

June 2016



Veterinary Services Staff

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Senior Lab Scientist:
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Wildlife Health Laboratory

Surveillance projects

The staff of the Wildlife Health Laboratory spent the month of May catching up on several disease surveillance projects and also preparing to start all over again this hunting season. The final cultures and PCR tests were completed on the bighorn sheep and mountain goat respiratory disease surveillance project. The final report should be complete by the end of June.

Sample collection kits are being built for the 2016 CWD surveillance effort, with a goal of 6,000 kits on hand by the end of August. Blood kit assembly for brucellosis surveillance in hunter-killed elk is also underway with 5,000 kits built so far and a final goal of 11,000 kits by summer's end.



Kylie assembling brucellosis surveillance kits for the 2016 hunting season.

In other happenings

Hank and Jessica attended the Northern Wild Sheep and Goat Council biannual meeting in Moscow Idaho, where Jessica presented on An Improved Method for Culturing *Mycoplasmata ovipneumoniae* from Field Samples. Jessica is currently working on this manuscript and hopes to have it submitted to the Journal of Wildlife Diseases in the coming month.

Severe Flooding Leads to Significant Facility Damage

With the extremely wet spring, much of May was spent on damage control as high water damaged many of our fences. Water in Sybille creek at the high point of flooding was running at 3,000cfs. This is the highest that locals have seen the water in at least 75 years. Debris completely tore out one water gap, allowing our captive moose to escape. Luckily we were able to safely capture and return both of the moose back to our facility. We are currently in the process of repairing fencing throughout our facility. We expect it to take most of the summer to recover from this flooding.



After receiving 2 inches of rain overnight, high, fast water combined with debris pulled down the fence in our moose pasture.



Luckily, we were able to safely recover the moose with a little help from the Laramie region.

Animal Care and Use Meeting

We also had a meeting of our Institutional Animal Care & Use Committee (IACUC) this month. This committee is comprised of both wildlife professionals and members of the public and oversees our captive animal facilities. This is a federal requirement for us to maintain our registration as a research facility. There are bi-annual meetings to discuss current and future research with a facility inspection held after each meeting. All research proposals must be approved by the committee before studies can begin here at the TWRC.

Annual Wildlife Capture Course

Our Introduction to Wildlife Capture and Chemical immobilization course was held mid-May. We hold this course annually to provide hands on training for WGF D personnel in wildlife capture and chemical immobilization techniques. This training is mandatory for all game and fish personnel who utilize drugs to capture wildlife. The goal of the course is to train personnel in legal aspects of using controlled drugs for wildlife capture, the technical background on which drugs we use and why we use them, and in humane handling and care of wildlife during capture events. As part of the course, we have Dan Thompson and Doug Brimeyer come out to give additional talks on wildlife capture from a biologist and field perspective. Dan and Doug provide great practical information and tips/pointers on what to do when dealing with capture situations in the field. This year we had attendees, from WGF D, USDA Wildlife Services, and the University of Wyoming.



Martin Hicks provided the capture course with a drop net demonstration.



Dan Thompson teaches the capture course about large carnivore capture techniques.

Five cases were submitted for diagnostics in May.

Species	Date Received	County	Diagnosis
Mule Deer	5/6/2016	Fremont	Pending
Mule Deer	5/6/2016	Fremont	Undetermined
Moose	5/9/2016	Carbon	Elaeophorosis and winter ticks
Red Fox	5/9/2016	Park	Sarcoptic Mange
Bighorn Sheep	5/9/2016	Park	No specific pathogens

Disease of the month—Hantavirus

When out cleaning the shed or cabin this summer, don't forget about Hantavirus and how to protect yourself from this life threatening disease. Hantavirus is a very serious zoonotic viral disease that normally affects middle age adults (mean age of 38 years), but can affect all ages; the fatality rate in the United States averages about 35%! There have been 15 human cases of Hantavirus in Wyoming since 1999, resulting in 6 deaths. Rodents are responsible for the transmission of Hantavirus and are generally chronically infected, shedding the virus over long periods of time. In Wyoming, the deer mouse is the primary host, but other suitable rodents have been identified. The primary hosts are normally asymptomatic, making identification of infected animals impossible.



Example of a potential site of exposure to Hantavirus.

Hantavirus is transmitted to humans during contact with rodent droppings, urine, saliva or nesting materials where the virus is inhaled into the lungs. Caution should be exercised when opening & cleaning previously unused buildings, house cleaning, or entering crawl spaces that are inhabited with mice. When cleaning up mice infested areas, protective measures should include; wearing latex/nitrile gloves, thoroughly wetting down contaminated areas with household detergent, disinfectant, or 10% bleach. This will help keep the dust to a minimum, and help prevent inhalation of the virus.



The deer mouse is the primary host of Hantavirus in Wyoming.

In humans, the incubation time for this virus is one to five weeks. Early symptoms include fatigue, fever, muscle aches, headaches, dizziness, chills, nausea, vomiting and diarrhea. After four to ten days following early symptoms, coughing, shortness of breath, tremendous breathing difficulty can appear with the development of pneumonia. Medical care should be sought immediately if any symptoms of Hantavirus infection appear.