

Curriculum Vitae (May 2017)

Lisa A. Shipley

Professor

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EDUCATION:

Degrees

- 1993 Ph.D. Wildlife and Fisheries Sciences, Texas A&M University
- 1989 M.S. Wildlife Management, University of Maine
- 1986 B.S. Wildlife Biology, Minor Fisheries, Colorado State University

Academic Awards & Honors

- David W. Killam Lectureship in White-tailed Deer Research and Management, Caesar Kleberg Wildlife Institute (2016)
- Honors College Thesis Advisor Award, Honors College, WSU (2014)
- Outstanding Teaching Award, Department of Natural Resource Sciences, WSU (2011)
- Naval ROTC Faculty Excellence Award, University of Idaho and Washington State University (2008)
- Recognition for Distinguished Service Learning, Washington State University (2002)
- National Science Foundation Postdoctoral Fellowship (1994)
- Tom Slick Fellowship, Texas A&M University (1992)
- Regent's Fellowship, Texas A&M University (1990)
- Dow-Griffiee Graduate Fellowship, University of Maine (1988)
- Graduated with Highest Distinction and University Honors, Colorado State University (1986)
- Philip A. Connolly Scholarship, Colorado State University (1984)

Academic Appointments

- 16-17 Visiting Scientist, National Institute of Agricultural Technology and National University of Comahue, Instituto de Investigaciones en Biodiversidad y Medioambiente, San Carlos de Bariloche, Rio Negro, Argentina.
- 14-now Professor of Mammalian Ecology and Associate Director of Undergraduate Studies, School of the Environment, Washington State University, Pullman, WA.
- 10 – 14 Professor, Mammalian Ecology, Department of Natural Resource Sciences, Washington State University (WSU), Pullman, WA.
- 03-10 Associate Professor, Mammalian Ecology, Department of Natural Resource Sciences, Washington State University (WSU), Pullman, WA.
- 03-now Participating Faculty, Center for Reproductive Biology, Washington State University, Pullman, WA.

- 01-now Adjunct Faculty Member, School of Biological Sciences, Washington State University, Pullman, WA
- 98-now Adjunct Faculty Member, Department of Fisheries and Wildlife, University of Idaho, Moscow, ID.
- 06 Visiting faculty, School of Tropical Biology, James Cook University, Townsville, QLD and School of Botany and Zoology, Australian National University, Canberra, ACT.
- 97-02 Assistant Professor, Mammalian Ecology, Department of Natural Resource Sciences, Washington State University (WSU), Pullman, WA.
- 95-96 Assistant Professor, Wildlife Ecology, Department of Biology, Frostburg State University, Frostburg, MD
- 94-95 Postdoctoral Research Fellow, Department of Animal Ecology, Swedish University of Agricultural Sciences, Umeå, Sweden

Professional Experience

- 90-93 Graduate Fellow & GRA, Texas Agriculture Experiment Station, Texas A&M University, College Station, TX
- 92 GTA, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX
- 89-90 Biological Technician, Forestry Sciences Laboratory, Pacific Northwest Range and Forest Experiment Station, Juneau, AK
- 87-89 GRA, Department of Wildlife Management, University of Maine, Orono, ME
- 87 Research Technician, Department of Fish & Wildlife Resources, University of Idaho, Moscow, ID
- 86 Research Technician, Colorado Division of Wildlife, Ft. Collins, CO
- 86 Wildlife Technician, Bureau of Land Management, Casper, WY
- 83-86 Forestry Technician, Estes-Poudre Ranger District, United States Forest Service, Ft. Collins, CO (part, full-time)
- 85 Wildlife Technician, Colorado Division of Wildlife, Montrose, CO

RESEARCH:

Current areas of emphasis:

- Foraging ecology, nutrition and diet selection of vertebrates
- Morphological and physiological adaptations of plants and animals for herbivory
- Behavior and habitat requirements of free-ranging mammals
- Links between nutrition and reproduction in mammals

*PROFESSIONAL JOURNAL ARTICLES, REFEREED—68 published, 6 in review
(*graduate student, **undergraduate author)*

- McMahon, L. A., J. L. Rachlow, **L. A. Shipley**, J. S. Forbey, and T. R. Johnson. Submitted. Habitat selection differs across hierarchical behaviors. *Ecosphere* (May 2017).
- Camp*, M. J., **L. A. Shipley**, C. R. Milling, J. L. Rachlow, and J. S. Forbey. Submitted. Both temperature and food quality influence foraging behavior and diets of small mammalian herbivores. *Journal of Thermal Biology* (May 2017).
- Milling*, C. R., J. L. Rachlow, M. A. Chappell, M. J. Camp, T. R. Johnson, D. R. Paul, **L. A. Shipley**, and J. S. Forbey. Submitted. Seasonal temperature acclimatization in a semi-fossorial mammal and the role of burrows as thermal refugia. *Ecosphere* (May 2017).
- Olsoy, P. J., **L. A. Shipley**, J. L. Rachlow, J. S. Forbey, N. Glenn, M. Burgess, and D. Thornton. Submitted. Unmanned aerial systems measure structural habitat features for wildlife across multiple scales. *Methods in Ecology and Evolution* (May 2017).
- Crowell, M. M*, **L. A. Shipley**, J. S. Forbey, J. L. Rachlow, and R. G. Kelsey. Submitted. Toxic or tough: Dietary partitioning of sagebrush by sympatric specialist and generalist herbivores. *Journal of Mammalogy* (May 2017).
- Camp*, M. J., **L. A. Shipley**, T. R. Johnson, P. Olsoy*, J. S. Forbey, J. L. Rachlow, and D. Thornton. Submitted. The balancing act of foraging: Mammalian herbivores trade-off multiple risks when selecting food patches. *Oecologia* (November 2016).
- Milling*, C. R., J. L. Rachlow, T. R. Johnson, J. S. Forbey, and **L. A. Shipley**. In press. Seasonal variation in behavioral thermoregulation and predator avoidance in a small mammal. *Behavioral Ecology* (May 2017)
- Forbey, J. S., G. L. Patricelli, D. M. Delparte, A. H. Krakauer, P. J. Olsoy*, M. R. Fremgen*, J. D. Nobler*, L. P. Spaete, **L. A. Shipley**, J. L. Rachlow, A. K. Dirksen, A. Perry, B. A. Richardson, and N. F. Glenn. In press. Emerging technology to measure habitat quality and behavior of grouse: examples from studies of greater sage-grouse. *Wildlife Biology* (October 2016). DOI: 10.2981/wlb.00238
- McMahon*, L. A., J. L. Rachlow, **L. A. Shipley**, J. S. Forbey, T. R. Johnson, and P. J. Olsoy*. 2017. Evaluation of micro-GPS receivers for tracking small-bodied mammals. *PLoS ONE* 12(3): e0173185. doi:10.1371/journal.pone.0173185
- King*, T. W., R. Salom-Pérez, **L. A. Shipley**, H. B. Quigley, and D. H. Thornton. 2017. Ocelot latrines: communication centers for Neotropical mammals. *Journal of Mammalogy* 98:106-113.
- Olsoy*, P. J., T. G. Griggs, A. C. Ulappa*, K. Gehlken*, **L. A. Shipley**, and J. S. Forbey. 2016. Nutritional analysis of sagebrush by near-infrared spectroscopy. *Journal of Arid Environments* 134:125-131.
- Utz*, J. L., **L. A. Shipley**, J. L. Rachlow, T. L. Johnstone-Yellin, M. J. Camp*, and J.S. Forbey. 2016. Understanding tradeoffs between predation and food risks in a specialist mammalian herbivore. *Wildlife Biology* 22:167-173.
- Crowell*, M. M., **L. A. Shipley**, M. J. Camp*, J. L. Rachlow, J. S. Forbey, and T. R. Johnson. 2016. Selection of food patches by sympatric herbivores in response to concealment and distance from a refuge. *Ecology and Evolution* DOI: 10.1002/ece3.1940.
- Camp*, M. J., **L. A. Shipley**, T. R. Johnson, M. M. Crowell*, J. S. Forbey, and J. L. Rachlow. 2015. Modeling tradeoffs between plant fiber and toxins: A framework for quantifying risks perceived by foraging herbivores. *Ecology*. 96:3292-3302

- Stonehouse*, K. F., **L. A. Shipley**, J. Lowe, M. T. Atamian, M. E. Swanson, and M. A. Schroeder. 2015. Habitat selection by sympatric greater sage-grouse and Columbian sharp-tailed grouse. *Journal of Wildlife Management* 79:1308-1326.
- Olsoy*, P. J., J. S. Forbey, J. L. Rachlow, J. D. Nobler*, N. F. Glenn, and **L. A. Shipley**. 2015. Fearscales: mapping functional properties of cover for prey with terrestrial LiDAR. *Bioscience* 65:74-80.
- Rachlow, J. L., R. M. Peter**, **L. A. Shipley**, and T. R. Johnson. 2014. Sublethal effects of capture and collaring on wildlife: experimental and field evidence. *Wildlife Society Bulletin* 38:458-465.
- Ulappa*, A. C., R. G. Kelsey, G. G. Frye*, J. L. Rachlow, **L. A. Shipley**, X. Pu, L. Bond, and J. Forbey. 2014. Plant protein and secondary metabolites influence diet selection in a mammalian specialist herbivore. *Journal of Mammalogy* 95:834-842.
- Camp*, M. J., J. L. Rachlow, **L. A. Shipley**, T. R. Johnson, and K. D. Bockting. 2014. Grazing in Sagebrush rangelands in western North America: Implications for habitat quality for a sagebrush specialist, the pygmy rabbit. *The Rangeland Journal* 36:151-159.
- Elias*, B. A., **L. A. Shipley**, S. McCusker, R. D. Saylor, and T. R. Johnson. 2013. Effects of genetic management on reproduction, growth, and survival in captive endangered pygmy rabbits (*Brachylagus idahoensis*). *Journal of Mammalogy* 94:1282-1292.
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- Scarlata*, C. D., B. A. Elias, J. R. Godwin, R. A. Powell, D. Shepherdson, **L. A. Shipley**, and J. L. Brown. 2013. Influence of environmental conditions and facility on faecal glucocorticoid concentrations and in captive pygmy rabbits. *Animal Welfare* 22:357-368.
- Cook*, R. C., J. G. Cook, D. J. Vales, B. K. Johnson, S. M. McCorquodale, **L. A. Shipley**, R. A. Riggs, L. L. Irwin, S. L. Murphie, B. L. Murphie, K. A. Schoenecker, F. Geyer, P. B. Hall, R. D. Spencer, D. A. Immell, D. H. Jackson, B. L. Tiller, P. J. Miller, and L. Schmitz. 2013. Regional and seasonal patterns of nutritional condition and reproduction in elk. *Wildlife Monographs* 184.
- Wagoner*, S. J., **L. A. Shipley**, R. C. Cook*, and L. Hardesty. 2013. Spring cattle grazing and mule deer nutrition in a bluebunch wheatgrass community. *Journal of Wildlife Management* 77:897-907.
- Camp*, M. J., B. A. Woods*, J. L. Rachlow, T. R. Johnson, and **L. A. Shipley**. 2013. Examining the functional components of cover: The relationship between concealment and visibility in shrub-steppe habitat. *Ecosphere* 4:1-14.
- Camp*, M. J., J. L. Rachlow, B. A. Woods*, T. R. Johnson, and **L. A. Shipley**. 2012. When to run and when to hide: The influence of concealment, visibility, and proximity to refugia on perception of risk. *Ethology* 118:1010-1017.
- Shipley, L. A.**, E. M. Davis, L. A. Felicetti, S. McClean, and J. S. Forbey. 2012. Mechanisms for eliminating monoterpenes of sagebrush by specialist and generalist rabbits. *Journal of Chemical Ecology* 38:1178-1189.
- Scarlata*, C. D., B. A. Elias, J. R. Godwin, R. A. Powell, D. Shepherdson, **L. A. Shipley** and J. L. Brown. 2012. Relationship between fecal hormone concentrations and reproductive success in captive pygmy rabbits (*Brachylagus idahoensis*). *Journal of Mammalogy* 93:759-770..

- Scarlata*, C. D., B. A. Elias, J. R. Godwin, R. A. Powell, D. Shepherdson, **L. A. Shipley** and J. L. Brown 2011. Characterizing gonadal and adrenal activity by fecal steroid analysis in pygmy rabbits (*Brachylagus idahoensis*). *General and Comparative Endocrinology* 171:373-380.
- Tollefson*, T. L., **L. A. Shipley**, W. L. Myers, and N. Dasgupta. 2011. Forage quality's influence on mule deer fawns. *Journal of Wildlife Management* 75:919-928.
- McCusker*, S., **L. A. Shipley**, T. N. Tollefson*, M. Griffin, and E. A. Koutsos. 2011. Effects of starch and fibre in pelleted diets on nutritional status of mule deer (*Odocoileus hemionus*) fawns. *Journal of Animal Physiology and Animal Nutrition* 95: 489 - 498.
- Dungan*, J. D., **L. A. Shipley**, and R. G. Wright. 2010. Activity patterns, foraging ecology and summer range carrying capacity of moose in Rocky Mountain National Park, Colorado, *Alces* 46: 71-87.
- Tollefson*, T. L., **L. A. Shipley**, W. L. Myers, D. H. Keisler, and N. Dasgupta. 2010. The influence of summer and autumn nutrition on body condition and reproduction in lactating mule deer. *Journal of Wildlife Management* 74:974-986.
- Shipley, L. A.** 2010. Fifty years of food and foraging in moose: Lessons in ecology from a model herbivore. *Alces* 46:1-13.
- McClure, M. F., and **L. A. Shipley**. 2009. Animal response to nested self-similar patches: A test with woolly bears. *Oikos* 118:653-662.
- Johnstone-Yellin*, T. L., **L. A. Shipley**, W. L. Myers, and H. S. Robinson*. 2009. To twin or not to twin? Tradeoffs in litter size and fawn survival in mule deer. *Journal of Mammalogy* 90:453-460.
- Shipley, L. A.**, J. S. Forbey, and B. D. Moore. 2009. Revisiting the dietary niche: when is a mammalian herbivore a specialist? *Integrative and Comparative Biology* 49:274-290.
- Kendrick*, E., **L. A. Shipley**, A. E. Hagerman, and L. M. Kelly*. 2009. Fruit and fibre: The nutritional value of figs for a small tropical ruminant, the blue duiker (*Cephalophus monticola*). *Journal of African Ecology* 47:556-566.
- DeGabriel*, J. L., B. D. Moore, **L. A. Shipley**, A. K. Krockenberger, I. R. Wallis, C. N. Johnson, and W. J. Foley. 2009. Inter-population differences in the tolerance of a marsupial folivore to plant secondary metabolites. *Oecologia* 161:534-548.
- Shipley, L. A.** 2008. Pygmy rabbits in peril in the U.S.A.
<http://www.actionbioscience.org/biodiversity/shipley.html>
- Thines*, N. J., **L. A. Shipley**, J. H. Bassman, J. R. Slusser, and W. Gao. 2008. UV-B effects on nutritional chemistry of plants and responses of a mammalian herbivore. *Oecologia* 156:125-135.
- Shipley, L. A.** 2007. The influence of bite size on foraging at larger spatial and temporal scales by mammalian herbivores. *Oikos* 116:1964-1974.
- Robbins, C. T., J. K. Fortin*, K. D. Rode, S. D. Farley, and **L. A. Shipley**. 2007. Optimizing protein intake as a foraging strategy to maximize mass gain in an omnivore. *Oikos* 116:1675-1682.
- Cook, R. C., T. R. Stephenson, W. L. Myers, J. G. Cook, and **L. A. Shipley**. 2007. Validating predictive models of nutritional condition for mule deer. *Journal of Wildlife Management* 71:1934-1943.

- Thines*, N. J., **L. A. Shipley**, J. H. Bassman, J. K. Fellman, D. S. Mattison, and J. R. Slusser. 2007. Effects of enhanced UV-B radiation on plant chemistry: Nutritional consequences for a specialist and generalist lagomorph. *Journal of Chemical Ecology* 33:1025-1039.
- Shipley, L. A.**, T. B. Davila*, N. J. Thines*, and B. A. Elias*. 2006. Nutritional requirements and diet choices of the pygmy rabbit (*Brachylagus idahoensis*): A sagebrush specialist. *Journal of Chemical Ecology* 32:2455-2474.
- Elias*, B. A., **L. A. Shipley**, R. D. Saylor and R. S. Lamson*. 2006. Mating behavior and parental care in captive pygmy rabbits. *Journal of Mammalogy* 87:921-928
- Johnstone-Yellin*, T. L., **L. A. Shipley**, and W. L. Myers. 2006. Evaluating the performance of vaginal implant transmitters for capturing neonatal mule deer fawns. *Wildlife Society Bulletin* 34:338-344.
- Searle*, K., T. Vandervelde*, N. T. Hobbs, **L. A. Shipley**, and B. A. Wunder. 2006. Spatial Context influences patch residence time in foraging hierarchies. *Oecologia* 148:710-719.
- Searle*, K., N. T. Hobbs, B. A. Wunder, and **L. A. Shipley**. 2006. Preferences in a patchy landscapes: the influence of scale-specific intake rates and variance in reward. *Behavioral Ecology* 17:315-323.
- Searle*, K. R., N. T. Hobbs, and **L. A. Shipley**. 2005. Should I stay or should I go? Patch departure decisions by herbivores at multiple scales. *Oikos* 111:417-424.
- Searle*, K. R., T. Vandervelde*, N. T. Hobbs, and **L. A. Shipley**. 2005. Gain functions for large herbivores: tests of alternative models. *Journal of Animal Ecology* 74:181-189.
- Thines* N. J., **L. A. Shipley**, and R. D. Saylor. 2004. Effects of cattle grazing on ecology and habitat of Columbia Basin pygmy rabbits (*Brachylagus idahoensis*). *Biological Conservation* 119:525-534.
- Sponheimer, M., T. Robinson, L. Ayliffe, B. Passey, B. Roeder, **L. Shipley**, E. Lopez*, T. Cerling, D. Dearing and J. Ehleringer. 2003. An experimental study of carbon-isotope fractionation between diet, hair, and feces of mammalian herbivores. *Canadian Journal of Zoology* 81:871-876.
- Felicetti*, L.A., C.T. Robbins, and **L.A. Shipley**. 2003. Dietary protein content alters energy expenditure and composition of the gain in grizzly bears (*Ursus arctos horribilis*). *Physiological and Biochemical Zoology* 76:256-261.
- Hobbs, N. T., J. E. Gross, **L. A. Shipley**, D. E. Spalinger, and Wunder. 2003. Herbivore functional response in heterogeneous environments: A contest among models. *Ecology* 84:666-681
- Shipley, L. A.**, and L. A. Felicetti*. 2002. Nitrogen and fiber digestibility of natural forages by blue duikers. *Zoo Biology* 21:123-134.
- Nolte, D., **L. A. Shipley**, and J. Schafer. 2001. Evaluating Wolfen as a repellent to deer on roads in Washington. *Western Journal of Applied Forestry*. 16:182-186.
- Fletcher*, J. D., **L. A. Shipley**, W. J. McShea, and D. L. Shumway. 2001. Wildlife herbivory and rare plants: The effects of white-tailed deer, rodents, and insects on growth and survival of Turk's cap lily. *Biological Conservation* 101:229-238.

- Rode*, K. D., C. T. Robbins, **L. A. Shipley**, and T. A. Hanley. 2001. The constraints on herbivory by grizzly bears. *Oecologia* 128:62-71.
- Fletcher*, J. D., W. J. McShea, **L. A. Shipley**, and D. Shumway. 2001. The utility of using common forest forbs to measure browsing pressure by white-tailed deer (*Odocoileus virginianus*). *Natural Areas Journal* 54:413-419.
- Laca, E., **L. A. Shipley**, and E. Reid*. 2001. Structural anti-quality characteristics of range and pasture plants. *Journal of Range Management* 54:413-419.
- Felicetti*, L. A., **L. A. Shipley**, G. Witmer, and C. T. Robbins. 2000. Digestive strategies of North American porcupines: Nitrogen, dry matter, and energy digestibility of natural forages. *Biochemical and Physiological Zoology* 73:772-780.
- Burton*, N. M., **L. A. Shipley**, K. Byrne, J. Vierck, and M. V. Dodson. 2000. Isolation and culture characterization of wapiti (*Cervus elaphus*) satellite cells. *Canadian Journal of Animal Science* 80:303-309.
- Brown, W. K., W. K. Hall, L. R. Linton, R. E. Huenefeld*, and **L. A. Shipley**. 2000. The repellency of 3 compounds to caribou. *Wildlife Society Bulletin* 28:365-371.
- Wenninger*, P. S., and **L. A. Shipley**. 2000. A comparison of harvesting, rumination, digestion, rumination, and passage on fruit, forb, and leaf diets by blue duikers. *Oecologia*. 123:466-474.
- Shipley, L. A.**, A. W. Illius, K. Danell, N. T. Hobbs, and D. E. Spalinger. 1999. Predicting bite size selection of mammalian herbivores: a test of a general model of diet optimization. *Oikos* 84:55-68.
- Shipley, L. A.**, S. Blomquist*, and K. Danell. 1998. Diet choices by free-ranging moose in relation to plant distribution, chemistry, and morphology in northern Sweden. *Canadian Journal of Zoology* 76:1722-1733.
- Spalinger, D. E., S. M. Cooper, D. Martin, and **L. A. Shipley***. 1997. Is social learning an important influence on foraging behavior in white-tailed deer? *Journal of Wildlife Management* 61:611-621.
- Shipley***, **L. A.**, D. E. Spalinger, J. E. Gross, N. T. Hobbs, and B. A. Wunder. 1996. The dynamics and scaling of foraging velocity and encounter rate in mammalian herbivores. *Functional Ecology* 10:234-244.
- Shipley***, **L. A.**, and D. E. Spalinger. 1995. Influence of size and density of browse patches on intake rates and foraging decisions of young moose and white-tailed deer. *Oecologia* 104:112-121.
- Shipley***, **L. A.**, J. E. Gross, D. E. Spalinger, N. T. Hobbs, and B. A. Wunder. 1994. The scaling of intake rate of mammalian herbivores. *American Naturalist* 143:1055-1082.
- Gross, J. E., **L. A. Shipley***, N. T. Hobbs, D. E. Spalinger, and B. A. Wunder. 1993. Foraging by herbivores in food-concentrated patches: tests of a mechanistic model of functional response. *Ecology* 74: 778-791.
- Shipley***, **L. A.**, and D. E. Spalinger. 1992. Mechanics of browsing in dense food patches: effects of plant and animal morphology on intake rate. *Canadian Journal of Zoology* 70:1743-1752.

BOOK CHAPTERS, REFEREED

Shipley, L. A., R. C. Cook, and D. G. Hewitt. (in review). Techniques in wildlife nutritional ecology. Pages XX in *The wildlife techniques manual*, N. J. Silvy, ed. Johns Hopkins University Press.

Rachlow, J.L., P.A. Becker, **L.A. Shipley**, and E.S. Larrucea. (*in press*) *Brachylagus idahoensis*. In: *Lagomorphs of the World* (A.T. Smith, K. Hackländer, P. Alves, and C.H. Johnston, eds.). John Hopkins University Press.

Searle, K. R., and **L. A. Shipley**. 2008. The comparative feeding behaviour of browsing and grazing ungulates. Pages 117-148 in *Ecology of grazing and browsing herbivores*, Ecological Studies Series Vol. 195. I. J. Gordon and H. H. T. Prins, eds. Springer, Berlin.

PUBLISHED ABSTRACTS (*graduate student, **undergraduate author)

McCusker*, S., **L. A. Shipley**, E. A. Koustos, M. Griffin, K. A. Johnson, and T. T. Tollefson. 2008. Evaluating the effects of three practical diets on nutritional status, rumen health, and growth of captive mule deer (*Odocoileus hemionus*). *Proceedings of the Comparative Nutrition Society* 7:150-155.

Comeau, G. A., J. P. Richmond, S. McCusker*, **L. A. Shipley**, E. A. Koustos, and S. A. Zinn. 2008. Developmental trends in components of the somatotrophic axis of mule deer (*Odocoileus hemionus*) fawns fed 3 different herbivore diets. *Proceedings of the Comparative Nutrition Society* 7:55-59.

Tollefson*, T. N. and **L.A. Shipley**. 2006. The effect of summer and autumn nutrition on body condition and reproduction of lactating mule deer (*Odocoileus hemionus*) and growth of their fawns. *Proceedings of the Sixth Comparative Nutrition Society* 6:191-195.

Shipley, L. A. 2005. Nutritional physiology of duikers: a synthesis. Pages 21-26 in *Proceedings of the Nutrition Advisory Group Sixth Conference on Zoo and Wildlife Nutrition*, Omaha, NE.

Searle*, K. R., N. T. Hobbs, **L. A. Shipley** and T. Vandervelde*. 2002. What controls large herbivore foraging? patch characteristics versus spatial context. *Bulletin of the Ecological Society of America* (Suppl.)

Vandervelde*, T., **L. A. Shipley**, K. R. Searle*, N. T. Hobbs and B. A. Wunder. 2001. Gain functions for blue duikers in small patches: Does plant geometry matter? *Bulletin of the Ecological Society of America* (Suppl)

Searle*, K., N.T. Hobbs, T. A. Vandervelde*, **L. A. Shipley**, and B. A. Wunder. 2001. Gain functions in small patches for a large herbivore: Evaluating evidence for competing models. *Bulletin of the Ecological Society of America* (Suppl)

Wenninger*, P. S. and **L. A. Shipley**. A comparison of digestion, rumination, harvesting, and passage by blue duikers on fruit and leaf diets. *Bulletin of the Ecological Society of America* (Suppl.).

Felicetti*, L. A., **L. A. Shipley**, G. Witmer and C. T. Robbins. 1999. Dry matter, fiber and nitrogen digestibility of natural forages eaten by North American porcupines (*Erethizon dorsatum*) *Bulletin of the Ecological Society of America* (Suppl.)

Shipley, L. A., L. A. Felicetti*, and S. Jenkins**. 1998. Comparative strategies for digestion in hindgut and foregut fermenters. Pages 191 -196 in *Proceedings of the Second Comparative Nutrition*

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Felicetti*, L. A., **L. A. Shipley**, and G. Witmer. 1998. Dry matter, nitrogen, and energy digestibility in the North American porcupine (*Erethizon dorsatum*). Pages 47 – 52 in Proceedings of the Second Comparative Nutrition Society Symposia, Banff, Alberta.

Shipley*, L. A., D. E. Spalinger, N. T. Hobbs, and J. E. Gross. 1994. The scaling of foraging velocity in mammalian herbivores. *Bulletin of the Ecological Society of America (Suppl.)* 75:210.

Gross, J. E., C. Zank, N. T. Hobbs, D. E. Spalinger, **L. A. Shipley***, and B. A. Wunder. 1994. Rules for moving between apparent resources: how good is good enough? *Bulletin of the Ecological Society of America (Suppl.)* 75:82.

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Gross, J. E., **L. A. Shively***, N. T. Hobbs, and D. E. Spalinger. 1991. Herbivore functional response: foraging on spatially dispersed foods. *Bulletin of the Ecological Society of America (Suppl.)* 72:248.

Shively*, L. A., J. E. Gross, N. T. Hobbs, and D. E. Spalinger. 1991. Herbivore functional response: foraging on spatially concentrated foods. *Bulletin of the Ecological Society of America (Suppl.)* 72:248.

EXPERIMENT STATION BULLETINS AND PROCEEDINGS (*graduate student, **undergraduate author)

Thines*, N. J., J. H. Bassman, **L. A. Shipley**, and J. R. Slusser. 2004. Effects of enhanced UV-B radiation on secondary metabolites in forage plants and potential consequences for multiple trophic responses involving mammalian herbivores. Pages 117-129 in Ultraviolet ground- and space-based measurements, models, and effects IV. Proceedings of the International Society for Optical Engineers. Volume 5545.

Shipley, L. A., and C. R. Yanish. 2001. Structural anti-quality: the bones and gristle of the rangeland buffet. Pages 13-17 in K.L. Launchbaugh (ed.) *Anti-quality Factors in Rangeland and Pastureland Forages*. Idaho Forest, Wildlife & Range Exp. Sta. Bulletin 73.

Shipley, L. A. 1999. Grazers and browsers: How digestive morphology affects diet selection. Pages 20-27 *IN* K. L. Launchbaugh, J. C. Mosley, and K.D. Sanders, eds. *Grazing behavior of livestock and wildlife*. Idaho Forest, Wildlife, and Range Experiment Station Bulletin 70.

OTHER PUBLISHED WORKS (*graduate student, **undergraduate author)

Forbey, J. S., G. L. Patricelli, D. M. Delparte, A. H. Krakauer, P. J. Olsoy*, M. R. Fremgen*, J. D. Nobler*, N. F. Glenn, L. P. Spaete, B. A. Richardson, **L. A. Shipley**, and J. Mitchell. 2016. Overview of a Workshop to Expand the Use of Emerging Technology to Understand the Ecology of Grouse in a Changing Climate. *Grouse News* 52: 7-18.

Crowell**, M. A., M. J. Camp*, and **L. A. Shipley**. 2013. The role of fiber and toxins in diet preference by a specialist and generalist herbivore. *A.S.K. Volume 1:Spring 2013*.

CONFERENCE AND SEMINAR PRESENTATIONS & POSTERS – 202 completed, last 5 years listed (*graduate student, **undergraduate author)

Donna M. Delparte, Jennifer Forbey, Janet Rachlow, Chelsea Merriman, Peter Olsoy, **Lisa Shipley**. UAV Hyperspectral Imaging for Sagebrush Species Identification. Conference: American Association of Geographers (AAG) Annual Meeting, Boston, MA, April 13, 2017

Donna M. Delparte, Jennifer Forbey, Janet Rachlow, Chelsea Merriman, Peter Olsoy, **Lisa Shipley**. Invited presentation/panel member: UAS hyperspectral data processing and analysis. Conference: Harvard Center for Geographic Analysis: [The Drone Revolution in Spatial Analysis](#), April 26-28, 2017

Shipley, L.A., M. J. Camp*, M. M. Crowell*, P. Olsoy*, D Thornton, J. S. Forbey, J. Nobler, J. L. Rachlow, C. Milling*, L. McMahon*, and T. R Johnson. February 2017. Food and fear: Mammalian herbivores integrate multiple risks when selecting food patches. Laboratoria Ecotono, INIBIOMA-CONICET, Universidad Nacional del Comahue, Bariloche, Argentina

Shipley, L.A. 2016. Effects of silviculture on nutritional ecology of forest ungulates. First IUFRO Landscape Ecology Latin American Congress and Second IALE Latin-American Congress. November 28-December 2, Temuco, Chile. **Plenary Speaker**

Shipley, L.A. 2016. Wildlife conservation and management in the United States: Federal-State-Private partnership. First IUFRO Landscape Ecology Latin American Congress and Second IALE Latin-American Congress. November 28-December 2, Temuco, Chile. **Invited presentation**

Lockwood, G., C. Merriman*, J. Nobler*, P. Olsoy*, **L. Shipley**, J. Rachlow, J.S. Forbey. August 2016. Fearscales and Foodscapes. Partner's in Science National Science Teachers Association conference, Portland, November 10-12, 2016.

Forbey, Jennifer, **Shipley, L.A.**, M. J. Camp*, M. M. Crowell*, P. Olsoy*, J. L. Rachlow, J. Nobler, N. Glenn, M. Germino, J. Connelly, G. Patricelli, B. Richardson, C. Dadabay. Emerging technology to manage and monitor healthy wildlife. Morley Nelson Snake River Birds of Prey National Conservation Area Science Working Group Annual Symposium, November, 2016

Navarro**, D., S. Berry*, and **L. A. Shipley**. October 2016. Determining the accuracy of deer behavior patterns from different accelerometer settings.(poster). National Conference for the Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Long Beach, CA

McMahon*, L. A., J. L. Rachlow, J. S. Forbey, **L. A. Shipley**, T. R. Johnson, and D. H. Thornton. October 2016. Efficacy of two GPS technologies for collecting fine-scale data on a semi-fossorial small mammal Annual Conference of The Wildlife Society, Raleigh, NC.

Whetzel**, M., C.R. Milling*, M. Hernandez**, L.A. McMahon*, J.L. Rachlow, J.S. Forbey, **L.A. Shipley**, and T.R. Johnson. October 2016. Quantifying animal personality for free-ranging wildlife: Influence on Habitat Selection and Response to Predators. Annual Conference of The Wildlife Society, Raleigh, NC.

Shipley, L.A. October, 2016. Using nutritional ecology to get a deer's-eye-view of land management. Killam Lecture, Texas A&M University Kingsville, Kingsville, TX. **Invited seminar**.

Shipley, L.A. October, 2016. A tiny rabbit in the sagebrush sea: Ecology and conservation of endangered pygmy rabbits. Killam Lecture, Texas A&M University Kingsville, Kingsville, TX. **Invited seminar**.

Shiple, L.A., M. J. Camp*, M. M. Crowell*, P. Olsoy*, D Thornton, J. S. Forbey, J. Nobler, J. L. Rachlow, C. Milling*, L. McMahon*, and T. R Johnson. October 2016. Food and fear: Mammalian herbivores integrate multiple risks when selecting food patches. Department of Biological Sciences, Boise State University, Boise, ID. **Invited seminar.**

Shiple, L. A. September 2016. A deer's-eye-view of land management. Washington State University Alumni Association 5-minute presentation. Pullman, WA **Invited presentation.**

Lockwood, G., C. Merriman, J. Nobler*, P. Olsoy*, **L. Shiple**, J. Rachlow, B. Richardson, M. Germino, J.S. Forbey. August 2016. Can Unmanned Aerial Systems (UAS) Predict Habitat Quality for Wildlife? Murdock Foundation Partners in Science regional conference, Vancouver, Washington

Shiple, L.A., M. J. Camp*, M. M. Crowell*, P. Olsoy*, D Thornton, J. S. Forbey, J. L. Rachlow and T. R Johnson. July 2016. Risky rabbits: evaluating tradeoffs in food and predation risks perceived by rabbits. World Lagomorph Conference, Turlock, CA.

Milling*, C. R., J. L. Rachlow, T. R. Johnson, J. S. Forbey, and **L. A. Shiple**. July 2016. Things that go bump in the night: Nighttime antipredator behavior of pygmy rabbits. (poster) World Lagomorph Conference, Turlock, CA.

Milling*, C. R., J. L. Rachlow, T. R. Johnson, J. S. Forbey, and **L. A. Shiple**. July 2016. Behavioral Thermoregulation of an Arid Land Leporid. World Lagomorph Conference, Turlock, CA.

McMahon*, L. A., J. L. Rachlow, J. S. Forbey, **L. A. Shiple**, T. R. Johnson, and D. H. Thornton. July 2016. Evaluating Performance of Two GPS Technologies to Quantify Space Use by Pygmy Rabbits. (Poster) World Lagomorph Conference, Turlock, CA.

Camp*, M. J., **L. A. Shiple**, J. S. Forbey, J. L. Rachlow, and T. R. Johnson. June 2016. Risky rabbits: Evaluating responses to food and fear by a specialist and generalist herbivore. American Society of Mammalogists Annual Conference, Minneapolis, MN.

Milling*, C. R., J. L. Rachlow, T. R. Johnson, J. S. Forbey, and **L. A. Shiple**. June 2016. Outmaneuvering

climate change: behavior buffers a small, arid land mammal against thermal extremes. American Society of Mammalogists Annual Conference, Minneapolis, MN.

Milling*, C. R., J. L. Rachlow, T. R. Johnson, J. S. Forbey, and **L. A. Shiple**. April 2016.

Outmaneuvering

climate change: behavior buffers a small, arid land mammal against thermal extremes. University of Idaho, College of Natural Resources, Three Minute Thesis Competition (3MT) – Second Place

Milling*, C., J. Rachlow, T. Johnson, J. Forbey, and **L. Shiple**. March 23, 2016. Things that go bump in The night: nighttime antipredator behavior of pygmy rabbits. College of Natural Resources Graduate Student Poster Competition. Moscow, ID. (poster; Awarded 1st Place – Doctoral Research)

Navarro** D., S. Berry*, and **L. A. Shiple**. March, 2016. Assessing the accuracy of measuring deer behaviors using accelerometers. (poster) 17th Annual National Conference for McNair Scholars and Undergraduate Research, University of Maryland MD

Navarro**, D., S. Berry*, and L. A. Shiple. March, 2016. Determining the accuracy of deer behavior Patterns from different accelerometer settings.(poster). Showcase for Undergraduate Research and Creative Activities (SURCA), Washington State University, Pullman WA

Camp*, M. J., **L. A. Shiple**, J. S. Forbey, J. L. Rachlow, and T. R. Johnson. February 2016. Evaluating

- tradeoffs in risks perceived by foraging herbivores. Washington and Idaho Chapter of the Wildlife Society, Coeur d'Alene, ID (poster).
- Hernandez**, M.A., C.R. Milling*, M. Whetzel**, L.A. McMahon*, J.L. Rachlow, J.S. Forbey, and **L.A. Shipley**. 2016. Conditional Antipredator Behavior: Do Both Habitat and Predator Type Influence Responses to Threats? Idaho Chapter of the Wildlife Society, Coeur d'Alene, ID. February 2016.
- McMahon*, L.A., J.L. Rachlow, J.S. Forbey, T.R. Johnson, and **L.A. Shipley**. 2016. Understanding Factors Influencing Fine-Scale Habitat Use by Pygmy Rabbits. Idaho Chapter of the Wildlife Society, Coeur d'Alene, ID. February 2016.
- Ebenhoch, K., Thornton, D.H., and **L. Shipley**. 2016. (poster) "Do greater sage-grouse movements influence survival on the Yakima Training Center, Washington, USA." 2016 Joint Partner Wildlife Conference. February 22-26, 2016. Coeur d'Alene, ID.
- Milling*, C.R., J.L. Rachlow, T.R. Johnson, J.S. Forbey, and **L.A. Shipley**. 2016. Underlying Mechanisms Of Seasonal Variation in Activity Patterns of the Pygmy Rabbit. Idaho Chapter of the Wildlife Society, Coeur d'Alene, ID. February 2016.
- Berry*, S.L., and **L.A. Shipley**. March 2016. The influence of fuel reduction treatments on the nutritional ecology of mule and white-tailed deer in northeastern Washington. IWTWS March 2016. (Best Student Poster Presentation).
- Rus**, A., K. Stonehouse*, and **L. A. Shipley**. February 2016. Factors Influencing the Survival of Translocated Greater Sage-Grouse and Columbian Sharp-tailed Grouse in Lincoln County, Washington. Wildlife Society Washington and Idaho Joint Conference, Coeur d'Alene, ID, February 2016.
- Whetzel**, M., C.R. Milling*, M. Hernandez**, L.A. McMahon*, J.L. Rachlow, J.S. Forbey, **L.A. Shipley**, and T.R. Johnson. Quantifying Animal Personality for Free-Ranging Wildlife: Influence on Habitat Selection and Response to Predators. Idaho Chapter of the Wildlife Society, Coeur d'Alene, ID.
- Slight, E., C. Merriman, J. Nobler*, J. Rachlow, **L. Shipley**, N. Glenn, and J. Forbey. 2016. Can spectroradiometry be used to quantify dietary quality for mammalian herbivores in the sagebrush steppe? Undergraduate Research and Scholarship Conference, Boise, ID.
- Lockwood, G, C. Merriman, C., J. Nobler*, P. Olsoy*, J. Rachlow, **L. Shipley**, B. Richardson, M. Germino, and J.S. Forbey. 2016. Can Unmanned Aerial Systems (UAS) predict habitat quality for wildlife? Murdock January 2016 National Partners in Science Conference, San Diego, CA.
- Milling*, C., J. Rachlow, T. Johnson, J. Forbey, and **L. Shipley**. February 2016. Underlying mechanisms of seasonal variation in activity patterns of the pygmy rabbit. Idaho Chapter of the Wildlife Society Annual Meeting. Coeur d'Alene, ID.
- Shipley, L. A.** January 2016. Effects of silviculture on the nutritional ecology of deer and elk. University of Idaho College of Natural Resources Seminar Series, Moscow, Idaho. **Invited seminar.**
- Shipley, L. A.** January 2016. Effects of silviculture on the nutritional ecology of deer and elk. UI/WSU Family Forester's Workshop, Spokane, WA **Invited presentation.**
- Shipley, L. A., M. C. Camp, M. M. Crowell, P. Olsoy, D. Thornton, J. S. Forbey, J. Nobler, J. L. Rachlow, C. Milling, L. McMahon, and T. R. Johnson. 2015. Evaluating Tradeoffs in Risks Perceived by Foraging Herbivores. Faculty of Science, Technology, and Media, Mid-Sweden University, Sundsvall, Sweden, October 2015. (invited)
- Shipley, L. A., K. Stonehouse, J. Lowe, M. Atamian, M. Swanson, and M. Schroeder. 2015. Habitat

- Selection by Sympatric, Translocated Greater Sage-grouse and Columbian Sharp-tailed Grouse. 13th International Grouse Symposium. Reykjavik, Iceland, September 2015
- Olsoy, P.J., J.S. Forbey, J.L. Rachlow, J.D. Nobler, M.A. Burgess, N.F. Glenn, L.A. Shipley, and D.H. Thornton. 2015. Mapping fearscapes for grouse: high-resolution assessment of concealment from predators using remote sensing. 13th International Grouse Symposium. 4-7 September 2015. Reykjavik, Iceland.
- Olsoy, P.J., J.S. Forbey, J.L. Rachlow, M.A. Burgess, N.F. Glenn, L.A. Shipley, and D.H. Thornton. 2015. Mapping herbivore habitat quality with high-resolution imagery from unmanned aerial systems. Ecological Society of America Annual Meeting. August 9-14, 2015. Baltimore, MD.
- McMahon, L.A., J.L. Rachlow, J.S. Forbey, L.A. Shipley, D.H. Thornton. 2015. Evaluating Performance of GPS Technology to Quantify Space Use by a Semi-Fossorial Small Mammal. American Society of Mammalogists, Jacksonville, FL. June 2015.
- Crowell, M. M., L.A. Shipley, J.S. Forbey, and J.L. Rachlow. 2015. A matter of toxins and fiber: selection of plant parts by sympatric herbivores. Annie M. Alexander Award Plenary Section, American Society of Mammalogists National Meeting, Jacksonville, FL., June 2015.
- Ulappa, A. C., L. A. Shipley, R. C. Cook, J. C. Cook, and M. Swanson. 2015. Effects of silvicultural herbicides on black-tailed deer nutrition. Western States and Provinces Deer and Elk Workshop, Canmore, AB, 6/15.
- Shipley, L. A., K. Wat, and E. Lopez-Perez. 2015. Effects of succession and forage plantings on nutritional carrying capacity and habitat selection of Roosevelt elk. Western States and Provinces Deer and Elk Workshop, Canmore, AB, 6/15.
- Milling, C., J. Rachlow, T. Johnson, M. Chappell, J. Forbey, and L. Shipley. 2015. The influence of multiple risks on rest-site selection by pygmy rabbits. University of Idaho Innovation Showcase. Moscow, ID, 4/15.
- Weyand, L. K., M. J. Camp, L.A. Shipley, M. M. Crowell, T. R. Johnson, J. S. Forbey, and J. L. Rachlow. 2015. How two rabbit species trade-off food quality and proximity to a refuge. Joint Washington Chapter of the Wildlife Society and Society of American Foresters Conference, Grand Mound, WA, 4/15.
- Rus, A. I., K. F. Stonehouse, and L. A. Shipley. 2015. Nest survival of greater sage-grouse and Columbian sharp-tailed grouse in Lincoln County, Washington. Joint Washington Chapter of the Wildlife Society and Society of American Foresters Conference, Grand Mound, WA, 4/15.
- Shipley, L. A., K. Wat, and E. Lopez-Perez. 2015. Effects of succession and forage plantings on nutritional carrying capacity and habitat selection of Roosevelt elk. Joint Washington Chapter of the Wildlife Society and Society of American Foresters Conference, Grand Mound, WA, 4/15.
- Ulappa, A. C., L. A. Shipley, R. C. Cook, J. C. Cook, and M. Swanson. 2015. Effects of silvicultural herbicides on black-tailed deer nutrition. Joint Washington Chapter of the Wildlife Society and Society of American Foresters Conference, Grand Mound, WA, 4/15.
- Shipley, L. A., K. Wat, and E. Lopez-Perez. 2015. Effects of succession and forage plantings on nutritional carrying capacity and habitat selection of Roosevelt elk. Idaho Chapter of the Wildlife Society and Society of American Foresters Conference, Pocatello, ID, 3/15.
- Camp, M. J., L. A. Shipley, J. Forbey, and J. Rachlow. 2015. Fear or fiber: Habitat tradeoffs by small mammals in sagebrush steppe. Idaho Chapter of the Wildlife Society and Society of American Foresters Conference, Pocatello, ID, 3/15.

- Milling, C., J. Rachlow, T. Johnson, M. Chappell, J. Forbey, and L. Shipley. 2015. Resting in a hot and risky environment: Habitat selection by pygmy rabbits during summer. Idaho Chapter of the Wildlife Society and Society of American Foresters Conference, Pocatello, ID, 3/15.
- Nobler, J.D., Pauli, B.P., Shipley, L.A., Rachlow, J.L., Forbey, J.S. 2015. Evaluating habitat selection tradeoffs using an individual based model. Idaho Chapter of The Wildlife Society, Pocatello, ID, 4/15.
- Nobler, J.D., Shipley, L.A., Crowell, M.M., Camp, M., Rachlow, J.L., Forbey, J.S. 2015. Evaluating herbivore preferences for mixed versus single plant toxins. Idaho Chapter of The Wildlife Society, Pocatello, ID. 4/15.
- Rachlow, J., J. Forbey, L. Shipley, M. Burgess, P. Olsoy, D. Thornton, C. Wilson, and J. Nobler. 2014. Scaling-up habitat attributes in the sagebrush-steppe environment using unmanned aircraft systems (UAS) technology. Symposium: Using Unmanned Aerial Systems (UAS) to Study Wildlife Populations and Their Habitat, The Wildlife Society. Pittsburgh, PA. 10/14.
- Milling, C., J. L. Rachlow, M. Burgess, J. S. Forbey, and L. A. Shipley. 2014. Using unmanned aerial systems technology to quantify habitat security in the sagebrush steppe. Idaho State UAS Working Group meeting. Moscow, ID. 9/15.
- Olsoy, P. J., J. S. Forbey, J. L. Rachlow, M. A. Burgess, N. F. Glenn, L. A. Shipley, D. H. Thornton. 2014. Mapping herbivore habitat quality with unmanned aerial systems. Idaho State UAS Working Group meeting. Moscow, ID. 9/15.
- Stonehouse, K. F., L. A. Shipley, J. Lowe, M. T. Atamian, M. E. Swanson, M. A. Schroeder. 2014. Habitat selection by sympatric, translocated greater sage-grouse and Columbian sharp-tailed grouse. Poster Presentation at: The 29th Western Agencies Sage and Columbian Sharp-tailed Grouse Workshop; 2014, June 17-19; Elko, NV.
- Olsoy, P., J. Forbey, J. Rachlow, J. Nobler, M. Burgess, T. Griggs, N. Glenn, and L. Shipley. 2014. Mapping Fearscales and Foodscapes for Grouse: High-resolution Habitat Assessment using Remote Sensing. 29th Sage & Columbian Sharp-tailed Grouse Workshop. June 17-19, Elko, NV.
- Camp, M. J., L. A. Shipley, T. R. Johnson, M. M. Crowell, J. S. Forbey, and J. L. Rachlow. 2014. Evaluating tradeoffs in risky diets by specialist and generalist herbivores. Comparative Nutrition Society, Flat Rock, NC. August, 2014.
- Wiggins, N. L., J. S. Forbey, and L. A. Shipley. 2014. A specialized herbivore with a generalized problem: vertebrate-toxin interactions. International Society of Chemical Ecology – Chemical Signals in Vertebrates, Urbana-Champaign, IL, July 8-12, 2014.
- Crowell, M. M., M. J. Camp, L. A. Shipley, J. L. Rachlow, and J. S. Forbey. 2014. Perceived risk of predation: Behavioral responses to concealment and distance from a refuge. American Society of Mammalogists National Meeting, Oklahoma City, OK. (June).
- Milling, C., J.L. Rachlow, L.A. Shipley, D. Paul. 2014. A comparative assessment of thermoneutral Zones of two sagebrush steppe lagomorphs. American Society of Mammalogists. Oklahoma City, OK. 6/14.
- Rachlow, J.L., J.S. Forbey, L.A. Shipley, M. Burgess, P. Olsoy, C. Milling, J. Nobler. 2014. Evaluating habitat characteristics for mammals in the sagebrush-steppe using unmanned aircraft systems (UAS) technology. American Society of Mammalogists. Oklahoma City, OK. 6/14.
- Williams, S.C., J.D. Nobler, J.S. Forbey, K. Gehlken, J.L. Rachlow, and L.A. Shipley (2014). Temporal

- and Spatial Variation of Nitrogen in Wyoming Big Sagebrush. 11th Annual Undergraduate Research & Scholarship Conference. Boise State University, Boise, Idaho.
- Nobler, J.D., Forbey, J.S., Gehlken, K., Williams S.C., Rachlow, J.L., Shipley, L.A., Olsoy, P.J. (2014). Assessing habitat heterogeneity for a specialist mammalian herbivore. Idaho Chapter Wildlife Society. Boise, ID.
- Camp, M. J., M. M. Crowell, L. A. Shipley, J. S. Forbey, J. L. Rachlow, and T. R. Johnson. (2014) Evaluating tradeoffs in risks by specialist and generalist herbivores. Idaho Chapter of The Wildlife Society, Boise, ID.
- Olsoy, P., J. Forbey, J. Nobler, J. Rachlow, M. Burgess, J. Mitchell, N. Glenn, and L. Shipley. 2014. Mapping Herbivore Fearscales and Foodscales: High-resolution Habitat Assessment using Remote Sensing. 50th annual Idaho Chapter of The Wildlife Society Meeting. March 4-6, 2014. Boise, ID
- Ulappa, A. C., and L. A. Shipley (2014) The Roles and Benefits of Captive Animal Research for on the Ground Wildlife Management. Idaho Chapter of the Wildlife Society, Boise, ID
- Rachlow, J. L., J. S. Forbey, M. Burgess, and L. A. Shipley. (2014) Advancing our understanding of wildlife habitat: Using high-resolution imagery obtained from an unmanned aircraft system to quantify habitat characteristics in the shrub-steppe. Idaho Chapter of The Wildlife Society, Boise, ID.
- Shipley, L. A., J. Rachlow, J. Forbey, M. Crowell, C. Milling, J. Nobler, and M. Camp. (2014). An obligate burrower under the sagebrush sea: The pygmy rabbit. Burrowing Owl Symposium & Washington Chapter of the Wildlife Society, Pasco, WA.
- Ulappa, A. C., and L. A. Shipley. (2014) The Roles and Benefits of Captive Animal Research for on the Ground Wildlife Management. Washington Chapter of the Wildlife Society, Pasco, WA.
- Mitchell, J.J., P.J. Olsoy, J.S. Forbey, N.F. Glenn, M.A. Burgess, J.L. Rachlow, and L.A. Shipley. 2013. Predicting forage foodscales with spectroscopy and unmanned aerial vehicle (UAV) imagery. American Geophysical Union (AGU) Fall Meeting. December 15-19, San Francisco, CA.
- Olsoy, P.J., J.D. Nobler, J.L. Rachlow, M.A. Burgess, N.F. Glenn, L.A. Shipley, and J.S. Forbey. 2013. Mapping Fearscales of a Mammalian Herbivore using Terrestrial LiDAR and UAV Imagery. American Geophysical Union (AGU) Fall Meeting. December 15-19, San Francisco, CA.
- Olsoy, P.J., J.D. Nobler, J.L. Rachlow, M.A. Burgess, N.F. Glenn, L.A. Shipley, and J.S. Forbey 2013. Remote Sensing of Herbivore Foodscales and Fearscales. Owyhee Research and Restoration Round-up, October 23-24, Marsing, Idaho.
- Ulappa, A. C., L. A. Shipley, M. Swanson, J. C. Cook, and R. Cook. 2013. Influence of herbicides and succession on the nutritional ecology of black-tailed deer in western Washington. NCASI West Coast Regional Meeting, Sept.30-Oct. 2, Vancouver, WA.
- Shipley, L. A., B. A. Elias, S. McCusker, R. D. Saylor, and T. Johnson. 2013. Genetic diversity vs. genetic distance: Reproduction, growth and survival in captive pygmy rabbits. 93rd Annual Meeting of the American Society of Mammalogists, June 14 – 18, Philadelphia, PA.
- Shipley, L. A., S. J. Wagoner, R. C. Cook and L. Hardesty. 2013. Effects of spring cattle grazing on the nutrition in a bluebunch wheatgrass community. 10th Biennial Western States and Provinces Deer & Elk Workshop, May 6 – 9. Missoula, MT.

- Crowell, M. M., M. J. Camp, and L. A. Shipley. 2013. The role of fiber and toxins in diet preference by a specialist and generalist herbivore. Academic Showcase, Washington State University, Pullman, WA. March 29.(Poster)
- Iredale, M. E., L. A. Shipley, and A. C. Ulappa. 2013. Comparison of intake of a plant secondary metabolite by deer subspecies and season. Academic Showcase, Washington State University, Pullman, WA. March 29. (Poster)
- Olsoy, P.J., J.D. Nobler, J.L. Rachlow, M.A. Burgess, N.F. Glenn, L.A. Shipley, and J.S. Forbey (2013). *Mapping Fearscales of a Mammalian Herbivore using Terrestrial LiDAR and UAV Imagery*. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.
- Olsoy, P.J., J.D. Nobler, J.L. Rachlow, M.A. Burgess, N.F. Glenn, L.A. Shipley, and J.S. Forbey (2013). *Remote Sensing of Herbivore Foodscapes and Fearscales*. Owyhee Research and Restoration Round-up. Marsing, ID.
- Gehlken, K., J. Utz, J. Forbey, J. Rachlow, and L. Shipley. 2013. Examining fine-scale habitat use by pygmy rabbits using fecal pellets. Idaho Chapter of The Wildlife Society Meeting. Coeur d'Alene, ID. (poster presentation, March 2013)
- Wiggins, N.L., L. A. Shipley, M. Crowell, J. S. Forbey. 2013. Not all sagebrush is created equal: Chemistry influences diet preferences in the pygmy rabbit (*Brachylagus idahoensis*). Idaho Chapter of The Wildlife Society, March 11-14, Coeur d'Alene, ID.
- Rachlow, J., M. Camp, B. Woods, L. Shipley, J. Forbey, and T. Johnson. 2013. Evaluating habitat in a functional framework: What is cover? Idaho Chapter of The Wildlife Society, March 11-14, Coeur d'Alene, ID.
- Perleberg, R., L. A. Shipley, J. S. Forbey, and G. Frye. 2013. The influence of nutrients and toxins on selection of sagebrush by sage grouse in winter. Murdock Partners in Science Conference, San Diego, CA. January 16-19.

EXTRAMURAL FUNDING FOR RESEARCH:

Characterizing Movement Patterns of Sage-Grouse through High-Resolution Radiotelemetry. \$24,206 Department of Interior. D Thornton and L. Shipley. 6/26/2015 - 6/25/2020

Northeast Washington CFLRP Deer Monitoring \$299,678. United States Forest Service (6/14 – 6/19).

Influence of fuel reduction treatments on the nutritional ecology of mule and white-tailed deer in northeastern Washington. \$213,620. Washington Department of Fish and Wildlife (6/14 – 6/19).

Collaborative Research: Modeling tradeoffs within food-, fear-, and thermal-scapes to explain habitat selection by mammalian herbivores. \$360,272 (WSU) \$950,000 (Team). NSF. L. A. Shipley. (5/12 – 5/16).

The influence of nutrition and toxins in selection of sagebrush plants by sage grouse. S. J. Murdock Charitable Trust – Partners in Science. L. A. Shipley and R. Perleberg. \$15,000. (2/12 – 2/14).

The Influence of Forest Herbicides on the Nutritional Ecology of Black-tailed Deer in Western Washington. \$200,000. Washington Department of Fish and Wildlife. P.I. L. A. Shipley, M. Swanson, J. Cook, R. Cook. (6/11 – 5/14).

The Influence of Forest Herbicides on the Nutritional Ecology of Black-tailed Deer in Western Washington. \$75,000. Muckleshoot Indian Tribe. P.I. L. A. Shipley, M. Swanson, J. Cook, R. Cook. (1/12 – 12/14).

Assessing the Effectiveness of Targeted Cattle Grazing for Improving Wildlife Habitat on Wildlife Management Areas in Asotin County, Washington. Washington Department of Fish and Wildlife. Supplements - \$30,814. P.I.'s L. A. Shipley, and L. Hardesty. (3/08 – 3/14)

A Comparison of Habitat Selection by Two Sympatric Grouse Species following Translocation. Bureau of Land Management. \$79,300. P.I.: L. A. Shipley (1/10 - 8/15)

Assessing the prey base for ferruginous hawks: developing a monitoring protocol for jackrabbits in Washington. Bureau of Land Management. \$22,500. P.I. L. A. Shipley. 9/10-9/15.

Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. \$42,841. Washington Department of Fish and Wildlife. P.I.: L. A. Shipley. (3/11 - 9/11)

Sage grouse habitat mapping and analysis. Bureau of Land Management. \$25,000. P.I.: L. A. Shipley (1/10 - 12/11)

Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. \$98,164. Washington Department of Fish and Wildlife. P.I.: L. A. Shipley. (3/10 - 3/11)

Landscape restoration and spatial responses of bighorn sheep in Sinlahekin Wildlife Management Area. Washington Department of Fish and Wildlife. \$30,000. Co-P.I: M. E. Swanson and L. A. Shipley. (5/10-8/12).

A Comparison of Habitat Selection by Two Sympatric Grouse Species following Translocation. Bureau of Land Management. \$20,000. P. I.: L. A. Shipley. (1/09 - 12/09)

Testing effects of host variation on development, survival and fecundity of the tick *Dermacentor andersoni*. WSU Internal Seed Grant. \$16,900. P.I. J. Owen, Co-P.I.'s G. Scoles and L. A. Shipley. 5/09-8/10.

Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$90,846. (8/08-8/09).

Assessing the Effectiveness of Targeted Cattle Grazing for Improving Wildlife Habitat on Wildlife Management Areas in Asotin County, Washington. Washington Department of Fish and Wildlife. \$428,802. P.I.'s L. A. Shipley, and L. Hardesty. (3/08 – 3/12)

Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. \$153,626. Co-P.I.: L. A. Shipley and R. Saylor. 6/07 – 5/08.

Movements of pronghorn in Owyhee region of southeastern Oregon. Oregon Department of Fish and Wildlife. \$76,678. P.I. L. A. Shipley (8/15/07 – 8/14/09).

Ecology of badgers in eastern Washington. Washington Department of Fish and Wildlife. \$3000. P. I. L. A. Shipley (10/06 – 12/07)

Ecology of badgers in eastern Washington. National Fish and Wildlife Foundation. \$86,710. P.I.: L. A. Shipley. (5/06-12/07)

Home range and habitat selection of North American badgers. Bureau of Land Management. \$25,000. P.I.: L. A. Shipley (4/06 – 5/07)

- Home range and habitat selection of North American badgers. Bureau of Land Management. \$29,133 P.I.: L. A. Shipley. (5/05–4/06)
- North temperate ecosystem level responses to enhanced UV-B radiation. USDA UVB Monitoring and Research Program/CSU. \$67,500. P.I.: J. H. Bassman and L. A. Shipley. (8/05-7/06)
- Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$115,200. (5/05-5/06).
- Effects of forage enhancement on Roosevelt elk in the Wynoochee River Valley of Western Washington. Rocky Mountain Elk Foundation. \$15,000. P.I.: L. A. Shipley and E. Lopez-Perez. (8/04/7/05).
- North temperate ecosystem level responses to enhanced UV-B radiation. USDA UVB Monitoring and Research Program/CSU. \$67,500. P.I.: J. H. Bassman and L. A. Shipley. (8/04-7/05)
- North-temperate ecosystem level responses to enhanced UV-B radiation. USDA UVB Monitoring and Research Program. \$76,643. P.I.: J. H. Bassman, L. A. Shipley, and R. Robberecht (8/03-7/04).
- Evaluating the benefits of mitigation fields to Roosevelt elk on the Olympic Peninsula. Washington Department of Fish and Wildlife. P.I.: L. A. Shipley. \$20,000. (6/03-6/04).
- Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$81,500. (6/04-4/05).
- Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$94,000. (4/03-6/04).
- Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$71,000. (5/02-4/03).
- Captive breeding and restoration of the endangered Columbia Basin pygmy rabbit. Washington Department of Fish and Wildlife. Co-P.I.: L. A. Shipley and R. Saylor. \$28,000. (8/01-6/02).
- Predation and nutrition of mule deer in North-central Washington. Bonneville Power Administration. Co-P.I.: R. Wiegus, L.A. Shipley, W. Myers, and C. T. Robbins. \$1,200,000 (8/01-7/06) --
- Acquisition of a stable isotope mass spectrophotometer facility for life sciences studies. National Science Foundation. Co-P.I.: R. Lee, G. Edwards, co-leaders: K. A. Johnson, C. T. Robbins, M. L. Kahn, L. A. Shipley, M. K. McGuire. \$288,889 (8/01-7/04).
- Collaborative Research: Responses of mammalian herbivores to spatial heterogeneity expressed at multiple scales. National Science Foundation, Ecology Program. \$450,000. Co P.I.: L. A. Shipley, N. T. Hobbs, B. A. Wunder, and Thomas (5/00-5/03).
- The ecology and population dynamics of small antelope in the Matopos National Park, Zimbabwe. Disney Conservation Fund. \$5000. Co P.I.: L. A. Shipley, A. Plowman. (6/00-6/01).
- Effect of livestock grazing on pygmy rabbits in Eastern Washington. Washington Department of Fish and Wildlife. \$90,000. Co-PI: R. Saylor, L. A. Shipley, and L. Hardesty. (10/99-10/02).
- Ecological correlates of reproductive season in Eld's deer (*Cervus eldii*) in Chatthin Wildlife Sanctuary, Myanmar Thailand. Smithsonian Institution, Scholarly Studies Foundation. \$70,000. PI: S. Monfort. Co-Investigators: C. Wemmer, W. McShea, L. Shipley. (10/98-10/01)
- Evaluating Wolfin as a repellent to wildlife on roads in Washington. Washington State Department of Transportation. \$25,000. (9/97-9/99). Co-P.I.: L. A. Shipley, D. Nolte, J. Schafer.

Predicting nutritional value of foods for beavers USDA, Forest Service. \$80,000. (4/98 - 5/01)
Co-P.I.: L. A. Shipley and T. A. Hanley.

Influence of white-tailed deer on survival and density of rare and endangered spring wildflowers in the Potomac Basin. Washington Biologists' Field Club. \$1926. (7/96-7/97).P.I.: L. A. Shipley.

Developing a remote system for marking wildlife: a method for studying rare and secretive mammals in the neotropics Frostburg State University, Faculty Development Grants.\$750. (5/96-6/96). P.I.: L. A. Shipley

Influence of white-tailed deer on rare spring wildflowers in the Appalachian mountains. Smithsonian Institution. \$4800 (3/95-3/96). P.I.: L. A. Shipley

Foraging decisions of mammalian herbivores: optimal bite size and patch dynamics. National Science Foundation, International Programs. \$28,220. (6/94-8/95). P.I.: L. A. Shipley.

RECENT MEDIA COVERAGE OF RESEARCH

Foraging rabbits. Science Nation. National Science Foundation.

https://www.nsf.gov/news/special_reports/science_nation/foragingrabbits.jsp

Chasing pygmy rabbits in the desert. Slate.

http://www.slate.com/articles/video/video/2016/11/sagebrush_steppe_is_under_threat_scientist_study_rabbits_to_help.html

Ocelot message boards. Science Magazine.

<http://www.sciencemag.org/news/2016/12/ocelot-bathrooms-are-meeting-place-several-central-american-mammals>

TEACHING:

Courses designed and taught:

- | | |
|-----------------|--|
| Current: | Methods in Wildlife Ecology (NATRS 310, 2012-15)
Wildlife Habitat Ecology (NATRS 446, 2012-14)
Foraging Ecology of Herbivores (NATRS 556/RANGE 556, 2000, 03, 09, 11, 14)
Graduate Seminar in Natural Res. Sci. (NATRS 595, 1998, 2002-05,07,10,12,14) |
| Previous: | Introductory Wildlife Management (NATRS 280, 1997-11)
Advanced Wildlife Management (NATRS 436/536, 1997-11)
Natural Resources Ecology (with J. Bassman, NATRS 300, 1997)
Wildlife Techniques (BIOL 330, FSU, 1995-96)
Ecology and Mgmt.of Wildlife Populations (BIOL 450/550, FSU,1995-96),
Island Biogeography and Reserve Design (BIOL 641, FSU, 1995)
Scientific Communication and Investigation (BIOL 200, FSU, 1996)
Wildlife Techniques Lab (Texas A&M, 1992) |
| Guest lectures: | Introduction to Animal Science, Anim_Sci 101, 2014-16
Wildlife Management (WLF 492, University of Idaho, 2015-16)
Wildlife Ecology 1(University of Idaho, WLF314, 2001-05, 07-12) |

Introduction to Natural Resource Management (NATRS100,WSU,1997-2000,09-11)
 Foraging Behavior of Rangeland Herbivores (University of Idaho, Graduate course, 1998)
 Graduate Seminar (NATRS 595, WSU, 2000,11,12,14)

Invited teaching seminars:

Shipley, L. A. 2007. Wacky and wonderful wildlife Down Under. WSU student chapter of The Wildlife Society. Pullman, Washington. April.

Shipley, L. A. 2006. Maximizing the impact of service learning: A top down and bottom up approach. Opening remarks and panelist for Service Learning Forum. Pullman, WA. May.

Shipley, L. A. 2005. Does just wanna have fawns. Whitman Country Sportsman's Association, Pullman, WA

Shipley, L. A. 2003. Linking nutrition to reproduction in declining mule deer populations. Asotin County Sportsman's Association, Clarkston, Wash. March.

Shipley, L. A. 2003. Ecology and Restoration of Endangered Columbia Basin Pygmy Rabbits Palouse Audubon Society, Moscow, ID. October.

Shipley, L. A. 2003. Landscape disturbance and wildlife management. Ecosystem Management and Landscape Ecology Course, Washington State University, Pullman, WA. April.

Shipley, L. A. 2002. Declining mule deer in Washington: Links between nutrition and reproduction. Whitman County Sportsman's Association. November.

Shipley, L. A. 2001. Ecology and restoration of endangered pygmy rabbits in Washington. Kiwanis, Pullman, WA. July 2001.

Shipley, L. A., D. Swanson, and T. Rane. 2000. Directed experience: The good, the bad, and the ugly. Western Region Teaching Conference, October, WSU.

Shipley, L. A. 1999. Enhancing reflection activities in relation to service learning in Introductory Wildlife Management. Community Service Learning Center Faculty Forum, April 1999, WSU.

Shipley, L. A. 1998. Radiotelemetry as a tool in wildlife science. 8th Annual Agriscience Leadership Experience "Agriculture: Real Science, Real Solutions", College of Agriculture and Home Economics, WSU.

Shipley, L. A., and L. A. Felicetti. 1997, 1998 Beep... beep...beep. Where in the world is that animal? Natural Resources for Girls Workshop, Moscow, ID.

Shipley, L. A. 1996. Women in science and academics in the U.S. Invited seminar for Swedish University of Agricultural Sciences, Umeå, Sweden.

GRADUATE STUDENT SUPERVISION

Master's theses (19)

Heale, J. (in progress, target 5/18). Movement patterns of resident and translocated Columbian white-tailed deer. School of the Environment, Washington State University, Pullman, WA.

Hull, I. (in progress, target, 12/18). Predicting the effects of thinning and prescribed burning on mule and white-tailed deer in Northeastern Washington. School of the Environment, Washington State University, Pullman, WA.

Berry, S. 2017. Comparison of nutritional and foraging ecology of mule and white-tailed deer in northeastern Washington. School of the Environment, Washington State University, Pullman, WA.

Crowell, M. 2015. Food and fears: Responses of specialist and generalist rabbits to diet and predation risk. School of the Environment, Washington State University, Pullman, WA.

Baker, T. 2015. (co-advisor). Responses of bighorn sheep to forest restoration activities. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Stonehouse, K. 2013. A comparison of survival, productivity, and habitat selection by sympatric, translocated sage and sharp-tailed grouse. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Wagoner, S. 2011. Assessing the Effectiveness of Targeted Cattle Grazing for Improving Wildlife Habitat on Wildlife Management Areas in Asotin County, Washington. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

McCusker, S. 2009. An evaluation of commercial diets for wild browsing herbivores. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Dalton, K. 2009. Movements of pronghorn in southeastern Oregon. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Paulson, N. 2007. Spatial and habitat ecology of North American badgers (*Taxidea taxus*) in a native shrubsteppe ecosystem of eastern Washington. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Kuhn, E. 2006. Nutritional ecology of blue duikers. M. S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Johnstone-Yellin, T. 2004. Body condition and survival of mule deer fawns in Eastern Washington. M.S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Davila, T. 2004. Nutritional ecology of the Columbia Basin pygmy rabbit. M.S. Thesis, Dept. Natural Resource Sciences, Washington State Univ., Pullman, WA.

Huenefeld, R. E. 2002. Trade-offs between vigilance and foraging made by woodland caribou in response to group size and forest structure. Department of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Siegel, N. J. 2002. Effect of livestock grazing on pygmy rabbits in Eastern Washington. Dept. of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Vandervelde, T. 2001. Responses of mammalian herbivores to spatial heterogeneity at multiple scales. Dept. of Natural Resource Sciences, Washington State Univ., Pullman, WA

Fletcher, J. D. 1999. The effects of herbivory by white-tailed deer (*Odocoileus virginianus*) on the survival and distribution of native wildflowers. Dept. of Biology, Frostburg State Univ., Frostburg, MD.

Wenninger, P. S. 1999. A comparison of digestion, rumination, harvesting, and passage on fruit and leaf diets by blue duikers. Dept. of Biology, Frostburg State Univ., Frostburg, MD.

Felicetti, L. A. 1998. Dry matter, fiber, and nitrogen digestibility of natural forages eaten by North American porcupines (*Erethizon dorsatum*). Dept. of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Ph.D. Dissertations (8)

Olsoy, P. (co-advisor, in progress, target 12/17). Habitat mapping and multi-scale resource selection of pygmy rabbits with unmanned aerial systems, Washington State University, Pullman, WA.

Camp, M. 2017. The balancing act of foraging: Mammalian herbivores tradeoff multiple risks when selecting food patches, Washington State University, Pullman, WA.

Ulappa, A. 2015. Influence of forest herbicides on nutritional ecology of black-tailed deer, Washington State University, Pullman, WA.

Cook, R. 2011. Links between forage quality and heterogeneity of forage use at multiple scales by elk. Ph.D. Dissertation, Department of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Johnstone-Yellin, T. 2010. Effects of resource availability on life history traits of herbivores. Ph.D. Dissertation, Department of Natural Resource Sciences, Washington State University, Pullman, WA.

Tollefson, T. 2007. Effects of summer-autumn forage quality on reproduction in mule deer. Ph.D. Dissertation, Department of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Thines, N. J. Siegel. 2006. Effects of Enhanced Solar UV-B Radiation On Secondary Metabolites In Forage Plants And Consequences For Mammalian Herbivores, Ph.D. Dissertation, Department of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Lopez-Perez, E. 2006. Effects of forage enhancement on Roosevelt elk in the Wynoochee River Valley of Western Washington. Ph.D. dissertation, Department of Natural Resource Sciences, Washington State Univ., Pullman, WA.

Postdoctoral researchers

Wiggins, N. 2012-13. Fulbright fellow. Selection for sagebrush species by pygmy rabbits. (together with J. Forbey at Boise State University)

McClure, M. 2002-06. Movement patterns and intake rates of woolly bears in scale-invariant environments.

UNDERGRADUATE RESEARCH & PROJECT SUPERVISION (86)

B. Tegt	Honor's theis	2017	WSU	Foraging by pikas at CROM
J. Chapman	Internship	2017	WSU	Pika behavior
C. Ellinsgen	Honors thesis	2016	WSU	Nutrition of cheetahs
Q. Zenino	IGNITE scholar	2016	WSU	Nutrition of deer diets
M. Durham	Special project	2016	WSU	Rabbit response to thermal refuge
C. Kightinger	IGNITE scholar	2016	WSU	Measuring animal personality
D. Navarro	McNair research	2015-16	WSU	Calibrating accelerometers
E. Koch	Special project	2015	WSU	Fawn growth
K. Wat	Special project	2014	WSU	Elk habitat selection
A. Rus	Special project	2014	WSU	Grouse nest success
L. Weyand	Special project	2014	WSU	Distance vs. food
M. Wagner	Internship	2013	WSU	Pygmy rabbit husbandry

M. Crowell	Special project	2012	WSU	Choice of food qual. in pygmy rabbits
K. Jones	Honor's thesis	2012	WSU	Use of sea turtles in Madagascar
M. Iredale	Honor's thesis	2012	WSU	Terpene tolerance in deer
A. Adams	Internship	2012	WSU	Zoo internship
J. Schuster	Special project	2012	WSU	Wildlife rehabilitation
K. Meline	Special project	2012	WSU	Western pond turtles
K. Wollstein	Honor's thesis	2011	WSU	Australian amphibians
J. Brandvold	Honor's thesis	2011	WSU	African wildlife abundance
C. Anderson	Internship	2011	WSU	Riparian habitat
R. Byington	Internship	2011	WSU	Fish hatchery management
Z. Oppenheimer	Internship	2011	WSU	Training mule deer fawns
H. Panaro	Internship	2010	WSU	Pygmy rabbit husbandry
F. Paige	Internship	2010	WSU	Grouse movements
M. Watkins	Internship	2010	WSU	Zoo nutrition & telemetry
A. Burleson	Internship	2010	WSU	Pygmy rabbit husbandry
C. Freeman	Internship	2009	WSU	Pygmy rabbit husbandry
K. Jones	Special project	2009	WSU	Pygmy rabbit husbandry
K. Haley	Special project	2009	WSU	Pygmy rabbit husbandry
E. Olk	Internship	2009	WSU	Pygmy rabbit husbandry
K. Stewart	Internship	2009	WSU	Pygmy rabbit husbandry
J. Oetinger	Internship	2009	WSU	Biodiversity in Costa Rica
J. Turner	Internship	2009	WSU	Mule deer husbandry
J. McDonald	Internship	2009	WSU	Mule deer husbandry
A. Thresher	Honor's thesis	2009	WSU	Endangered livestock breeds
J. Mosely	Special project	2009	WSU	Woolly bear growth
M. Leiper	Internship	2009	WSU	Pygmy rabbit husbandry
D. Machinski	Internship	2009	WSU	State Park management
T. Harvey	Internship	2009	WSU	State Park management
I. Gilbert	Internship	2009	WSU	Avian flu monitoring
C. Schudel	Internship	2008	WSU	Mule deer nutrition
J. Harper	Internship	2008	WSU	Invasive plants
P. Fujihara	Internship	2008	WSU	Raptor rehab in Dubai
E. Moon	Internship	2008	WSU	Pygmy rabbit husbandry
H. Starr	Internship	2008	WSU	Pygmy rabbit husbandry
C. Read	Internship	2007	WSU	Training fawns for diet studies
G. Rasmussen	Internship	2007	WSU	Grizzly foraging in YNP
J. Erlenbach	Internship	2007	WSU	Grizzly foraging in YNP
A. Jones	Internship	2007-08	WSU	Pygmy rabbit husbandry
L. Dailey	Internship	2007-08	WSU	Pygmy rabbit husbandry
A. Williams	Special Project	2007	WSU	Detecting sagebrush with NIRS
G. Watson	Senior thesis	2006	WSU	Half-A WHIP project
A. Nielson	Senior thesis	2006	WSU	Gestation in pygmy rabbits
J. Pope	Senior thesis	2006	WSU	Digestibility in deer
S. McCusker	Internship	2005	WSU	Internship in Australia
K. Clayton	Internship	2005	WSU	PNNL internship on raptors
E. Kuhn	Senior thesis	2004	WSU	C13 to measure food passage
G. Wilson	Senior thesis	2004	WSU	Nonsoil breeding of pygmy rabbits
J. Jackson	Senior thesis	2004	WSU	Handrearing pygmy rabbits
R. Gerlinger	Senior thesis	2004	WSU	HSI for Northern leopard frogs
J. Jackson	Internship	2004	WSU	Managing wild cats in captivity
R. Gerlinger	Internship	2003	WSU	Habitat Suitability Index Modelling
Z. Holderby	Honor's thesis	2003	WSU	Perceptions of ecosystems
D. Ravenol	Internship	2002	WSU	Health and life history of prairie dogs
M. Monahan	Senior thesis	2002	WSU	Growth of hand-raised mule deer
J. Herin	Senior thesis	2002	WSU	Dispersal of pygmy rabbits
J. Capelli	Senior thesis	2002	WSU	Social dominance in mule deer

L. Hughs	Senior thesis	2002	WSU	Fecal progesterone in pygmy rabbits
C.Lindstrand	Special project	2002	WSU	Behavior and enrichment of duikers
T. Waters	Special project	2002	WSU	Diet composition of owls
H. Dudley	Honor's thesis	2002	WSU	Riparian restoration
B. Elias	Special project	2001-2002	WSU	Environmental education
A. Conrath	Honor's thesis	2002	WSU	Home range of mule deer
M. Fisher	Special project	2000	WSU	Functional response of caribou
M. Cleland	Special project	2000	WSU	Gain function of caribou
C. Sipe	Special project	1999	WSU	Diet selection by porcupines
A. Winters	Senior thesis	1999	WSU	Rumination and passage of duikers
K. Berg	Special project	1998	WSU	Harvesting by duikers
L. Schwartz	Senior thesis	1998	WSU	Patch departure of caribou
J. Bloomfield	Internship	1998	WSU	Interpretation of captive wolves
S. Jenkins	Senior thesis	1997	WSU	Passage of duikers & porcupines
N. Strand	Special projects	1997-1998	WSU	Harvesting by porcupines
H. Degrow	Howard Hughes Fellow	1997-1998	WSU	Effects of tannins on duikers
K. Cooper	Senior thesis	1997	WSU	Effects of tannins on rabbits
R. Bivens	Senior thesis	1996	FSU	Effects of environmental education

OTHER RESEARCH SUPERVISION

D. Jacobsen	High school student	2012		Food preference by mule and black-tailed deer
R. Perleberg	High school teacher	2012-14		Preference for sagebrush by sage grouse

EXTRAMURAL FUNDING FOR TEACHING

Students helping private landowners improve wildlife habitat in Washington: A pilot project combining Community Service Learning and WSU Extension, Community Service Learning Center Pilot Project, Washington State University, \$1500 (8/03-12/03) Co-P.I.'s: L. A. Shipley and J. Creighton.

Evolution and Behavior: An interdisciplinary Seminar Series, Office of Research, WSU \$4900 (8/03-8/04) Co-P.I.'s: M. Collard, L. Corley, T. Kohler, W. Lipe, R. Newberry, C. Parks, H.Schwabl, S. Sheppard, L. Shipley, G. Thorgaard, P. Verrell, M. Webster.

Enhancing reflection activities in relation to service learning in Introductory Wildlife Management. Community Service Learning Center Minigrant, Washington State University, P. I.: L. A. Shipley. \$750. (7/98)

Field experiences for wildlife students: a hands-on conservation project in the Appalachian ecosystem Frostburg State University, Faculty Development. \$1200. (10/95-10/96). P.I.: L. A. Shipley

SERVICE

Professional Service

- Ph.D. Opponent, Mid-Sweden University (2015)
- Associate Editor, Journal of Mammalogy (2011-14)
- Reviewer for 5 tenure and promotion packages
- President-elect, Northwest Section of The Wildlife Society (2011-13)
- Review panel for NSF Integrative Ecological Physiology (16) Ecology of Infectious Disease program (07, 08, 15), Dissertation Enhancement grants DEB (10), East Asia and Pacific Summer Institutes Program (04), Integrative Ecological Physiology (16)
- External reviewer for Ph.D. dissertation, Australian National University (06, 07)
- Review panel for Canon research fellowships (05)

- Ad hoc reviewer for NSF, Ecology, American Naturalist, Oecologia, Journal of Wildlife Management, Journal of Chemical Ecology, Physiological and Biochemical Zoology, Functional Ecology, Journal of Animal Ecology, Journal of Range Management, Wildlife Monographs, Tropical Ecology, Northeastern Naturalist, Northwest Science, Forest Ecology and Management, Natural Areas Journal, Acta Oecologia (among others)
- Member of The Wildlife Society (86-present)
- Member of Comparative Nutrition Society (95-00)
- Member of Ecological Society of America (90-93)
- Member of American Society of Mammalogists (88, 07-08, 11-present)
- Member of American Zoo and Aquarium Association (97)
- Member of Xi Sigma Pi (85-present)
- Serve on Pygmy Rabbit Science Advisory Board (01-present)
- Serve on USFWS Pygmy Rabbit Recovery Team (03-present)
- Served on Faculty Search committee for Department of Wildlife at University of Idaho (00, 15)

Service to Department/School

Washington State University

- Undergraduate Studies committee (chair, 14-16)
- Advising Task Force (chair, 15)
- Faculty search committee (chair, 12-13, 15-16)
- Graduate studies committee (11-14)
- Mentoring committee for assistant professor (07-12, 14-16)
- Department Visions Committee (co-chair 08)
- Curriculum Committee (97-98, 03, chair 04-05, 09-12)
- Search Committees (Academic enrichment 98, Vancouver NRS 99-00, AP 08, Tri-Cities 16)
- Steffen Center Planning Committee (98-02)
- Advisor/co-advisor to the WSU Student chapter of The Wildlife Society (97-16)
- Tour and lecture for Natural Resources Institute (98-99)

Frostburg State University

- Undergraduate Biology Curriculum Committee (95-96)
- Assessment and Newsletter Committee (95-96)
- Computer Committee (95-96)
- Greenhouse Committee (95-96)
- Library Committee (95-96)
- Orientation for new wildlife students (96)
- Served on search committee for wildlife faculty position (96)

Service to College

Washington State University

- Faculty Research Advisory Committee (15-16)
- College of Arts and Sciences Undergraduate Advisory committee (15-16)
- CAHNRS Articulation committee (15-16)
- Forestry Program Task Force (13-14)
- CAHNRS T & P Revision Task Force (10-11)
- CAHNRS Promotion and Tenure Committee (05, 07-08)
- Women's history month committee (03-05)
- Hands-on radiotelemetry workshops for Agriscience Leadership Experience (98-00)
- Panel speaker for new faculty orientation (01)

Service to University

Washington State University

- Bear Center Task Force (14)
- Academic Integrity Board (13-15)
- Faculty Hearing Committee Panel (13)
- Faculty Status Committee (09-12)
- Task force chair for Implementation subcommittee for Goal 1.2 of Strategic Plan (04-05)
- Community Service Learning Advisory Board (98-03) Grants committee (99)
- Community Service Learning Strategic Planning Team (01)
- Tour and lecture for Summer Science Institute (97-98)

Frostburg State University

- Multicultural Education Work Group (1996)