

JEFFREY L. BECK, PhD

Professor, Wildlife Habitat Restoration Ecology
Department of Ecosystem Science and Management
College of Agriculture and Natural Resources
University of Wyoming
Laramie, WY 82071

E-mail: jlbeck@uwyo.edu; Phone: 307.766.6683; FAX: 307.766.6403

University of Wyoming Website: <http://www.uwyo.edu/esm/faculty-and-staff/beck/index.html>

Google Scholar: <http://scholar.google.com/citations?user=9bGff9AAAAAJ&hl=en&oi=ao>

ResearchGate: https://www.researchgate.net/profile/Jeffrey_Beck

EDUCATION

PhD	University of Idaho	Forestry, Wildlife & Range Sciences	2003
MS	Brigham Young University	Wildlife and Range Resources	1996
BS	Brigham Young University	Wildlife and Range Resources	1993

PROFESSIONAL EXPERIENCE

2018–present	Professor (Full)	Wildlife Habitat Restoration Ecology	University of Wyoming
2013–2018	Associate Professor	Wildlife Habitat Restoration Ecology	University of Wyoming
2007–2013	Assistant Professor	Wildlife Habitat Restoration Ecology	University of Wyoming
2006–2007	Postdoc Scientist	Habitat Modeling Analyst	University of Wyoming
2005–2006	Avian Scientist	Sagebrush Steppe Wildlife	Colorado Division of Wildlife
2005	Postdoc Research Assoc.	Forest Wildlife Monitoring	University of Wyoming
2004–2005	Postdoc Scientist	Upland Game Ecology	University of Idaho
1996–1997	Wildlife Biologist II	Lands (Habitat)	Utah Division of Wildlife Resources

68 peer-refereed publications (65 journal articles, 2 book chapters, 1 textbox in book chapter). Google Scholar: 1,806 citations, h-index = 23, i10 index = 40; ResearchGate score = **32.96** (higher than 90.0% of ResearchGate Members). As of 16 Nov 2018.

Peer-Refereed Journal Articles (Chronological within year; student authors underlined>)

1. Smith, K. T., A. C. Pratt, J. R. LeVan, A. M. Rhea, and **J. L. Beck**. 2019. Reconstructing greater sage-grouse chick diets: Diet selection, body condition, and food availability at brood-rearing sites. *The Condor: Ornithological Applications* 121:*In press*.
2. Duchardt, C. J., L. M. Porensky, D. J. Augustine, and **J. L. Beck**. 2018. Disturbance shapes avian communities on a grassland-sagebrush ecotone. *Ecosphere* 9(10):e02483. doi: 10.1002/ecs2.2483
3. Jesmer, B. R., J. A. Merkle, J. R. Goheen, E. O. Aikens, **J. L. Beck**, A. B. Courtemanch, M. A. Hurley, D. E. McWhirter, H. M. Miyasaki, K. L. Monteith, and M. J. Kauffman. 2018. Is ungulate migration culturally transmitted? Evidence of social learning from translocated animals. *Science*: 361:1023-1025. doi: 10.1126/science.aat0985
4. Smith, K. T., J. S. Forbey, and **J. L. Beck**. 2018. Effects of mowing and tebuthiuron on the nutritional quality of Wyoming big sagebrush. *Rangeland Ecology and Management* 71:417–423. doi.org/10.1016/j.rama.2018.02.006
5. Smith, K. T., and **J. L. Beck**. 2018. Sagebrush treatments influence annual population change for greater sage-grouse. *Restoration Ecology* 25:497–505. doi: 10.1111/rec.12589
6. Smith, K. T., **J. L. Beck**, and C. P. Kirolo. 2018. Reproductive state leads to intraspecific habitat partitioning and survival differences in greater sage-grouse: Implications for conservation. *Wildlife Research* 45:119–141. doi: 10.1071/WR17123
7. Carlisle, J. D., A. D. Chalfoun, K. T. Smith, and **J. L. Beck**. 2018. Non-target effects on songbirds from habitat manipulation for greater sage-grouse: Implications for the umbrella species concept. *The Condor: Ornithological Applications* 120:439–455. doi: 0.1650/CONDOR-17-200.1
8. Hennig, J. D., **J. L. Beck**, and J. D. Scasta. 2018. Spatial ecology observations from feral horses equipped with global positioning system transmitters. *Human-Wildlife Interactions* 12:75–84.
9. Scasta, J. D. J. D. Hennig, and **J. L. Beck**. 2018. Framing contemporary U.S. wild horse and burro management processes in a dynamic ecological, sociological, and political environment. *Human-Wildlife Interactions* 12:31–45.
10. Doherty, K. E., J. D. Hennig, J. B. Dinkins, K. A. Griffin, A. A. Cook, J. D. Maestas, D. E. Naugle, and **J. L. Beck**. 2018. Understanding biological effectiveness before scaling up range-wide restoration investments for Gunnison sage-grouse. *Ecosphere* 9(3):e02144. doi: 10.1002/ecs2.2144.
11. Reinking, A. K., K. T. Smith, K. L. Monteith, T. W. Mong, M. J. Read, and **J. L. Beck**. 2018. Intrinsic, environmental, and anthropogenic factors related to pronghorn summer mortality. *Journal of Wildlife Management* 82:608–617. doi: 10.1002/jwmg.21414
12. Spence, E. S., **J. L. Beck**, and A. J. Gregory. 2017. Probability of lek collapse is lower inside sage-grouse Core Areas: Effectiveness of conservation policy for a landscape species. *PLoS ONE* 12(11): e0185885. doi: <https://doi.org/10.1371/journal.pone.0185885>

Peer-Refereed Journals (chronological within a year; student author; continued)

13. Dinkins, J. B., K. J. Lawson, K. T. Smith, **J. L. Beck**, C. P. Kirol, A. C. Pratt, M. R. Conover, and F. C. Blomquist. 2017. Quantifying overlap and fitness consequences of migration strategy with seasonal habitat use and a conservation policy. *Ecosphere* 8(11):e01991. doi: 10.1002/ecs2.1991
14. Gamo, R. S., and **J. L. Beck**. 2017. Energy disturbance and productivity of mule deer habitat in sage-grouse Core Areas. *Rangeland Ecology and Management* 70:70:576–583. <http://dx.doi.org/10.1016/j.rama.2017.04.005>
15. Pratt, A.C., K.T. Smith, and **J.L. Beck**. 2017. Environmental cues used by greater sage-grouse to initiate altitudinal migration. *The Auk: Ornithological Advances* 134:628–643. doi: <http://dx.doi.org/10.1642/AUK-16-192.1>
16. LeBeau, C.W., G.D. Johnson, M.J. Holloran, **J.L. Beck**, R.M. Nielson, M.E. Kauffman, E.J. Rodemaker, and T.L. McDonald. 2017. Greater sage-grouse habitat selection, survival, and wind energy infrastructure. *Journal of Wildlife Management* 81:690–711. doi: 10.1002/jwmg.21231
17. Gamo, R.S., K.T. Smith, and **J.L. Beck**. 2017. Energy development and hunter success for mule deer and pronghorn in Wyoming. *Wildlife Society Bulletin* 41: 62–69. doi: 10.1002/wsb.728
18. LeBeau, C.W., **J.L. Beck**, G.D. Johnson, R.M. Nielson, M.J. Holloran, K.G. Gerow, and T.L. McDonald. 2017. Greater sage-grouse male lek counts relative to wind energy development. *Wildlife Society Bulletin* 41:17–26. doi: 10.1002/wsb.725
19. Gamo, R.S., and **J.L. Beck**. 2017. Effectiveness of Wyoming’s Sage-grouse Core Area policy: Influences on energy development and male lek attendance. *Environmental Management* 59:189–203. doi: 10.1007/s00267-016-0789-9
20. Clapp, J.G., and **J.L. Beck**. 2016. Short-term impacts of fire-mediated habitat alterations on an isolated bighorn sheep population. *Fire Ecology* 12(3):80–98. doi: 10.4996/fireecology.1203080
21. Pennington, V.E., D.R. Schlaepfer, **J.L. Beck**, J.B. Bradford, K.A. Palmquist, and W.K. Lauenroth. 2016. Sagebrush, greater sage-grouse, and the occurrence and importance of forbs. *Western North American Naturalist* 76:298–312. <http://www.bioone.org/doi/full/10.3398/064.076.0307>
22. Smith, K.T., **J.L. Beck**, and A.C. Pratt. 2016. Does Wyoming’s Core Area Policy protect winter habitats for greater sage-grouse? *Environmental Management* 58:585–596. doi: 10.1007/s00267-016-0745-8
23. Dinkins, J.B., M.R. Conover, C.P. Kirol, **J.L. Beck**, and S.N. Frey. 2016. Effects of common raven and coyote removal and temporal variation in climate on greater sage-grouse nesting success. *Biological Conservation* 202:50–58. doi: <http://dx.doi.org/10.1016/j.biocon.2016.08.011>
24. Scasta, J.D., **J.L. Beck**, and C.J. Angwin. 2016. Meta-analysis of diet composition and potential conflict of wild horses with livestock and wild ungulates on western rangelands of North America. *Rangeland Ecology and Management* 69:310–318. doi: <http://dx.doi.org/10.1016/j.rama.2016.01.001>
25. Smith, K.T., **J.L. Beck**, T.W. Mong, and F.C. Blomquist. 2016. Identification of Columbian sharp-tailed grouse lek sites in south-central Wyoming. *Western North American Naturalist* 76:135–141. doi: <http://dx.doi.org/10.3398/064.076.0115>
26. Dinkins J.B., K.T. Smith, **J.L. Beck**, C.P. Kirol, A.C. Pratt, and M.R. Conover. 2016. Microhabitat conditions in Wyoming’s Sage-grouse Core Areas: Effects on nest site selection and success. *PLoS ONE* 11(3):e0150798. doi: 10.1371/journal.pone.0150798
27. Taylor, K.T., **J.L. Beck**, and S.V. Huzurbazar. 2016. Mortality risk for pronghorn exposed to wind energy development on winter range. *Rangeland Ecology and Management* 69:108–116. doi: <http://dx.doi.org/10.1016/j.rama.2015.12.003>
28. Clapp, J.G., and **J.L. Beck**. 2015. Evaluating distributional shifts in home range estimates. *Ecology and Evolution* 5:3869–3878. doi: 10.1002/ece3.1655
29. Kirol, C.P., **J.L. Beck**, S.V. Huzurbazar, M.J. Holloran, and S.N. Miller. 2015. Identifying greater sage-grouse source and sink habitats for conservation planning in an energy development landscape. *Ecological Applications* 25:968–990. doi: <http://dx.doi.org/10.1890/13-1152.1.sm>
30. Rottler, C.M., C.E. Noseworthy, B. Fowers, and **J.L. Beck**. 2015. Effects of conversion from sagebrush to grasslands on sagebrush-associated species. *Rangelands* 37:1(1):1–6. doi: 10.1016/j.rala.2014.12.004
31. Doherty, K.E., D.E. Naugle, J.D. Tack, B.L. Walker, J.M. Graham, and **J.L. Beck**. 2014. Linking conservation actions to demography: grass height explains variation in greater sage-grouse nest survival. *Wildlife Biology* 20:320-325. doi: <http://dx.doi.org/10.2981/wlb.00004>
32. Dinkins, J.B., M.R. Conover, C.P. Kirol, **J.L. Beck**, and S.N. Frey. 2014. Effects of avian predators and anthropogenic and landscape features on greater sage-grouse (*Centrocercus urophasianus*) use of sagebrush habitat. *The Condor: Ornithological Applications* 116:629-642. doi: 10.1650/CONDOR-13-163.1.
33. Clapp, J.G., **J.L. Beck**, and K.G. Gerow. 2014. Post-release acclimation of translocated low-elevation, non-migratory bighorn sheep. *Wildlife Society Bulletin* 38:657–663. doi: 10.1002/wsb.441
34. Fedy, B.C., K.E. Doherty, C.L. Aldridge, M. O’Donnell, **J.L. Beck**, B. Bedrosian, M.J. Holloran, G.D. Johnson, N.W. Kaczor, C.P. Kirol, C.A. Mandich, D. Marshall, G. McKee, C. Olson, A.C. Pratt, C.C. Swanson, and B.L. Walker. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: an example using greater sage-grouse in Wyoming. *Wildlife Monographs* 190:1–39. doi: 10.1002/wmon.1014
35. Buchanan, C.B., **J.L. Beck**, and T.E. Bills. 2014. Seasonal resource selection and distributional response by elk to development of a natural gas field. *Rangeland Ecology and Management* 67:369–379. doi: <http://dx.doi.org/10.2111/REM-D-13-00136.1>

Peer-Refereed Journals (chronological within a year; student author; continued)

36. Gregory, A.J., and **J.L. Beck**. 2014. Spatial heterogeneity in response of male greater sage-grouse lek attendance to energy development. *PLoS One* 9(6): e97132. doi:10.1371/journal.pone.0097132
37. **Beck, J.L.**, D.T. Booth, and C.L. Kennedy. 2014. Assessing greater sage-grouse breeding habitat with aerial and ground imagery. *Rangeland Ecology and Management* 67:328-332. doi: 10.2111/REM-D-12-00141.1
38. Dinkins, J.B., M.R. Conover, C.P. Kirol, **J.L. Beck**, and S.N. Frey. 2014. Greater sage-grouse hen survival: effects of raptors, anthropogenic and landscape features, and hen behavior. *Canadian Journal of Zoology* 92:319–330. doi: 10.1139/cjz-2013-0263
39. LeBeau, C.W., **J.L. Beck**, G.D. Johnson, and M.J. Holloran. 2014. Short-term impacts of wind energy development on greater sage-grouse fitness. *Journal of Wildlife Management* 78:522–530. doi: 10.1002/jwmg.679
40. Boyd, C.S., **J.L. Beck**, and J.A. Tanaka. 2014. Livestock grazing and sage-grouse habitat: impacts and opportunities. *Journal of Rangeland Applications* (online journal <http://journals.lib.uidaho.edu/index.php/jra/index>): 1:58–77. ISSN: 2331-5512.
41. Hess, J.E., and **J.L. Beck**. 2014. Forb, insect, and soil response to burning and mowing Wyoming big sagebrush in greater sage-grouse breeding habitat. *Environmental Management* 53:813–822. doi: 10.1007/s00267-014-0246-6
42. Smith, K.T., C.P. Kirol, **J.L. Beck**, and F.C. Blomquist. 2014. Prioritizing winter habitat quality for greater sage-grouse in an energy-disturbed landscape. *Ecosphere* 5: Article 15. <http://dx.doi.org/10.1890/ES13-00238.1>.
43. **Beck, J. L.**, K.T. Smith, J.T. Flinders, and C.L. Clyde. 2013. Seasonal habitat selection by elk in north central Utah. *Western North American Naturalist* 73:442–456. doi.org/10.3398/064.073.0414
44. Gamo, R.S., J.D. Carlisle, **J.L. Beck**, J.A.C. Bernard, and M.E. Herget. 2013. Greater sage-grouse in Wyoming: an umbrella species for sagebrush dependent wildlife. *The Wildlife Professional* 7:56–59.
45. Dinkins, J.B., M.R. Conover, C.P. Kirol, and **J.L. Beck**. 2012. Greater sage-grouse (*Centrocercus urophasianus*) select nest-sites and brood-sites away from avian predators. *The Auk* 129:600–610. doi: 10.1525/auk.2012.12009
46. Hess, J.E., and **J.L. Beck**. 2012. Disturbance factors influencing greater sage-grouse lek abandonment in north-central Wyoming. *Journal of Wildlife Management* 76:1625–1634. doi: 10.1002/jwmg.417
47. **Beck, J.L.**, J.W. Connelly, and C.L. Wambolt. 2012. Consequences of treating Wyoming big sagebrush to enhance wildlife habitats. *Rangeland Ecology and Management* 65:444–455. doi: 10.2111/REM-D-10-00123.1
48. Fedy, B.C., C.L. Aldridge, K.E. Doherty, M. O'Donnell, **J.L. Beck**, B. Bedrosian, M.J. Holloran, G.D. Johnson, N.W. Kaczor, C.P. Kirol, C.A. Mandich, D. Marshall, G. McKee, C. Olson, C.C. Swanson, and B.L. Walker. 2012. Interseasonal movements of greater sage-grouse, migratory behavior, and an assessment of the core regions concept in Wyoming. *Journal of Wildlife Management* 76:1062–1071. doi: 10.1002/jwmg.337
49. Kirol, C.P., **J.L. Beck**, J.B. Dinkins, and M.R. Conover. 2012. Microhabitat selection for nesting and brood-rearing by the greater sage-grouse in xeric big sagebrush. *The Condor* 114:75-89. doi: 10.1525/cond.2012.110024
50. Hess, J.E., and **J.L. Beck**. 2012. Burning and mowing Wyoming big sagebrush: do treated sites meet minimum guidelines for greater sage-grouse breeding habitats? *Wildlife Society Bulletin* 36:85-93. doi: 10.1002/wsb.92
51. **Beck, J.L.**, R.D. Meador, B.W. Hess, G.E. Moss, and S.L. Lake. 2011. Case study: effect of cattle and sheep grazing on stocking rate and botanical composition of subirrigated pasture. *Professional Animal Scientist* 27:500–504.
52. Davies, K.W., C.S. Boyd, **J.L. Beck**, J.D. Bates, T.J. Svejcar, and M.A. Gregg. 2011. Saving the sagebrush sea: an ecosystem conservation plan for big sagebrush plant communities. *Biological Conservation* 144:2573–2584. doi:10.1016/j.biocon.2011.07.016
53. Doherty, K.E., **J.L. Beck**, and D.E. Naugle. 2011. Comparing ecological site descriptions to habitat characteristics influencing greater sage-grouse nest site occurrence and success. *Rangeland Ecology and Management* 64:344–351. doi: 10.2111/REM-D-10-00120.1
54. **Beck, J.L.**, R.C. Skorkowsky, and G.D. Hayward. 2011. Estimating occupancy to monitor northern goshawk in the central Rocky Mountains. *Journal of Wildlife Management* 75:513–524. doi: 10.1002/jwmg.69
55. **Beck, J.L.**, D.C. Dauwalter, K.G. Gerow, and G.D. Hayward. 2010. Design to monitor trend in abundance and presence of American beaver (*Castor canadensis*) at the national forest scale. *Environmental Monitoring and Assessment* 164:463–479. doi: 10.1007/s10661-009-0907-8
56. **Beck, J.L.**, J.W. Connelly, and K.P. Reese. 2009. Recovery of greater sage-grouse habitat features in Wyoming big sagebrush following prescribed fire. *Restoration Ecology* 17:393–403. doi: 10.1111/j.1526-100X.2008.00380.x
57. **Beck, J.L.**, K.P. Reese, J.W. Connelly, and M.B. Lucia. 2006. Movements and survival of juvenile greater sage-grouse in southeastern Idaho. *Wildlife Society Bulletin* 34:1070–1078.
58. **Beck, J.L.**, J.M. Peek, and E.K. Strand. 2006. Estimates of elk summer range nutritional carrying capacity constrained by probabilities of habitat selection. *Journal of Wildlife Management* 70:283–294.
59. Reese, K.P., **J.L. Beck**, P. Zager, and T.E. Heekin. 2005. Nest and brood site characteristics of mountain quail in west-central Idaho. *Northwest Science* 79:254–264.
60. **Beck, J.L.**, and J.M. Peek. 2005. Great Basin summer range forage quality: do plant nutrients meet elk requirements? *Western North American Naturalist* 65:516–527.
61. **Beck, J.L.**, K.P. Reese, P. Zager, and T.E. Heekin. 2005. Simultaneous multiple clutches and female breeding success in mountain quail. *The Condor* 107:891–899.

Peer-Refereed Journals (chronological within a year; student author; continued)

62. **Beck, J.L.**, and J.M. Peek. 2005. Diet composition, forage selection, and potential for forage competition among elk, deer, and livestock on aspen-sagebrush summer range. *Rangeland Ecology and Management* 58:135–147.
63. **Beck, J.L.**, and J.M. Peek. 2004. Herbage productivity and ungulate use of northeastern Nevada mountain meadows. *Journal of Range Management* 57:376–383.
64. **Beck, J.L.**, D.L. Mitchell, and B.D. Maxfield. 2003. Changes in the distribution and status of sage-grouse in Utah. *Western North American Naturalist* 63:203–214.
65. **Beck, J.L.**, and D.L. Mitchell. 2000. Influences of livestock grazing on sage grouse habitat. *Wildlife Society Bulletin* 28:993–1002.

Peer-Refereed Book Chapters and Textboxes

1. **Taylor, K. T., J. L. Beck**, S. V. Huzurbazar, and S. E. Albeke. 2017. Box 11.2, Response of wintering pronghorn to wind energy development in south-central Wyoming. Pages 228–230 In Chapter 10: Terrestrial Mammals by J. O. Helldin, A. Skarin, W. Neumann, M. Olsson, J. Jung, J. Kindberg, N. Lindberg and F. Widemo. M. Perrow, editor. *Wildlife and Wind Farms – Conflicts and Solutions*. Volume 1 Onshore: Potential Effects. Pelagic Publishing, Exeter, United Kingdom.
2. Pyke, D.A., J.C. Chambers, **J.L. Beck**, M.L. Brooks, and B.A. Meador. 2016. Land uses, fire, and invasion: Exotic annual *Bromus* and human dimensions. Pages 307–337 in M. J. Germino, J. C. Chambers, and C. S. Brown, editors. *Exotic Bromo-Grasses in Arid and Semi-Arid Ecosystems of the Western US: Causes, Consequences, and Management Implications*, Springer International Publishing, Switzerland.
3. **Beck, J.L.**, and L.H. Suring. 2009. Wildlife habitat–relationships models: description and evaluation of existing frameworks. Pages 251–285 in J. J. Millspaugh, and F. R. Thompson, III, editors. *Models for Planning Wildlife Conservation in Large Landscapes*. Elsevier Science, Amsterdam, Netherlands.

Other Research and Outreach Productivity

- Peer-Refereed Proceedings = 4 (1 w/undergraduate students)
- Experiment Station and Cooperative Extension Service Bulletins = 4 (2 w/graduate students)
- Government Research Reports and Papers = 13
- Popular Press Articles (authored, edited, or about my activities) = 14 (5 w/graduate students)
- University Final Research Reports = 12 (6 w/graduate students)
- *Ad hoc* Scientific Committee Reports = 1
- Abstracts = 191 (135 w/graduate students; 7 w/undergraduate students)
- Invited Research Presentations = 68 (1 plenary speaker presentation; 30 w/graduate students)
- Invited Research Outreach Presentations = 40 (25 w/graduate students)
- Contributed Research Presentations = 185 (124 w/graduate students; 6 w/undergraduate students)
- Scientific Journal Manuscript Reviewer = 77 manuscripts from 27 journals
- Committee Member – University of Wyoming Institutional Animal Care and Use Committee (2013–present)
- Co-organizer (w/Pete Stahl, Director of Wyoming Reclamation and Restoration Center) – Wyoming Habitat Restoration Workshops (2014–2016)
- Sage-Grouse Research Compiler (2011–2018). Compiled research summaries for sage-grouse and habitat studies being conducted in Wyoming for the Wyoming Game and Fish Department
- Associate Editor – *Human-Wildlife Interactions* (2017–present)
- Associate Editor – *Western North American Naturalist* (2006–2008)

Graduate Students Currently Advised (Chair, 1 MS and 2 PhD; Co-chair, 1 PhD)

1. **Erin L. Birtwistle** (MS Student; Chair) – Rangeland Ecology and Watershed Management. Start Date: August 2018. Expected graduation date: December 2020. Thesis topic: *Seasonal resource selection by greater sage-grouse in southern Montana*
2. **Courtney J. Duchardt** (PhD Candidate; Chair) – Ecology, Department of Ecosystem Science and Management. Start Date: August 2015. Expected graduation date: December 2019. Dissertation topic: *Optimizing landscape management for multiple bird guilds on the Thunder Basin National Grassland, Wyoming*
3. **Jacob D. Hennig** (PhD Student; Co-chair, co-advised with Dr. Derek Scasta) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Start Date: August 2016. Expected graduation date: December 2021. Dissertation topic: *Wild horse spatial ecology across the public-private land ownership matrix*
4. **Jonathan D. Lautenbach** (PhD; Chair) – Ecology, Department of Ecosystem Science and Management. Start Date: *Note: begins January 2018*. Expected graduation date: May 2022. Dissertation topic: *Demography, habitat selection, and genetic assessment of Columbian sharp-tailed grouse in south-central, Wyoming*.

Graduate Students Completed (In order of completion; Chair [7 MS, 4 PhD]; Co-chair [1 PhD])

1. **Jason R. LeVan** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: August 2014. Graduation date: May 2018. Thesis title: *Habitat selection and short-term demographic response of greater sage-grouse to habitat treatments in Wyoming big sagebrush*
2. **Aaron C. Pratt** (PhD; Chair) – Ecology, Department of Ecosystem Science and Management. Started: August 2011. Graduation date: December 2017. Dissertation title: *Partial migration, habitat selection, and conservation of greater sage-grouse in the Bighorn Basin of Montana and Wyoming*
3. **Adele K. Reinking** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started August 2013. Graduation date: December 2017. Thesis title: *Coupling mortality risk and multi-scale resource selection to understand the effects of environmental and anthropogenic change on pronghorn in the Red Desert, Wyoming*
4. **Kurt T. Smith** (PhD; Chair) – Ecology, Department of Ecosystem Science and Management. Started: August 2010. Graduation date: December 2016. Dissertation title: *Identifying habitat quality and population response of greater sage-grouse to treated Wyoming big sagebrush habitats*
5. **R. Scott Gamo** (PhD; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: January 2012. Graduation date: May 2016. Dissertation title: *Effectiveness of Wyoming's Sage-Grouse Executive Order in conserving greater sage-grouse and mule deer and influence of energy development on big game harvest*
6. **Clay B. Buchanan** (PhD; Chair) – Ecology, Department of Ecosystem Science and Management. Started: August 2008. Graduation date: May 2015. Dissertation title: *Elk response to disturbance from development of a coal bed natural gas field in northeast Wyoming*
7. **Justin G. Clapp** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: August 2012. Graduation date: May 2015. Thesis title: *Habitat ecology and effects of fire-mediated habitat alteration for bighorn sheep translocated to the Seminoe Mountains, Wyoming*
8. **Eric J. Wald** (PhD; Co-chair, co-advised with Dr. Larry Munn) - Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: January 2011. Graduation date: December 2015. Dissertation title: *Management of an expanding moose (*Alces alces*) population on the Yukon-Kuskokwim Delta, Alaska*
9. **Kaitlyn L. Taylor** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: January 2011. Graduation date: May 2014. Thesis title: *Pronghorn (*Antilocapra americana*) response to wind energy development on winter range in south-central, Wyoming*
10. **Chad W. LeBeau** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: January 2010. Graduation date: August 2012. Thesis title: *Evaluation of greater sage-grouse reproductive habitat and response to wind energy development in south-central, Wyoming*
11. **Christopher P. Kirol** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: August 2008. Graduation date: May 2012. Thesis title: *Quantifying habitat importance for greater sage-grouse (*Centrocercus urophasianus*) population persistence in an energy development landscape*
12. **Jennifer E. Hess** (MS; Chair) – Rangeland Ecology and Watershed Management, Department of Ecosystem Science and Management. Started: August 2008. Graduation date: May 2011. Thesis title: *Greater sage-grouse (*Centrocercus urophasianus*) habitat response to mowing and prescribed burning Wyoming big sagebrush and the influence of disturbance factors on lek persistence in the Bighorn Basin, Wyoming*

Graduate Student Committee Service

- Committee member for completed graduate students = 24 (5 PhD and 19 MS)
- Committee member for current graduate students = 7 (4 PHD and 3 MS)

Graduate Student Awards (students whom I advised in my lab)

- 2016 Kurt Smith (PhD), Outstanding PhD student in the College of Agriculture and Natural Resources. Award presented by University of Wyoming chapter of Gamma Sigma Delta
- 2016 Kurt Smith (PhD), First Place in the PhD-level oral research presentation competition 69th Annual Conference of the Society for Range Management, Corpus Christi, Texas
- 2015 Justin Clapp (MS), Outstanding MS student in Rangeland Ecology and Watershed Management. Award presented by University of Wyoming chapter of Gamma Sigma Delta
- 2014 Clay Buchanan's (PhD), article "Focus area research indicates elk response to energy development," was selected as the 2014 student article for the University of Wyoming, Agricultural Experiment Station, *Reflections Magazine*
- 2014 Clay Buchanan (PhD), Outstanding PhD student from Ecosystem Science and Management. Award presented by University of Wyoming chapter of Gamma Sigma Delta
- 2013 Chris Kirol (MS), Outstanding M.S. Thesis Award for 2013 from the Graduate Council of the University of Wyoming
- 2011 Jennifer Hess (MS), Outstanding MS student in the College of Agriculture and Natural Resources. Award presented by University of Wyoming chapter of Gamma Sigma Delta

Graduate Student Awards (students whom I advised in my lab; continued)

- 2010 Clay Buchanan (MS), Best PhD poster and the best overall poster awards. Student research-in—progress poster session, The Wildlife Society, 17th Annual Conference, Snowbird, Utah
- 2010 Chris Kirol (MS), Outstanding MS student in Rangeland Ecology and Watershed Management. Award presented by University of Wyoming chapter of Gamma Sigma Delta

Postdoctoral Research Associate Mentoring

1. Dr. Aaron C. Pratt (postdoc at University of Wyoming). Primary topic: Modeling of environmental and anthropogenic effects on wintering sage-grouse. Secondary topic: seasonal habitat selection by sage-grouse in the Billings, Montana BLM Field Office (2018–present)
2. Dr. Kurt T. Smith (postdoc at University of Wyoming). Primary topic: Identification and modeling of sage-grouse winter concentration areas. Secondary topic: elk and pronghorn resource selection in response to wind energy development (2017–present)
3. Dr. Jonathan B. Dinkins (postdoc at University of Wyoming). Primary topic: Influence of fall harvest on trends in sage-grouse populations. Secondary topic: effectiveness of Wyoming Sage-grouse Core Areas (2013–2016)
4. Dr. Andrew J. Gregory (co-investigator with me, while a postdoc at Northern Arizona University; 2010–2013). Primary topic: Spatial heterogeneity in response of male greater sage-grouse lek attendance to energy development (2010–2013)

Career total for Grant Awards and Research Contracts >\$8.7 million USD**Supporting Entities Funding my Research at the University of Wyoming***Energy and Mining Industries*

American Colloid Company; Anadarko Petroleum Company; Black Diamond Minerals, LLC; BP Corporation North America; enXco; Devon Energy; Horizon Wind Energy; Iberdrola Renewables; Linn Energy; Marathon Oil Corporation/Pennaco; Memorial Resource Development; PacifiCorp; Petro-Canada; Samson Resources; Warren Resources

Federal Agencies

USDA–Agricultural Research Service; USDA–Forest Service; USDA–MacIntire-Stennis Formula Grant; USDI Bureau of Land Management–Bureau Planning System funding; USDI–Bureau of Land Management–Energy Pilot funding; USDI–Bureau of Land Management–Special Status Species Populations and Habitats; USDI–Wild Horse Research Committee

National and State Organizations

Animal Welfare Institute, Avian Power Line Interaction Committee; National Fish and Wildlife Foundation; Western Association of Fish and Wildlife Agencies; National Wind Coordinating Collaborative–Sage-grouse Collaborative; Wyoming Wildlife Federation; Wyoming Sportsmen for Fish and Wildlife, Wyoming Wild Sheep Foundation

State Agencies

Bates Hole, Bighorn Basin, South-Central, Southwest, and Wind River/Sweetwater River Local Sage-Grouse Work Groups; Wyoming Game and Fish Department–Sage-Grouse Conservation Fund; Wyoming Governor’s Big Game License Coalition–Bighorn Sheep and All Species Project Committees; Wyoming Department of Agriculture; Wyoming Wildlife and Natural Resources Trust

University of Wyoming

Agricultural Experiment Station; College of Agriculture Dean’s Discretionary Funds; Cooperative Extension Service; Margaret and Sam Kelly Ornithological Research Fund; Office of Academic Affairs; School of Energy Resources; Wyoming Reclamation and Restoration Center

Professional Awards

- 2015 Nominated for Professional of the Year, Wyoming Chapter of The Wildlife Society
- 2013 2013 Early Career Undergraduate Teaching Award, Range Science Education Council and the Society for Range Management
- 2012 Wyoming Game and Fish Department, Team of the Year Award (2011) – Interagency Sage-Grouse Core Area Strategy Implementation Team
- 2012 University of Wyoming Agricultural Experiment Station, Early Career Research Achievement Award

Award Nominator

- 2018 Thomas J. Christiansen, Wyoming Game and Fish Department – 2018 Robert L. Patterson Award, Awarded by Sage and Columbian Sharp-tailed Grouse Technical Committee, Western Association of Fish and Wildlife Agencies
- 2015 Anadarko Petroleum – 2015 Research Partner Award, Awarded by College of Agriculture and Natural Resources, University of Wyoming

University of Wyoming Coach for Society for Range Management Undergraduate Range Management Exam Team

UW team placement/total college and university teams competing in national competition

- 2014 – Orlando, FL – 4/21
- 2013 – Oklahoma City, OK – 8/27
- 2012 – Spokane, WA – 2/25
- 2011 – Billings, MT – 2/25
- 2010 – Denver, CO – 2/23
- 2009 – Albuquerque, NM – 5/23
- 2008 – Louisville, KY – 2/20

Undergraduate Courses Taught at University of Wyoming (35, 3 or 4-credit hour semester classes taught)

- 2018 Wyoming Wildlands: Science and Stewardship (RNEW 1000; fall semester; team taught)
- 2008–2011 Range Judging (REWM 3390; spring semester)
- 2018 Nutr. Ecol. and Manage. of Rangeland Herbivores (REWM 4100 [4100/5100]; team taught with Dr. Derek Scasta)
- 2008 Rangeland Restoration Ecology (REWM 4580/5580; spring semester 2008 only)
- 2008–2018 Rangeland Ecosystem Assessment and Monitoring (REWM 4330; fall semester)
- 2009–2018 Rangeland Vegetation Management Techniques (REWM 4850; spring semester)
- 10,12,14,16,17 Wildlife Habitat Restoration Ecology (REWM 4750 [4750/5750]; spring semester of even years)
- 2010–2012 Undergraduate Teaching Practicum (REWM 4990; fall semester)
- 11, 15 Problems (REWM 4540)
- 08, 11, 14, 15 Internship (REWM 4550)

Graduate Courses Taught at University of Wyoming (6, 3-credit hour and 5, 2-credit hour semester classes taught)

- 2018 Nutr. Ecol. and Manage. of Rangeland Herbivores (REWM 5100 [4100/5100]; team taught with Dr. Derek Scasta)
- 10,12,14,16,17 Wildlife Habitat Restoration Ecology (REWM 5750 [4750/5750]; spring semester of even years)
- 09, 11, 13, 15 Wildlife Habitat Ecology (REWM 5830; spring semester of odd years)
- 2008–2016 Thesis Research (REWM 5960; spring semester, summer session, and fall semester)
- 2008–2016 Dissertation Research (REWM 5980; spring semester, summer session, and fall semester)
- 2015 Modeling Resource Selection and Habitat-Based Demography (RNEW 5990-03; team-taught w/Jonathan Dinkins)
- 9, 11, 12, 15, 16 Investigation (REWM 5640)
- 2017 Investigation (RNEW 5990)

Invited Lectures = 34 (3 w/graduate students)

Invited Teaching Seminars = 3