
School of Natural Resources and the Environment, Environment & Natural Resources 2, N384

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CHRONOLOGY OF EDUCATION

- **Ph.D.**, 2016, Wildlife Conservation and Management, University of Arizona, Tucson, AZ, Spatial Statistics and Remote Sensing Minor
- **M.Sc.**, 2002, Biology, Idaho State University
- **Post Baccalaureate Certificate in Geotechnologies**, Idaho State University, 2000 - 2002
- **B. Sc.**, 1998, Biology, Nebraska Wesleyan University 1994 - 1998
- **Areas of interest:** behavioral ecology (behavioral phenotypes, conservation behavior), habitat selection and space use (resource selection, habitat imprinting, home range dynamics), landscape connectivity and wildlife response to disturbance, physiological ecology, cartography, and geospatial modeling.

EXPERIENCE

- **PhD Research** *Wildlife Conservation and Mgmt, University of Arizona, 2009 – 2016*
 - Dissertation title: Proximate cues and ultimate consequences for natal dispersal in an altered forest landscape: influence of experience, behavior, and habitat.
- **Wildlife Biologist, Senior** *Red Squirrel Research Program, University of Arizona, 2005 - Present*
 - Research on spatial ecology and demography of an endangered population of North American red squirrel, small mammal ecology and conservation
 - Disseminate research via publications and presentations, maintain collaborations with state and federal agencies
 - Manage and maintain spatial data and associated databases, web site, and social media presence
 - Apply knowledge and expertise towards obtaining external grants for conservation research projects
 - Hire, train, supervise seasonal technicians, undergraduate research assistants, UBRP mentorship
- **Graduate Teaching Assistant** *University of Arizona, Wildlife Conservation and Management, Fall 2012*
 - Wildlife Conservation Behavior
- **Wildlife Research Assistant** *Idaho Department of Fish and Game, May - August, 2005*
 - Participate in large-scale study to assess occupancy and detection probability of Northern Goshawks in the Northern Rocky Mountains, U.S.A.
- **Research Associate** *Idaho State University, Department of Geosciences, May 2002 - August 2003, January 2004 – July 2004*
 - Work to develop geostatistical models to track significant temporal changes in well water pollutants for the state of Idaho, funded by Idaho Department of Water Resources
 - Contribute to groundwater flow model for the Snake River aquifer by estimating sediment interbed thickness between subsurface basalt flows
- **Lecturer** *Idaho State University, Dept. of Geosciences, August - December 2003*
 - Teach core courses in principles of GIS and GPS applications for research
- **Remote Sensing Technician** *Idaho Dept. of Fish and Game November 2002-February 2003*
 - Assist in creating habitat maps for big horn sheep prior to reintroduction to Jim Sage Mountains, Idaho

- **Graduate Teaching Assistant** *Idaho State University, Department of Biological Sciences 1999 - 2002*
 - Cell Biology, Biostatistics, *General Biology*, Geostatistical Spatial Data Analysis and Modeling
- **Master’s Research** *Idaho State University, Department of Biological Sciences 1999 – 2002*
 - Thesis title: Thermal ecology and thermoregulatory ability of 3 *Nicrophorus* (Coleoptera: Silphidae) species in Idaho and Colorado, USA
- **Goshawk Survey Technician** *Northern Rockies Conservation Cooperative, Summer 2000*
 - Survey for Northern Goshawks in central Idaho, determine presence, habitat associations
- **Undergraduate Research Assistant** *Rocky Mountain Biological Laboratory, Summer 1997, 1998*
 - Document demographic dependence of burying beetles on their resource base, small mammals, in alpine meadows in Colorado

COURSES TAUGHT

University of Arizona

OLLI 6814 **Wild Arizona: current natural resources and wildlife conservation research and issues**, Continuing and Professional Education course – Osher Lifelong Learning Institute Green Valley Campus, fall & spring sessions 2015, fall 2016

Idaho State University

GEOL 4403/5503 **Principles of GIS**, 3 credits, undergraduate & graduate – Principle core concepts in Geographic Information Systems, graduate credit requires individual research projects
GEOL 5507 **GPS Applications in Research**, 2 credits, core concepts behind GPS technology, receiver types, data collection, post processing, analysis, and integration with Geographic Information Systems. Individual projects required

GUEST LECTURER

University of Arizona

WFSC447/547 **Wildlife Conservation Behavior**, lectures on levels of analysis, natal dispersal, role of predators, trophic cascades, 2012, 2014
WFSC 496B/596 B **Wildlife and Fisheries Seminar**, present research on how dispersers decide where to settle, 2014

OUTREACH TEACHING EXPERIENCE

- **Bylas and San Carlos Native American Summer Youth Program** *Pinaleños, Summers, 2011 – present*
 Work with Mt. Graham International Observatory to provide hands-on learning experiences for program participants (high school students) in wildlife monitoring techniques (including radio telemetry, small mammal trapping, establishing transects) and geospatial technology (including map and compass navigation, GPS data collection, spatial data analysis within a GIS towards a specific problem or goal, creation of map products).
- **Native American STEM outreach projects** *Ft. Thomas & Tucson AZ, 2011 – 2012*
 Work with local Native American schools (Ft. Thomas High School, Ha:san Preparatory & Leadership School) to present research by other Native American Scholars in Natural Resources at the University of Arizona, provide hands-on learning experiences in wildlife monitoring techniques (radio telemetry, small mammal

trapping) and geospatial technology (including map and compass navigation, spatial data analysis within a GIS).

- **Boy Scouts of America endangered species education** Safford, AZ, 2011-2012
Work with Safford Arizona Boy Scouts troops as an environmental science merit badge liaison to present talks on endangered species research, discuss skills needed for a career in wildlife conservation, provide opportunities for hands-on experience in wildlife techniques including behavioral observations and radio-telemetry.
- **Biosphere 2 Science Saturday public education events** Oracle, AZ, 2012
Provide educational lectures and demonstrations at the University of Arizona's Biosphere 2 discussing Sky Island Biodiversity, sampling and studying cryptic species, and why both are so important.
- **Conservation Café 2014 science education series** Tucson, AZ, 2014
Discuss wildlife conservation and natal dispersal with an engaged public, together we explored reasons why understanding the juvenile age class is critical for wildlife conservation and management

ONLINE COURSE DEVELOPMENT TRAINING

- RNR696A **Online Learning in Wildlife and Fisheries Science** Online learning fundamentals & course development, Fall 2015
- APPQMR **Applying Quality Matters Rubric Workshop** Certified Quality Matters Peer Reviewer, Fall 2015

REFEREED PUBLICATIONS

- Jessen, T. G. , A. K. Kilanowski, R. Nathan Gwinn, **M. J. Merrick**, and J. L. Koprowski. 2016. *Microsciurus flaviventer* (Rodentia: Sciuridae). *Mammalian Species* 48:59-65.
- Merrick, M. J.**, K. L. Evans, and S. Bertolino. 2016. Urban grey squirrel: ecology, associated impacts, and management challenges. Chapter 17 *in* The Grey Squirrel: Ecology & Management of an Invasive Species in Europe, C. Shuttleworth and P. W. W. Lurz (Eds) European Squirrel Initiative, Suffolk, United Kingdom. *In press*. Invited collaboration.
- Kellam, J., D. Jansen, A. Johnson, R. Arwood, **M. J. Merrick**, and J. L. Koprowski. 2016. Big Cypress fox squirrel home range and habitat use in cypress dome swamp and pine forest mosaic habitats. *Journal of Mammalogy* 97:200-210.
- Anhold J, Wilcox C, T. Mellin, **M. Merrick**, A. Lynch, M. Waltermann, D. Falk, J. Koprowski, D. Laes, D. Evans, H. Fisk. 2015 Using LiDAR to evaluate forest landscape and health factors and their relationship to habitat of the endangered Mount Graham red squirrel on the Coronado National Forest, Pinaleno Mountains, Arizona. In: K. M. Potter, B. L. Conkling (Eds) Forest health monitoring: National status, trends, and analysis 2014. pgs 133–142. Gen. Tech. Rep. SRS-209, U.S.D.A. Forest Service Southern Research Station, Asheville, NC.
- Merrick, M. J.**, S. L. Ketcham, and J. L. Koprowski. 2014. *Sciurus ignitus* (Rodentia: Sciuridae). *Mammalian Species* 46: 93-100.
- Merrick, M. J.**, J. L. Koprowski, and C. Wilcox. 2013. Into the third dimension: benefits of incorporating LiDAR data in wildlife habitat models. In Gottfried, Gerald J.; Ffolliott, Peter F.; Gebow, Brooke S.; Eskew, Lane G.; Collins, Loa C., comps. Merging science and management in a rapidly changing world: Biodiversity and management of the Madrean Archipelago III and 7th Conference on Research and Resource Management in the Southwestern Deserts; 2012 May 1-5; Tucson, AZ. Proceedings. RMRS-P-67. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Koprowski, J. L., S. L. Doumas, **M. J. Merrick**, B. Oleson, E. E. Posthumus, T. G. Jessen, and R. N. Gwinn. 2013. It's lonely at the top: biodiversity at risk to loss from climate change. In Gottfried, Gerald J.; Ffolliott, Peter F.; Gebow, Brooke S.; Eskew, Lane G.; Collins, Loa C., comps. Merging science and management in a rapidly changing world: Biodiversity and management of the Madrean Archipelago III and 7th

Conference on Research and Resource Management in the Southwestern Deserts; 2012 May 1-5; Tucson, AZ. Proceedings. RMRS-P-67. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

- Merrick, M. J.**, J. L. Koprowski, and R. N. Gwinn. 2012. *Sciurus stramineus* (Rodentia: Sciuridae). Mammalian Species 44: 44-50.
- Gwinn, R. N., J. L. Koprowski, Jessen, R., and **M. Merrick**. 2012. *Sciurus spadiceus* (Rodentia: Sciuridae). Mammalian Species. 44: 59-63
- Merrick, M. J.**, J. L. Koprowski, R. N. Gwinn, G. H. Palmer, and C. A. Zugmeyer. 2011. Surveys to determine the status of red squirrels in Guadalupe Mountains National Park, Texas. The Southwestern Naturalist 56: 24-28.
- Jessen, R. R., **M. J. Merrick**, J. L. Koprowski, and O. Ramirez. 2011. Presence of Guayaquil squirrels on the central coast of Peru: an apparent introduction. Mammalia 74: 443-444.
- Merrick, M. J.**, R. N. Gwinn, R. L. Minor, R. R. Jessen, T. G. Jessen, V. L. Greer, and J. L. Koprowski. 2010. Endangered Mt. Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*) uses nest following lightning strike. The Southwestern Naturalist 55: 123-124.
- Koprowski, J. L., S. R. B. King, and **M. J. Merrick**. 2007. Expanded home ranges in a peripheral population: space use of endangered Mt. Graham red squirrels. Endangered Species Research 3:1-6.
- Merrick, M. J.**, S. R. Bertelsen, and J. L. Koprowski. 2007. Characteristics of Mount Graham red squirrel nest sites in a mixed conifer forest. Journal of Wildlife Management 71:1958-1963.
- Merrick, M. J.**, and R. J. Smith. 2004. Temperature regulation in burying beetles (*Nicrophorus* spp.: Coleoptera:Silphidae): effects of body size, morphology, and environmental temperature. Journal of Experimental Biology. 207: 723-733
- Smith, R. J., and **M. J. Merrick**. 2001. Resource availability and population dynamics of *Nicrophorus investigator*, an obligate carrion breeder. Ecological Entomology. 26:173-180
- Smith, R. J., A. Hines, S. Richmond, **M. Merrick**, A. Drew, and R. Fargo. 2000. Altitudinal variation in body size and population density of *Nicrophorus investigator* (Coleoptera: Silphidae). Environmental Entomology. 29:290-298

MANUSCRIPTS/BOOK CHAPTERS IN REVIEW OR PREPARATION (* denotes dissertation chapters)

- Goldstein, E. A., **M. J. Merrick**, and J. L. Koprowski 2016. Functional semelparity drives population dynamics and endangers a peripheral population. *In revision*, Biological Conservation.
- ***Merrick, M. J.** and J. L. Koprowski. Sex-biased natal dispersal at the range periphery: the role of personality, resources, and maternal condition. *In revision*, Ecology and Evolution.
- ***Merrick, M. J.** and J. L. Koprowski. Evidence of natal habitat preference induction within a single habitat type. *In revision*, Proceedings of the Royal Society B: Biological Sciences.
- ***Merrick, M. J.** and J. L. Koprowski. Circuit theory to estimate natal dispersal routes and perceived landscape connectivity for an endangered forest obligate. *In revision*, Landscape Ecology.
- ***Merrick, M. J.** and J. L. Koprowski. Should we consider behavior in applied wildlife conservation studies? *In revision*, Conservation Biology, July 2016.
- Wilson, D. E., and **M. J. Merrick**. 2019. Part I. ASM through the years: leadership. Journal of Mammalogy *Special 100th Anniversary Issue* released in 2019. *In prep*, invited collaboration.
- Merrick, M. J.** and J. L. Koprowski. Variation in individual behavior phenotypes: the role of heredity, environment, and maternal effects. Target: Behavioral Ecology and Sociobiology.
- Merrick, M. J.** and J. L. Koprowski. Influence of burn severity and fuel reduction treatments on dispersal movements of an endangered forest obligate. *In prep*, Forest Ecology and Management
- Merrick, M. J.**, J. L. Koprowski, and D. J. A. Wood. Endangered food web: survival and cause specific mortality in Mt. Graham red squirrels. In preparation for submission to Biological Conservation.
- Scobie, E. H., **M. J. Merrick**, and J. L. Koprowski. The subterranean life of an arboreal squirrel: ground nest use in Mt. Graham red squirrels (*Tamiasciurus hudsonicus*). In preparation for submission to The Journal of Mammalogy.

POPULAR PUBLICATIONS

Merrick, M. J. 2014. A new dimension for spatial ecology: LiDAR as a tool for improving wildlife habitat models and fostering collaboration. *Remotely Wild - The Wildlife Society's Spatial Ecology and Telemetry Working Group newsletter*, spring edition.

PUBLISHED TECHNICAL REPORTS

Koprowski, J. L., **M. J. Merrick**, C. Spencer, and M. Stokes. 2016. Habitat use and poaching risk for black rhinoceros (*Diceros bicornis*) and white rhinoceros (*Ceratotherium simum*) in Balule Nature Reserve, South Africa insight through spatially explicit models. Phoenix Zoo Conservation and Science Grant Annual Progress Report & Final Report.

Koprowski, J. L. and **M. J. Merrick**. Influence of burn severity and fuel reduction treatments on dispersal movements of an endangered forest obligate. Final Project Report (JFSP Project Number: 13-3-01-15). August 30, 2015. Tucson, AZ.

Welhan, J. A., R. L. Farabaugh, **M. J. Merrick**, and S. R. Anderson. 2007. Geostatistical modeling of sediment abundance in a heterogeneous basalt aquifer at the Idaho National Laboratory, Idaho. U.S. Geological Survey Scientific Investigations Report 2006-5316.

Welhan, J. A., and **M. J. Merrick**. 2004. Statewide network data analysis and kriging project - final report. Idaho Department of Water Resources Publication.

GRANTS AND CONTRACTS

2015-16	Habitat use and poaching risk for black rhinoceros (<i>Diceros bicornis</i>) and white rhinoceros (<i>Ceratotherium simum</i>) in Balule Nature Reserve, South Africa: insight through spatially explicit models, Co-Principal Investigator, Phoenix Zoo Conservation and Science Grant, \$3,000
2015	Continuing Education Grant, Arizona Chapter of The Wildlife Society, \$500
2013-15	Influence of burn severity and fuel reduction treatments on dispersal movements of an endangered forest obligate, Student Investigator, Joint Fire Science Program Graduate Research Innovation Award, \$25,000
2013, 2014	American Society of Mammalogists Graduate Student Travel Grant, \$300 each
2012	The Wildlife Society Spatial Ecology and Telemetry Working Group graduate travel grant, \$500
2011, 13-15	The University of Arizona Institute for the Environment Student Travel Grants, \$500 each
2010-15	The University of Arizona Graduate and Professional Student Council Student Travel Grants, \$500-600 each
2010	T&E Inc. Grant for Conservation Biology Research, \$2,500
2010	The Southwestern Association of Naturalists Howard McCarley student research award, \$1,000
2010	The American Museum of Natural History Theodore Roosevelt Memorial Fund research grant, \$1,500
2010	The American Society of Mammalogists Grant In Aid of Research, \$1,500
2000	Idaho State University Graduate Student Research and Scholarship Committee Grant, \$1,500

HONORS AND SCHOLARSHIPS

- American Society of Mammalogists ASM Fellowship, 2014, \$8,000

- University of Arizona School of Natural Resources and the Environment Outstanding Graduate Student Scholarly Achievement Award, 2013
- Arizona Chapter of The Wildlife Society Roger Hungerford Wildlife Conservation and Management Student Award, 2013
- Carson Scholars Program/Biosphere 2 Science and Society Fellowship, 2011 – 2012, \$3,000
- The University of Arizona/NASA Space Grant Consortium Fellowship, 2010 – 2012, \$20,000
- Best student paper presentation Pacific Branch meeting of the Entomological Society of America, 2002, \$300

PROFESSIONAL PRESENTATIONS

- American Society of Mammalogists 96th Annual Meeting, June 24-28 2016. **Merrick, M. J.**, J. L. Koprowski, C. Spencer, and M. Stokes. Black and white rhino space use and resource selection in the lowveld of South Africa. Paper presentation
- 49th Joint Annual Meeting of the New Mexico and Arizona chapters of The Wildlife Society and Arizona/New Mexico Chapter of the American Fisheries Society, February 4-6, 2016. Merrick, M. J. and J. L. Koprowski. Towards an increased understanding of space use and poaching risk in rhinos: vegetation mapping in the lowveld of South Africa. Paper presentation.
- Vth International Wildlife Management Congress, July 26-30 2015, Sapporo, Japan. **Merrick, M. J.** and J. L. Koprowski. Structural thresholds and landscape resistance for natal dispersal movements in an endangered forest obligate. Paper presentation.
- American Society of Mammalogists 95th Annual Meeting, June 12-16 2015. **Merrick, M. J.** and J. L. Koprowski. Natal dispersal on the edge: why they leave, why they stop, how they get there. *Invited plenary paper presentation.
- 7th International Colloquium on Arboreal Squirrels, June 1-5 2015, Helsinki Finland. **Merrick, M. J.** and J. L. Koprowski. Natal dispersal on the edge: why they leave, why they stop, how they get there. Paper presentation.
- 48th Joint Annual Meeting of the New Mexico and Arizona chapters of The Wildlife Society and Arizona/New Mexico Chapter of the American Fisheries Society, February 2015. **Merrick, M. J.** and J. L. Koprowski. Identifying structural thresholds and landscape resistance for natal dispersal movements in an endangered forest obligate. Paper presentation.
- The Wildlife Society 21st Annual Conference, October 2014. **Merrick, M. J.**, and J. L. Koprowski. Expanded-sex-biased natal dispersal in an isolated, peripheral mammal population: tests of mammalian dispersal theory. Paper presentation.
- American Society of Mammalogists 94rd Annual Meeting, June 2014. **Merrick, M. J.** and J. L. Koprowski. Factors influencing expanded sex-biased natal dispersal in an isolated, peripheral mammal population. Paper presentation.
- 47th Joint Annual Meeting of the New Mexico and Arizona chapters of The Wildlife Society and Arizona/New Mexico Chapter of the American Fisheries Society, February 2014. **Merrick, M. J.** and J. L. Koprowski. Intrinsic and extrinsic factors influencing natal dispersal movements in an endangered forest obligate. Paper presentation.
- The Wildlife Society 20th Annual Conference, October 2013. **Merrick, M. J.**, and J. L. Koprowski. How do naïve dispersers select a place to settle? Evidence of natal habitat experience in an altered forest landscape. Paper presentation.
- American Society of Mammalogists 93rd Annual Meeting, June 2013. **Merrick, M. J.** and J. L. Koprowski. Do naïve dispersers rely on natal habitat cues when making settlement decisions? Evidence of habitat cueing and potential consequences in an altered forest landscape. Paper presentation.
- 46th Joint Annual Meeting of the New Mexico and Arizona chapters of The Wildlife Society and Arizona/New Mexico Chapter of the American Fisheries Society, February 2013. **Merrick, M. J.** and J. L. Koprowski. How do dispersers select a place to settle? Exploring the role of natal habitat experience in an altered forest landscape. Paper presentation.

MELISSA J. MERRICK

September 2016

- The Wildlife Society 19th Annual Conference, October 2012. **Merrick, M. J.** and J. L. Koprowski. Exploring the role of individual behavior and natal experience in dispersal of an endangered forest obligate. Poster presentation.
- American Society of Mammalogists 92nd Annual Meeting, June 2012. **Merrick, M. J.** and J. L. Koprowski. Exploring the role of individual behavior and natal experience in dispersal of an endangered forest obligate. Paper presentation.
- Biodiversity and Management of the Madrean Archipelago III: Merging Science and management in a Rapidly Changing World, May 2012. **Merrick, M. J.**, J. L. Koprowski, and C. Wilcox. Into the third dimension: Benefits of incorporating LiDAR data in wildlife habitat models. Paper presentation.
- 6th International Colloquium on Arboreal Squirrels, February 2012. **Merrick, M. J.**, J. L. Koprowski. Dispersal and settlement in an endangered forest obligate: role of behavior and habitat. Paper presentation
- The Wildlife Society 18th Annual Conference, November 2011. **Merrick, M. J.**, J. L. Koprowski. Age-specific space use in an endangered forest obligate. Poster presentation.
- American Society of Mammalogists 91st Annual Meeting, June 2011. **Merrick, M. J.** and J. L. Koprowski. Dispersal and settlement in an endangered forest obligate: multiple approaches. Paper presentation.
- 44th Annual Joint Meeting Arizona and New Mexico Chapters of the Wildlife Society & The American Fisheries Society, February 2011. 2011. **Merrick, M. J.**, J. L. Koprowski. Dispersal and settlement in an endangered forest obligate: multiple approaches. Paper presentations
- 98th Annual Meeting of the American Society of Mammalogists June, 2011. **Merrick, M. J.**, J. L. Koprowski. Dispersal and settlement in an endangered forest obligate: multiple approaches. Paper presentations
- American Society of Mammalogists 90th Annual Meeting, June 2010. **Merrick, M. J.**, J. L. Koprowski, C. Wilcox, S. Dale, D. Laes, and B. Mitchell. Mammals in the third dimension: Incorporating LiDAR in wildlife habitat models. Paper presentation
- 43rd Annual Joint Meeting Arizona and New Mexico Chapters of the Wildlife Society & The American Fisheries Society, February 2010. **Merrick, M. J.**, J. L. Koprowski, M. A. Alanen, C. P. Wilcox, S. Dale, D. Laes, and B. Mitchell. Improving habitat models via LiDAR: The Pinaleno LiDAR project and the Mt. Graham red squirrel. Paper presentation
- Fifth International Colloquium on Arboreal Squirrels, August 2009. **Merrick, M. J.**, J. L. Koprowski, and D. J. A. Wood. Living on the edge: Survival and cause specific mortality in an endangered, peripheral red squirrel population. Paper presentation
- The Wildlife Society 15th Annual Conference, November 2008, 42nd Annual Joint Meeting Arizona and New Mexico Chapters of the Wildlife Society & The American Fisheries Society, 2009. **Merrick, M.J.**, and J. L. Koprowski. Does red squirrel space use track resource availability? Evidence from an endangered, peripheral population. Paper and Poster presentations
- The Wildlife Society 14th Annual Conference, September 2007, 41st Annual Joint Meeting Arizona and New Mexico Chapters of the Wildlife Society & The American Fisheries Society, 2008. **Merrick, M.J.**, J. L. Koprowski, and A. J. Edelman. Home range composition and space sharing between Abert's squirrels and endangered Mt. Graham red squirrels.
- 40th Annual Joint Meeting Arizona and New Mexico Chapters of The Wildlife Society & Arizona and New Mexico Chapter of The American Fisheries Society, 2007. **Merrick, M. J.**, D. J. A. Wood, and J. L. Koprowski. Mortalities in the endangered Mt. Graham red squirrel: Influence of habitat quality and predation. Paper presentation
- The Wildlife Society 13th Annual Conference, September 2006. **Merrick, M. J.**, D. J. A. Wood, and J. L. Koprowski. Mortalities in the endangered Mt. Graham red squirrel: Influence of predation and habitat quality. Paper presentation
- 39th Annual Joint Meeting Arizona and New Mexico Chapters of The Wildlife Society & Arizona and New Mexico Chapter of The American Fisheries Society, 2006. **Merrick, M. J.**, S. R. Bertelsen, and J. L. Koprowski. Nest site selection characteristics of the endangered Mt. Graham red Squirrel in a mixed conifer forest. Paper Presentation

Annual Meeting of the Geological Society of America, 2004. Farabaugh, R., Welhan, J., and **Merrick, M.J.** Preliminary results of geostatistical modeling of the eastern Snake River Plain aquifer. Paper Presentation

Rocky Mountain/Cordilleran meeting of the Geological Society of America, 2004. Welhan, J. A., **M. Merrick**, K. Neely, and E. Hagan. Probability mapping as a decision tool for ground water quality monitoring. Paper Presentation

Pacific Branch meeting of the Entomological Society of America, 2002. **Merrick, M. J.** Thermal ecology and thermoregulatory ability of three *Nicrophorus* species in Idaho. Paper Presentation

Nebraska Academy of Sciences, 1998. **Merrick, M. J.** Correlating rodent diversity and density with burying beetle population size and reproductive behavior. Paper Presentation

INVITED PRESENTATIONS

University of Arizona Science Café Series 2014. **Merrick, M. J.** Why should we care where young animals go?

USFS Pinaleno LiDAR Workshop, August 2011. **Merrick, M. J.**, J. L. Koprowski, C. P. Wilcox, B. Mitchell, D. Laes, and S. Dale. Wildlife in the third dimension: incorporating LiDAR in wildlife habitat models.

SERVICE AND PROFESSIONAL DEVELOPMENT

Reviewer:

- Landscape Ecology and Urban Planning
- Canadian Wildlife Biology and Management
- BMC Ecology
- Journal of Wildlife Management
- Journal of Mammalogy
- Ecological Modelling
- Ecological Applications
- Behavioral Ecology
- Mammalian Biology
- Hystrix
- Book chapter *in* The Ecology, Conservation and Management of Red Squirrels in Europe
- The Southwestern Naturalist
- Journal of Insect Physiology

Committee membership:

- Member, The Wildlife Society Spatial Ecology and Telemetry Working Group
- Member & Chair Elect, The Wildlife Society International Wildlife Management Working Group
- Member, The Wildlife Society Southwest Section Geospatial Advisory Committee
- Member, The American Society of Mammalogists Grants-in-Aid Committee
- Member, The American Society of Mammalogists Education and Graduate Student Committee
- Member, The American Society of Mammalogists Public Outreach and Education Committee
- Board Member, The American Society of Mammalogists Board of Directors (Student Member) 2014 - 2017
- The University of Arizona Graduate and Professional Student Council Travel Grant Award Committee 2010, 2011, 2012, 2013, 2015
- Student representative, The University of Arizona School of Natural Resources and the Environment Large Mammal Landscape Ecologist assistant professor search committee, 2011

Workshops and symposia development:

- Organizer, "How to be a good peer-reviewer: what editors and authors need from you", The American Society of Mammalogists Annual Meeting, Minneapolis, MN, June 2016.

- Organizer, “A world of opportunities and challenges: graduate students seeking international collaboration and education in wildlife ecology and conservation”, The Wildlife Society International Wildlife Management Working Group sponsored symposium, Vth International Wildlife Management Congress, Sapporo, Japan, July 2015.
- Organizer, “How to write and publish a scientific paper: advice from the experts”, The American Society of Mammalogists Annual Meeting, Jacksonville, FL, June 2015.
- Organizer, “Professional interview strategies: crafting your message”, The American Society of Mammalogists Annual meeting, Oklahoma City, OK, 2014.

Professional affiliations:

- The Wildlife Society (National, Southwest Section, Arizona Chapter, Women Of Wildlife (WOW))
- The American Society of Mammalogists
- The Animal Behavior Society
- The American Society of Naturalists
- The Society for Conservation Biology
- Sigma Xi Scientific Research Society
- The American Academy for the Advancement of Science
- The Southwestern Association of Naturalists
- The Rocky Mountain Biological Laboratory
- The University of Arizona Natural Resources Graduate Student Organization

Volunteerism & community service:

- Volunteer, 2015 Tucson Festival of Books, School of Natural Resources & the Environment outreach
- Judge, 2014 Southern Arizona Regional Science and Engineering Fair, high school animal sciences
- Sky Island animal tracks and sign display (2012-2014) at Flandrau Science Center, University of Arizona
- Arizona Game and Fish Department black-tailed prairie dog reintroduction program, antelope jackrabbit surveys & capture, bat diversity surveys on DOD lands
- Buecher Biological Consulting lesser long-nosed bat space use analyses 2013 - 2015
- Ben’s Bells project, Tucson, AZ

Training:

- Incorporating climate data into geospatial models workshop, TWS SW Section, 2 February 2016
- Venomous reptile handling and safety workshop, Arizona Chapter of The Wildlife Society, 3 February 2016
- University of Arizona Office of Digital Learning, Applying Quality Matters Rubric Workshop, 9 October 2015
- The Wildlife Society Estimating Resource Selection using R by Trent McDonald and others, 25 October 2014
- The Wildlife Society Adehabitat R package workshop by Clement Calenge, 5 October 2013
- American Society of Mammalogists Ecological Niche Modeling Workshop in MaxEnt by Robert Anderson, Mariano Soley, and Robert Boria, 16 June 2013
- The Wildlife Society Spatial Statistics in R workshop by Tabitha Graves, Mevin Hooten, and Ryan Nielson, 13 October, 2012
- University of Idaho Wildlife Home Range, Habitat Selection, and Space Use workshop by Dr. Oz Garton, January 3-6 2012
- University of Arizona Graduate and Professional Student Council R workshop, July 16-17 2011
- Pinaleño LiDAR workshops, August 17-19 2009; August 22 - 23 2011.
- AIC Model selection and multi model inference short course by David R. Anderson, May 2009
- University of Arizona workshop on creating job requisitions for successful hiring, winter 2007
- University of Arizona Institutional Animal Care and Use Committee safety classes, fall 2005
- Trimble Pro-XR GPS one day workshop (in addition to a full semester GPS class), spring 2002
- USGS one day Metadata workshop, spring 2002

- Rocky Mountain Biological Laboratory - ornithology and independent research, summer 1997

Extracurricular activities:

- May 2009 - Assisted with implementation of Neotropical tree squirrel research & spatial data collection in the Peruvian Amazon.
- May 2007 - Led small mammal survey within Guadalupe Mountain National Park, Texas to determine the status of North American red squirrels and other small mammal species within the mixed conifer zone.
- May 2006 - Assisted with study of endemic Mearns's squirrel (*Tamiasciurus mearnsi*) in Parque Nacional Sierra de San Pedro Mártir, Baja California.
- December 2004 – March 2005: Attended Spanish language school in Oaxaca, OAX, MX (45 hours -3.5 credit hour equivalent).
- July 2004 – September 2004: Backpacking 804 km (500 miles) of the Continental Divide Trail, Colorado.

REFERENCES

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