RANGELAND CENTER

2025 ANNUAL REPORT

University of Idaho
Rangeland Center

RANGELANDCENTER.ORG

The Rangeland Center at the University of Idaho was established in 2012 by the Idaho State Legislature to address contemporary challenges facing Idaho rangelands and the communities that rely on them. The Center's interdisciplinary approach and emphasis on partnerships with agencies and organizations working on rangelands advances the study and management of rangelands in Idaho and the region. This annual Report summarizes activities conducted to address our mission, vision, and goals, following priorities laid out in our five-year strategic plan.

At the heart of the UI Rangeland Center is an interdisciplinary group of faculty, researchers, Extension staff, and rangeland professionals who collaborate with members of our Partners Advisory Council (PAC) to accomplish the Center's goals and mission. Rangeland Center members partner with a broad spectrum of stakeholders in the development of science-based solutions for rangelands.

GOALS

The goals of the Rangeland Center originate with the 2012 Idaho legislative act that established the Center and charged it to:

1. Empower researchers and educators who strive to create insight and foster understanding for the stewardship and management of rangelands;
2. Work in union with external partners to focus research, education and outreach to produce solutions that are responsive and relevant to contemporary rangeland issues;
3. Engage partners and stakeholders to jointly provide leadership for discovery of new knowledge and create science-based solutions for rangeland management;
4. Provide objective and relevant rangeland information for individuals, organizations and communities;
5. Offer learning opportunities for land stewardship; and
6. Encourage and facilitate applied research to address specific issues and management challenges that arise on Idaho's diverse rangelands.

VISION

The Rangeland Center serves current and future generations by promoting stewardship of the rangeland resources which are vital to the ecological and economic health of Idaho and the region.

MISSION

The mission of the Rangeland Center is to empower the researchers and educators in Idaho who create knowledge and foster understanding for the stewardship and management of rangelands and to promote active partnerships with the individuals, organizations and communities who work and live on Idaho's rangelands.

RANGELAND CENTER STAFF

JASON KARL
Director

TIM PRATHER
Senior Associate Director

ERIC WINFORD
Associate Director

PATIENCE MATEER
Center Administrative Support

SCOTT JENSEN
State Rangeland Extension Educator

ELLA HALL
Communications Director

PARTNERS ADVISORY COUNCIL 2025

CHAIR
Anna Owsiak -- (Retired) Regional Habitat Manager, Idaho Department of Fish & Game

VICE CHAIR
Caroline Nash -- Principal, CK Blueshift

COUNCIL MEMBERS
Mark Davidson -- Director, Blaine County Recreation District
Darcy Helmick -- Land Manager, Simplot Land & Livestock
Ken Crane -- (Retired) Rangeland Program Lead, Idaho BLM Twin Falls District
Jerald Raymond -- Rancher/Cattle Breeder & Consultant; Idaho Rangeland Resource Commission
Susan Buxton -- Director, Idaho Department of Parks & Recreation
James Hagenbarth -- Rancher
Tina Ruffing -- (Retired) Rangeland Management Specialist, U.S. Forest Service Intermountain Region
Daniel Bertram -- Upper Salmon Basin Watershed Program Manager, Office of Species Conservation
Cleve Davis -- Rancher/Ecologist, Chokecherry MicroFarm
Justin Mink -- Rancher
Chris Colson -- Executive Director, Land Trust of the Treasure Valley

2025 CENTER ACTIVITIES

Rangeland Research Support and Coordination – A primary role of the Center as established by the Idaho State Legislature is to "Encourage and facilitate applied research to address specific issues and management challenges that arise on Idaho's diverse rangelands." To accomplish this role, the Center tracks rangeland research, Extension, and outreach projects throughout the state. In 2025, the Center published an independent website (https://rangelandcenter.org). which includes project descriptions related to priority topics identified in the Center's strategic plan. The Center also coordinates opportunities and collaborations between stakeholders, funders, and researchers. In 2025, the Center represented members' projects to stakeholder groups including the Society for Range Management, state and federal land management agencies, Idaho Rangeland Resources Commission, and Idaho Cattle Association.

Rangeland Center Strategic Plan Update – The Center's 5-year strategic plan was finalized in 2025, following a final round of input from Center and PAC members at the Spring Retreat. The updated Strategic Plan (available at https://rangelandcenter.org/publications/#strategic-plan) will guide the work of the Center through 2029 and serves as a documentation of needs recognized by stakeholders that can be used to support grant funding applications.

Idaho Rangeland Fall Forum – Center staff worked closely with the UI McClure Center for Public Policy to plan and host the 2025 Fall Forum. The theme of this year's forum was "On the Horizon for Idaho Rangelands," and it was held in Salmon on October 2nd and 3rd. The Forum included two sessions on Thursday the 2nd, exploring the topics of "Drones on the Range," and "The Challenges of Virtual Fencing." The following day, participants were introduced to a number of technologies from the previous day's sessions, including a drone demonstration and two examples of virtual fence technology in action. This year's Forum saw strong attendance and engagement throughout the event. Fall Forum is a flagship event of the Center and engages stakeholders across the state in discussing solutions to current rangeland management challenges. The Center works with our PAC and the McClure Center throughout the year to plan and promote Fall Forum to maximize its reach and value to our stakeholders.

2025 CENTER ACTIVITIES

Idaho Range Livestock Symposium – This annual event, co-organized by Center members Scott Jensen and Benton Glaze and supported by a dedicated committee, was held in Homedale, Twin Falls, and Idaho Falls in 2025, with a virtual viewing option at the Twin Falls location. The 2025 IRLS agenda focused on virtual fence, invasive annual grass control, herd health concerns during calving season, and targeted grazing. For 2025, the Symposium brought in 192 participants over the course of three days. The Center supports the Symposium with funding for travel and food as well as with staff time for planning and outreach.

Providing Rangeland Information – Central to the mission of the Rangeland Center is providing the best-quality science to our stakeholders. The Rangeland Center also continued to promote the Field Guide to Idaho Grasses and Grass-like Plants and the Backpack Guide to Idaho Rangeland Plants through Extension Publishing. For 2025, we sold 41 copies of the Backpack Guide to Rangeland Plants and 128 physical copies of the Field Guide to Grasses, plus an additional 9 digital copies. We have identified a need for comprehensive, current syntheses of priority topics that can be used by ranchers and land managers to support management decisions and inform policy. In 2025, we continued work on such a synthesis: Eric Winford, with Center members Karen Launchbaugh and Jim Sprinkle worked on developing a systematic review of the current science on grazing post fire. The Center supports these efforts through staff time, coordination, and financial support for publication costs. We are looking to these efforts to be a template for syntheses on additional high-priority topics in the future.

National Society for Range Management Annual Meeting – In 2025, the SRM hosted its annual meeting in Spokane, Washington, bringing over 1,500 land managers, producers, scientists, and other rangeland stakeholders together in one place. Center staff, members, and affiliated students participated in organizing several sessions, and presented research. Presentations included investigations into fuel break effectiveness, methods for controlling annual invasive grasses, approaches for evaluating stream restoration, and many more. The Center supports travel costs for Center members to attend the SRM meeting and hosts a booth in the trade show to promote the Center and distribute resources related to Center members' projects.

Supporting the Next Generation of Rangeland Managers – Students seeking degrees in agriculture and natural resources are a major workforce for rangeland projects conducted by our faculty. In 2025, the Rangeland Center supported and supervised five undergraduate interns on UI's Moscow campus during the academic year. The interns, managed by the Center Director, helped Center faculty with performing tasks such as reviewing articles for multiple science synthesis projects, data entry and quality control for range monitoring programs, processing of drone and historic aerial imagery, and assisting with data collection on many faculty and graduate student research projects. The interns also delivered a weekly e-mail update on rangeland events and jobs for rangeland students and recent graduates. The Rangeland Center internship program not only gives students valuable work experience but also provides valuable contacts with faculty and stakeholders to help the interns build their professional networks.

The Rangeland Partnership – The Center continued to engage with the Rangeland Partnership, an organization of rangeland faculty, Extension specialists, and librarians who provide public and private land managers, researchers, Extension professionals, educators, and the public with information and tools needed for rangeland management. In 2025, Center Associate Director Eric Winford, Center member Jeremy Kenyon (UI Library Head for Research and Experiential Learning), and UI Director of Extension Barbara Petty traveled to the Rangelands Partnership annual meeting hosted by Texas A&M University in Kerrville, Texas. The Center contributes staff time to support the Rangelands Partnership.

RANGELAND RESEARCH, EXTENSION, AND OUTREACH

The Rangeland Center focuses research and outreach around the five topic areas outlined in our strategic plan, emerging topics identified in meetings, and emphasis areas suggested by our Partners Advisory Council (PAC). This section highlights a few of the research, Extension, and outreach projects supported (through investment of staff time or financial resources) and/or promoted by the Rangeland Center in 2025. Other research and outreach activities pursued by Center members are presented below, and publications by Center members in 2025 are in Appendix A.

Cross-University Rangeland Field Experience Class – The Rangeland Field Experience class is a 5-day field trip course at UI's Rinker Rock Creek Ranch where students learn about the ecology and management of a working ranch and learn about monitoring in a hands-on context. Since 2021, UI-CNR has partnered with CSI to offer the class to students from both institutions. In 2025, we hosted 18 students and 4 faculty from UI and CSI. This ground-breaking example of cross-institutional cooperation to serve students across Idaho exemplifies the collaborative nature of the Rangeland Center and our commitment to delivering rangeland educational programs across Idaho. We are looking forward to continuing and growing this collaboration in 2026 when students from Boise State University and maybe even BYU Idaho will rejoin us for the field trip.

RANGELAND RESEARCH, EXTENSION, AND OUTREACH

Virtual Fence Technologies – Advancing technologies for rangeland management is also a Rangeland Center focus with Center members participating in several projects. Center members Karen Launchbaugh, Jim Sprinkle, Katie Lee, and Jason Karl worked with an interdisciplinary team of faculty and students to design and test elements for a new, simplified virtual fencing system. In 2025, the team filed for a provisional patent on their ear-tag based virtual fencing system, and successfully raised funds for real-world trials of the system at three sites in 2026. Center member Melinda Ellison, with the assistance of Hadley Dotts (UI Range Graduate who returned to us after receiving her MS degree from South Dakota State University) are also leading a virtual fence project evaluating the ability of the technology to manage livestock grazing in burned areas.

Sage-grouse and Spring Grazing Report Published – In 2025, the long-awaited report detailing the findings of the 10-year sage-grouse and spring grazing project was published. This extensive (over 10 years) and intensive (examining many aspects of sage grouse nesting success and survival along with measures of grazing) study, led by Center member Dr. Courtney Conway with help from Dr. Karen Launchbaugh, looked at the effects of combinations of spring and fall grazing had on nesting success of Greater Sage-grouse at 5 study sites in Idaho. This project was an impressive collaboration between University researchers, ranchers, and government agency staff. The study found no strong evidence that moderate levels of grazing (i.e., permitted use levels) had an effect on Sage-grouse nesting success and that cessation of grazing (in control areas) did not change nesting success or brood survival. The full report can be found at https://doi.org/10.3996/css82003131.

Effects of Beaver Dams on Brooding Greater Sage-grouse Hens in a Working Landscape – CNR graduate student Walker Field along with Center member Simona Picardi are researching the space-use decisions of brooding sage-grouse hens with respect to habitat modified by beaver dams at UI's Rinker Rock Creek Ranch. GPS data collected from brooding hens is being used to assess the strength of selection for areas around beaver dams, and other habitat characteristics, for each individual hen. These selection values will then be modeled with brood survey data to determine if the space-use decisions made by hens have an impact on their brood's survival. In 2025, this study also included a complete inventory of beaver dams and beaver-modified areas in the Rock Creek watershed. The results of this study will support wildlife and habitat management, highlighting the role that beavers play in sustaining populations of upland wildlife, especially in western rangelands where water is a vital resource.

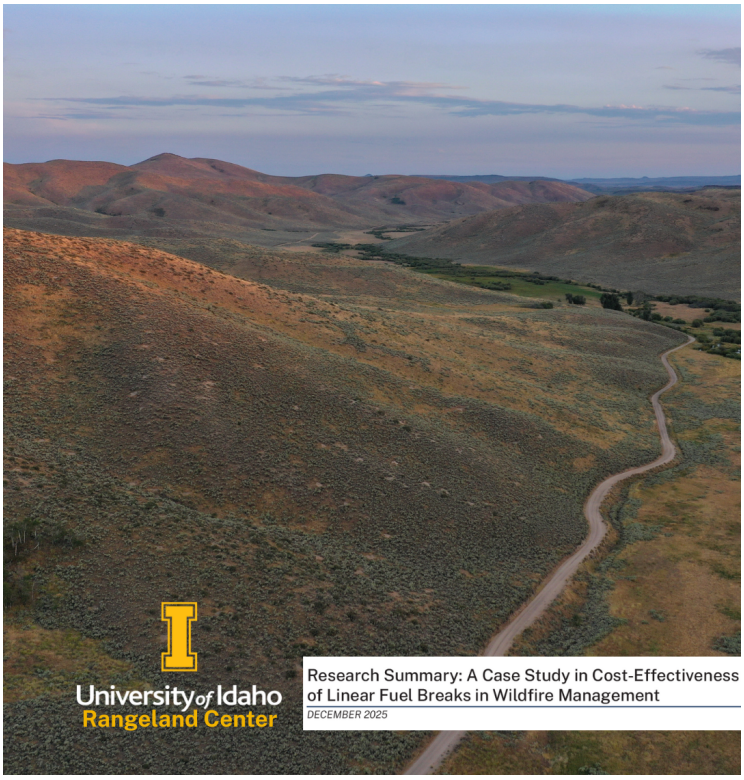
RANGELAND RESEARCH, EXTENSION, AND OUTREACH

Developing Methods to Monitor and Evaluate Dormant-Season Grazing - The USFS, along with the Buist Fields Cattle Association, engaged the Rangeland Center to evaluate the effects of switching the grazing period from the summer growing season to the dormant season (either early or late or both) to reduce abundance of annual grasses and reduce fine wildfire fuels. This project began in 2024 as an extension of a previous USFS dormant-season grazing with funding from the Caribou-Targhee National Forest. CNR graduate student Johanna Castro-Karney worked with Eric Winford and Jason Karl in 2025 to conduct the second season of monitoring the Sheep Creek Allotment in the Curlew National Grassland. The research team collected field-based and drone-based data to evaluate allotment-scale changes in annual grasses, perennial grasses, sagebrush, and juniper. This project, along with several other dormant-season grazing projects in progress across the West, is helping to evaluate the utility of targeted grazing as a tool to reduce fire risk.

Post-fire grazing project at Rinker Rock Creek Ranch – The return of livestock grazing to recently burned areas is the topic of much debate, and the subject of a new research project for the Center in 2025. Following the Glendale Fire at UI's Rinker Rock Creek Ranch in September 2024, Center members Jim Sprinkle, Jason Karl, Tracey Johnson, Scott Jensen, Cameron Weskamp, John Hall, Wyatt Prescott, and Eric Winford began grazing trials in May 2025. Using four replicate pastures located within the burn perimeter, grazed by 14 yearling steers, Jim and the team applied 20-40% forage utilization during the spring and summer when recovering perennial grasses are most at risk. Preliminary results indicate that conservative grazing eight months post-fire does not appear to have a detrimental effect on the pastures. In fact, this study found that early season grazing might help reduce cheatgrass abundance as vegetation is repopulating the landscape. This project will continue in 2026 with funding from the Little Endowment and UI Extension. Dr. Tracey Johnson and Dr. Sprinkle led the development of a proposal to USDA-AFRI for continuation of the project beyond 2026. The Center contributed both staff time for proposal development and monitoring data collection and financial resources to cover travel to the ranch for data collection and recovery work.

Assessing fire severity at Rinker Rock Creek Ranch – The 2024 Glendale Fire at Rinker Rock Creek Ranch presented many unique study opportunities for the Rangeland Center. In 2025, Leland Bennion joined the Center as a post-doc assessing fire severity at the Ranch. Funded by The Nature Conservancy in Idaho and working with Eric Winford, Tracey Johnson, and Jason Karl, Leland developed a handful of mapping products to show fire severity across the Glendale Fire burn area. Using these tools, he can draw inferences on whether pre-fire management activities such as grazing influenced fire severity, as well as assess how management and restoration treatments post-fire could influence sagebrush rangeland resilience in the future. In addition to the mapping project, Leland is working with collaborators to determine the useful approaches for assessing wildfire severity in sagebrush. Existing assessment methods are primarily designed for forests and therefore do not perform well in low shrubland ecosystems. They plan to publish a call to action for people working in sagebrush rangeland management to develop new procedures specifically for the assessment of wildfire severity in rangeland systems.

Linear Fuel Break Projects – In 2025, the Center wrapped up a few different projects on the topic of linear fuel breaks. Fuel breaks are an area where the existing vegetation has been cleared or altered in order to disrupt fuel sources, allowing land managers to moderate wildfire activity and improve containment. Graduate student, Kayla Johnston, along with Center members Eva Strand and Tim Prather conducted a project evaluating linear fuel break systems using remote sensing data to estimate live fuel moisture content. The aim of this project was to assess how well linear fuel breaks meet management objectives, as well as the potential of using remote sensing data to monitor live fuel moisture content. Another project came from graduate student Aaron Johnson, with oversight from Center member Katherine Lee. Aaron's project was conducting an economic evaluation of linear vegetative fuel breaks and wildfire within the Twin Falls BLM District. The results of this project show that properly maintained fuel breaks have the potential to provide significant economic benefits to rural communities and land management agencies by reducing wildfire-burned acreage and associated costs. The Rangeland Center published a research summary of this project, which can be found on our website.



"Across the Great Basin, [the grass-fire] cycle is becoming an increasing threat to both the underlying ecology and to rural economies. To address this, land managers are looking for ways to combat wildfire in rangeland ecosystems with minimal financial resources. Fuel breaks offer a potential solution. A case study from the Twin Falls Bureau of Land Management District of southern Idaho analyzes the costs of fuel break implementation and wildfire, finding that properly maintained fuel breaks could provide significant economic benefits to land managers in the Great Basin."

RELATED ACTIVITIES BY CENTER MEMBERS

Rangeland Center members participate in a vast array of research, outreach, and Extension projects that support sustainable management of rangelands in Idaho. The Center works to support these projects either directly or indirectly and helps to increase awareness of the projects and disseminate their results to our stakeholders. A full listing of range-related projects that were active in 2025 can be found in the Rangeland Center Active Project List, 2025 document. A partial list of notable projects from 2025 is below:

PROJECT NAME	PERSONS INVOLVED **Indicates Center Member*
Sources of non-sampling error in BLM's AIM program	J. Karl*, L. DreesmanG
Ecological succession as a guide for restoration and plant materials development	D. Tilley, J. Karl*, A. Hulet*, S. Bushman, S. Love, C. Goebel*
Using virtual fence to manage grazing in a post-fire rangeland landscape	J. Yelich*, M. Ellison*
Livestock grazing management and riparian ecosystem services: identifying trade-offs and potential synergies among ecological, economic, and social values	M. Ellison*, T. Johnson*, E. Winford*, JD Wulfhurst*, K. Lee*, J. Aycrigg
Comparison of range-based and irrigated cow-calf systems	J. Hall*, J. Sprinkle*, G. Chibisa*, B. Glaze*, M. Ellison*
Evaluating the impacts of beaver dam analogs on soil health and water quality	L. Lynch*, E. Incelli, E. Winford*
Fine fuels management to improve Wyoming Big Sagebrush plant communities using dormant season grazing	S. Arispe, A. Hulet, S. Jensen*, W. Price, D. Johnson
Sheep and goat monthly webinar and Facebook group	M. Ellison*, C. Wilmore*, W. Stewart, C. Page
Restoration Assessment and Documentation (RAD) of BLM restoration projects	E. Winford*, J. Karl*
Targeted grazing by sheep to control invasive species and reduce wildfire risk on western rangelands	K. Hopping*, A. Hulet*, M. de Graaff, R. Kehler, S. Arispe*, K Byrne, R. Kowitz, M. Henslee
Livestock grazing and chukar habitat: synthesis of impacts and opportunities	T. Johnson*, C. Rowe
Synthesis paper: Grazing After Fire	E. Winford*, H. Wilmer, J. Sprinkle*, C. Schactsneider, K. Launchbaugh*, E. Strand*
Synthesis of Recreation Impacts on Rangeland Systems	C. Zajchowski*, J. Snow, J. Karl*
Daily behavior and forage intake on rangeland cows differing in production efficiency	J. Windh*, E. Winford*, K. Lee*, T. Strom, J. Leavell
Valuation of AUMs in Idaho	C. Zajchowski*, J. Snow, J. Karl*
Evaluation of linear fuel-break systems and using remote sensing data to estimate live fuel moisture content in south-central Idaho	E. Strand*, K. Johnston, T. Prather*

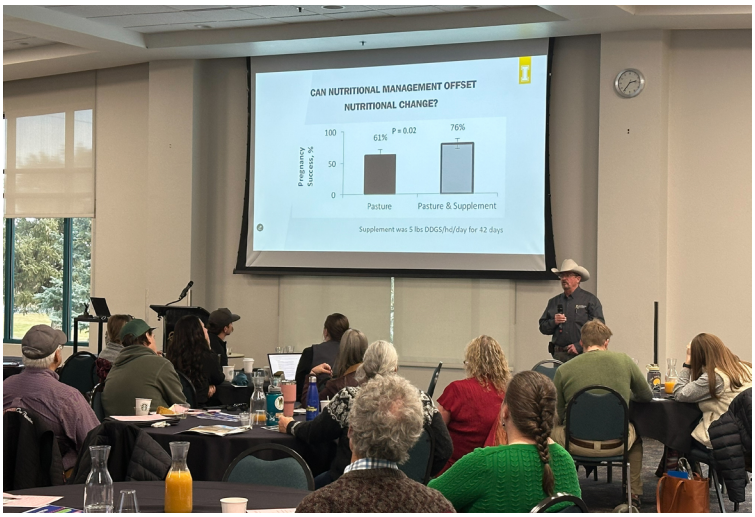
RANGELAND CENTER FACULTY AND STAFF

The Rangeland Center included 37 faculty members and 4 staff in 2025 from the Colleges of Natural Resources (CNR) and Agricultural and Life Sciences (CALS), with many faculty holding UI Extension appointments. Faculty and staff worked in locations across Idaho with 22 housed on campus and 13 in other locals. A full list of faculty and staff can be viewed on our website.

Faculty Engagement – Rangeland Center members include faculty and staff from CALS, CNR, and the UI Library (Appendix B). From CALS, 19 faculty and staff participate in the Center from the Departments of Animal & Veterinary Science, Agricultural Economics & Rural Sociology, Entomology, Plant Pathology & Nematology, and Plant Sciences. Sixteen faculty and staff participate in the Center from CNR in the Departments of Forest, Rangeland & Fire Sciences, Fish & Wildlife Sciences, and Natural Resources & Society.

Extension Engagement – Sixteen Rangeland Center faculty hold appointments with UI Extension. These Extension faculty hold specialist positions or are county faculty from Adams, Bannock, Custer, Jefferson/Clark, Idaho, Lemhi, Lincoln, Oneida and Owyhee counties.

Staff – The Center welcomed Scott Jensen to our staff as the state Extension Range Educator. Jason Karl served as Director of the Center in 2025. Other staff include Senior Associate Director Tim Prather and Associate Director Eric Winford. Patience Mateer, the CNR Administrative Specialist at the Boise Water Center, provides support services for the Center. The Communications Manager position was filled in early 2025 by Ella Hall.



APPENDIX A - CENTER MEMBER PUBLICATIONS

Rangeland Center researchers engage in a wide variety of topics that span social science, rangeland ecology, livestock production, wildlife biology, technology development, and climate change. The many articles published this year by Center members include the following subset most relevant to understanding rangelands and rangeland management. Publications are arranged by the priority topic areas in the Center's Strategic Plan.

RANGELAND WILDLIFE

Conway, C. J., Tisdale, C. A., Launchbaugh, K. L., Stevens, B. S., Overlie, G. E., Eigenbrode, S. D., Makela, P. D., & Roberts, S. B. (2025). The Grouse and Grazing Project: Effects of cattle grazing on demographic traits of greater sage-grouse (, Ill.). U.S. Fish & Wildlife Service. https://doi.org/10.3996/css82003131

Hawse, A., & Cook, S. P. (2025). Ecological patterns of plant–pollinator interactions in the Palouse Prairie. Environmental Entomology. https://doi.org/10.1093/ee/nvae129

Lachman, D. A., Conway, C. J., Vierling, K. T., & Matthews, T. (2025). Water depth, position within the nesting colony, and nearest neighbor density affect nest survival in Aechmophorus occidentalis (Western Grebe). Ornithological Applications. https://doi.org/10.1093/ornithapp/duaf011

Nerkowski, S. A., Hohenlohe, P. A., Rachlow, J. L., Warheit, K. I., Gallie, J. A., & Waits, L. P. (2025). Long-Term Noninvasive Genetic Monitoring Guides Recovery of the Endangered Columbia Basin Pygmy Rabbits (Brachylagus idahoensis). Genes, 16(8). https://doi.org/10.3390/genes16080956

Paprocki, N., Kidd, J., & Conway, C. J. (2025). Increased Mortality Rates Caused by Highly Pathogenic Avian Influenza Virus in a Migratory Raptor. Ecology and Evolution, 15(7). https://doi.org/10.1002/ece3.71715

Santiago-Plata, M., Solem, A., Adams, J., Rachlow, J. L., Sullivan, J., & Waits, L. P. (2025). Optimizing fecal DNA collection and storage techniques for noninvasive genetic sampling of river otters. Wildlife Society Bulletin (2011). https://doi.org/10.1002/wsb.1612

Stevens, B. S., Conway, C. J., Roberts, S. B., & Englestead, D. K. (2025). Fitness consequences of catastrophic wildfire are mitigated by behavioral responses of an iconic bird. Fire Ecology, 21(1), 1–26. https://doi.org/10.1186/s42408-025-00391-2

Vega, K. S., Marshall, A. M., Svancara, L. K., Ausband, D. E., & Link, T. E. (2025). Detection of deer at remote camera sites in relation to snow conditions. The Journal of Wildlife Management. https://doi.org/10.1002/jwmg.70088

Vosbigian, R. A., Ballinger, A., Link, T. E., Copeland, T., & Falcy, M. R. (2025). Elevation mediates juvenile steelhead demographic response to stream temperature and flow. Canadian Journal of Fisheries and Aquatic Sciences, 1–50. https://doi.org/10.1139/cjfas-2025-0057

Wann, G. T., Whipple, A. L., Orning, E. K., McLachlan, M. M., Beck, J. L., Coates, P. S., Conway, C. J., Dinkins, J. B., Johnston, A. N., Hagen, C. A., Makela, P. D., Naugle, D. E., Schroeder, M. A., Sedinger, J. S., Walker, B. L., Williams, P. J., Inman, R. D., & Aldridge, C. L. (2025). Greater sage□grouse seasonal habitat associations: A review and considerations for interpretation and management applications. The Journal of Wildlife Management. https://doi.org/10.1002/jwmg.70022

Yost, C. M., Sliwa, K. M., Shafique-Sabir, R., Shore, J., & Conway, C. J. (2025). Irrigated agriculture influences selenium levels in an endangered marsh bird. Environmental Monitoring and Assessment, 197(), 1–21. https://doi.org/10.1007/s10661-025-14533-1

TECHNOLOGY & INFORMATION

Dalke, A., Karl, J. W., Kenyon, J., Pfander, J., Merrigan, S., Stefano, S. D., King, M., Winford, E. M., & Launchbaugh, K. L. (2025). RangeDocs: searchable science for rangeland management. Rangelands. https://doi.org/10.1016/j.rala.2025.07.002

Vierling, L. A., Eitel, J. U. H., Boelman, N. T., & Griffin, K. L. (2025). Colorized airborne lidar point cloud dataset for areas near Toolik Field Station, Alaska, 2013 [Dataset]. University of Idaho. https://doi.org/10.60841/000000266

SOILS & SOIL HEALTH

Davenport, R. E., Lynch, L. M., Wattenburger, C. J., Buckley, D. H., & Lehmann, J. (2025). Functional molecular diversity of dissolved

organic matter explained by predicted genome size of soil microbial communities. Soil Biology & Biochemistry. https://doi.org/10.1016/j.soilbio.2025.109933

Stephenson, T., Crowder, D. W., Osburn, E., Strickland, M., Jones, M., Bartel, S., Kittipalawattanapol, K., Cunningham, C. X., Hudiburg, T., Storfer, A., Piaskowski, J., & Lynch, L. (2025). Apex Scavenger Declines Have Cascading Effects on Soil Biogeochemistry and Ecosystem Processes. Global Change Biology, 31(9), 1–13. https://doi.org/10.1111/gcb.70520

GRAZING & LIVESTOCK

de Avila, H. A., Macon, E. N., & Launchbaugh, K. L. (2025). Comparison of Visual and Audio Cues in the Efficacy of Creating Exclusion Zones for Cattle. Livestock Science, 296(). https://doi.org/10.1016/j.livsci.2025.105715

de Avila, H. A., Launchbaugh, K. L., Ehlert, K. A., & Brennan, J. R. (2025). Virtual fence: New realities beyond barbed wire. Rangelands, 47(1), 3–8. https://doi.org/10.1016/j.rala.2024.07.002

Foyil, C. N., Taylor, J. B., Yelich, J. V., & Ellison, M. J. (2025). Feed intake and behavioral responses of sheep provided phenylthiocarbamide internally incorporated into feed pellets. Small Ruminant Research, 250(). https://doi.org/10.1016/j.smallrumres.2025.107528

Hall, E. (2025). Sage Grouse & Grazing: Takeaways from a 10-year study. https://verso.uidaho.edu/esploro/outputs/996818054901851

Hall, J. B., Stratton, S., Harder, A., Holder, O., & Cassel, T. (2025). 72 Teaching advanced reproductive technologies to ranchers. https://doi.org/10.1093/jas/skaf170.015

Macon, E. N., de Avila, H. A., Launchbaugh, K. L., & Murdoch, G. K. (2025). Sustainable Weight of Ear-borne Devices for Cattle. Translational Animal Science, 9(). https://doi.org/10.1093/tas/txaf055

Maia, A. S. C., Hall, J. B., Milan, H. F. M., & Teixeira, I. A. M. A. (2025). AI-based framework to predict animal and pen feed intake in feedlot beef cattle (, Ill.). In (pp. 1–33). University of Idaho. https://doi.org/10.48550/arxiv.2511.17663

Smith, P. S., Glaze, J. B., Tejeda, H., Piaskowski, J., Collier, R. J., & Chahine, M. (2025). Evaluation of the use of beef semen on dairy operations: A survey of Idaho dairies. Applied Animal Science, 41(3), 265–271. https://doi.org/10.15232/aas.2025-02660

Sprinkle, J., Kempton, C., Lauritzen, D., Hatch, J., Fonnesbeck, S., Hulet, A., Mickelsen, R., Bastian, H., Simpson, J., & Brennan, J. R. (2025). Daily behavior and performance for cows engaged in targeted grazing in southeast Idaho. Rangelands, 47(4), 197–209. https://doi.org/10.1016/j.rala.2025.03.001

Sullivan, L. T., Jensen, S. S., England, J., Gimenez-Lirola, L., Radke, S., Hall, J. B., Glaze, B. B., Willmore, C. M., Brennan, J. R., Collier, R., Murdoch, B. M., & Sprinkle, J. E. (2025). 100 Mitigation of oxidative stress to improve range cow grazing distribution. https://doi.org/10.1093/jas/skaf170.072

Wang, Z., Kim, M.-K., & Tejeda, H. (2025). Unraveling Hidden Patterns in Fed Cattle Negotiated Cash Prices Using Machine Learning. Journal of Agricultural and Applied Economics, 1–19. https://doi.org/10.1017/aae.2025.10009

RANGELAND ECONOMICS & RURAL COMMUNITIES

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