WYOMING STATE VETERINARY LABORATORY

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Fall 2026 Newsletter

Disease Updates

General Fall Disease Updates

We are seeing an influx of calf pneumonia, most with *Mycoplasma sp.* and many with *Histophilus sp.*

A few reminders about these important bovine respiratory pathogens:

- *Histophilus somni* and *Mycoplasma bovis* are often associated with life-threatening bronchopneumonia.
- In addition to respiratory disease, *H. somni* can cause septicemia involving multiple organ systems including the nervous system and heart. *M. bovis* can also cause joint and middle ear infections
- *M. bovis* can persist in a herd for long periods of time, with the possibility of pathogen shedding from the infected animals for a few weeks to several months.
- Control of these pathogens is hampered by a lack of effective vaccines, *M. bovis* has a cell wall that makes penicillins, cephalosporins, and sulfonamides ineffective, and *M. bovis* and *H. somni* field isolates show increasing antimicrobial resistance to tetracyclines and newer generation macrolides.
- Regular monitoring/screening of different age groups of animals is recommended, especially for early detection of subclinical *M. bovis* carriers.

Salmonella

We continue to see *Salmonella* sp. infections in various species, including in small animals.

From a Canine Diagnostic Case to a Multistate *Salmonella* Outbreak

Salmonella remains an important pathogen at the animal-human interface. Below we describe a particularly interesting case involving a young dog from Wyoming whose isolate was subsequently linked to a multistate human outbreak associated with backyard poultry.

Canine *Salmonella* Altona Case

WSVL isolated *Salmonella* Altona from a young domestic dog in Fremont County, Wyoming, that presented with severe dehydration and bloody diarrhea. The dog had a history of contact with chickens. Further investigation linked the canine isolate to a multistate outbreak associated with backyard poultry.

- The outbreak included **24 human cases** from seven states and **one canine case** from Wyoming, representing an eighth state. Among cases with available exposure information, 10 of 13 human cases, as well as the dog, reported exposure to backyard poultry.
- Patient ages ranged from less than 1 to 71 years, with a median age of 17 years, and **48% were younger than 5 years.** Three patients were hospitalized, and no deaths were reported. Illness onset dates ranged from May 11 through July 28, 2026. The outbreak strain was traced to a common hatchery, and these findings were communicated to the hatchery as part of the outbreak investigation.
- This case highlights the important role of veterinary diagnostic laboratories in One Health surveillance.

A diagnostic submission from a single animal can provide information that contributes to identifying connections among animal infections, human illnesses, and potential sources of exposure during a broader outbreak investigation.

Of course, *Salmonella* sp. remains an important pathogen in ruminants. In 2026, the WSVL identified several noteworthy *Salmonella* infections. These included multiple *Salmonella* serotypes identified from calves during an outbreak in Grand View, Idaho, and in the fall of 2025 and 2026 we saw ruminant *Salmonella* sp. cases co-infected with hemorrhagic disease viruses.

These viruses include Epizootic Hemorrhagic Disease (EHD) and Bluetongue virus (BTV), which are both members of the genus Oribivirus and are transmitted by *Culicoides* biting flies (“midges”, “no-see-ums”). These viral infections occur in wild and domestic ruminate species and often produce only limited clinical signs in cattle. That said, there is little in published literature regarding the clinical effects of co-infections with these viruses and other pathogens such as *Salmonella* sp.

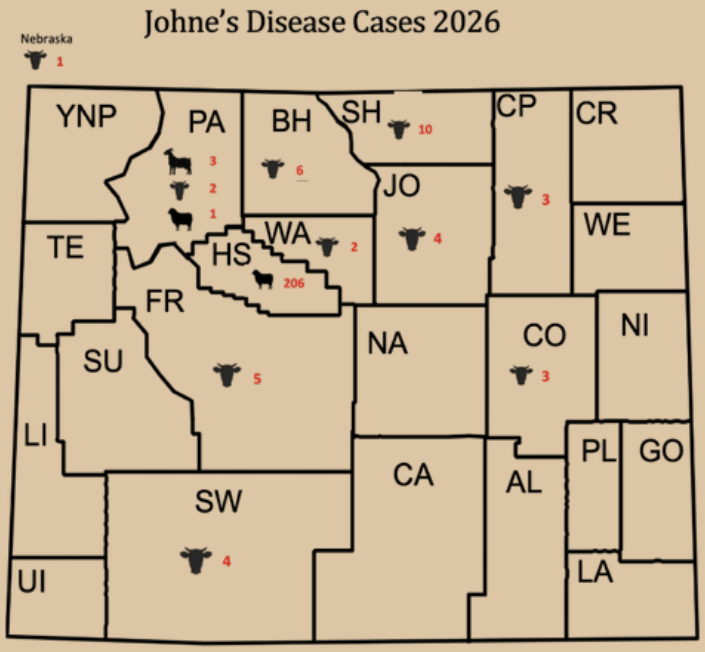
Transmission of hemorrhagic disease viruses is dependent on the vector, so season and local temperature and humidity influence disease epidemiology, with peaks in late summer and early fall, and outbreaks typically occurring around moist areas and water sources where *Culicoides* breed and animals congregate.



Johne's

In 2026, the WSVL Bacteriology and Serology Sections detected a **total of 250 positive animals for Johne's** disease, including cattle, sheep, and goats. Diagnoses were made using PCR (n=28), ELISA (n=226), or a combination of both tests (n=4).





Johne's Disease Project Update – Veterinarians Still Needed

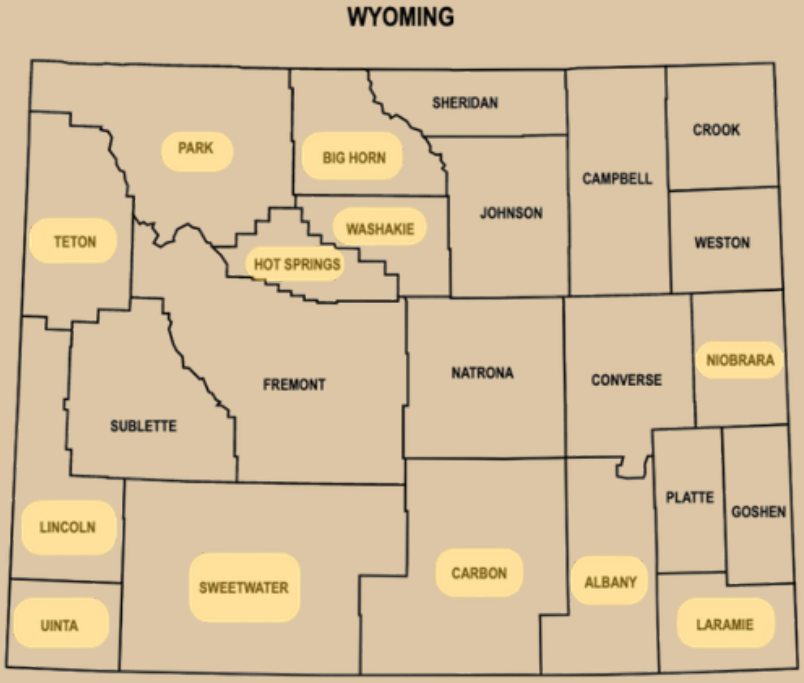
The statewide Understanding Johne's Disease in Wyoming Beef Cattle project, led by Drs. Mariela Srednik and Raphael Vanderstichel, continues to make progress. To date, we have processed samples from **13 participating beef herds, and 4 herds have had at least one animal test positive for Johne's disease.** Additional sampling kits have already been distributed to participating veterinarians, and we are awaiting the return of those samples.

We are continuing to recruit veterinarians and beef producers to help us achieve statewide representation.

Participants Still Needed by County:

Albany: 1 Laramie: 2 Sweetwater: 2 Big Horn: 1 Lincoln: 2 Teton: 2

Carbon: 2 Niobrara: 2 Uinta: 2 Hot Springs: 2 Park: 2 Washakie: 2



Participating herds receive **free Johne's disease testing**, including serum ELISA and fecal PCR, with sampling kits provided for convenient collection. Participation will help us better understand the distribution of Johne's disease in Wyoming beef cattle and provide information to support future disease prevention and control efforts.

If you are interested in participating, please contact us at wsvl-johnes@uwyo.edu. We will follow up with herd-related questions (location and herd size for all cattle herds registered in your practice) to assist with the selection process.

Contact for More Information

📧 wsvl-johnes@uwyo.edu - Ms. Madison Merrell (Project Coordinator)
📞 307-766-9932 (Dr. Srednik)

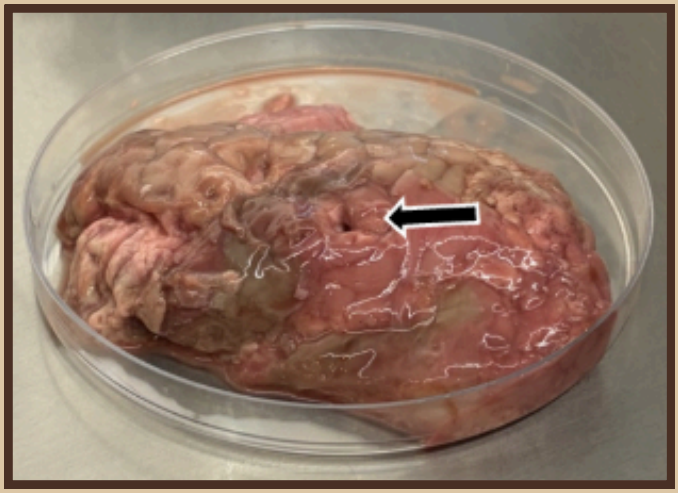
Streptococcus

Brain abscess as a metastatic manifestation of strangles

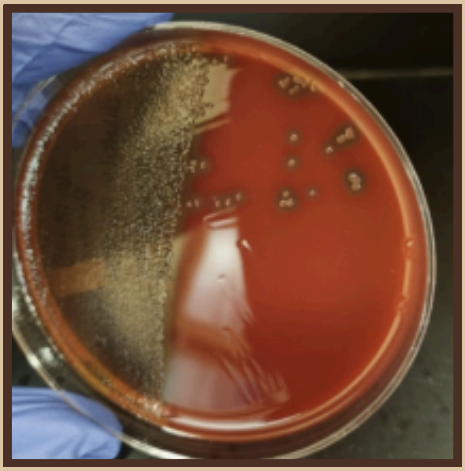
A recent case at WSVL highlights a rare and serious complication of equine strangles.

A 6-year-old horse with a history of strangles approximately one month earlier developed neurologic signs. The horse initially improved following treatment but later became severely ataxic, and its neurologic condition worsened. The horse was euthanized, and necropsy revealed a **purulent abscess** in the brain. Because of the neurologic presentation, brain tissue was initially submitted for rabies testing and tested negative. In the following weeks, additional cases of strangles were identified in horses from the same herd. Given the herd history and the brain abscess observed at necropsy, WSVL recommended bacterial culture of the retained brain tissue.

Bacterial culture of the brain abscess resulted in the isolation of *Streptococcus equi* subsp. *equi*, the causative agent of strangles, supporting a diagnosis of metastatic strangles, commonly known as bastard strangles.



Whole brain of the affected horse showing an opening in the cerebrum at the site of the suspected abscess. Tissue from this area was collected for bacterial culture.



Culture plate after 24 hours of incubation showing pure growth of *Streptococcus equi* subsp. *equi* colonies

What Is Bastard Strangles?

Bastard strangles occurs when *S. equi* subsp. *equi* spreads beyond the lymph nodes of the head and neck and causes abscesses at distant sites. Involvement of the central nervous system is uncommon but can result in severe neurologic disease.

Diagnostic Considerations

This case highlights the importance of considering bastard strangles in horses with a recent history of strangles that subsequently develop unusual systemic or neurologic signs.

Testing Available at WSVL

The WSVL currently offers both PCR and bacterial culture for the detection of *Streptococcus equi* subsp. *equi*.

- PCR provides rapid and sensitive detection of *S. equi* DNA and can be particularly useful when a rapid diagnosis is needed.
- Bacterial culture allows recovery of the organism and can provide an isolate for additional antimicrobial susceptibility testing.

West Nile Virus

West Nile virus (WNV) continues to circulate in Wyoming this mosquito season. To date, the WSVL has detected **six equine cases** positive for WNV IgM antibodies, consistent with recent infection. These cases occur alongside WNV-positive mosquito pools detected across the state and **two human cases** reported by the Wyoming Department of Health.

- WNV is transmitted primarily through the bite of infected mosquitoes and can cause significant neurologic disease in horses. Clinical signs may include weakness, incoordination, muscle tremors, difficulty standing, and other neurologic abnormalities.

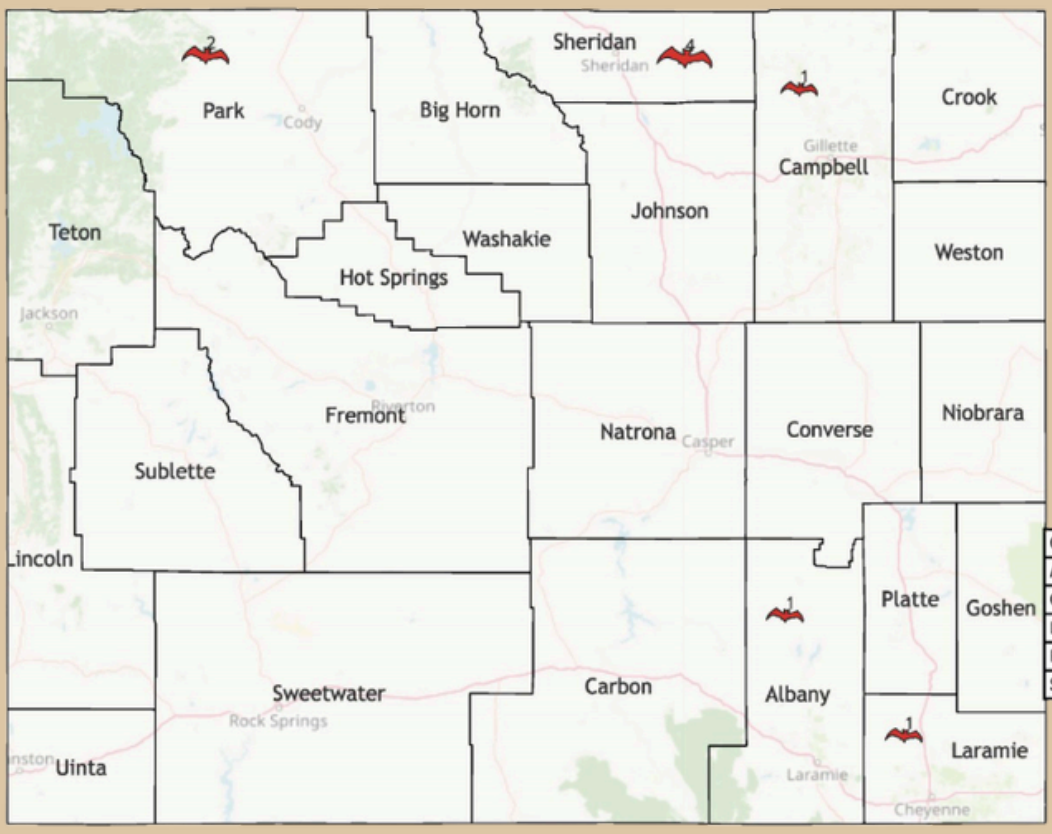
- **WSVL offers WNV IgM antibody testing to help identify recent infection in horses, as well as PCR testing for direct detection of WNV in cerebrospinal fluid and brainstem from affected animals.** Veterinarians are encouraged to consider WNV as a differential in horses presenting with compatible neurologic signs during mosquito season. Another important differential for horses with neurologic signs is equine herpesvirus type 1 (EHV-1). WSVL offers EHV-1 PCR testing using whole blood and nasal swabs and serum neutralization for EHV-1 antibodies using serum.

- The detection of recent equine infections is an important reminder that WNV exposure remains a risk for Wyoming horses while mosquitoes remain active. **Vaccination is the most effective means of protecting horses against WNV disease.** Horse owners should work with their veterinarian to ensure animals are appropriately vaccinated prior to mosquito season.

- Reducing mosquito exposure can provide additional protection by eliminating standing water, managing mosquito breeding areas, and using appropriate mosquito-control measures around horses.

Rabies

Rabies continues to be detected in Wyoming wildlife. To date this year, WSVL has confirmed nine rabies-positive bats, highlighting the continued importance of rabies awareness for veterinarians, animal owners, and the public.



County	Species	Count
Albany	Bat	1
Campbell	Bat	1
Laramie	Bat	1
Park	Bat	2
Sheridan	Bat	4

Rabies is a fatal viral disease that can affect all mammals and is transmitted primarily through the bite of an infected animal. Bats are an important wildlife reservoir for rabies and should be handled with caution, particularly when found in unusual locations or when potential human or domestic animal exposure has occurred.

- **WSVL performs the direct fluorescent antibody (DFA) test for animal rabies diagnosis.** Testing requires fresh brainstem and cerebellum tissue, making proper sample collection, handling, and timely shipment essential. Please ship specimens to WSVL as soon as possible after collection to help ensure that tissues remain suitable for testing.

- Veterinarians and submitters are encouraged to contact WSVL with questions regarding sample collection, packaging, or shipment for rabies testing. Maintaining current rabies vaccination in domestic animals also remains an important measure for protecting animals and reducing the risk of human exposure.



CLICK HERE

For more Rabies Information



Shipping Information

Shipping in Wyoming is becoming increasingly unpredictable.

- Please plan ahead: Schedule sample collection and shipping aiming to ship earlier in the week, pack your samples well, including plenty of ice packs, and note your tracking numbers.

- The links for the WSVL Inbound shipping program that includes both UPS and FedEx couriers are located within the WSVL Client Portal. You will need to sign in with your username and password. The links will be located on the left side.

WSVL Client Portal

Inbound Shipping Program

Are you a new User? Please email vetrec@uwyo.edu or call 307-766-9925 to get set up with sign in credentials



New Faces at the Lab



Mariah McPhee
Necropsy/Trimming Technician



Dr. Erica Moscoso
Diagnostic Pathologist and Clinical Assistant Professor



Dr. Caleb Wearmouth
Diagnostic Pathologist and Clinical Assistant Professor

Recent Events

AAVLD Accreditation Site Visit

AAVLD Accreditation Site Visit: This fun event occurs once every 5 years and gives the WSVL a chance to show off our many updates, while getting feedback on areas where we can improve our quality system going forward. It is a multiday event that includes support from UW administration, our clients, and laboratory stakeholders. THANK YOU to our amazing staff and supporters for making this event a huge success!

Sheep and Wool Festival and State Fair

This year the laboratory attended the 2026 Wyoming Sheep and Wool Festival in Powell, and returned to the Wyoming State Fair in Douglas, where we shared a table with UW Extension. We really enjoy sharing information from the lab at these events and are looking forward to a busy 2027!

Upcoming Events

- **2026 AAVLD Conference in Madison, WI**
- **2026 WVMA Winter Meeting**
- **Planning for our second US Army Military Preparedness Necropsy Training workshop - tentatively scheduled for March 2027**
- **Preparing to transition to a new Quality Management software system in January 2027**

Holiday Schedule



Thanksgiving Holiday → **Nov 26 & 27, 2026**



Christmas, Winter Closure, and New Year's → **Dec 24, 2026 - Jan 3, 2027**



Martin Luther King Jr. Day → **Jan 18, 2027**

The laboratory will be closed on the following dates. Please plan your shipments accordingly and avoid scheduling arrivals on these days. For the Christmas/Winter Closure, we highly suggest that you do not ship anything to us after **December 16th** to ensure we receive and process it prior to the closure.

Check our prices below!

FEE SCHEDULE

CONTACT US

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Wyoming State Veterinary Laboratory

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We want to hear from you!

CLICK HERE