

Janet L. Rachlow, Professor
Curriculum Vitae

Department of Fish and Wildlife Sciences
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PROFESSIONAL INTERESTS

Behavioral Ecology and Conservation of Mammals, Wildlife-Habitat Relationships, Ecology of the Sagebrush Ecosystem, Science Communication and Advocacy

PROFESSIONAL POSITIONS

Professor, Department of Fish and Wildlife Sciences, University of Idaho (2014 – present)
Associate Professor, Department of Fish and Wildlife Sciences, University of Idaho (2007 - 2014)
Assistant Professor, Department of Fish and Wildlife Sciences, University of Idaho (2001 - 2007)
Associate Editor, Journal of Mammalogy (2008 - 2011)
Associate Editor, Western North American Naturalist (2003 - 2006)
Program Co-Director, Ecology and Conservation Biology (Interdisciplinary undergraduate program at University of Idaho, 2001 - 2004)
Adjunct Faculty, School of Forestry, Northern Arizona University (1999 - 2000)

EDUCATION

1997 National Science Foundation NATO Postdoctoral Fellowship, Institute of Zoology, Zoological Society of London, UK.
1997 Ph.D. Ecology, Evolution and Conservation Biology, University of Nevada Reno.
1991 M.S. Wildlife Management, University of Alaska Fairbanks.
1987 B.A. Biology (Dance minor), University of Iowa.

AWARDS

2015 Outstanding Researcher Award, College of Natural Resources, University of Idaho
2009 Alumni Award for Excellence, University of Idaho
2008 Ted Trueblood Communications Award for best professional presentation, Idaho Chapter of The Wildlife Society
2007 Outstanding Advisor Award, College of Natural Resources, University of Idaho
2006 Alumni Award for Excellence, University of Idaho
2005 Friends of the Leadore Ranger District Award, US Forest Service

PERSONAL INTERESTS

Rafting/kayaking, swimming, cycling, running, gardening

GRADUATE STUDENTS MENTORED

Current:

Ian Smith, M.S. Pygmy rabbits under a Sage-grouse umbrella.

Lindsey Rush, M.S. Regional habitat assessments for pygmy rabbits across southern Idaho.

Kristen Busch, M.S. Understanding camouflage as a tool for teaching evolution.

Completed: (* named the outstanding graduate student in the Department of Fish and Wildlife Sciences)

Tom Schrempp, M.S. Diet selection, forage quality, and forage availability: could forage limit moose populations in northern Idaho? (Aug 2017)

* Charlotte Milling, PhD. The role of physiology, behavior, and habitat in seasonal thermoregulation by pygmy rabbits. (May 2017)

Laura McMahan, M.S. It's a small world: evaluating micro-GPS technologies and factors influencing habitat use by pygmy rabbits in Idaho. (May 2017)

Stephanie DeMay, PhD. Genetic monitoring and dispersal of reintroduced Columbia Basin pygmy rabbits. (Dec 2015)

Joe Holbrook, PhD. Wildlife in the sagebrush-steppe: understanding functional roles and responses to disturbance. (Dec 2015)

* Shaun Grassel, PhD. Ecological relationships of black-footed ferrets, American badgers, and black-tailed prairie dogs in South Dakota. (May 2015)

Joel Sauder, PhD. Landscape ecology of fishers (*Pekania pennanti*) in north-central Idaho. (Aug 2014)

Mat Sorum, M.S. Behavior-specific resource selection by Kodiak brown bears. (May 2013)

Adam Wells, PhD. Fine-scale habitat selection and movement models for mountain goats in the Washington Cascades. (May 2012)

* Meghan Camp, M.S. Grazing by cattle in pygmy rabbit habitat: implications for forage and cover resources. (May 2012)

Bonnie Woods, M.S. Fire in the sagebrush shrub-steppe: potential influence on pygmy rabbit habitat. (May 2012)

William Knapp, MNR. Review of information provided by BLM resource management plans for wind-energy developments. (Dec 2011)

Amanda Price, M.S. Monitoring of uncommon species: developing an index of abundance for pygmy rabbits. (Dec 2009)

Ethan Ellsworth, PhD. Snowshoe hare nutrition in a conifer forest: effects of winter food on energy use, activity, and demography in a low-density population. (Dec 2009; served as major professor after his advisor left UI)

* Wendy Estes-Zumpf, PhD. Dispersal and gene flow among pygmy rabbit (*Brachylagus idahoensis*) populations in Idaho and Southwestern Montana. (May 2008)

Jesse Lewis, M.S. The effects of human influences on black bear habitat selection and movement patterns within a highway corridor. (Dec 2007)

Dana Sanchez, PhD. Pieces of the pygmy rabbit puzzle: space use, survival, and survey indicators. (Dec 2007)

* Ryan Long, M.S. Fuels reduction in a western coniferous forest: effects on two sympatric ungulates and their habitat. (May 2007)

Jon Muir, M.S. Habitat selection and reproduction by Shiras moose (*Alces alces shirasi*) in anthropogenic landscapes in Idaho. (May 2006)

Regan Berkley, M.S. Ecological investigations into a declining population: California bighorn sheep (*Ovis canadensis californiana*) in Owyhee County, Idaho. (May 2005)

Jason Hicks, M.S. Patterns of genetic variability among source and reintroduced populations of elk (*Cervus elaphus*) in the Western States and a genetic assessment of antler abnormalities. (Dec 2004)

Alisse Garner, M.S. Genetic diversity and divergence in fragmented populations of the Idaho Ground Squirrel (*Spermophilus brunneus brunneus* and *S. b. endemicus*). (May 2004)

TEACHING EXPERIENCE

Undergraduate Courses Taught at University of Idaho:

- Ecology of Terrestrial Vertebrates (formerly Wildlife Ecology I) – 3 cr.
- Wildlife Techniques Lab (formerly Wildlife Ecology I Lab) – 2 cr.
- Wildland Field Ecology – 2 cr.
- Introduction to the Fish and Wildlife Profession – 1 cr.
- Exploring Natural Resources – 1 cr.
- Fish and Wildlife in a Changing World – 3 cr.

Graduate Courses Taught at University of Idaho:

- Behavioral Ecology – 2 cr.
- Wildlife Habitat Ecology – 2-3 cr.
- Large Mammal Ecology – 2-3 cr.
- Advanced Topics in Conservation Biology – 2 cr.
- Issues in International Wildlife Management – 3 cr.
- Seminars (1 cr): Occupancy Modeling (w/ O. Garton), Dispersal, Sagebrush Habitat Ecology (offered collaboratively with Washington State Univ. and Boise State Univ.)

Other Teaching Experience: Department of Biology and Wildlife, University of Alaska Fairbanks

Substitute Lecturer (1990) Lectured in Wildlife Population Dynamics for >2 months.

Teaching Assistant (1987 - 1990): Assisted in instruction of 6 undergraduate courses: Vertebrate Biology, Mammalogy, Introductory Biology I, Introductory Biology II, Wildlife Management Techniques, Wildlife Population Dynamics.

PEER- REFEREED PUBLICATIONS (* grad student senior author, ** undergrad senior author)

- * Nobler, J.D., M.J. Camp, M.M. Crowell, L.A. Shipley, C. Dadabay, J.L. **Rachlow**, L. James, and J.S. Forbey. 2018. Preferences of specialist and generalists mammalian herbivores for mixtures versus individual plant secondary metabolites. *Journal of Chemical Ecology*. <https://doi.org/10.1007/s10886-018-1030-5>
- * Milling, C.R., J.L. **Rachlow**, P.J. Olsoy, M.A. Chappell, T.R. Johnson, J.S. Forbey, L.A. Shipley, and D.H. Thornton. 2018. Habitat structure modifies microclimate: an approach for mapping fine-scale thermal refuge. *Methods in Ecology and Evolution*. 9:1648–1657.
- * Milling, C.R., J.L. **Rachlow**, M.A. Chappell, M.J. Camp, T.R. Johnson, L.A. Shipley, D.R. Paul, and J.S. Forbey. 2018. Seasonal temperature acclimatization in a semi-fossorial mammal and the role of burrows as thermal refugia. *PeerJ*. 6:e4511; doi10.7717/peerj.4511
- * Crowell, M.M., L.A. Shipley, J.S. Forbey, J.L. **Rachlow**, and R.G. Kelsey. 2018. Dietary partitioning of toxic leaves and fibrous stems differs between sympatric specialist and generalist mammalian herbivores. *Journal of Mammalogy*. 99:565–577.
- * Grassel, S.M. and J.L. **Rachlow**. 2018. When generalists behave as specialists: local specialization by American badgers. *Canadian Journal of Zoology*. 96: 592–599.
- * Camp, M.J., L.A. Shipley, C.R. Milling, J.L. **Rachlow**, and J.S. Forbey. 2018. Both temperature and food quality influence diet and patch selection of small mammalian herbivores. *Journal of Thermal Biology*. 71:83-90.
- * Olsoy, P.J., L.A. Shipley, J.L. **Rachlow**, J.S. Forbey, N.F. Glenn, M.A. Burgess, and D.H. Thornton. 2018. Unmanned aerial systems measure structural habitat features for wildlife across multiple scales. *Methods in Ecology and Evolution*. 9:594-604.

PEER- REFEREED PUBLICATIONS (continued)

- * McMahon, L.A., J.L. **Rachlow**, L.A. Shipley, J.S. Forbey, and T.R. Johnson. 2017. Habitat selection differs across hierarchical behaviors: selection of patches and intensity of patch use. *Ecosphere*. 8(11):e01993. doi:10.1002/ecs2.1993.
- * Camp, M.J., L.A. Shipley, T.R. Johnson, P. Olsoy, J.S. Forbey, J.L. **Rachlow**, and D. Thornton. 2017. The balancing act of foraging: mammalian herbivores trade-off multiple risks when selecting food patches. *Oecologia*. 185:537–549. (highlighted student paper)
- * Milling, C.R., J.L. **Rachlow**, T.R. Johnson, J.S. Forbey, and L.A. Shipley. 2017. Seasonal variation in behavioral thermoregulation and predator avoidance in a small mammal. *Behavioral Ecology*. 28:1236–1247.
- 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. 2017. Emerging technology to measure habitat quality and behavior of grouse: examples from studies of Greater Sage-grouse. *Wildlife Biology*. wlb.00238. doi: 10.2981/wlb.00238
- * DeMay, S.M., P.A. Becker, J.L. **Rachlow**, and L.P. Waits. 2017. Genetic monitoring of an endangered species recovery: demographic and genetic trends for reintroduced pygmy rabbits. *Journal of Mammalogy*. 98:350-364.
- * McMahon, L.A., J.L. **Rachlow**, J.S. Forbey, and L.A. Shipley, T.R. Johnson, and P.J. Olsoy. 2017. Evaluation of micro-GPS receivers for tracking small-bodied mammals. *PLoS ONE*. 12(3):e0173185. doi.org/10.1371/journal.pone.0173185
- * Bentley Brymer, A.L., J.D. Holbrook, R.J. Niemeyer, A.A. Suazo, J.D. Wulforst, K.T. Vierling, B.A. Newingham, T.E. Link, and J.L. **Rachlow**. 2016. A social-ecological impact assessment for public land management: application of a conceptual and methodological framework. *Ecology and Society*. 21:9.
- * Camp, M.J., J.L. **Rachlow**, R. Cisneros, D. Roon, and R.J. Camp. 2016. Evaluation of GPS telemetry collar performance in the tropical Andes of southern Ecuador. *Natureza and Conservação*. 14:128-131
- * Crowell, M.M., M.J. Camp, L.A. Shipley, J.L. **Rachlow**, and J.S. Forbey. 2016. Selection of food patches by sympatric herbivores in response to concealment and distance from a refuge. *Ecology and Evolution*. 6:2865-2876
- * DeMay, S.M., P.A. Becker, L.P. Waits, T.R. Johnson, and J.L. **Rachlow**. 2016. Consequences for conservation: population density and genetic effects on reproduction of an endangered lagomorph. *Ecological Applications*. 26:784-795.
- * Ellsworth, E., M. Boudreau, K. Nagy, J. Marshall, J.L. **Rachlow**, and D. Murray. 2016. Effects of supplemental food on winter energy expenditure and activity in free-ranging snowshoe hares. *Canadian Journal of Zoology*. 94:115-121.
- * Grassel, S.M., J.L. **Rachlow**, and C.J. Williams. 2016. Reproduction by black-tailed prairie dogs and black-footed ferrets: effects of weather and food availability. *Western North American Naturalist*. 76:405-416.
- * Holbrook, J.D., R.S. Arkle, D.S. Pilliod, J.L. **Rachlow**, K.T. Vierling, and M.M. Wiest. 2016. Transition of vegetation states positively affects harvester ants in the Great Basin, United States. *Rangeland Ecology and Management*. 69:449-456.
- * Holbrook, J.D., R.S. Arkle, K.T. Vierling, J.L. **Rachlow**, D.S. Pilliod, and M.M. Wiest. 2016. Effects of biotic and abiotic factors on occupancy and abundance of predator and prey: implications of the fire-cheatgrass cycle in sagebrush ecosystems. *Ecosphere*. 7(6):e01307. doi:10.1002/ecs2.1307
- ** Parsons, M.A., T.C. Barkley J.L. **Rachlow**, J.L. Johnson-Maynard, T.R. Johnson, C.R. Milling, J.E. Hammel, and I. Leslie. 2016. Cumulative effects of an herbivorous ecosystem engineer in a heterogeneous landscape. *Ecosphere*. 7(3):e01334. doi:10.1002/ecs2.1334.
- * Utz, J.L., L.A. Shipley, J.L. **Rachlow**, T. Johnstone-Yellin, M.J. Camp, and J.S. Forbey. 2016. Understanding trade-offs between predation and food risks in a specialist mammalian herbivore. *Wildlife Biology*. 22:167-173.

PEER- REFEREED PUBLICATIONS (continued)

- * Camp, M.J., L.A. Shipley, T.R. Johnson, J.S. Forbey, J.L. **Rachlow**, and M.M. Crowell. 2015. Modeling tradeoffs between the risk of starvation and toxicity: A framework for understanding habitat selection. *Ecology*. 96:3292–3302.
- * DeMay, S.M., J.L. **Rachlow**, L.P. Waits, and P.A. Becker. 2015. Comparing telemetry and fecal DNA sampling methods to quantify survival and dispersal of juvenile pygmy rabbits. *Wildlife Society Bulletin*. 39:413-421. (cover photo)
- * Grassel, S.M., J.L. **Rachlow**, and C.J. Williams. 2015. Spatial interactions between sympatric carnivores: asymmetric avoidance of an intraguild predator. *Ecology and Evolution*. 5:2762-2773.
- * Holbrook, J.D., R.S. Arkle, J.L. **Rachlow**, K.T. Vierling, and D.S. Pilliod. 2015. Sampling animal sign in heterogeneous environments: how much is enough? *Journal of Arid Lands*. 119:51-55.
- * Olsoy, P.J., J.S. Forbey, J.L. **Rachlow**, J.D. Nobler, N.F. Glenn, L.A. Shipley. 2015. Fearscape: mapping functional cover of prey with terrestrial LiDAR. *BioScience*. 65:74-80.
- Pu, X., L. Lam, K. Gehlken, A.C. Ulappa, J.L. **Rachlow**, and J. Sorensen Forbey. 2015. Antioxidant capacity of Wyoming big sagebrush (*Artemisia tridentate ssp. Wyomingensis*) varies spatially and is not related to the presence of a sagebrush dietary specialist. *Western North American Naturalist*. 75:78-87.
- * Sauder, J. and J.L. **Rachlow**. 2015. Fine-scale forest heterogeneity influences habitat selection by fishers (*Pekania pennanti*) within home ranges. *Forest Ecology and Management*. 347:49-56.
- ** DeMay, S.M., D.A. Roon, J.L. **Rachlow**, and R. Cisneros. 2014. Selective foraging on bromeliads by Andean bears in the Ecuadorian paramo. *Ursus*. 25:139-147.
- * Ulappa, A.C., R.G. Kelsey, G.G. Frye, J.L. **Rachlow**, X. Pu, L. Bond, and J.S. Forbey. 2014. Plant proteins and secondary metabolites influence diet selection in a mammalian specialist herbivore. *Journal of Mammalogy*. 95:834-842.
- Rachlow**, J.L., R.M. Peter, L.A. Shipley, and T.R. Johnson. 2014. Sublethal effects of capture and collaring: experimental and field evidence. *Wildlife Society Bulletin*. 38:458-465.
- * Camp, M.J., J.L. **Rachlow**, L.A. Shipley, T.R. Johnson, and K.D. Bockting. 2014. Habitat specialists in multiple use landscapes: grazing and pygmy rabbits. *The Rangeland Journal*. 36:151-159.
- Estes-Zumpf, W.A., S.E. Zumpf, J.L. **Rachlow**, J.R. Adams, and L.P. Waits. 2014. Genetic evidence confirms the presence of pygmy rabbits in Colorado. *Journal of Fish and Wildlife Management*. 5:118-123.
- * Sauder, J. and J.L. **Rachlow**. 2014. Both forest composition and configuration influence landscape-scale habitat selection by fishers (*Pekania pennanti*) in the Rocky Mountains of Idaho. *Forest Ecology and Management*. 314:75-84.
- * Wells, A.G., C.C. Blair, E.O. Garton, C.G. Rice, J.S. Horne, J.L. **Rachlow**, and D.O. Wallin. 2014. The Brownian Bridge synoptic model of habitat selection and space use for animals using GPS telemetry data. *Ecological Modelling*. 273: 242-250.
- * DeMay, S.M., P.A. Becker, C.A. Eidson, J.L. **Rachlow**, T.R. Johnson, and L.P. Waits. 2013. Evaluating noninvasive genetic monitoring for endangered pygmy rabbit recovery efforts. *Molecular Ecology Resources*. 13:654-662.
- Haines, A.M., M. Zak, K. Hammond, J. M. Scott, D.D. Goble, J.L. **Rachlow**. 2013. The need to incorporate uncertainty into recovery goals for endangered species. *Animals*. 3:745-753.
- * Woods, B.A., J.L. **Rachlow**, C. Bunting, T.R. Johnson, and K.D. Bockting. 2013. Managing high-elevation sagebrush steppe: do conifer encroachment and prescribed fire affect habitat for pygmy rabbits? *Rangeland Ecology and Management*. 66:462-471.
- * Camp, M.J., J.L. **Rachlow**, B.A. Woods, 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(2):19. doi.org/10.1890/ES12-00114.1
- * Sauder, J.D., J.L. **Rachlow**, and M.M. Weist. 2012. Influence of topography and canopy cover on Argos satellite telemetry performance. *Wildlife Society Bulletin*. DOI: 10.1002/wsb.157.

PEER- REFEREED PUBLICATIONS (continued)

- * 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 cover and distance to refugia on perceptions of predation risk. *Ethology*. 118:1010–1017.
- * Wells, A.G., J. L. **Rachlow**, E.O. Garton, and C.G. Rice. 2012. Mapping vegetation communities across home ranges of mountain goats in the North Cascades for conservation and management. *Applied Vegetation Science*. 15:560-570.
- Bowyer, R.T., J.L. **Rachlow**, K.M. Stewart, and V. Van Ballenberghe. 2011. Vocalizations by Alaskan moose: female incitation of male aggression. *Behavioral Ecology and Sociobiology*. 65:2251-2260.
- Adams, J.R., C.S. Goldberg, B. Bosworth, J.L. **Rachlow**, and L.P. Waits. 2011. Rapid species identification of pygmy rabbits (*Brachylagus idahoensis*) from faecal pellet DNA. *Molecular Ecology Resources*. 11:808-812.
- * Lewis, J.S. and J.L. **Rachlow**. 2011. Activity patterns of black bears related to sex, season, and daily movement rates. *Western North American Naturalist*. 71:388-395.
- ** Falcón-Linero, W., C.S. Goldberg, L.P. Waits, W.A. Estes-Zumpf, and J.L. **Rachlow**. 2011. First record of multiple paternity in the pygmy rabbit (*Brachylagus idahoensis*): Evidence from analysis of 16 microsatellite loci. *Western North American Naturalist*. 71:271-275.
- * Price, A.J. and J.L. **Rachlow**. 2011. Development of an index of abundance for pygmy rabbits. *Journal of Wildlife Management*. 75:929-937.
- * Lewis, J.S., J.L. **Rachlow**, J.S. Horne, E.O. Garton, W.L. Wakkinen, J.A. Hayden, and P. Zager. 2011. Identifying habitat characteristics to predict highway crossing areas for black bears within a human-modified landscape. *Landscape and Urban Planning*. 101:99-107.
- * Estes-Zumpf, W.A., J.L. **Rachlow**, L.P. Waits, and K.I. Warheit. 2010. Dispersal, gene flow, and population genetic structure in the pygmy rabbit (*Brachylagus idahoensis*). *Journal of Mammalogy*. 91:208-219
- * Price, A.J, W.A. Estes-Zumpf, and J.L. **Rachlow**. 2010. Survival of juvenile pygmy rabbits. *Journal of Wildlife Management*. 74:43-47.
- * Sanchez, D.M., J.L. **Rachlow**, A.P. Robinson, T.R. Johnson. 2009. Survey indicators for pygmy rabbits: temporal trends of burrow systems and pellets. *Western North American Naturalist*. 69:426-436.
- * Long, R.A., J.L. **Rachlow**, and J.G. Kie. 2009. Sex-specific responses by elk to fuels reduction in a Western coniferous forest. *Journal of Mammalogy*. 90:423-432.
- * Estes-Zumpf, W.A. and J.L. **Rachlow**. 2009. Natal dispersal by the pygmy rabbit (*Brachylagus idahoensis*). *Journal of Mammalogy*. 90: 363-372.
- * Long, R.A., J.D. Muir, J.L. **Rachlow**, and J.G. Kie. 2009. Evaluation of wildlife-habitat relationships: a comparison of two model-building approaches. *Journal of Wildlife Management*. 73:294-302.
- * Long, R.A., J.L. **Rachlow**, and J.G. Kie. 2008. Response of elk and deer to experimental habitat manipulation: effects of season and scale. *Journal of Wildlife Management*. 72:1133-1142.
- * Sanchez, D.M. and J.L. **Rachlow**. 2008. Spatio-temporal factors affecting space use by pygmy rabbits. *Journal of Wildlife Management*. 72:1304-1310.
- Scott, J.M., J.L. **Rachlow**, and R.T. Lackey. 2008. Policy and position statements: what is an appropriate role of professional societies? *Bioscience*. 58:865-869.
- * Estes-Zumpf, W.A., J.L. **Rachlow**, and L.P. Waits. 2008. Ten polymorphic microsatellite markers for the pygmy rabbit (*Brachylagus idahoensis*). *Molecular Ecology Resources*. 8:360-362
- * Horne, J.S., E.O. Garton, and J.L. **Rachlow**. 2008. A synoptic model of animal space use: simultaneous analysis of home range, habitat selection, and inter/intra-specific relationships. *Ecological Modelling*. 214:338-348.
- * Long, R.A., J.L. **Rachlow**, J.G. Kie, and M. Vavra. 2008. Fuels reduction in a Western coniferous forest: effects on quantity and quality of forage for elk. *Rangeland Ecology and Management*. 61:302-313.

PEER- REFEREED PUBLICATIONS (continued)

- * Lewis, J.S., J.L. **Rachlow**, E.O. Garton, L.A. Vierling. 2007. Effects of habitat on GPS collar performance: addressing location error. *Journal of Applied Ecology*. 44:663-671.
- Scott, J.M., J.L. **Rachlow**, R.T. Lackey, A.B. Pidgnorna, J.L. Aycrigg, G.R. Feldman, L.K. Svancara, D.A. Rupp, D.I. Stanish, and R.K. Steinhorst. 2007. Policy advocacy and science: prevalence in the research literature and perspectives of conservation biologists. *Conservation Biology*. 21:29-35.
- * Hicks, J.F., J.L. **Rachlow**, O.G. Rhodes, Jr., C.L. Williams, and L.P. Waits. 2007. Reintroduction and genetic structure: Rocky Mountain elk in Yellowstone and the western States. *Journal of Mammalogy*. 88:129-138.
- * Estes-Zumpf, W.A. and J.L. **Rachlow**. 2007. Radio transmitters for juvenile lagomorphs: an evaluation for the semi-fossorial pygmy rabbit. *Western North American Naturalist*. 67:133-136.
- Rachlow**, J.L. and L.K. Svancara. 2006. Prioritizing habitat for surveys of a rare mammal: a modeling approach applied to pygmy rabbits. *Journal of Mammalogy*. 87:827-833.
- * Hicks, J.F. and J.L. **Rachlow**. 2006. Is there a genetic basis for antler malformations in reintroduced elk in northern Arizona? *Southwestern Naturalist*. 51:276-282.
- * Garner, A. and J.L. **Rachlow**. 2005. Genetic diversity, population divergence, and conservation of Idaho ground squirrels in fragmented habitats. *Conservation Genetics*. 6:759-774.
- * Garner, A., J.L. **Rachlow**, and Hicks, J.F. 2005. Patterns of genetic diversity and its loss in mammalian populations. *Conservation Biology*. 19:1215-1221.
- Rachlow**, J.L., Sanchez, D.M., and Estes-Zumpf, W.A. 2005. Natal burrows and nests of free-ranging pygmy rabbits (*Brachylagus idahoensis*). *Western North American Naturalist*. 65:136-139.
- Rachlow**, J.L., R.M. Lee, and R.K. Riley. 2003. Abnormal antlers and pedicles in Rocky Mountain elk in northern Arizona. *Southwestern Naturalist*. 48:147-153.
- Rachlow**, J.L. 2001. Tree-rubbing by white rhinos: potential functions of an undescribed behavior. *Alces*. 37:447-456.
- Rachlow**, J.L., J.G. Kie, and J. Berger. 1999. Territoriality and spatial patterns of white rhinoceros in Matobo National Park, Zimbabwe. *African Journal of Ecology*. 37:295-304.
- Rachlow**, J.L. and J. Berger. 1998. Reproduction and population density: trade-offs for conservation of rhinos *in situ*. *Animal Conservation*. 1:101-106.
- Rachlow**, J.L., E.V. Berkeley and J. Berger. 1998. Correlates of male mating strategies in white rhinos (*Ceratotherium simum*). *Journal of Mammalogy*. 79:1317-1324.
- Rachlow**, J.L. and R.T. Bowyer. 1998. Habitat selection by Dall's sheep (*Ovis dalli*): maternal trade-offs. *Journal of Zoology (London)*. 245:457-465.
- Rachlow**, J.L. and J. Berger. 1997. Conservation implications of patterns of horn regeneration in dehorned white rhinos. *Conservation Biology*. 11:84-91 (cover article).
- Rachlow**, J.L. and R.T. Bowyer. 1994. Variability in maternal behavior by Dall's sheep: environmental tracking or adaptive strategy? *Journal of Mammalogy*. 75:328-337.
- Rachlow**, J.L. and R.T. Bowyer. 1991. Interannual variation in timing and synchrony of parturition in Dall's sheep. *Journal of Mammalogy*. 72:487-492.
- Bowyer, R.T., **Rachlow**, J.L., Van Ballenberg V. and R.D. Guthrie. 1991. Evolution of a rump-patch in Alaskan moose: an hypothesis. *Alces*. 27:12-23.

PEER-REVIEWED PUBLICATIONS

- Horne, J.S., J. Fieberg, L. Börger, J.L. **Rachlow**, J.M. Calabrese, and C.H. Fleming. (*in press*) Animal home ranges: concepts, uses and estimation. In: Population Ecology in Practice (D. Murray and B.K. Sandercock, eds.). Wiley-Blackwell.
- Rachlow**, J.L., P.A. Becker, L.A. Shipley, and E.S. Larrucea. 2018. *Brachylagus idahoensis*. In: Lagomorphs of the World (A.T. Smith, K. Hackländer, P. Alves, and C.H. Johnston, eds.). John Hopkins University Press.

PEER-REVIEWED PUBLICATIONS (continued)

- Wilhere, G.F., Maguire, L.A., J.M. Scott, J.L. **Rachlow**, D.D. Goble, and L.K. Svancara. 2012. Conflation of values and science: response to Noss et al. *Conservation Biology*. 26:943-944.
- Scott, J.M. and J.L. **Rachlow**. 2011. Refocusing the advocacy debate. *Conservation Biology*. 25:1-3.
- Beauvais, G.P., Sequin, E., **Rachlow**, J., Dixon, R., Bosworth, B., Kozlowski, A., Carey, C., Bartels, P., Obradovitch, M., Forbes, T. & Hays, D. 2008. *Brachylagus idahoensis*. The IUCN Red List of Threatened Species 2008: e.T2963A9507224.
<http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T2963A9507224.en>.
- Rachlow**, J.L. 2008. Wildlife Ecology. In: *Encyclopedia of Ecology* (S.E. Jorgensen, editor-in-chief). Elsevier Publications.
- Scott, J.M. and J.L. **Rachlow**. 2006. Science, policy and scientists. *Frontiers in Ecology and the Environment*. 4:68-69.
- Bowyer, R.T., D.M. Leslie, Jr. and J.L. **Rachlow**. 2000. Dall's and Stone's sheep. In: *Ecology and Management of Large Mammals in North America* (P.R. Krausman and S. Demarais, eds.). Prentice Hall, Columbus, Ohio, USA.
- Rachlow**, J.L. 1998. White rhinoceros (*Ceratotherium simum*) reproduction and population density: lessons from Matobo National Park. *Zimbabwe Science News*. 32:8-14.

OTHER PUBLICATIONS (book reviews and semi-popular articles):

- Rachlow**, J.L. 2002. Restoration of large mammals: lessons learned. *Ecology*. 83:3236-3237. (book review).
- Rachlow**, J.L. 1993. What will happen when a dehorned rhino meets a horny rival? *Zimbabwe Wildlife*. June:17-19.
- Rachlow**, J.L., Cunningham, C. and J. Berger. 1993. Horns today, gone tomorrow. *The Rhino and Elephant Foundation Journal*. 8:22-30.

INVITED PRESENTATIONS

- 2017 IBEST Symposium: "Multisensory concealment and detection: predation, crime, and aesthetics." Moscow, ID.
- 2014 Symposium: Using Unmanned Aerial Systems (UAS) to Study Wildlife Populations and Their Habitat, The Wildlife Society. "Scaling-up habitat attributes in the sagebrush-steppe environment using unmanned aircraft systems (UAS) technology." Pittsburgh, PA. (several co-authors)
- 2014 Symposium: The Rise of Technology in Wildlife Science, Northwest Section of The Wildlife Society. "Advancing our understanding of wildlife habitat: Using high-resolution imagery obtained from an unmanned aircraft system to quantify habitat characteristics in the shrub-steppe." Boise, ID. (several co-authors)
- 2013 Zoo Boise Wildlife Conservation Expo. "The pygmy rabbit: Idaho's unusual lagomorph." Boise, ID.
- 2013 Salmon River Brewery, Science on Tap. "The pygmy rabbit: Idaho's unusual lagomorph." McCall, ID.
- 2012 Universidad Tecnica Particular de Loja. "Ecología Espacial del Conejo Pigmeo." Loja, Ecuador.
- 2011 AAAS Workshop on Advocacy in Science. "Advocacy and professional scientific societies." Washington, DC.
- 2011 Chapultepec Zoo. "Ecologia del Conejo Pigmeo." Mexico City, Mexico.
- 2011 Natural Resource Ecology and Management Department, Iowa State University. "Spatial and habitat ecology of a mammalian specialist: pygmy rabbits in the sagebrush-steppe." Ames, IA.
- 2010 Alternative Management Strategies in Big Sagebrush Steppe Symposium, Idaho Section of the Society for Range Management. "Habitat relationships for pygmy rabbits: evaluating habitat quality and potential feedbacks." Idaho Falls, ID.

INVITED PRESENTATIONS (continued)

- 2010 Plenary speaker, Idaho Chapter of The Wildlife Society. "Wildlife science, management, policy, and advocacy" Boise, ID. (M. Scott, co-author)
- 2009 Biology Seminary Series, Boise State University. "Nutritional and spatial ecology of a sagebrush specialist: the pygmy rabbit" Boise, ID. (L. Shipley, co-author/presenter)
- 2009 Biology Department Seminar, Gonzaga University. "Dispersal and space use by pygmy rabbits: implications for conservation." Spokane, WA.
- 2009 University of Idaho Interdisciplinary Colloquium. "Understanding how animals use space." Moscow, ID.
- 2009 Ecology Seminar Series, University of Montana. "Patterns of dispersal, movements and connectivity: pygmy rabbits in wide open spaces." Missoula, MT.
- 2007 Restoring the West Conference. "Restoring the West: pygmy rabbits and the sagebrush steppe." Logan, UT.
- 2006 Home Range and Animal Movements: A Workshop. "Space use by pygmy rabbits: challenges for home-range models." Pocatello, ID. (D. Sanchez, co-author)
- 2005 National Park Service – Wildlife Conservation Society Workshop. "Sage-steppe and pygmy rabbits." Jackson, WY.
- 2003 Department of Biology, Idaho State University. "Conservation of isolated populations of mammals: rhinos to rabbits." Pocatello, ID.
- 2003 Northwest Section of The Wildlife Society, Large Mammal Ecology Symposium. "Variations in patterns of behavior: habitat analyses for bighorn sheep." Eugene, OR.
- 2002 Department of Biology, Boise State University. "Conservation of rhinos: challenges and successes." Boise, ID.
- 2000 Department of Biology, University of Nevada, Las Vegas. "Rhinos in reserves: demographic, behavioral and genetic challenges." Las Vegas, NV.
- 1999 Department of Biology, University of North Dakota. "Conservation of rhinos in reserves: demographic, behavioral and genetic challenges." Grand Forks, ND.
- 1999 School of Forestry, Northern Arizona University. "Managing wildlife in reserves: challenges for conservation of rhinos." Flagstaff, AZ.
- 1998 The Zimbabwe Wildlife Society. "Rhinos of Matobo National Park." Bulawayo, Zimbabwe.
- 1995 Smithsonian Institution - Audubon Lecture Series. "Conservation of white rhinos in Zimbabwe: successes, failures, and challenges." Washington, DC.

PRESENTATIONS AT PROFESSIONAL MEETINGS

Presentations authored or co-authored with students and collaborators:

- >100 presentations at national and international professional meetings (American Society of Mammalogists, Society for Conservation Biology, The Wildlife Society, World Lagomorph Conference, Joint Fire Science Program, etc.)
- >65 presentations at regional or state professional meetings (AAAS Arctic Science Conference, state and section meetings of The Wildlife Society, Western States Deer and Elk Workshop, etc.)

Symposia organized/convened:

- Advocacy, Policy, Science, and Professional Societies, The Wildlife Society, Monterey, CA. 2009. (with M. Scott and M. Nelson)
- Advocacy in Conservation Science, Society for Conservation Biology, San Jose, CA. 2006. (with M. Scott and R. Lackey)
- Bighorn Sheep Ecology and Management, Idaho Chapter of The Wildlife Society, Moscow, ID. 2003. (with F. Cassirer)

PROFESSIONAL MEMBERSHIPS

American Society of Mammalogists:

Merriam Award Committee (2017 – present)

Board of Directors (2014 – present)

Publications Committee, Member (2008 – 2011)

Resolutions Committee, Member (2003 – 2010), Chair (2007 – 2010)

Conservation of Land Mammals Committee, Member (1997-2004)

Society for Conservation Biology

The Wildlife Society

World Lagomorph Society:

Vice President (2016-present)

PROFESSIONAL EXTRAMURAL SERVICE

Journal of Mammalogy, Associate Editor (2008-2011)

Western North American Naturalist, Associate Editor (2003-2006)

IUCN Species Survival Commission, Lagomorph Specialist Group (2005-present)

African Wild Dog Conservancy, Board of Directors (2005-2012)

Science Advisory Committee for the Columbia Basin Pygmy Rabbit Recovery Team (2005-present)

Project Advisory Committee for the Idaho Chapter of the Rocky Mountain Elk Foundation (2001-2016)