

July 2016



## Veterinary Services Newsletter July 2016

### Veterinary Services Staff

**Branch Supervisor/Wildlife Veterinarian:** Dr. Mary Wood

**Laboratory Supervisor:**  
Hank Edwards

**Senior Lab Scientist:**  
Hally Killion

**Senior Lab Scientist:**  
Jessica Jennings-Gaines

**Brucellosis Lab Assistant:**  
Kylie Sinclair

**Wildlife Disease Specialist:**  
Terry Creekmore

**TWRC Manager:**  
Matt Huizenga

**Wildlife Biologist:**  
Cole Hansen

**Biologist:** Sam Lockwood

### Wildlife Health Laboratory

#### Surveillance projects

The staff of the Wildlife Health Laboratory continues assembly work of blood kits for brucellosis surveillance in hunter-killed elk. So far, we have over 8000 kits assembled. The final goal is 11,000 kits by summer's end.

Kit building for CWD surveillance is complete with 6,000 constructed and ready for distribution.



*A bag of 500 CWD surveillance kits for distribution to different regions across the state.*

#### In other happenings

In cooperation with the Montana State University, Hally and Jessica have completed several hundred PCR tests to detect respiratory disease pathogens in bighorn sheep. This is part of a considerable project to detect and map the occurrence of respiratory pathogens in all bighorn sheep populations in the Greater Yellowstone Area. Considerable research has been completed through this cooperative venture to determine the optimum disease sampling techniques as well as the best way to recover (culture) and detect these pathogens.

As part of this collaborative effort, Jessica, Mary, Hank, Doug McWhirter, Aly Courtemanch, and several members of the MSU team met in Northwest Wyoming to discuss research and the data that has been generated thus far. The two day meeting was very productive and was a great example of how rewarding and efficient cooperative research can be.



*DNA extraction of bighorn sheep tonsil swab samples in preparation for PCR tests to detect respiratory pathogens.*

**Bighorn Sheep Facility**

This month was again a productive one for us here in the canyon. Water levels started to drop, but were still too high for us to get in the creek and fix the remaining damage to our fences. However, with help from Laramie Regional personal we were able the finish our alley system for the handling facility by tinning the roofs of the alleys. We had hoped to finish this project in May, but flooding had delayed us significantly. Many thanks to all the Laramie regional folks who lent some of their time to knock out the last part of the new sheep handling facility.



*Roofed alleyways help to keep them free of snow during the winter and help to prevent the sheep from jumping or injuring themselves while moving through the alleyway.*

*Completed bighorn sheep pens and alleyways.*

Sam and his horses also helped fish division personnel with a fish salvaging project on McKinney Creek south of Rawlins. They helped pack native fish to stretches of the creek that are outside of future treatment areas.

**Wildlife Necropsy Summary**

Eleven cases were submitted for diagnostics in June

Species	Date Received	County	Diagnosis
Moose	6/10/2016	Fremont	Undetermined
Mule Deer	6/17/2016	Lincoln	Pending
Mule Deer	6/17/2016	Uinta	Pending
Pine siskin	6/20/2016	Carbon	Undetermined
Elk	6/24/2016	Albany	Pending (CWD likely)
Cotton-tailed rabbit	6/29/2016	Fremont	Tularemia
Moose	6/30/2016	Teton	Pending
Moose	6/30/2016	Teton	Pending
Mule Deer	6/30/2016	Lincoln	Pending
Mountain goat	6/30/2016	Lincoln	Pending
Mountain goat	6/30/2016	Lincoln	Pending

## Disease of the month—Lice and Hair Loss Syndrome (HLS) of Deer.

Deer in the western U.S. commonly are infested with a native chewing louse (*Damalinia (Tricholipeurus) lipeuroides*) that may reach high numbers by late winter on young of the year. Native louse infestation (known as “pediculosis”) has not had significant impacts on deer populations. However, in Fall 2009, a debilitated adult mule deer buck with severe hair loss from southeastern Wyoming was diagnosed with infestation by an exotic chewing louse (*Bovicola tibialis*). This exotic European louse was likely introduced into North America by importation of their native host, the Fallow deer. *B. tibialis* has been associated with population-limiting disease in deer fawns in eastern Washington State. Also during fall 2009, “exotic pediculosis” was diagnosed for the first time in free-ranging deer from several states adjacent to Wyoming. This exotic louse has now been identified from ten counties within Wyoming – more than another state except California!



Typically, deer with native chewing louse infestations are asymptomatic, while deer infested with the exotic louse show varying degrees of hair breakage and hair loss with skin inflammation (dermatitis). The dermatitis is characterized by red, moist skin, eventual crusting and possibly thickened discolored skin. The distribution of hairless patches tends to be patchy and asymmetrical. Animals with extensive, severe lesions may lose body condition and eventually die.



Deer infested with both native and exotic lice have been documented in Wyoming. Typically, native lice are most numerous (and easily seen) in the sparsely-haired underbelly regions of the deer. In a deer with large patches of hair loss due to exotic pediculosis, lice will not be present in the center of the lesions. Rather, they will be abundantly present in the normally-haired skin just outside the distinct borders of the patch of affected (bare, inflamed) skin.



In Wyoming, only mule deer have been documented with exotic pediculosis due to *B. tibialis*. In other regions, black-tailed deer and white-tailed deer cases have been found. Susceptibility of other cervid species (moose, elk) to infestation with *B. tibialis* is not known. Humans are not susceptible to infestation with chewing lice of deer, but may experience transient minor irritation.



Evidence of louse infestation are hair breakage (ear, upper left), hair loss (leg, upper right), and sometimes severe hair loss, dermatitis, and redness (bottom).

Lice are extremely small (1-2 mm) and must be looked for carefully if pediculosis is suspected.