

Holiday Hours

Thanksgiving: Closed November 27–28.
• USPS/UPS will pick up on November 28
• USPS will also pick up on November 29

Winter Break: Closed December 24 – January 1.
• Please send samples by December 18 to ensure they arrive and can be tested before the closure.



September 2025 Newsletter

WYOMING STATE VETERINARY LABORATORY



(307) 766 - 9925



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uwyo.edu/wyovet



@WyomingStateVetLab



@wystatevetlab

WSVL Events & Updates

Recent Events

- WSVL Council Meeting – Hosted May 6
- Wyoming Public Health Get Together – Hosted May 28
- UW 26th Annual Youth in STEM – Attended May 20
- Wyoming Stockgrowers Spring Convention – Attended June 2–4
- WVMA Summer Meeting (Dubois) – Attended June 22–24
- WIRED Event – Hosted August 14
- Wyoming State Fair – Attended August 16
- UW Saddle Up – Attended August 16

Upcoming Events

- **Wyoming Veterinary Medical Association (WVMA) Winter Meeting** – WSVL will host a half-day of presentations on Saturday, December 6 in Casper, WY. Meet staff from your laboratory and bring your questions.
- New small ruminant abortion panel coming soon!

West Nile Virus Cases

So far this year, the WSVL has confirmed 11 cases of West Nile virus (WNV) in horses across five counties through ELISA testing, as well as 12 cases in wild birds across four counties through PCR testing. WNV is an important mosquito-borne virus that can cause serious illness in horses, birds, and humans, sometimes leading to severe neurological disease (such as muscle tremors, stumbling, weakness, impaired vision, convulsions, or an inability to stand) and even death. Fortunately, effective vaccines are available for horses, and vaccination remains the best way to protect them from this potentially life-threatening disease. Horse owners are strongly encouraged to keep their animals current on WNV vaccination and to maintain appropriate mosquito-control strategies, especially during mosquito season.

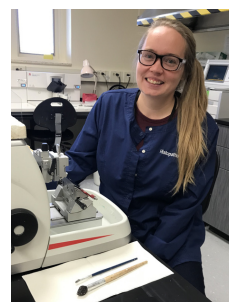
New Faces at the Lab!



Dr. Lauren E. Camp
Veterinary Sciences
Veterinary Parasitologist



Dr. Tamsen Polley
Veterinary Sciences
Veterinary Anatomic Pathologist



Emily Schmidt
Histology
Laboratory Technician II



Sara Prokosch
Necropsy
Laboratory Technician III



Kristy Benjamin
Virology
Laboratory Technician II

Johne's Disease Testing Update

In 2025, the WSVL Bacteriology and Serology Sections detected 33 animals positive for Johne's disease, including cattle, sheep, and bison. Diagnoses were made using PCR, ELISA, or a combination of both tests.

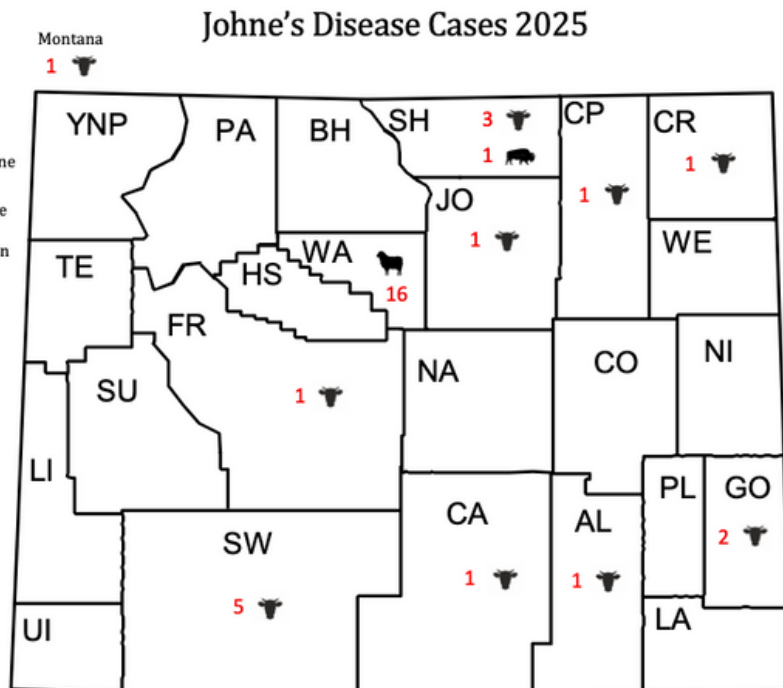
Connecting the Right Sample to the Right Test – Johne's Example

When choosing between PCR and serology (ELISA) for Johne's disease testing, it is important to consider herd prevalence. In low-prevalence herds, positive ELISA results are more likely to be false positives, so PCR—being more sensitive—may be the better initial screening tool. In high-prevalence herds, ELISA positives are more likely to represent true infections, though negative results may miss animals that have not yet developed detectable antibodies. For herds with unknown prevalence, results should be interpreted cautiously, and confirmation with a different method (e.g., PCR follow-up of ELISA-positive animals) is recommended.

Costs also differ between methods: PCR is \$45 per sample (with the option to pool up to five samples), while ELISA is \$6–\$10 per sample (see [fee schedule](#)). Selecting the right test based on herd status helps ensure both accurate and cost-effective results. More information about testing options is available on our website:

[Navigating Johne's Disease Testing.](#)

Legend:
 Bovine
 Ovine
 Bison



Johne's Disease Project Immediate Call for Veterinarian Participation!!!

Drs. Srednik and Vanderstichel are launching a new project, *Understanding Johne's Disease in Wyoming Beef Cattle*. This multistage cross-sectional study will sample 100 herds (30 animals per herd) across the state to estimate Johne's disease prevalence and identify risk factors.

Participating veterinarians will receive:

- Free diagnostic testing (ELISA and PCR)
- Convenient sample collection kits for fall herd visits
- Herd-specific results, along with statewide findings to guide control strategies

More information can be found on the [Understanding Johne's Disease in Wyoming Beef Cattle](#) website.

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

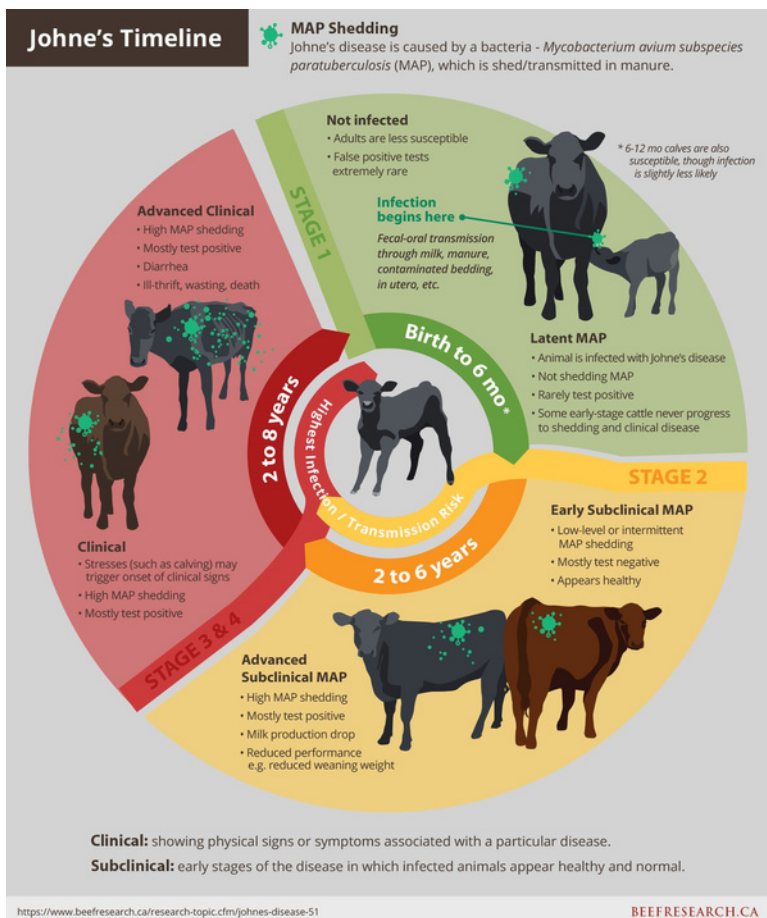
For more information, contact:

Ms. Jaiden Lopez (Project Coordinator)

Johnes@uwyo.edu

307-766-9932 (Dr. Srednik)

Thank you for supporting cattle health and veterinary research in Wyoming!



Select Agent Updates

In 2025, WSVL confirmed one case of plague (*Yersinia pestis*) in a prairie dog from Carbon County and one case of tularemia (*Francisella tularensis*) in a cat from Uinta County. Additionally, plague was detected in a mountain lion, and tularemia was identified in a horse from Montana. We also diagnosed a case of Q fever (*Coxiella burnetii*) in a stillborn lamb from Platte County. As of September 2025, these represent the confirmed select agent cases to date (additional cases may be identified before the end of the year).

Rabies testing and an update on Teton county bats



You may have seen recent news about potential rabies exposure from bats in cabins within Grand Teton National Park. The WSVL received several bats from the area this summer; while most tested negative for rabies, a few were unsuitable for testing.

Our rabies testing program is administered in coordination with the Centers for Disease Control and Prevention (CDC), which requires specific portions of the brain—most importantly the brain stem and either the cerebellum or hippocampus—to be intact and identifiable. Samples that are dried out, liquefied, discolored, or autolyzed cannot be reliably tested. In these cases, a positive result can still be reported if detected, but a negative result cannot be confirmed because rabies cannot be ruled out with degraded tissue. This distinction helps protect public health and ensures accurate reporting.

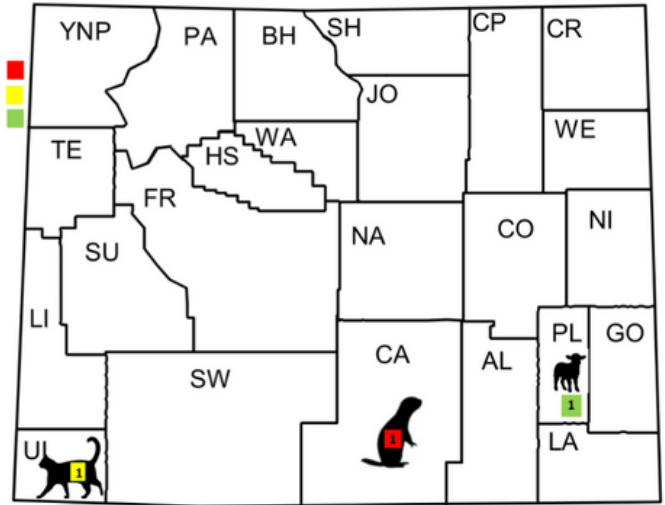
Clients can support high-quality rabies testing by submitting suspect animals promptly, keeping them cold (not frozen), and avoiding head damage during collection. Please see our [website](#) for more information, including links to the CDC and Wyoming Department of Health, as well as the most current map of positive rabies cases in the state.

WSVL will also be at the winter WMVA meeting to present on current rabies testing strategies and provide guidelines for submitting samples for rabies DFA testing.

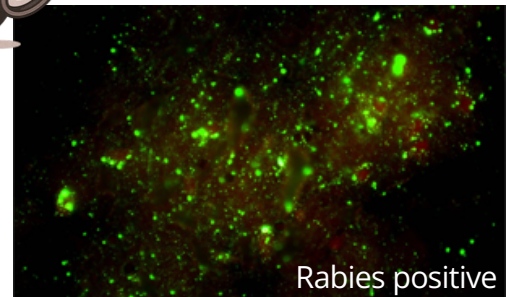


2025 Plague, Tularemia & Q Fever PCR-Positive Cases

Legend
Plague
Tularemia
Q Fever



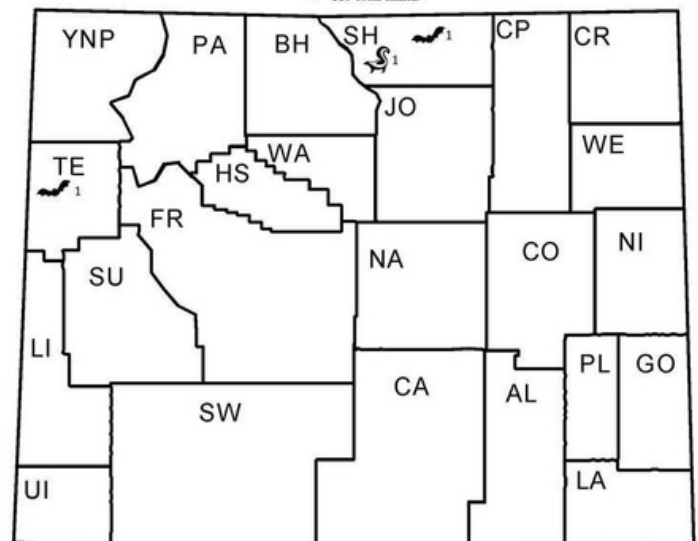
Rabies negative



Rabies positive

Rabies Positives 01/01/2025 to 08/31/2025

• 339 total exams



For more information, contact Dr. Izabela Ragan at (307) 766-9934
Data courtesy of the Wyoming State Veterinary Lab

Interesting cases

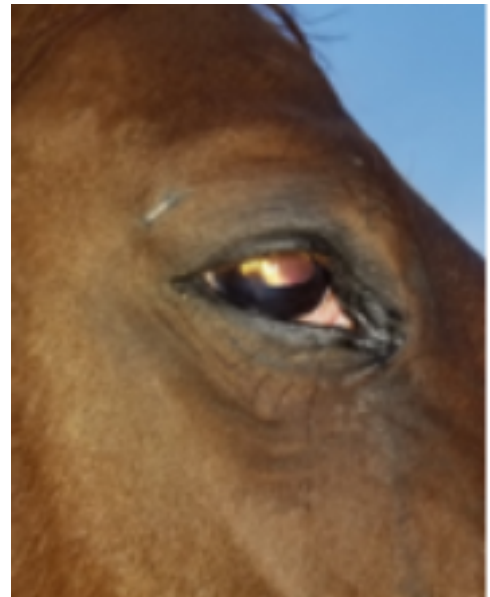
Mule deer mystery: how WSVL collaborates with the Wyoming Game and Fish Department

The WSVL has a long history of collaborating with the WGFD to solve wildlife mysteries. A few months ago, an injured deer was reported by a member of the public. The mule deer, a doe with a significant wound on its face, was humanely euthanized by WGFD field personnel, and its head was submitted to the WSVL for further examination. What initially appeared to be an extensive traumatic injury turned out to be a malignant tumor (cancer). The tumor had started in the deer's lymph nodes but was so aggressive that it spread and invaded the skin, causing substantial damage. By examining the cancerous cells under the microscope and applying special cell-staining techniques—both routinely used to diagnose tumors in humans and animals—the cancer was identified as a B-cell lymphoma. While cancers have been reported infrequently in deer and moose, lymphomas are not commonly found. A report of this case was recently [published](#) in the *Journal of Wildlife Diseases*.



Equine “pink eye”

In April, the WSVL Bacteriology Section identified *Moraxella bovoculi* from a corneal swab collected from a horse with chronic bilateral keratitis in Riverton, WY. While *M. bovoculi* is a well-known cause of “pink eye” in cattle, reports in horses are rare, with only a few cases described worldwide. The affected horse was housed on a farm with cattle, suggesting possible interspecies exposure. The isolate was identified by MALDI-TOF MS, found resistant to penicillin and erythromycin, and confirmed by whole-genome sequencing to cluster with other *M. bovoculi* strains. This unusual finding underscores the need to consider several *Moraxella* species in equine ocular disease and highlights the importance of bacterial isolation, accurate identification, and antimicrobial susceptibility testing to guide effective treatment.



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B Cell Lymphoma in an Adult Female Mule Deer (*Odocoileus hemionus*) from Wyoming, USA

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ABSTRACT: A free-ranging adult female mule deer (*Odocoileus hemionus*) from Wyoming, USA, was euthanized due to an open wound on its head. Postmortem examination yielded a diagnosis of multicentric B cell lymphoma associated with severe skin ulceration. Sequencing of frozen neoplastic tissue found no evidence of an exogenous viral etiology.

A free-ranging adult female mule deer (*Odocoileus hemionus*), from Sheridan County, Wyoming, US (44°44'0.9", 106°54'31"), was reported to the Wyoming Game and Fish Department (WGFD; Laramie, Wyoming, US) on 22 July 2024, due to the presence of a “severe lesion on its head” (Fig. 1A, B). A WGFD employee euthanized the deer by gunshot to the neck; noted its poor body condition; performed a field necropsy; and submitted the frozen head and cranial neck, along with samples of liver, tongue, lung, esophagus, thyroid gland, and spleen, to the Wyoming State Veterinary Laboratory (WSVL; Laramie, Wyoming, USA).

At necropsy, cranial to the right eye was an open skin wound (deep ulcer) covered by a dark crust of dried blood and necrotic material invaded by fly larvae (Fig. 1B). Multiple ovoid subcutaneous masses were palpated on the right side of head. Once incised, the masses were tentatively identified, based on their location and shape, as regional lymph nodes with the parenchyma completely effaced and replaced by a homogeneous, solid, pale tan infiltrate (Fig. 1C). The right retropharyngeal lymph node was similarly enlarged (6 cm greatest diameter, versus 3 cm for the left, normal-appearing node) and replaced by solid pale tan infiltrate. The left parotid, submandibular and retropharyngeal lymph nodes were smaller,

with a distinct cortex and medulla on cut surface. The skin, subcutis, and muscle around the ulcer were thickened by a similar infiltrate, occasionally mixed with green suppurative exudate, that partially effaced regional dermal structures (Fig. 1A). The infiltrate extended into the nasal cavity, through the nasal bones, and into the right eye orbit. Samples of affected lymph nodes and skin, plus the left retropharyngeal lymph node (unaffected control) were fixed in 10% formalin and processed for routine histopathologic examination. Routine tests for specific pathogens including chronic wasting disease (ELISA on the left retropharyngeal lymph node), aerobic bacterial culture (lung, liver, and spleen), and cervid herpesvirus 4 detection (PCR on unaffected lymph node) were performed. No agents were detected.

Histopathologically, the masses were confirmed to be lymph nodes given the presence of an outer capsule of fibrous connective tissue extending into their parenchyma forming trabeculae, and the presence of small lymphocyte clusters. In the right parotid, submandibular, and retropharyngeal lymph nodes, neoplastic sheets of round cells supported by the regional collagenous stroma effaced and replaced the normal architecture, extended to adjacent soft tissues, and expanded the dermis over the nasal planum. Neoplastic cells had moderate amounts of eosinophilic cytoplasm, occasionally with a hint of a perinuclear pallor suggesting a well-developed Golgi apparatus (Fig. 1D). The nuclei were round, ovoid, indented or irregular, with moderate to marked variation in size, and clumped chromatin; a few larger nuclei had a large magenta nucleolus. Mitoses (counted in areas with least autolysis and freeze-thaw artifact) were uncommon, averaging (mean) 0–1 per 10