

CURRICULUM VITAE

University of Idaho

NAME: Melinda Ellison

DATE: December 26, 2019

RANK OR TITLE: Assistant Professor, Range Livestock

DEPARTMENT: Animal and Veterinary Science

OFFICE LOCATION AND CAMPUS ZIP:

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DATE OF FIRST EMPLOYMENT AT UI: June 1, 2016

DATE OF TENURE: Untenured

DATE OF PRESENT RANK OR TITLE: June 1, 2016

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D., University of Wyoming, Laramie, Wyoming, April 2016, Animal and Veterinary Sciences
M.S., University of Wyoming, Laramie, Wyoming, August 2013, Animal and Veterinary Sciences
B.S., University of Wyoming, Laramie, Wyoming, December 2010, Animal and Veterinary Sciences,
Animal Biology Option; Minor in Fisheries and Wildlife Biology

EXPERIENCE:

Teaching, Extension and Research Appointments:

Graduate Research Assistant, University of Wyoming, Laramie, Wyoming, 2011-2016
Completion of M.S. and Ph.D.: Developed, executed, analyzed and summarized scientific research to determine the associations between the rumen microbiome and feed efficiency in sheep. Became adept at animal research, DNA extraction and bioinformatics, data analysis, and interpreting complex data to stakeholders. Successfully secured funding for additional research.

Non-Academic Employment:

Manager and Wrangler, E and H Guide Service, Laramie, Wyoming, 2012-2016
Managed up to 10 full- and part-time employees, scheduled trail rides for guests, handled the business financial responsibilities (including income, budget, and payroll), built and managed webpage and other marketing sites and strategies, and guided guests on horseback trail rides and cattle drives.

Ranch Hand, Hecht Creek Ranch, Laramie, Wyoming, 2010-2016
Managed up to 1,300 yearling stocker steers and 150 cow/calf pairs and bulls on an intensive grazing pasture rotation; included medicating, gathering, sorting, vaccinating, and shipping cattle, grazing management planning, and fence and livestock water integration and maintenance.

Bar Manager, Albany Lodge, Albany, Wyoming, 2010-2012
Oversaw 8-10 employees, conflict resolution among employees and/or guests, maintained inventory of and placed orders for all liquor, beer and related items for the bar, tended bar and waited on tables, managed hotel rooms, cabins, snowmobile, jeep, and ATV rental reservations via telephone and email.

Ranch Manager, Ellison Heart V Ranch, Kremmling, Colorado, 2009

Handled financial responsibilities, which included hiring and paying a hay crew, leasing land for cattle, and selling hay, managed 150 grazing cow/calf pairs and bulls, which included checking cattle by horseback, medicating, gathering, sorting, and vaccinating, oversaw range management, which incorporated grazing management and noxious weed control with respect to wildlife and domesticated livestock, irrigated hay crops using a headgate and ditch system and a gated pipe system, operated hay equipment alongside the hay crew, and fence, building, and equipment maintenance.

Sales Associate, The Feed Store, Laramie, Wyoming, 2007-2009

Worked as a cashier and sales person, sold feed for pets and domesticated animals, animal pharmaceuticals, tack, fencing supplies, Carhartt clothing, etc., handled feed and other merchandise coming into the store and was responsible for restocking, advised customers in nutrition for farm and domestic animals, became a certified Pet Nutrition Expert for Hill's Pet Nutrition, Inc. in 2008.

Ranch Hand, Piney Peak Ranch, Kremmling, Colorado, Summers 2004-2007 and 2009

Practiced animal husbandry pertaining to approx. 600 cow/calf pairs, bulls, and yearling replacement heifers, oversaw cattle by horseback, including medicating, gathering, sorting, and vaccinating, oversaw range and grazing management with respect to wildlife and domesticated livestock, operated hay equipment, repaired and built fences, and performed noxious weed control.

Ranch Hand, Ellison Heart V Ranch, Kremmling, Colorado, 1995-2009

Family ranch, involved comprehensively in management decisions and practices from a young age, practiced animal husbandry of 300-400 grazing cow/calf pairs and bulls, which included: feeding, watering, and checking cattle by horseback, artificial insemination, pregnancy checking, calving, medicating, gathering, sorting and vaccinating cows, branding, backgrounding, weaning and shipping calves. Oversaw range management, which incorporated grazing management and noxious weed control with respect to wildlife and domesticated livestock, irrigated hay crops using a headgate and ditch system, repaired and built fences, operated hay equipment, and maintained buildings and equipment.

Veterinary Technician Internship, Animal Medical Pavilion, Kittanning, Pennsylvania, 2008

Handled large and small animals for five veterinarians, drew blood and performed blood tests and X-rays, administered prescriptions, recorded details of each visit in client files, and cleaned the clinic and kennels.

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Grazing and range management, range livestock nutrition and behavior.

Courses Taught:

Guest Lecturer, University of Idaho, Moscow, Idaho

Integrated Rangeland Management, REM 456, "Conducting Applied Rangeland Research"

April 18, 2019

Beef Management, AVS 474, "Range Livestock Management"

March 6 and 8, 2017

March 5 and 7, 2018

Animal Nutrition, AVS 305, "Range Livestock Nutrition"

November 11, 2016

November 17, 2017

November 16, 2018

Teaching Assistant and Guest Lecturer, Animal and Veterinary Sciences Department, University of Wyoming, Laramie, Wyoming (2011 – 2016)

Principles of Animal Breeding (3 semesters)

Topics and Issues in Agriculture Writing Course (3 semesters)

Nutritional Management, lecture and laboratory (1 semester)

Sheep Production, lecture and laboratory (1 semester)

Livestock Production, lecture and laboratory (1 semester)

Students Advised:

Undergraduate Students:

Undergraduate Student	Degree/Department	Dates	Role
Mallery Sisson	B.S. Animal Science	Summer 2018	<i>Undergraduate Internship Co-Supervisor with Dr. Jim Sprinkle</i>
Robert Bloomsberg	B.S. Animal Science	Summer 2018	<i>Undergraduate Internship Supervisor</i>
Ben Cochran	B.S. Range Science	Summer 2017	<i>Undergraduate Internship Co-Supervisor with Dr. Tracey Johnson</i>
Kassadie Dunham	B.S. Range Science	Summer 2016	<i>Undergraduate Research Advisor</i>

Graduate Students:

Current:

Sandra Goddard; M.S. Animal Science; Jan 2020 – Expected May 2023; *Major Advisor*
 Justin Jensen; M.S. Animal Science; Sept 2019 – Expected Dec 2021; *Major Advisor*
 Kenneth Randall; M.S. Fish & Wildlife Science; Dec 2018 – Dec 2020; *Co-Major Advisor*

Achievements:

- 2019 Shikar Safari Club Graduate Student University Scholarship Recipient

Served on graduate committee:

Gabrielle Becker; M.S. Animal Science; Sept 2019 – Expected May 2021; *Major Advisor: Brenda Murdoch*

Advised to completion of degree – major professor:

Dillan Henslee; M.S. Animal Science; Aug 2018 – Dec 2020; *Major Advisor*

Achievements:

- 2019 University of Idaho Fall Commencement College of Graduate Studies Highlight Student
 - 2019 American Society of Animal Science Annual Conference, Graduate Student Poster Competition – 1st Place
 - 2019 University of Idaho Graduate and Professional Student Association Travel Award Recipient
 - 2019 Western Section of the American Society of Animal Science Young Scholar Recognition Award Recipient; Master's Category
 - 2019 Pacific Northwest Nutrition Conference, Graduate Student Poster Competition – 3rd Place
- Keri York; M.S. Animal Science; May 2017 - Not Completed; *Co-Major Advisor*

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

*Indicates presentations given by graduate student advisees.

Workshops and Classes (*Coordinator, unless otherwise noted*):

- Ruth, A., Small, M., Nash, S., Baker, S., **Ellison, M.**, Nunn, L., and J. Lancaster. 2019. Beef Consumer Education Workshop. Idaho Falls, Idaho. May 18, 2019. (*Co-coordinator*)
- Ellison, M. J.**, S. K. Williams, C. Williams, M. Beyeler, and J. S. Sprinkle. 2018. Rangeland Center Fall Forum Tour. October 5, 2018. (*Co-coordinator*)
- Ellison, M. J.** 2018. Grazing management strategies for riparian areas training (Permittees and Idaho Fish and Game). Leadore, Idaho. August 20, 2018.
- Ellison, M. J.** 2018. Range monitoring training (UI Extension). Salmon, Idaho. May 24, 2018.
- Ellison, M. J.** 2018. Grazing management strategies training (BLM). Salmon, Idaho. May 8, 2018.
- Ellison, M. J.** 2018. Deciphering public lands grazing permit documents (Permittees). Morgan Creek, Challis, Idaho. April 27, 2018.
- Glaze, B., **M. J. Ellison**, J.B. Hall, and J. E. Sprinkle. 2018. University of Idaho Extension Annual Conference Livestock In-Service Training and Professional Development, Moscow, Idaho. April 5, 2018. (*Co-coordinator*)
- Ellison, M. J.** 2018. Grazing management strategies training (BLM). Salmon, Idaho. March 30, 2018.
- Ellison, M. J.** 2017. Range monitoring training (Permittees). Copper Basin, Mackay, Idaho. July 21, 2017.
- Ellison, M. J.** 2017. Public Lands Allotment Assessment and Management Strategies Training (Permittees and US Forest Service). Morgan Creek, Challis, Idaho. May 26, 2017.
- Ellison, M. J.**, B. Gamett, and S. Baker. 2017. Monitoring for your public grazing permit workshop. Mackay, Idaho. May 25, 2017.

- Ellison, M. J.**, and S. K. Williams. 2017. Monitoring for your public grazing permit workshop. Tendoy, Idaho. May 23, 2017.
- Ellison, M. J.**, and S. K. Williams. 2017. Cooperative monitoring roundtable. Salmon, Idaho. February 8, 2017.
- Ellison, M. J.** and S. K. Williams. 2016. Cooperative monitoring discussion (BLM). Salmon, Idaho. October 20, 2016.
- Ellison, M. J.** and S. K. Williams. 2016. Cooperative monitoring discussion (US Forest Service). Salmon, Idaho. September 29, 2016.
- Ellison, M. J.** 2016. Range monitoring training (Permittees and US Forest Service). Copper Basin, Mackay, Idaho. September 21, 2016.
- Ellison, M. J.** 2016. Range monitoring training (Permittees). Copper Basin, Mackay, Idaho. August 2, 2016.
- Ellison, M. J.**, J. E. Sprinkle, and S. Baker. 2016. Public lands allotment assessment and range monitoring strategies training (Permittees). Copper Basin, Mackay, Idaho. July 15, 2016.
- Ellison, M. J.** 2016. Public lands allotment assessment and grazing management strategies training (Permittees). Copper Basin, Mackay, Idaho. July 6, 2016.

Lectures:

- Ellison, M.J.**, Hines, S., C. Willmore, J. Packham, L. Golden, J. Sagers, J. Thomas, R. Roemer, and G. Shewmaker. Simulated Grazing Timing and Regrowth of Annual Cereal Forage Cover Crops. Lemhi Cattlemen's Winter School, Salmon, Idaho, November 20, 2019.
- *Henslee, D., J.V. Yelich, J.B. Taylor, B. Murdoch, and **M.J. Ellison**. 2019. Drivers of dietary preferences in sheep. Nancy M. Cummings Research, Extension, and Education Center Bred Heifer Sale and Cow-Calf Days, Carmen, Idaho. October 25, 2019.
- Ellison, M.**, Hines, S., C. Willmore, J. Packham, J. Sagers, J. Thomas, and G. Shewmaker. Simulated Grazing Timing and Regrowth of Annual Cereal Forage Cover Crops. Northwest Forage Worker's Conference, Salmon, Idaho, October 15, 2019.
- Hines, S., C. Willmore, J. Packham, J. Sagers, J. Thomas, **M. Ellison**, and G. Shewmaker. Simulated Grazing Timing and Regrowth of Annual Cereal Forage Cover Crops. Nancy M. Cummings Research and Extension Center Twilight Tour, Salmon, Idaho, September 5, 2019.
- *Henslee, D., J.V. Yelich, J.B. Taylor, and **M.J. Ellison**. 2019. Drivers of dietary preferences in sheep. Western Section American Society of Animal Science Young Scholar Recognition Recipient Seminar. Boise, Idaho. June 13, 2019. *Invited presentation for award recipients.*
- Ellison, M. J.** Cattle eat healthy diets, too! Beef Consumer Education Workshop, Idaho Falls, Idaho. May 18, 2019.
- *Henslee, D., J. Yelich, J.B. Taylor, and **M. Ellison**. 2019. Bitter or better taste buds? Aversion to phenylthiocarbamide in mature rams. University of Idaho College of Graduate Studies Innovation Showcase. Moscow, Idaho. April 18, 2019.
- Willmore, C. J., S. Hines, J. Packham, L. Golden, J. Thomas, J. Sagers, **M. Ellison**, and G. Shewmaker. Simulated Grazing Timing and Regrowth of Annual Cereal Forage Cover Crops. Idaho Hay and Forage Growers Conference. Burley, Idaho. February 21, 2019.
- Ellison, M. J.** Grazing to prevent or mitigate fire damage. 38th Annual Utah Beef Cattle Field Day, Provo, Utah. February 12, 2019. *Keynote Speaker.*
- Ellison, M. J.**, J. Karl, J. V. Yelich, C. Marlow, W. Prescott, and J. Boyes. Characterizing livestock and wild ungulate use on willows at Rock Creek Ranch. Rock Creek Ranch Research Update Webinar. February 6, 2019.
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. Implications of grazing utilization on greater sage-grouse brood-rearing habitat at Rock Creek Ranch. Rock Creek Ranch Research Update Webinar. February 6, 2019.
- Ellison, M. J.** and T. Stromm. Understanding NEPA and Permit Renewal. Lemhi Cattlemen's Winter School. Salmon, Idaho. January 22, 2019.
- Ellison, M. J.** Selecting heifers that are right for your operation. Nancy M. Cummings Research, Extension, and Education Center Bred Heifer Sale and Cow-Calf Days, Carmen, Idaho. October 26, 2018.
- Ellison, M. J.** Research update: Yield and quality of forage cereal grains. Nancy M. Cummings Research, Extension, and Education Center Twilight Tour, Carmen, Idaho. September 6, 2018.

- *York, K. J. and **M. J. Ellison**. Wildlife and livestock interactions: Effects of livestock grazing intensity in wet meadows on sage-grouse habitat. Sagebrush Saturdays at Rock Creek Ranch, Blaine County, Idaho. August 18, 2018.
- *Henslee, D, and **M. J. Ellison**. Wildlife and livestock interactions: Let-down fence. Sagebrush Saturdays at Rock Creek Ranch, Blaine County, Idaho. August 18, 2018.
- Ellison, M. J.** Application of genetic tools for beef selection: Selection opportunities in the cow herd. University of Idaho Extension Annual Conference Livestock In-Service Training and Professional Development, Moscow, Idaho. April 5, 2018
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. Implications of grazing utilization on greater sage-grouse brood-rearing habitat. Rock Creek Ranch Research Update Webinar. December 6, 2017.
- Ellison, M. J.** Cover crop research update. Nancy M. Cummings Research, Extension, and Education Center Forage Field Days, Carmen, Idaho. September 11, 2017.
- Ellison, M. J.** and T. J. Johnson. Rock Creek Ranch Research Update. Rock Creek Ranch Advisory Committee Tour, Blaine County, Idaho. June 28, 2017.
- Ellison, M. J.** Why Monitor? Monitoring for your public grazing permit workshop. Mackay, Idaho. May 25, 2017.
- Ellison, M. J.** Why Monitor? Monitoring for your public grazing permit workshop. Tendoy, Idaho. May 23, 2017.
- Ellison, M. J.** Multi-species Grazing. Magic Valley Livestock School, Gooding, Idaho. January 31, 2017.
- Ellison, M. J.** and B. Murdoch. 2016. University of Idaho Sheep Research Update. West Central States Wool Growers Convention, Sun Valley, Idaho. November 17, 2016.
- Ellison, M. J.** Research Update. Nancy M. Cummings Research, Extension, and Education Advisory Board Meeting, Idaho Cattle Association Convention, Sun Valley, Idaho. November 15, 2016.
- Ellison, M. J.,** G. Conant, W. R. Lamberson, T. M. Taxis, H. C. Cunningham, K. J. Austin, and K. M. Cammack. The effect of residual feed intake status on rumen microbial profiles in ewe lambs. 2015 Western Section American Society of Animal Science Meeting, Ruidoso, New Mexico. June 25, 2015.
- Ellison, M. J.** University of Wyoming Sheep Research Update. 2014 Northeast Wyoming Sheep Symposium, Buffalo, Wyoming. December 11, 2014.
- Ellison, M. J.,** G. Conant, W. R. Lamberson, K. J. Austin, R. R. Cockrum and K. M. Cammack. The effect of diet and feed efficiency status on rumen microbial profiles in sheep. 2013 Western Section American Society of Animal Science Meeting. Bozeman, Montana. June 19-22, 2013.
- Ellison, M. J.,** R. R. Cockrum, K. W. Christensen, R. A. Vraspir, L. Speiser, W. J. Means, A. M. Meyer, and K. M. Cammack. The effect of diet on feed intake traits and relationships with carcass traits in sheep. 2012 American Society of Animal Science Joint Annual Meeting. Phoenix, Arizona. July 15-19, 2012.

Youth Activities:

- Ellison, M. J.,** J. Sprinkle, and W. Smith. Sustainable Agriculture Practices. Salmon High School Natural Resources and Agriculture classes field trip to University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. December 2, 2019.
- Ellison, M. J.** Sheep Shearing Clinic. Lemhi County Bits & Boots 4-H Club. Carmen, Idaho. April 26, 2019.
- Ellison, M. J.** Wool Quality and Uses Discussion. Lemhi County Bits & Boots 4-H Club. Salmon, Idaho. March 12, 2019.
- Ellison, M. J.** Line-Transsect Activity; 7th grade Ag Week field trip to University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 18, 2019.
- Ellison, M. J.** Ration Balancing Activity; 5th grade Ag Week field trip. University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 19, 2019.
- Ellison, M. J.** Uses for Wool; 6th grade Ag Week field trip. University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 20, 2019.
- Ellison, M. J.** Products from Beef Cattle; High School Ag Week. Salmon High School, Salmon, Idaho. March 21, 2019.
- Ellison, M. J.** Ration Balancing Activity; 5th grade Ag Week field trip. University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 22, 2018.
- Ellison, M. J.** Careers in Agriculture; High School Ag Week. Salmon High School, Salmon, Idaho. March 21, 2018.

- Ellison, M. J.** Line-Transsect Activity; 7th grade Ag Week field trip to University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 20, 2018.
- Ellison, M. J.** Ration Balancing Activity; 5th grade Ag Week field trip to University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 23, 2017.
- Ellison, M. J.** Line-Transsect Activity; 7th grade Ag Week field trip to University of Idaho Nancy M. Cummings Research, Extension, and Education Center. Carmen, Idaho. March 22, 2017.
- Ellison, M. J.** Careers in Agriculture; High School Ag Week. Salmon High School, Salmon, Idaho. March 23, 2017.

Other:

- Ellison, M. J.** Management to reduce winter weather stress in cattle. AgriBeef Minute with Kaydee Gilkey; Northwest Radio Stations. March 8, 2017.

SCHOLARSHIP ACCOMPLISHMENTS:

*Indicates publications written by graduate student advisees.

†Indicates corresponding author.

Hatch Project:

- Ellison, M. J.**[†] 2018. Associations between livestock grazing and Greater sage grouse habitat in Idaho. National Institute of Food and Agriculture. Project #: 1018531.

Publications and Abstracts:

Peer Reviewed/Evaluated:

Journals:

- *Henslee, D., J. Yelich, J.B. Taylor, **M.J. Ellison**[†]. 2019. Avoidance of Phenylthiocarbamide in mature Targhee and Rambouillet rams. *Translational Animal Science*. 3(4):1194-1204. DOI: 10.1093/tas/txz125.
- Ellison, M. J.**[†], G.C. Conant, W.R. Lamberson, et al. 2019. Predicting residual feed intake status using rumen microbial profiles in ewe lambs. *Journal of Animal Science*. 97(7): 2878-2888. DOI:10.1093/jas/skz170.
- Yelich, J. V., **M. J. Ellison**[†], J. B. Hall PAS, M. McGee. 2019. Intake behaviors of yearling steers grazing irrigated pasture and receiving either a free-choice salt-based mineral or a low-moisture molasses-based tub mineral. *Translational Animal Science*. 3(2):749-760. DOI: 10.1093/tas/txz077.
- Patil, R. D., **M. J. Ellison**, S. M. Wolff, C. Shearer, A. M. Wright, R. R. Cockrum, K. J. Austin, W. R. Lamberson, K. M. Cammack, and G. C. Conant. 2018. Poor feed efficiency in sheep is associated with several structural abnormalities in the community metabolic network of their ruminal microbes. *Journal of Animal Science*. 96(6): 2113-2124. DOI:10.1093/jas/ksy096.
- Ellison, M. J.**[†], G. Conant, W. R. Lamberson, R. R. Cockrum, K. J. Austin, D. C. Rule, K. M. Cammack. 2017. Diet and feed efficiency status affect rumen microbial profiles of sheep. *Small Ruminant Research*. 156:12-19.
- Wolff, S. M., **M. J. Ellison**, Y. Hao, R. R. Cockrum, K. J. Austin, M. Baraboo, K. Burch, H. J. Lee, T. Maurer, R. Patil, A. Ravelo, T. M. Taxis, H. Truong, W. R. Lamberson, K. M. Cammack, G. Conant. 2017. Diet shifts provoke complex and variable changes in the metabolic networks of the ruminal microbiome. *Microbiome*. 5(1): DOI:10.1186/s40168-017-0274-6.
- Abrams, A. N., C. J. Clarkson, K. J. Austin, **M. J. Ellison**, H. C. Cunningham, G. C. Conant, W. R. Lamberson, T. M. Taxis, K. M. Cammack. 2016. Altered rumen microbial populations in response to high sulfate water in lambs. *Journal of Animal Science*. 94(supplement5):13: DOI: 10.2527/jam2016-0026.
- Meyer, A. M., R. A. Vraspir, **M. J. Ellison**, K. M. Cammack. 2015. The relationship of residual feed intake and visceral organ size in growing lambs fed a concentrate- or forage-based diet. *Livestock Science*. 176: DOI: 10.1016/j.livsci.2015.03.019.

- Ellison, M. J.**, G. Conant, R. R. Cockrum, K. J. Austin, H. Truong, M. Becchi, W. R. Lamberson and K. M. Cammack. 2013. Diet alters both the structure and taxonomy of the ovine gut microbial ecosystem. *DNA Research*. 20(6):1-11.
- Doscher, F. E., A. M. Meyer, **M. J. Ellison**, K. M. Cammack, K. C. Swanson. 2012. The relationship between feed efficiency and pancreatic α -amylase and trypsin activity in growing lambs. *Journal of Animal Science*. 90(Supplement3):370.

Peer Reviewed/Evaluated (currently scheduled or submitted):

Journals:

- Sprinkle, J.E., J.K. Sagers, J.B.Hall, **M.J. Ellison**, J.V. Yelich, J.R. Brennan, J.B. Taylor, and J.B. Lamb. 2019. Protein supplementation and grazing behavior for cows on differing late-season rangeland grazing systems. *Journal of Animal Science*. *In review*.
- Karl, J.W., J. Yelich, **M.J. Ellison**, and D. Lauritzen. 2019. Estimates of willow (*Salix* spp.) canopy volume using unmanned aerial systems. *Rangeland Ecology and Management*. *In review*.

Other:

Impact Statements:

- Ruth, A., M. Small, S. Nash, S. Baker, **M. Ellison**, L. Nunn, and J. Lancaster. 2019. Workshop teaches consumers why beef should be what's for dinner. University of Idaho Cooperative Extension System. Impact Statement.

Abstracts and Proceedings:

- *Randall, K.J., **M.J. Ellison**, and T.N. Johnson. 2020. Resource responses in Greater sage-grouse (*Centrocercus urophasianus*) brood-rearing habitat to livestock grazing. Idaho Chapter of the Wildlife Society Annual Meeting. Moscow, Idaho. March 9-12, 2020.
- *Randall, K.J., **M.J. Ellison**, and T.N. Johnson. 2020. Mesic meadow habitat responses to variation in grazing management practices: Balancing habitat requirements of Greater sage-grouse with livestock production. Society for Range Management Annual Meeting. Denver, Colorado. February 16-20, 2020.
- *Henslee, D., B.M. Murdoch, J. Yelich, J.B. Taylor, and **M.J. Ellison**. 2019. Comparative genomics of sheep Tas2r genes to cattle, goat, human, dog and mice. Plant and Animal Genome Meeting XXVIII. San Diego, California. January 11-15, 2020.
- *Henslee, D., B.M. Murdoch, J. Yelich, J.B. Taylor, and **M.J. Ellison**. 2019. The role of Tas2r genes in diet selection of grazing sheep. American Lamb Summit. Fort Collins, Colorado. August 27-28, 2019.
- *Henslee, D., J.V. Yelich, J.B. Taylor, **M.J. Ellison**. 2019. Tas2r genes in sheep and cattle compared to humans. American Society of Animal Science National Meeting, Austin, Texas. July 8-11, 2019. *1st place Graduate Student Poster Competition*.
- *Henslee, D., J.V. Yelich, J.B. Taylor, **M.J. Ellison**. 2019. Aversion to Phenylthiocarbamide in mature Targhee and Rambouillet rams. Proceedings of the Western Section American Society of Animal Science. *Translational Animal Science*. 3(Supplement1):1749-1753. DOI: 10.1093/tas/txz080.
- *York, K.J., T.J. Johnson, **M.J. Ellison**. 2019. Mesic meadow response to varying levels of grazing utilization in south central Idaho. Proceedings of the Western Section American Society of Animal Science. *Translational Animal Science*. 3(Supplement1):1658-1663. DOI: 10.1093/tas/txz050.
- Yelich, J.V. and **M.J. Ellison**. 2019. Temporal variations in cattle activity in willows (*Salix* spp.) in mesic meadows in southern Idaho. Western Section American Society of Animal Science. Boise, Idaho. June 11-13, 2019.
- Sprinkle, J.E., **M.J. Ellison**, J.B. Hall, J.V. Yelich, C.M. Willmore, and J.R. Brennan. 2019. Are low residual feed intake cows adapted to rangelands? Proceedings of the Western Section American Society of Animal Science. *Translational Animal Science*. 3(Supplement1):1797-1801. DOI: 10.1093/tas/txz101.

- Sprinkle, J.E., J.K. Sagers, J.B. Hall, **M.J. Ellison**, J.V. Yelich, J.R. Brennan, J.B. Taylor, and J.B. Lamb. 2019. Grazing behavior and production for cattle on differing late-season rangeland grazing systems with or without protein supplementation. Proceedings of the Western Section American Society of Animal Science. Translational Animal Science. 3(Supplement1):1792-1796. DOI: 10.1093/tas/txz100.
- *Henslee, D., J. V. Yelich, J. B. Taylor, and **M. J. Ellison**. 2019. Bitter or better taste buds? Aversion to phenylthiocarbamide in mature rams. Pacific Northwest Animal Nutrition Conference. Boise, Idaho. January 14 – 15, 2019. *3rd Place Graduate Student Poster Competition*.
- *Randall, K. J., T. J. Johnson, and **M. J. Ellison**. 2019. Resource responses of greater sage-grouse (*Centrocercus urophasianus*) brood-rearing habitat to livestock grazing. Idaho Chapter of the Wildlife Society Annual Meeting. Boise, Idaho. March 19 – 21, 2019.
- Lauritzen, D., J.W. Karl, J. Yelich, and **M. Ellison**. 2019. Comparison of drone and field measurements of willow canopy volumes in a southern Idaho riparian area. Society for Range Management Annual Meeting. Minneapolis, Minnesota. January 10 – 14, 2019.
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. 2018. Outcomes of indirect interactions on resource availability in greater sage-grouse (*Centrocercus urophasianus*) brood-rearing habitat. International Grouse Symposium. Boise, Idaho. September 24 – 28, 2018.
- Reynolds, M. K., **M. J. Ellison**, G. E. Chibisa, A. Ahmadzadeh, and J. B. Hall. 2018. Influence of post weaning grazing on reproductive measures in beef heifers. American Society of Animal Science Annual Meeting. Vancouver, Canada. July 8 – 12, 2018.
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. 2018. Implications of grazing utilization levels on Greater sage-grouse habitat in riparian meadows in central Idaho. Idaho Chapter of the Wildlife Society Annual Meeting. Idaho Falls, Idaho. March 6 – 9, 2018.
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. 2018. Implications of grazing utilization levels on Greater sage-grouse habitat in riparian meadows in central Idaho. Society for Range Management Annual Meeting. Sparks, Nevada. January 30 – February 2, 2018.
- *York, K. J., T. J. Johnson, and **M. J. Ellison**. 2018. Implications of grazing utilization levels on Greater sage-grouse habitat in riparian meadows in central Idaho. Pacific Northwest Animal Nutrition Conference. Boise, Idaho. January 16-17, 2018.
- Woods, M. M., **M. J. Ellison**, J. M. Thomas, and J. B. Hall. 2017. Effect of feed efficiency and sexed semen on pregnancy rate and early embryonic mortality in beef heifers. Proceedings of the Western Section American Society of Animal Science. Vol. 68, 2017.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, T. M. Taxis, E. A. Van Kirk, D. C. Rule, H. C. Cunningham, K. J. Austin, and K. M. Cammack. 2016. The effect of residual feed intake on rumen microbial profiles in growing ewe lambs. Plant and Animal Genome Meeting XXIV. San Diego, California. January 9-13, 2016. (*Poster Presentation*)
- Abrams, A. N., K. J. Austin, **M. J. Ellison**, H. C. Cunningham, G. Conant, W. R. Lamberson, T. Taxis, and K. M. Cammack. 2016. Effect of high sulfate water on rumen microbial populations in lambs. Plant and Animal Genome Meeting XXIV. San Diego, California. January 9-13, 2016.
- Powell, S., A. N. Abrams, K. J. Austin, **M. J. Ellison**, H. C. Cunningham, G. Conant, W. R. Lamberson, T. M. Taxis, E. A. Van Kirk, D. C. Rule, and K. M. Cammack. 2016. High sulfate water affects volatile fatty acid profiles in lambs. Plant and Animal Genome Meeting XXIV. San Diego, California. January 9-13, 2016.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, T. M. Taxis, H. C. Cunningham, K. J. Austin, and K. M. Cammack. 2015. Associations of rumen microbial profiles with feed efficiency status in ewe lambs. High Plains Nutrition and Management Roundtable, Lingle, Wyoming. September 10, 2015. (*Poster Presentation*)
- Abrams, A. N., K. J. Austin, **M. J. Ellison**, H. C. Cunningham, G. Conant, W. R. Lamberson, T. Taxis, and K. M. Cammack. 2015. High sulfate water affects rumen microbial populations in lambs. High Plains Nutrition and Management Roundtable, Lingle, Wyoming. September 10, 2015.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, T. M. Taxis, H. C. Cunningham, K. J. Austin, and K. M. Cammack. 2015. The effect of residual feed intake status on rumen microbial profiles in ewe lambs. Proceedings of the Western Section American Society of Animal Science. 66: 133-137. (*Oral Presentation*)
- C. J. Clarkson, A. N. Abrams, K. J. Austin, **M. J. Ellison**, H. C. Cunningham, G. Conant, W. R. Lamberson, T. Taxis, and K. M. Cammack. 2015. Effect of high sulfate water on rumen

microbial populations in lambs. Proceedings of the Western Section American Society of Animal Science. 66: 244-248.

- Ellison, M. J.**, G. Conant, W. R. Lamberson, R. R. Cockrum, K. J. Austin, and K. M. Cammack. 2015. Effects of diet and feed efficiency on rumen microbial profiles in sheep. Plant and Animal Genome Meeting XXIII. San Diego, California. January 10-14, 2015. (*Poster Presentation*)
- Cunningham, H. C., L. E. Speiser, C. J. Clarkson, **M. J. Ellison**, K. J. Austin, G. Conant, W. R. Lamberson, and K. M. Cammack. 2015. Rumen microbial populations associated with feed efficiency in forage-fed lambs. Plant and Animal Genome Meeting XXIII. San Diego, California. January 10-14, 2015.
- Taxis, T.M., **M.J. Ellison**, K.M. Cammack, G.C. Conant, and W.R. Lamberson. 2014. Variations of the microbiome among sheep breeds on two different diets. Symposium on Gut Health. St. Louis, Missouri. November 10-12, 2014.
- Cammack, K.M., **M.J. Ellison**, G. Conant, W.R. Lamberson, and K.J. Austin. 2014. Rumen microbial species and by-products associated with feed efficiency in sheep. Proceedings of the 10th World Congress on Genetics Applied to Livestock Production. Vancouver, British Columbia. August 17-22, 2014.
- Ellison, M.J.**, G. Conant, W.R. Lamberson, R.R. Cockrum, K.J. Austin, and K.M. Cammack. 2014. Rumen microbial species associated with feed efficiency in sheep fed a forage-based diet. 2014 American Society of Animal Science National Meeting. Kansas City, Missouri. July 20-24, 2014.
- C. J. Clarkson, H. C. Cunningham, L. E. Speiser, **M. J. Ellison**, K. J. Austin, and K. M. Cammack. 2014. Effect of high sulfate water on behavior, performance, and volatile fatty acid production in lambs. Proceedings of the Western Section American Society of Animal Science. 65: 49-53.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, R. R. Cockrum, K. J. Austin, and K. M. Cammack. 2014. Effects of diet and feed efficiency on rumen microbial profiles in sheep. Plant and Animal Genome Meeting XXII. San Diego, California. January 10-14, 2014. (*Poster Presentation*)
- Conant, G., **M.J. Ellison**, R.R. Cockrum, K.J. Austin, H. Truong, M. Becchi, W.R. Lamberson, K.M. Cammack. 2014. Combining bioinformatics and statistical modeling to understand the ecology of the rumen microbial ecosystem in sheep. Plant and Animal Genome Meeting XXII. San Diego, California. January 10-14, 2014.
- Clarkson, C. J., H. C. Cunningham, **M. J. Ellison**, K. J. Austin, K. M. Cammack, and A. M. Meyer. 2014. Jejunal expression of intestinal growth-promoting genes in high and low efficiency lambs. Plant and Animal Genome Meeting XXII. San Diego, California. January 10-14, 2014.
- Cammack, K.M., **Ellison, M.J.**, Austin, K.J., Conant, G., and W.R. Lamberson. 2013. Effect of diet type and feed efficiency status on rumen microbial populations in sheep. Gases & Animal Agriculture Conference. Dublin, Ireland.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, K. J. Austin, R. R. Cockrum and K. M. Cammack. 2013. The effect of diet and feed efficiency status on rumen microbial profiles in sheep. Proceedings of the Western Section American Society of Animal Science. 64: 71-73. (*Oral Presentation – Graduate Student Competition*)
- C. J. Clarkson, H. C. Cunningham, **M. J. Ellison**, K. J. Austin, K. M. Cammack, and A. M. Meyer. 2013. The effect of diet and feed efficiency status on small intestinal mRNA expression of angiogenic factors in growing lambs. Proceedings of the Western Section American Society of Animal Science. 64: 396-399.
- Ellison, M. J.**, G. Conant, W. R. Lamberson, K. J. Austin, and K. M. Cammack. 2013. The effect of diet on rumen microbial profiles in sheep. Plant and Animal Genome Meeting XXI. San Diego, California. January 11-16, 2013. (*Poster Presentation*)
- Cammack, K. M., **M. J. Ellison**, G. C. Conant, and W. R. Lamberson. 2013. Metagenomics potential to predict feed efficiency in sheep. Plant and Animal Genome Meeting XXI. San Diego, California. January 11-16, 2013.
- Ellison, M. J.**, R. R. Cockrum, R. A. Vraspir, L. Speiser, A. M. Meyer, and K. M. Cammack. 2012. The effect of diet on feed intake and performance traits in sheep. 2012 Colorado Nutrition Roundtable. Nunn, Colorado. September 20, 2012. (*Poster Presentation*)
- Ellison, M. J.**, R. R. Cockrum, K. W. Christensen, R. A. Vraspir, L. Speiser, W. J. Means, A. M. Meyer, and K. M. Cammack. 2012. The effect of diet on feed intake traits and relationships with carcass traits in sheep. Proceedings of the Western Section American Society of Animal Science. 63: 156-158. (*Oral Presentation – Graduate Student Competition*)

Vraspir, R. A., **M. J. Ellison**, K. M. Cammack and A. M. Meyer. 2012. The relationship of feed efficiency and visceral organ size in growing lambs fed a concentrate or forage-based diet. Proceedings of the Western Section American Society of Animal Science. 63: 229-233.

Research Reports:

Ellison, M. J., G. Conant, W. R. Lamberson, K. J. Austin, R. R. Cockrum, and K. M. Cammack. 2013. The effect of diet and feed efficiency status on rumen microbial profiles in sheep. 2013 University of Wyoming Department of Animal Science Annual Update. Laramie, Wyoming. November 2013.

Ellison, M. J., R. R. Cockrum, K. W. Christensen, R. A. Vraspir, L. Speiser, W. J. Means, A. M. Meyer, and K. M. Cammack. 2012. The effect of diet on feed intake traits and relationships with carcass traits in sheep. 2012 University of Wyoming Department of Animal Science Annual Update. Laramie, Wyoming. November 2012.

Vraspir, R. A., **M. J. Ellison**, K. M. Cammack, and A. M. Meyer. 2012. The relationship of feed efficiency and visceral organ size in growing lambs fed a concentrate or forage-based diet. 2012 University of Wyoming Department of Animal Science Annual Update. Laramie, Wyoming. November 2012.

Thesis and Dissertations:

*Henslee, D.M. and **M.J. Ellison**. 2019. Determining genomic and phenotypic traits associated with variability in dietary preferences in grazing sheep. M.S. Thesis, Department of Animal and Veterinary Science, University of Idaho. December 2019.

Ellison, M.J. and K.M. Cammack. 2016. Rumen microbial profiles associated with variation in feed efficiency of lambs. Ph.D. Dissertation, Department of Animal and Veterinary Sciences, University of Wyoming. April 2016.

Ellison, M.J. and K.M. Cammack. 2013. Effects of diet and feed efficiency status on performance, carcass characteristics, and rumen microbial profiles in sheep. M.S. Thesis, Department of Animal and Veterinary Sciences, University of Wyoming. August 2013.

Peer Reviewed/Evaluated Outreach Publications:

Ellison, M.J. 2020. Developing a grazing management plan on rangelands. Progressive Cattle. June 2020 Edition.

Willmore, C. and **M.J. Ellison**. 2019. Nitrate toxicity in cattle grazing cover crops. Progressive Cattle. September 2019 Edition.

Ellison, M.J. 2019. How healthy are your sagebrush steppe pastures? Progressive Cattle. June 2019 Edition.

Ellison, M. J. 2019. Identifying vitamin and mineral deficiencies that are common during calving season. Progressive Cattle. February 2019 Edition.

Ellison, M. J. 2018. Multi-species grazing to maximize utilization of forage resources. Progressive Cattle. September 2018 Edition.

Ellison, M. J. 2017. Considerations for summer livestock shelter. Progressive Cattle. July 2017 Edition.

Ellison, M. J., G. Conant, W. R. Lamberson, K. J. Austin, R. R. Cockrum, and K. M. Cammack. 2013. The effect of diet and feed efficiency status on rumen microbial profiles in sheep. 2013 University of Wyoming Agricultural Experiment Station Field Days Bulletin.

Speiser, L.E., C.J. Clarkson, K.M. Cammack, K.A. Austin, E.O. Patrick, **M.J. Ellison**, and T. Martinez. 2013. Microbial ecology associated with improved feed efficiency in sheep. 2013 University of Wyoming Agricultural Experiment Station Field Days Bulletin.

Ellison, M. J., R. R. Cockrum, K. W. Christensen, R. A. Vraspir, L. Speiser, W. J. Means, A. M. Meyer, and K. M. Cammack. 2012. The effect of diet on feed intake traits and relationships with carcass traits in sheep. 2012 University of Wyoming Agricultural Experiment Station Field Days Bulletin.

Other Outreach Publications:

- M.J. Ellison.** 2020. Grazing dormant forages. Utah State University Extension: Utah Ag Industry Highlights. February.
- M.J. Ellison.** 2020. Grazing dormant forages. Southwest Idaho Beef Newsletter. January.
- M.J. Ellison.** 2019. Grazing dormant forages. Idaho Cattle Association Line Rider Magazine. December.
- M.J. Ellison.** 2019. Grazing dormant forages. University of Idaho: Bingham County Extension Newsletter. December.
- Ellison, M.J.** 2019. How to keep your grasses growing in the hot, dry months! Utah State University Extension: Utah Ag Industry Highlights. August.
- Ellison, M.J.** 2019. How healthy are your sagebrush steppe pastures? Utah State University Extension: Utah Ag Industry Highlights. June.
- Ellison, M.J.** 2019. How healthy are your sagebrush steppe pastures? University of Idaho Lemhi Link Newsletter. May.
- Ellison, M.J.** 2019. How healthy are your sagebrush steppe pastures? Southwest Idaho Beef Newsletter. May.
- Ellison, M.J.** 2019. Multi-species grazing to maximize forage resources. Utah State University Extension: Utah Ag Industry Highlights. April
- Ellison, M. J.** 2019. Developing a grazing management plan on rangelands. Idaho Cattle Association Line Rider Magazine. March.
- Ellison, M. J.** 2019. Preparing for your grazing allotment spring meetings. Utah State University Extension: Utah Ag Industry Highlights. February.
- Ellison, M. J.** 2019. Preparing for your grazing allotment spring meetings. University of Idaho Lemhi Link Newsletter. February.
- Ellison, M. J.** 2018. Management to reduce winter weather stress in cattle. Utah State University Extension: Utah Ag Industry Highlights. December.
- Ellison, M. J.** 2018. Selecting heifers that are right for your operation. Southwest Idaho Beef Newsletter. November.
- Ellison, M. J.** 2018. Grazing to target invasive annual grasses. University of Idaho: Bingham County Extension Newsletter. October.
- Ellison, M. J.** 2018. Grazing to target invasive annual grasses. Utah State University Extension: Utah Ag Industry Highlights. October.
- Ellison, M. J.** 2018. Grazing mesic and riparian areas in sage-grouse habitat. University of Idaho: Bingham County Extension Newsletter. July.
- Ellison, M. J.** 2018. Spring grazing to target invasive annual grasses. Southwest Idaho Beef Newsletter. March.
- Ellison, M. J.** 2018. Advice for preparing for you grazing allotment spring meetings. Idaho Cattle Association Line Rider Magazine. March.
- Ellison, M. J.** 2017. Grazing mesic and riparian areas in sage-grouse habitat. Idaho Cattle Association Line Rider Magazine. December.
- Ellison, M. J.** 2017. Morgan Creek-Prairie Basin Allotment economic impacts statement. Submitted to on behalf of Morgan Creek Grazing Association to the U.S. Forest Service. June.
- Ellison, M. J.** 2017. Developing a grazing management plan on rangeland. Southwest Idaho Beef Newsletter. May.
- Ellison, M. J.** 2017. Management to reduce winter weather stress in cattle. Idaho Cattle Association Line Rider Magazine. January.

Grants and Contracts Awarded:

In-Kind:

- Ellison, M. J., J. V. Yelich, J. Walker, and J. B. Taylor.** 2019. Determining consumed feed composition in rams using Near-Infrared Spectroscopy (NIRS). USDA-ARS-USSES. \$10,000.
- Ellison, M. J., J. V. Yelich, and J. B. Taylor.** 2018. Utilization of polythiocarbamide for developing a model for testing bitter taste tolerance in sheep. USDA-ARS-USSES. \$13,500.
- Ellison, M. J., J. V. Yelich, J. Walker, and J. B. Taylor.** 2018. Determining consumed feed composition in rams using Near-Infrared Spectroscopy (NIRS). USDA-ARS-USSES. \$15,000.
- Ellison, M. J., J. V. Yelich, and J. B. Taylor.** 2018. Understanding rumen microbial composition in sheep divergent for sagebrush intake. USDA-ARS-USSES. \$20,000.

Pending:

Funded:

- Randall, K., **M. Ellison**, and T. Johnson. 2020. Mesic meadow habitat responses to variation in grazing management practices: Balancing the habitat requirements of Greater sage-grouse with livestock production. University of Idaho Rangeland Center, David Little Livestock Range Management Endowment, \$9,000. (*Spending authority: \$9,000*)
- Murdoch, B. and **M.J. Ellison**. 2019. Minion sequencing training. University of Idaho, Department of Animal and Veterinary Science. \$3,500.
- Ellison, M. J.**, T. N. Johnson, K. Lee, E. Winford, J. Aycrigg, J. Wulforst, and J. R. Ritten. 2019. Social, economic, and ecological implications of grazing utilization and timing on riparian habitat in the Intermountain West. USDA-NIFA-AFRI Foundational Program – Sustainable Agroecosystems: Functions, Processes, and Management – GRANT12688015. \$499,663. (*Spending authority: \$159,421*)
- Hall, J. B., **M. Ellison**, G. Chibisa, and J. Sprinkle. Impact of grazing high nitrate forages on cattle performance and circulating methemoglobin concentrations. 2019. Mary A. Turner Animal and Veterinary Science Livestock Research Endowment Award. \$4,819. (*Spending authority: \$0*)
- Willmore, C., S. Hines, J. Packham, L. Golden, J. Sagers, J. Thomas, **M. Ellison**, and G. Shewmaker. 2018. Simulated grazing timing and regrowth of annual cereal forage cover crops. UI Innovation Project Awards. \$7,500. (*Spending authority: \$0*)
- Ellison, M. J.**, T. N. Johnson, and E. Winford. 2018. Coexisting in wet meadows: Livestock grazing management and sage-grouse brood-rearing habitat. Idaho Natural Resource Conservation Service – Conservation Innovation Grant. \$74,942. (*Spending authority: \$74,942*)
- Ellison, M. J.** and T. N. Johnson. 2018. Livestock management to facilitate sage-grouse habitat in wet meadows: effects of grazing intensity on preferred forbs. University of Idaho Rangeland Center, David Little Livestock Range Management Endowment, \$9,740. (*Spending authority: \$9,740*)
- Ellison, M. J.** and S. K. Williams. 2017. Lemhi County Range Monitoring Workshop Support. Idaho Rangeland Resource Commission. \$475. (*Spending authority: \$475*)
- Ellison, M. J.** and S. K. Williams. 2017. Lemhi County Range Monitoring Workshop Support. Lemhi County Soil and Water Conservation District. \$300. (*Spending authority: \$300*)
- Ellison, M. J.** and T. J. Johnson. 2017. Livestock management to facilitate sage-grouse habitat in wet meadows: effects of grazing intensity on preferred forbs. University of Idaho Rangeland Center, David Little Livestock Range Management Endowment, \$10,000. (*Spending authority: \$10,000*)
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, C. M. Willmore, and G. E. Chibisa. 2016. Determining optimal efficiency of beef cattle for Idaho rangelands. University of Idaho College of Agriculture and Life Sciences, \$16,800 for laboratory analyses. (*Spending authority: \$0*)
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, C. M. Willmore, and G. E. Chibisa. 2016. Determining optimal efficiency of beef cattle for Idaho rangelands. University of Idaho, Idaho Experiment Station, \$16,800 for laboratory analyses. (*Spending authority: \$0*)
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, C. M. Willmore, and G. E. Chibisa. 2016. Determining optimal efficiency of beef cattle for Idaho rangelands. University of Idaho College of Agriculture and Life Sciences Beef Program of Distinction, \$2,000 for laboratory analyses. (*Spending authority: \$0*)
- Sprinkle, J. E., J. B. Hall, C. M. Willmore, G. E. Chibisa, and **M. J. Ellison**. 2016. Determining optimal efficiency of beef cattle for Idaho rangelands. In-kind laboratory NIRS fecal analyses, Sonora A & M AgriLife Research Center, \$6,000. (*Spending authority: \$0*)
- Ellison, M. J.** and K. M. Cammack. 2013. Improving feed efficiency in sheep through rumen manipulation and producer adoption. 2013 Western Sustainable Agriculture Research and Education Graduate Student Grant. University of Wyoming. \$25,000. (*Spending authority: N/A*)

Unfunded:

- Wooten, F. and **M.J. Ellison**. 2019 Full-life cycle examination for bovine respiratory disease indicators. Foundation for Food and Agriculture Research (FFAR), Seeding Solutions: Addressing Challenges in Food and Agriculture Funding Opportunity. \$500,000.
- Packer, C., **M. J. Ellison**, and T. N. Johnson. 2019. Monitoring Greater sage-grouse populations in response to grazing management on Rinker Rock Creek Ranch. Cornell Land Trust Bird Conservation Initiative Small Grant. \$20,000.
- Willmore, C., S. Hines, J. Packham, P. Bass, M. Colle, **M. Ellison**, and J. Hall. 2018. Utilizing cover crops for background cattle in Idaho. Western Sustainable Agriculture Research and Education Grant. \$136,893.
- Sprinkle, J. E., J. B. Hall, K. S. Jensen, **M. J. Ellison**, J. K. Sagers, and J. B. Glaze. 2018. Determining optimal efficiency and production of beef cattle grazing western rangelands. USDA-NIFA-AFRI, Animal Nutrition, Growth and Lactation-A1231. \$499,599.
- Colle, M. J., J. B. Hall, **M. J. Ellison**, B. M. Murdoch, and J. E. Sprinkle. 2018. Multidisciplinary graduate training: Sustainable beef production – effect of the beef cow environment. USDA-NIFA. \$241,000.
- Ellison, M. J.**, C. J. Willmore, J. V. Yelich, S. Hines, and J. Packham. 2018. Comparing simulated and livestock grazing timing and regrowth of annual cereal forage cover crops. University of Idaho Office of Research and Economic Development Seed Grant. \$11,940.
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, K. Launchbaugh, W. Prescott, and J. Foltz. 2017. Rock Creek Ranch virtual fence trial. Idaho Global Entrepreneurial Mission. \$111,144.
- Ellison, M. J.** and T. N. Johnson. 2017. Livestock management to facilitate sage-grouse habitat in wet meadows: effects of grazing intensity on preferred forbs. Idaho Fish and Wildlife Foundation, \$10,000.
- Ellison, M.J.**, and T. N. Johnson. 2017. Livestock management of wet meadows and desired conditions for greater sage-grouse. Western Sustainable Agriculture Research and Education Program; Research and Education Grant Pre-Proposal.
- Ellison, M.J.**, T. N. Johnson, and J. Yelich. 2017. Grazing to improve sage-grouse habitat. State of Idaho: Governor’s Office of Species Conservation, Cooperative Sage-Grouse Project, \$14,020.
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, S. Jensen, T. Covey, and W. Prescott. 2017. Identifying the optimum cow for rangeland sustainability and production efficiency. Idaho Beef Council.
- Hall, J. B., Sprinkle, J. E., **M. J. Ellison**, A. Laarman and M. Doumit. 2017. Impact of pre-weaning environment and early weaning on beef quality. Idaho Beef Council.
- Sprinkle, J. E., J. B. Hall, **M. J. Ellison**, C. M. Willmore, and G. E. Chibisa. 2016. Determining Optimal Efficiency and Production of Beef Cattle Grazing Western Rangelands. USDA-AFRI-NIFA, \$499,999.

Honors and Awards:

- 2011-2016 Graduate Research Assistantship - University of Wyoming Animal Science
- 2014 Dick and Lynne Cheney Study Abroad Grant - University of Wyoming
- 2013 Beef Improvement Federation Travel Scholarship - Oklahoma State University
- 2013 Johnson Graduate Student Travel Scholarship - University of Wyoming
- 2010 Mill Family Scholarship - University of Wyoming
- 2010 University of Wyoming Dean’s List
- 2009 Mary Mead Memorial Scholarship - University of Wyoming
- 2008 University of Wyoming Vice President for Academic Affairs Honor Roll

SERVICE:

Major Committee Assignments:

- University of Idaho Animal and Veterinary Science Dept., Strategic Planning Committee, 2019 - Present
- University of Idaho Search Committee, Operations Supervisor, 2019
- Graduate Student Journal Club Organizer, 2017 – 2018
- University of Idaho Rangeland Center Fall Forum Planning Committee, 2016 – Present
- Range Livestock Symposium Planning Committee, 2016 – Present
- University of Idaho Search Committee, Beef Production Medicine Veterinarian position, 2016-2017

Professional and Scholarly Organizations:

Rangelands Journal – Peer Reviewer	<i>November 2019</i>
Idaho Society for Range Management	<i>2016-Present</i>
University of Idaho Beef Program of Distinction	<i>2016-Present</i>
University of Idaho Rangeland Center	<i>2016-Present</i>
Gamma Sigma Delta International Honor Society of Agriculture	<i>2013-2016</i>
American Society of Animal Science	<i>2011-Present</i>
2016-2018 ASAS Western Section Graduate Paper Competition Committee	
2014-2015 ASAS Western Section Graduate Student Director	
Professional Animal Scientist – Peer Reviewer	<i>November 2016</i>
PLOS Genetics – Peer Reviewer	<i>June 2016</i>
University of Wyoming Animal Science Graduate Association	<i>2011-2016</i>

Outreach Service:

Central Idaho Rangelands Network – <i>UI Representative</i>	<i>2018-Present</i>
Lemhi Forest Restoration Group – <i>UI Representative</i>	<i>2018-Present</i>
Central Idaho Aspen Working Group – <i>UI Representative</i>	<i>2018-Present</i>

Community Service:

Search and Rescue Dogs of the United States Member	<i>2019-Present</i>
Idaho State Search and Rescue Member	<i>2018-Present</i>
Officer ranks: Secretary (2019–2020)	
Lemhi County Search and Rescue Member	<i>2018-Present</i>
Officer ranks: Communications (2020 – Present)	
Cattlemen Member – Lemhi County, Idaho	<i>2017-Present</i>
Benevolent and Protective Order of Elks #1620, Salmon, Idaho	<i>2016-Present</i>
Officer ranks: Tiler (2017); Esteemed Leading Knight (2018); Exalted Ruler (2019); Trustee (2020- 2024)	
Cattlemen Member – Albany County, Wyoming	<i>2014-2016</i>

PROFESSIONAL DEVELOPMENT:

Scholarship:

Northwest Forage Worker’s Conference, Salmon, Idaho, October 15, 2019.
 Western Section ASAS Meeting, Boise, Idaho – June 11-13, 2019
 Rangeland Center Retreat, McCall, Idaho – May 8-9, 2019
 Rangeland Center Fall Forum, Salmon, Idaho – October 4- 5, 2018
 Public Lands Council Annual Meeting, Park City, Utah – September 27- 29, 2018
 Rangeland Center Retreat, McCall, Idaho – May 5- 6, 2018
 University of Idaho Extension Annual Conference, Moscow, Idaho – April 2- 6, 2018
 University of Idaho Rangeland Center Fall Forum, Boise, Idaho – October 5-6, 2017
 University of Idaho Rangeland Center Retreat, McCall, Idaho – May 4-5, 2017
 12th Western States and Provinces Deer and Elk Workshop, Sun Valley, Idaho – May 2-4, 2017
 University of Idaho Extension Annual Conference, Burley, Idaho – March 3-6, 2017
 National Sheep Genetics Research Planning Meeting, USMARC, Clay Center, Nebraska – November 30-
 December 2, 2016
 Public Lands Council Annual Meeting, Boise, Idaho – September 7-8, 2016
 US Sheep Experiment Station 100th Anniversary Celebration, Dubois, Idaho – August 23-25, 2016
 University of Idaho New Faculty Orientation – August 15-19, 2016
 W2012 Multi-State Hatch Annual Meeting, Scottsbluff, Nebraska – August 7-9, 2016
 American Society of Animal Science Joint Annual Meeting, Salt Lake City, Utah – July 19-22, 2016
 Idaho 5th Grazing Livestock Nutrition Conference, Park City, Utah – July 17-19, 2016
 Plant and Animal Genome Meeting XXIV, San Diego, California - January 9-13, 2016
 High Plains Nutrition & Management Roundtable, Lingle, Wyoming - September 10, 2015
 Western Section ASAS Meeting, Ruidoso, New Mexico - June 23-26, 2015
 Plant and Animal Genome Meeting XXIII, San Diego, California - January 10-14, 2015

High Plains Nutrition & Management Roundtable, Brule, Nebraska - August 28, 2014
Plant and Animal Genome Meeting XXII, San Diego, California - January 10-14, 2014
Western Section ASAS Meeting, Bozeman, Montana - June 19-22, 2013
Beef Improvement Federation Annual Meeting, Oklahoma City, Oklahoma - June 12-15, 2013
Midwestern Section ASAS Meeting, Des Moines, Iowa - March 11-13, 2013
Plant and Animal Genome Meeting XXI, San Diego, California - January 11-16, 2013
University of Wyoming Extension Beef Artificial Insemination School, Riverton, Wyoming - November 26 and December 3, 2012
American Angus Association Cattlemen's Boot Camp, Laramie, Wyoming - September 28-29, 2012
Colorado Nutrition Roundtable, Nunn, Colorado - September 20, 2012
ASAS Joint Annual Meeting, Phoenix, Arizona - July 15-19, 2012
Range Beef Cow Symposium XXII, Mitchell, Nebraska - November 29-December 1, 2011
Colorado Nutrition Roundtable, September 9, 2011

Outreach: Annual Stakeholder Meetings and Conventions (*UI Representative and/or Speaker*):

Cattlemen's Winter School, Salmon, Idaho – November 20, 2019
University of Idaho Nancy M. Cummings Research, Extension, and Education Center Bred Heifer Sale and Cow-Calf Days, Carmen, Idaho – October 25, 2019.
West Central States Wool Growers Convention, Evanston, Wyoming – November 7-10, 2019
38th Annual Utah Beef Cattle Field Day, Provo, Utah – February 12, 2019
Cattlemen's Winter School, Salmon, Idaho – January 15 & 22, 2019 and February 5, 2019
Idaho Rangeland Conservation Partnership Meeting, Boise, Idaho – January 15-16, 2019
Idaho Range Livestock Symposium, Rigby, Idaho – January 10, 2019.
West Central States Wool Growers Convention, Sun Valley, Idaho – November 8-10, 2018
Cattlemen's Winter School, Salmon, Idaho – January 9, 2018 and February 13, 2018
West Central States Wool Growers Convention, Sun Valley, Idaho – November 9- 11, 2017
Idaho Governor's Trail Ride, Kilgore, Idaho – July 19, 2017
Rock Creek Ranch Advisory Committee Tour – June 28, 2017
Cattle Association Summer-Roundup Meeting, Jackpot, Nevada – June 21-23, 2017
Magic Valley Livestock School, Gooding, Idaho – January 31, 2017
Idaho Range Livestock Symposium, Salmon, Idaho – January 10, 2017
Cattlemen's Winter School, Salmon, Idaho – January 3, 17, and 24, 2017 and February 7, 2017
West Central States Wool Growers Convention, Sun Valley, Idaho – November 17-19, 2016
Idaho Cattle Association Convention, Sun Valley, Idaho – November 14-16, 2016
Idaho Governor's Trail Ride, Mackay, Idaho – June 29, 2016
Cattle Association Summer-Roundup Meeting, Post Falls, Idaho – June 22-23, 2016
Idaho Range Livestock Symposium, Challis, Idaho. April 21, 2016
Northeast Wyoming Sheep Symposium, Buffalo, Wyoming – December 11, 2014
Annual West Central States Wool Growers Convention, Park City, Utah - November 5-7, 2015