

Vitae: James L. Dooley, Jr.

Department of Biology
Muskingum University, New Concord, OH 43762
740- 826-8227 - jdooley@muskingum.edu

1 July, 2023

I. Professional Experience

2012 -	Lovejoy Professor of Biology and Director of Conservation Science, Muskingum University
2008-2013	Chair, Biology Department, Muskingum University
2004-2012	Associate Professor of Biology and Director of Conservation Science, Muskingum University
1998-2004	Assistant Professor of Biology and Director of Conservation Science, Muskingum College
1998-	Research Associate, The International Center for the Preservation of Wild Animals (the Wilds)
1997-1998	Adjunct Assistant Professor, Shenandoah University
1993-1998	Postdoctoral Research Associate, Blandy Experimental Farm, University of Virginia
1989-1993	Graduate Teaching Assistant, Department of Environmental Sciences, University of Virginia
	Graduate Research Assistant, Blandy Experimental Farm, University of Virginia
1988-1989	Research Technician, Department of Biology, University of Virginia
1983-1986	Graduate Teaching Assistant, Department of Environmental Sciences, University of Virginia
1981-1983	Research Technician, Department of Biology, University of Virginia

II. Education

Graduate:	Ph.D. (Environmental Sciences), University of Virginia, 1993 "The Influence of Local Patch Structure on the Demography of Two Grassland Rodents"
	M.S. (Environmental Sciences), University of Virginia, 1986 "An Experimental Examination of Nest Site Selection by Two <i>Peromyscus</i> Species"
Undergraduate:	B.A. (English Literature), University of Virginia, 1981

III. Teaching

Awards

2004 -- William Oxley Thompson Excellence in Teaching Award, Muskingum College

1985 -- Fred H. Moore Teaching Award, Department of Environmental Sciences,
University of Virginia

Courses Taught

Animal Studies: Career Development
Animal Behavior
Conservation Biology
Conservation Science Discussion
Conservation Science Research Methods
Ecology
Environmental Ethics [visiting participant]
Evolution
Evolution for Non-Science Majors
Field Ecology
Freshman Seminar
Natural History
Organismal Biology I & II
Topics in Conservation Science
Terrestrial Ecology

IV. Research Awards

1999 - Green Foundation Award, A Comparison of Small Mammal Demography and Plant Community Structure Across a Temporal Gradient of Habitat Alteration, \$5,000

1996, 1997, 1998 - National Science Foundation, Research Experience for Undergraduates supplement requests, with Michael A. Bowers, \$4925 each award

1995 - National Science Foundation, "Experimental tests of within and between patch processes at the microlandscape scale: An EMS approach using *Microtus pennsylvanicus*," with Michael A. Bowers, \$300,000

1992 - National Science Foundation, "Habitat Patchiness, Dispersal and Population Structure: Tests of Patch Dynamical and Demographic Models Using Small Mammals," with Michael A. Bowers, \$217,242

1991 - Sigma Xi Research Award, \$300

1987, 1990, 1991 - Blandy Experimental Farm Research Awards, \$2300 each year

1987 - Moore Research Fellowship, \$2000

1984 - Mountain Lake Biological Station Research Fellowship, \$500.00

1984 - Moore Research Fellowship, \$750

V. Professional Service

National Science Foundation Dissertation Improvement Awards Panel Member: 1995-96, 1998-1999, 2001

VI. Presentations at National/International Meetings

Dooley, J.L. and D.I. Ingold. Population Trends of Grassland Birds in an Exotic, Cool-Season Landscape Across Field Seasons. Presented at the 2019 Ecological Society of America Meeting, Louisville, KY.

Wolf, Tiffany M., J L. Dooley and B. A. Wolfe. A study of the prevalence of West Nile virus in a population of American Kestrels (*Falco sparverius*) in southeastern Ohio. Presented at the 2007 Ohio Avian Ecology & Conservation Conference, Columbus Ohio

Ingold, Danny J., J.L. Dooley and N. Cavender. Nest site fidelity in grassland birds on a reclaimed strip mine: 6 years of data. Presented at the annual 2007 meeting of the Wilson Ornithological Society in Boston, MA.

Wolf, Tiffany M. and J L. Dooley. A study of the prevalence of West Nile virus in a population of American Kestrels (*Falco sparverius*) in southeastern Ohio during the nesting season. Presented at the 2006 Wildlife Disease Association meeting Storrs Connecticut

Wolf, Tiffany M., A. Rae Gandolf, J L. Dooley, M.W. Atkinson. Evaluation of the efficacy of west nile virus vaccination in the greater one-horned rhinoceros (*Rhinoceros unicornis*). Presented at the 2005 American Association of Zoo Veterinarians meeting in Omaha Nebraska.

Gandolf, A. Rae and J.L. Dooley. Reintroduction of ospreys (*Pandion halietus*) to *the Wilds*, in Ohio. Part I: environmental risk assessment through toxicological analysis of fish. Presented at the 2004 American Association of Zoo Veterinarians meeting in San Diego, California.

Van Horn, S., J.L. Dooley & W. Huber. The Use of GIS in Interdisciplinary Research/Service Learning Projects. Presented at the 2004 Meeting of CUR (Council on Undergraduate Research). La Crosse, Wisconsin.

Dooley, J.L. & M.A. Bowers. Tests of habitat fragmentation and resource distribution effects on the population performance of *Microtus pennsylvanicus*. Presented at 2001 Ecological Society of America Meeting, Madison, WI.

Sacchi, C.F. and J.L. Dooley, Jr. Reproductive compensation by wild carrot, *Daucus carota*: The interaction of plant competition and mammalian herbivory. Presented at the 2000 Ecological Society of America Meeting, Snowbird, Utah

Dooley, J.L. and M.A. Bowers. Evaluations of Resource Distribution & Habitat Fragmentation Effects: Tests of Landscape & Source/Sink Predictions. Presented at the 1998 Ecological Society of America Meeting, Baltimore, MD

Bowers, M.A. and J.L. Dooley. Ecological Model Systems: Third Generation Predictions and Results. Presented at the 1998 American Society of Mammalogists Meeting, Blacksburg, VA

Dooley, J. L. and M. A. Bowers. A field test of habitat fragmentation and patch size effects on demography. Presented at 1996 Ecological Society of America meeting, Providence , RI.

Dooley, J. L. and M. A. Bowers. The demographic consequences of habitat patch structure in an old-field rodent community. Presented at 1994 Ecological Society of America meeting, Knoxville, TN.

Dooley, J. L. and M. A. Bowers. The role of dispersal as an influence on the local demography of two rodents in a patchy habitat. Presented at 1994 American Society of Mammalogists meeting, Washington, D.C.

Porter, J. H. and J. L. Dooley. Spatial sampling designs for detecting animal movements. Presented at 1994 Ecological Society of America meeting, Knoxville, TN.

Dooley, J. L. and M. A. Bowers. The Consequences of Habitat Patch Structure and Fragmentation in an Old-Field Rodent Community. Presented at 1992 Society for Conservation Biology meeting, Blacksburg, Virginia.

Dooley, J. L. and R. D. Dueser. Mechanisms for coexistence and nest site selection among two *Peromyscus* species. Presented at 1990 American Society of Mammalogists meeting, Frostburg, Maryland.

Porter, J. H. and J. L. Dooley. Distributions of Dispersal Distances: Facts or Artifacts? Presented at 1990 Ecological Society of America meeting, Snowbird, Utah.

Dueser, R. D., J. L. Dooley, and G. J. Taylor. Habitat structure, forest composition and landscape dimensions as components of habitat suitability for the Delmarva fox squirrel. Presented at 1987 Landscape Ecology meeting, Charlottesville, VA.

Dueser, R. D., J. H. Porter and J. L. Dooley. Direct Tests for competition in North American rodent communities: synthesis and prognosis for the future. Presented at 1986 Ecological Society of America meeting, Syracuse, New York.

VII. Mentored Research with Students

As of May 2023, I have overseen 86 completed senior research projects. All involve preparation of a detailed proposal, a period of data collection, and preparation of a thesis document in the form of a professional manuscript over a 16-month period. In addition, most projects (except for 1 in 2020 owing to Covid-19) have been presented either orally or in poster format during Muskingum University's annual Science Week activities. Beginning in 1999, most student research projects have also been presented at the annual meeting of the Ohio Academy of Science. Please see (http://muskingum.edu/~jdooley/student_res.html) for a complete listing of project titles.

VIII. Refereed Publications (**bold-underline** indicates student co-authors)

Reproductive ecology of *Erigeron speciosus*, a montane perennial herb: evidence of self-incompatibility and outbreeding depression. Submitted to the Southwestern Naturalist (in review at present). Don Ingold, Paul J. CaraDonna, James Dooley, Danny Ingold, and Amy M. Iler*

Ingold, D.J. and J.L. Dooley. 2013. Nesting success of grassland and shrub-nesting birds on the Wilds, an Ohio reclaimed surface mine. The Ohio Journal of Science: 111 (2-5): 37-41

Gandolf, A. Rae, Å. Fahlman, J. M. Arnemo, J. L. Dooley and R. Hamlin. 2010. Baseline normal values and phylogenetic class of the electrocardiogram of anesthetized free-ranging brown bears (*Ursus arctos*). Journal of Wildlife Disease 46(3): 724-730.

Ingold, D.J., J.L. Dooley, N. Cavender. 2010. Nest-site fidelity in grassland birds on mowed versus unmowed areas on a reclaimed surface mine. The Northeastern Naturalist 17(1) 125-134.

Ingold, D.J., J.L. Dooley, & N. Cavender. 2009. Return rates of breeding Henslow's sparrows on mowed versus unmowed areas on a reclaimed surface mine. The Wilson Bulletin 121(1): 194-197.

Wolf, T. M., A.R. Gandolf, J.L. Dooley, M.W. Atkinson, and B.A. Wolfe. 2008. Serologic response to West Nile virus vaccination in the greater one-horned rhinoceros (*Rhinoceros unicornis*) Journal of Zoo and Wildlife Medicine 39(4): 537-541.

Voelker, B. and J.L. Dooley. 2008. Impact by North American Beaver (*Castor canadensis*) on Forest Plant Composition in The Wilds, a Surface-Mined Landscape in Southeastern Ohio. The Ohio Journal of Science 108: 9-15.

Dooley, J.L. and **A.L. Murray**. 2006. Population Responses of *Microtus pennsylvanicus* Across a Chronological Sequence of Habitat Alteration. The Ohio Journal of Science: 106(3): 93-97.

Gandolf, A. Rae, J.L. Dooley, M.W. Atkinson and E.S. Blumer. 2004. Reintroduction of ospreys to *The Wilds*, in Ohio. I: environmental risk assessment through toxicological analysis of fish. Proceedings of the American Association of Zoo Veterinarians, American Association of Wildlife Veterinarians and Wildlife Disease Association Joint Conference: 61-66.

Atkinson, M. W., R. du Toit, R. W. Radcliffe, J. L. Dooley and M. D. Kock. 2002. Response to Alibhai, Jewell and Towindo. Journal of the Zoological Society of London. 258 277-280.

Bowers, M.A. and J.L. Dooley. 1999. A controlled hierarchical study of habitat fragmentation: responses at the individual, patch and landscape scale. Landscape Ecology 14(4): 381-389.

Bowers, M.A. and J.L. Dooley. 1999. EMS studies at the individual, patch and landscape scale: designing landscapes to measure scale-specific responses to fragmentation. Pages 147-174 in G.W. Barrett and J.D. Peles, editors. Ecology of Small Mammals at the Landscape Level: Experimental Approaches. Springer, NY.

Dooley, J.L. and M.A. Bowers. 1998. Demographic responses to habitat fragmentation: experimental tests at the landscape and patch scale. Ecology: 79:969-980.

Bowers, M. A., S. F. Matter, J. L. Dooley, J. L. Dauten and J. A. Simpkins. 1996. Controlled experiments of habitat fragmentation: a simple computer simulation and a test using small mammals Oecologia 108:182-191.

Bowers, M. A., K. Gregorio, C. J. Brame, S. F. Matter, and J. L. Dooley. 1996. Use of space and habitats by meadow voles at the home range, patch and landscape scales. Oecologia 105:107-115.

Dooley, J. L. and M. A. Bowers. 1996. Influences of patch size and microhabitat on the demography of two old-field rodents. Oikos 75:453-462.

Dooley, J. L. and R. D. Dueser. 1996. Experimental tests of nest site competition in two *Peromyscus* species. Oecologia 105:81-86.

Yoder, J. M., J. L. Dooley, **J. F. Zawacki** and M. A. Bowers. 1996. Female aggression in *Microtus pennsylvanicus*: arena encounters in the field. American Midland Naturalist 135:1-8.

Bowers, M. A. and J. L. Dooley. 1993. Predation and seed removal by small mammals: microhabitat versus patch scale effects. Oecologia 94:247-254.

Porter, J. H. and J. L. Dooley. 1993. Animal dispersal patterns: a reassessment of simple mathematical models. Ecology 74:2436-2443.

Campbell, D. R. and J. L. Dooley. 1992. The spatial scale of genetic differentiation in a hummingbird-pollinated plant: comparison with models of isolation by distance. *American Naturalist* 139(4):735-748.

Bowers, M. A. and J. L. Dooley. 1991. Landscape composition and the outcome and intensity of two-species competition. *Oikos* 60:180-186.

Dooley, J. L. and R. D. Dueser. 1990. An experimental examination of nest-site segregation by two *Peromyscus* species. *Ecology* 71:788-96.

Dueser, R. D., J. H. Porter, and J. L. Dooley. 1989. Direct Tests for competition in North American rodent communities: synthesis and prognosis for the future. Pages 105-125 in D.W. Morris, Z. Abramsky, B.J. Fox, and M.R. Willig, editors. *Patterns in the structure of mammalian communities*. Volume 28. Special Publications of the Museum, Texas Tech University Press, Lubbock, Texas, USA.

Dueser, R. D., J. L. Dooley, and G. J. Taylor. 1988. Habitat structure, forest composition and landscape dimensions as components of habitat suitability for the Delmarva fox squirrel. Pages 414-421 in: R.C. Szaro, K.E. Severson, and D.R. Patton (eds.). *Management of Amphibians, Reptiles, and Small Mammals in North America*. United States Department of Agriculture, General Technical Report RM-166.

IX. Professional Organizations

Ecological Society of America
Society for Conservation Biology
American Association for the Advancement of Science
Ohio Academy of Sciences

X. Invited Research Lectures

University of Cincinnati, October 2019
Ohio State University, October 2001
Florida International University, December 1994
Carleton University, March 1994
Conservation Research Center, Front Royal, VA, February 1994
James Madison University, February 1994
Washington and Lee University, October 1993