctures between the toes or with continuous exposure to wet conditions (either due to precipitation/snow melt or due to animals heavily concentrated in areas that become wet with urine and feces). Sometimes sudden changes in feed or grain overload can weaken the lining of the rumen and allow the bacteria through, leading to infection of the liver or other major organs. This can be seen in wildlife that are suddenly being fed a very rich diet.

Necrobacillosis has been diagnosed in moose, elk, mule deer, white-tailed deer and pronghorn in Wyoming and can sometimes indicate a problem such as overcrowding or supplemental feeding.



Swollen foot (top) and ulcer (bottom) caused by *Fusobacterium necrophorum*, the causative agent of foot rot/necrobacillosis.