EDUCATION:

University of Montana	Organismal Biology and Ecology	Ph.D. May 2005
University of Montana	Organismal Biology and Ecology	M.A.S. May 1995
University of Montana	Wildlife Biology	B.S. March 1992

EMPLOYMENT/PROFESSIONAL HISTORY:

Research Ecologist, USDA Forest Service, Rocky Mountain Research Station, June 2005 to present.
Deputy Program Manager, Wildlife and Terrestrial Ecosystems, RMRS, USDA FS, Oct 2010 to July 2016.
Adjunct Faculty, University of Montana, Missoula, MT, April 2012 to present.
Faculty Affiliate, University of Montana, Missoula, MT, September 2005 to April 2012.
Wildlife Biologist, USDA Forest Service, Rocky Mountain Research Station, September 1995 to June 2005.
Research Assistant, University of Montana, September 1994 to September 1995.
Private Contractor, USDA Forest Service, Rocky Mountain Research Station, 1995.
Biological Technician, Glacier National Park, 1991 to 1994.
Teaching Assistant, University of Montana, 1991 to 1993.
Biological Technician, Conservation Biology Project, UCLA, stationed in Baja Mexico, Sept. to Dec. 1990.
GIS Technician, Wolf Ecology Project, University of Montana, 1988 to 1989.

PUBLICATIONS

- Hierro, J.L., W.A. Muiño, A. Farji-Brener, M.C. Cock, D.E. Pearson. 2023. Species introduction shifts trait function from mutualism to antagonism: elaiosomes in a myrmecochory cold spot. Oikos 10.1111/oik.09770
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- Sanderlin, J.S., J.D. Golding, T. Wilcox, D.H. Mason, K.S. McKelvey, D.E. Pearson, and M.K. Schwartz. 2021. Occupancy modeling and resampling overcomes low test sensitivity to produce accurate SARS-CoV-2 prevalence estimates. *BMC Public Health* 21 577 (2021). https://doi.org/10.1186/s12889-021-10609-y

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- Liebhold, Andrew M.; Campbell, Faith T.; Gordon, Doria R.; Guo, Qinfeng; Havill, Nathan; Kinder, Bradley; MacKenzie, Richard; Lance, David R.; Pearson, Dean E.; Sing, Sharlene E.; Warziniack, Travis; Venette, Robert C.; Yemshanov, Denys. 2021. The Role of International Cooperation in Invasive Species Research. 2021. In: Poland, Therese M.; Patel-Weynand, Toral; Finch, Deborah M.; Ford Miniat, Chelcy; Hayes, Deborah C.; Lopez, Vanessa M., eds. Invasive Species in Forests and Rangelands of the United States: A Comprehensive Science Synthesis for the United States Forest Sector. Heidelberg, Germany: Springer International Publishing: 293 - 304. Chapter 13. https://doi.org/10.1007/978-3-030-45367-1_13.
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- MPG Ranch. 126,755. Pearson, D.E. 2021. Small mammal monitoring and ecology at MPG Ranch. Proposal to MPG Ranch for \$126,755. Awarded January 2022-December 2022.
- MPG Ranch. \$30,000. 2021. Developing the MPG Food Web: the MPG Grassland Base Matrix. Pearson, D.E. Awarded to RMRS, January 2021-December 2021.
- MPG Ranch. 110,510. 2021. Pearson, D.E. Small mammal monitoring and ecology at MPG Ranch. Awarded to University of Montana Foundation, January 2021-December 2021.
- Montana Noxious Weed Trust Fund. 2020. \$29,940. Quantifying and ranking invasive weed impacts for prioritizing weed management along the Missouri River. Pearson, D.E., and Y.K. Ortega. Funded 1 April 2020-30 October 2022.
- MPG Ranch. 2020. \$30,000. Developing the MPG Food Web: the MPG Grassland Base Matrix. D.E.Pearson. Proposal to MPG Ranch, November 2019. Awarded to RMRS, January 2021-December 2021.
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- MPG Ranch. 2019. \$92,783.00. Slate, M.L, Durham, R., Y. Lekberg, D.E. Pearson (PI). Ecological effects of biocrust moss and lichen restoration and importance of biocrusts in restoration ecology. Awarded May 2019-December 2019.
- MPG Ranch. 2019. \$17,950.00. Pearson, D.E. (PI) and P. Ramsey. Small mammal monitoring at MPG Ranch: does native plant restoration also restore small mammal communities and their ecological functions? Awarded to University of Montana Foundation Jan 2019-Dec 2019.
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- Montana Noxious Weed Trust Fund. 2018. \$20,100. D.E. Pearson, Y.K. Ortega. Quantifying and ranking invasive weed impacts in eastern Montana grasslands for prioritizing weed management. Awarded 1 April 2018- 30 October 2019.
- MPG Ranch. 2018. \$86,352.00. Slate, M.L, Durham, R., Y. Lekberg, D.E. Pearson (PI). Ecological effects and practical applications of biocrust moss and lichen restoration on native plant and ecosystem recovery. Awarded May 2018-Aug 2019.
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- Joint Fire Sciences 2018. \$314,000. St. Clair, S. M. Madsen, B. Roundy, R. Gill, and D.E. Pearson. Post-fire recovery of Great Basin sagebrush habitat using seed coating technology and herbicides to overcome abiotic and biotic limitations to native plant establishment. Awarded 1 April 2018 30 September 2020.

- Montana Noxious Weed Trust Fund. 2017. \$20,563. D.E. Pearson. Quantifying and ranking invasive weed impacts in eastern Montana grasslands for prioritizing weed management. 1 April 2017- 30 October 2018. Awarded April 2017.
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- Montana Noxious Weed Trust Fund 2015. \$21,600. Pearson, D.E., Y.K. Ortega, and M.G. Valliant. Informing the noxious weed listing process: quantifying threats of new plant invaders. Proposal to the Submitted 1 December
- Montana Noxious Weed Trust Fund 2015. \$30,231. Pearson, D.E., Y.K. Ortega, and M.G. Valliant. Quantifying and ranking invasive weed impacts in eastern Montana grasslands for prioritizing weed management. Proposal to the Submitted 1 December
- USDA FS RMRS (Rocky Mountain Research Station), Competitive Climate Change Funding. 2015. \$20,000. Ortega, Y.K. and D. E. Pearson. Does climate change reduce spotted knapweed invasiveness via AMF? Awarded 24 April 2015 – April 2016.
- USDA FS RMRS (Rocky Mountain Research Station), Competitive Climate Change Funding. 2015. \$15,000. Pearson, D.E. and Y.K. Ortega. A dual growth chamber for climate change research. RMRS, WTE Competitive Climate Change Funding. Awarded April 2015 for equipment purchase.
- Montana Noxious Weed Trust Fund. 2013. \$20,000.00. Pearson, D.E. and Y.K. Ortega. Quantifying weed impact and ranking risk for better weed management. 4/1/2013-4/1/2014. Awarded May 2013.
- USDA FS RMRS (Rocky Mountain Research Station), Competitive Research Initiative. 201. \$127,000. Effects of climate change on the invasiveness and biological control of spotted knapweed. Ortega, Y. K. and D. E. Pearson. 2010. Awarded April 2010.
- NSF, DEB-0915409, \$585,000. Indirect effects of apex predators in a grassland ecosystem. John M. Maron and D. E. Pearson. Awarded September 2009.
- USDA FS, Rocky Mountain Research Station's FY08 Rangeland Research Competitive Proposals. 2008. \$27,900.00. Long-term efficacy of broadleaf herbicide treatments for restoration of weed-invaded rangelands. Pearson, D. E., Y. K. Ortega, R. M. Callaway. 2008. Awarded June 2008.
- USDA FS, Rocky Mountain Research Station Cross-Program Award, \$60,000. 2007. Native seed mixes for improving invasives management and reducing new invasions following fuels treatments. D. Pearson, R. Callaway, S. Sutherland, M. Harrington, and J. Butler. Awarded July 2007.
- USDA FS, Rocky Mountain Research Station Cross-Program Award, \$63,000. 2007. Prediction, detection, and monitoring of invasive species in forests, rangeland, and aquatic ecosystems: A synthesis of RMRS research for marketing, education, and outreach. J. Butler, M. Kim, D. Pearson, S. Sutherland, D. Finch, M. Young, G. Markin, N. Klopfenstein, A. Hudak, B. Richardson, P. Zambino. Awarded July 2007.
- USDA FS, Native Plant Materials Project. 2007. \$50,893. Using weed-resistant native seed mixes to restore burned areas: a collaboration between Forest Service Research, University of Montana, and Native Yards. S. Sutherland, R. Callaway, and D. Pearson. Awarded March 2007.
- USDA, NRI National Research Initiative and Integrated Programs in Ecological Systems. 2005. CSREES-2005-35101-16040, \$300,000.00. Assessing indirect effects of top predators on diversity, productivity, and health of grassland ecosystems. J. Maron and D. E. Pearson. Awarded August 2005
- USDI-USDA Joint Fire Sciences Program. 2003. \$162,000. Evaluating effects of fuels treatments on native flora and fauna: restoration in weed-invaded landscapes of the Northern Rocky Mountains. Y. K. Ortega, D. E. Pearson, and D. L. Six. Awarded June 2003.

- NSF, DEB-0236061, 2002. \$294,267. Nontarget effects of host-specific biocontrols: direct and indirect effects of biocontrols that subsidize native consumers. R. M. Callaway and D. E. Pearson. Awarded December 2002.
- USDI National Park Service, Inventory and Monitoring Award. 2002. \$27,000. Small mammal surveys of Little Bighorn National Monument and Grant-Kohrs Ranch National Historic Site. D. E. Pearson and L. F. Ruggiero. Awarded April 2002.
- NSF SGER-010889. 2001. \$22,000. Do Gall Fly-induced Increases in Deer Mouse Populations increase the Prevalence of Hantavirus? R. M. Callaway and D. E. Pearson. Awarded May 2001.

AWARDS

- Best Scientific Publication Award, USDA Forest Service, Rocky Mountain Research Station, Sept 29, **2021**, for the publication: Pearson, D.E., Y.K. Ortega, Ö. Eren, and J.L. Hierro. 2018. Community assembly theory as a conceptual framework for invasions. Trends in Ecology and Evolution 33:313-325.
- Best Scientific Publication Award, USDA Forest Service, Rocky Mountain Research Station, Oct **2019**, for the publication: Pearson, D.E., Y.K. Ortega, J. Runyon, and J. Butler. 2016. Secondary invasion: the bane of weed management. Biological Conservation 197:8-17.
- Visionary Science Publication Award, USDA Forest Service, Rocky Mountain Research Station, January 2013, for the publication: Pearson, D. E. and R. M. Callaway. 2003. Indirect effects of host-specific biological control agents. *Trends in Ecology and Evolution* 18(9):456-461.
- National Forest System Invasive Species Program Award for Landscape Restoration and Rehabilitation Against Invasive Species, March **2012**, *Dr. Dean Pearson, Rocky Mountain Research Station*, in recognition of his high level of leadership and expertise on invasion biology and invasive species management, linking management concepts to long-term landscape restoration and rehabilitation.
- National Academy of Sciences, Kavli Fellow Recipient, 5 November 2010.
- PECASE (Presidential Early Career Award for Science and Engineering. July **2009**. "Selection for this award is based on the combination of innovative research at the frontiers of science and technology and community service demonstrated through scientific leadership and community outreach."
- Deputy Chief's Early Career Scientist Award. Received 25 March **2009** in Washington D.C. This honor was awarded in recognition of significant contributions to the fields of biological control, invasive species ecology, and wildlife biology.
- Best Scientific Publication Award, USDA Forest Service, Rocky Mountain Research Station, Feb **2009**, for the publication: Ortega, Y.K and D. E. Pearson. 2005. Strong versus weak invaders of natural plant communities: distinguishing invasibility from impact. *Ecological Applications* 15:651-661.
- Best Scientific Publication Award, USDA Forest Service, Rocky Mountain Research Station, October **2007**, for the publication: Pearson, D. E. and R. M. Callaway. 2006. Biological control agents elevate hantavirus by subsidizing mice. *Ecology Letters* 9:442-449.
- Merit Award, USDA Forest Service, Rocky Mountain Research Station, October 2007, for leaderships of the Invasive Species /Disease Research Team in the Wildlife and Terrestrial Ecosystems Program.
- Merit Award, USDA Forest Service, Rocky Mountain Research Station, August 2007, for role as team leader on the Invasive Species Ecology and Community Dynamics Team and for contributions toward changing paradigms in the field of biological control.
- Merit Award, USDA Forest Service, Rocky Mountain Research Station, March 2006, "for your role on the RMRS Invasives Meeting Team in planning and conducting a workshop to share information, identify needs, and complete a white paper."
- Early Career Scientist Publication Award, USDA Forest Service, Rocky Mountain Research Station, March **2005**, for the publication: Ortega, Y. K., D. E. Pearson, and K. S. McKelvey. 2004. Effects of introduced

biological control agents and exotic plant invasion on native deer mouse populations. *Ecological Applications* 14:241-253.

Early Career Scientist Publication Award, USDA Forest Service, Rocky Mountain Research Station, March 2001, for the publication: Pearson, D. E., K. S. McKelvey, and L. F. Ruggiero. 2000. Non-target effects of an introduced biological control agent on deer mouse ecology. Oecologia 122(1):121-128.

SELECTED PRESENTATIONS

- Pearson, DE, TJ Clark, P Hahn. Conservation in the Anthropocene: can community ecology help avoid unintended outcomes and improve conservation success? 2021. GeneConvene Global Collaborative Webinars - Controlling Gene Drives, Foundation for the National Institutes of Health. 13 October 2021.
- Pearson, D.E. Y.K. Ortega, J. Runyon, J, Butler. 2019. Secondary invasion: the bane of weed management identifying and overcoming the gap. *Invited presentation*. Society for Ecological Restoration 8th World Conference, Cape Town, South Africa. September 24-28, 2019.
- Pearson, D.E. 2019. Scaling up restoration: from plots to landscapes. *Invited presentation*. Center of Excellence for Invasion Biology, Workshop: Scaling-up restoration: the mountain top that keeps eluding us. Stellenbosch University, Stellenbosch, South Africa.
- Pearson, D. E. 2019. Biological invasions. *Invited presentation*. Presentation to STEM Institute, Problem Based Learning Workshop. The Public House, Missoula MT July 22, 2019.
- Pearson, D. E. 2018. Community assembly theory as a framework for invasion ecology. Brigham Young University, Provo, Utah. 4 April 2018.
- Pearson, D. E., and Ortega, Y. K. 2017. The ecology and management of invasive plants: what are we trying to accomplish? *Keynote Address*. Washington State Weed Association Weed Conference 2017, Wenatchee Conference Center, Wenatchee, Washington. 1-3 November 2017.
- Pearson, D.E. 2015. Who Has the Home Team Advantage? Applying Community Assembly Rules to Understand Invasion – the Seed Predation Filter. Invited Seminar Speaker, Department of Plant and Wildlife Sciences Seminar Series. Brigham Young University, Provo, UT 5 November 2015
- Pearson, D.E. 2015. Applying community ecology to understand invertebrate-wildlife interactions in the context of management. Invited symposium speaker for, Use of Arthropods in wildlife and applied ecology: recognition of our common goals. 2015 Entomological Society of America Meeting, Synergy in Science, Minneapolis, MN November 15-18, 2015
- Pearson, D.E. 2015. Ecology and management of invasive species: What are we trying to do? *Invited Keynote address*, Crown of the Continent Managers Partnership, Annual Meeting, "People, Climate and Terrestrial Invasive Species: Taking Collective Action in the Crown of the Continent." Lethbridge, Alberta, Canada. 17 March 2015.
- Pearson, D.E. and Y.K. Ortega. 2015. Multispecies invasions: evaluating individual invader impacts, invasional meltdown, and management efficacy. *Invited presentation* for special symposium. Beyond invasional meltdown: implications and impacts of co-occurring invasive species and assessing future research needs. 100th Annual Meeting of the Ecological Society of America, Baltimore, MD August 2015.
- Pearson, D.E., Hierro, J. L., Eren, O. Ortega, Y.K., Villarreal, D., and Lekberg, Y. 2014. Biogeography of Plant Invasions. *Invited Presentation* Invasive Species Webinar Series Invasive Plants – Issues, Challenges, and Discoveries. Sponsored by the Grassland, Shrubland, and Desert Ecosystems Science Program, Rocky Mountain Research Station, Broadcast from Missoula MT, April 10, 2014

- Pearson, D.E. and Y. K. Ortega. 2013. Predicting the unpredictable: a heuristic framework for understanding effects of exotics on wildlife. *Invited Presentation* 20th Annual Wildlife Society Meetings, October 9, 2013. Milwaukee, WI
- Pearson, D.E. 2012. Applying indirect effects theory for improved biocontrol safety and efficacy. *Invited Presentation* Symposium on Improving the Safety and Effectiveness of Biological Control Agents of Weeds in the USA, Annual Meeting of the Entomological Society of America. Noxville, TN, November 14, 2012.
- Pearson, DE. 2012. Biological invasions as natural experiments: plant invasions as insights to predator-prey interactions. *Invited presentation* Department of Community Ecology Seminar Series, Helmholtz-Centre for Environmental Research, Leipzig, Germany June 14, 2012.
- Pearson, D. E., Y. K. Ortega. 2011. Ecology and management of invasive species. *Invited Presentation*. 64th Annual Meeting of the Western Society of Weed Science. March 7-10 2011, Spokane, WA.
- Pearson, D. E., Y. K. Ortega, J Hierro, O., Eren 2010. Addressing the global threat of biological invasions: a biogeographic and conceptual approach. *Invited Poster Presentation*. Kavli Frontiers in Science Symposium. Nov. 6-7, Irvine CA
- Pearson, D. E. 2009. Nontarget effects of host-specific biological control agents: lessons in applied ecology. *Invited Presentation* Departmental Seminar Series, Washington State University, 19 Oct. 2009, Pullman, WA.
- Pearson, D. E. 2009. Welcome to my parlor said the spider to the fly: exotic plants alter predator-prey interactions and elucidate trait- and density-mediated indirect effects. *Invited Presentation* EcoLunch Seminar Series, Washington State University, 20 Oct. 2009, Pullman, WA.
- Pearson D. E., and Y. K. Ortega. 2009. Ecology and Management of Invasive Species. *Invited Presentation*. Restoring the West Conference 2009 - Peaks to Valleys: Innovative land management for the Great Basin. 27-28 Oct, 2009, Utah State University, Logan, UT.
- Pearson, D. E. 2009. Biological invasions on oceanic islands: implications for island ecosystems and avifauna. *Invited Keynote Address*, Proceedings of the 3rd International Symposium on Migratory Birds. Seabirds in Danger: Invasive Species and Conservation of Island Ecosystems. 25 September 2009, Mokpo, Korea.
- Pearson, D. E. and Y. K. Ortega. 2009. Climate change and exotic weeds: what should we expect? *Invited presentation* for the United States Fish and Wildlife Service Integrated Pest Management and Invasives Species Coordinating Meeting, 16 July 2009, Great Falls MT.
- Pearson, D. E. 2009. Biological invasions and avian species: impacts, implications for native communities and management. *Invited opening presentation* for the Special Symposium - Biological invasions: consequences for native birds in a changing world. 79th Annual Meeting of the Cooper Ornithological Society. April 17 2009, Tucson AZ.
- Pearson, D. E. and Y. K. Ortega. 2008. Ecology and management of invasive species. *Invited presentation*, Montana Weed Control Association, Annual Meeting, January 16th Greatfalls, MT.
- Pearson, D. E. 2007. Indirect nontarget effects of spotted knapweed biological control agents due to food-web interactions. *Invited Presentation* Symposium on Biocontrol of *Centaurea* at the 55th Annual Meeting of the Entomological Society of America, 9-11 Dec. 2007, San Diego, CA.
- Pearson, D. E., R. M. Callaway, Y. K. Ortega. 2006. Ecological challenges of weed management in natural systems. *Invited presentation* for Weeds and their Management: A Problem for Wildlife? Special Symposium at the Montana Chapter of the Wildlife Society 2006 Annual Meeting, Helena, Montana 21-22 February 2006.
- Pearson, D. E. and R. M. Callaway. 2004. Nontarget effects of host-specific biological control agents. *Invited Presentation* 4th International Symposium on Science and Decision Making in the Biological Control of Weeds. Denver, CO, USA.