

Rebecca N. Homan

ADDRESS:

Biology Department
Denison University
Granville, OH 43023 USA

Phone: (740)-587-5577
E-mail: homanr@denison.edu

EDUCATION:

Ph.D. Biology, Tufts University (2003)

Dissertation: Conservation Studies of Amphibian Health at Individual, Population, and Landscape Scales.

Advisor: Dr. J. Michael Reed

B.A. Biology, Wellesley College (1997)

Magna cum laude, Honors in Biological Sciences

EXPERIENCE:

Professor of Biology Denison University, Granville, OH	2019-Present
Chair of Biology Department Denison University, Granville, OH	2019-Present
Associate Professor of Biology Denison University, Granville, OH	2010-2019
Assistant Professor of Biology Denison University, Granville, OH	2004-2010
Visiting Assistant Professor of Biology Denison University, Granville, OH	2003-2004
Laboratory Instructor in Department of Biology Tufts University, Medford, MA	1998-2000
Teaching Assistant in Department of Biology Tufts University, Medford, MA	1997-2001

COURSES TAUGHT:

Biology 150: Introduction to the Science of Biology
Biology 202/230: Ecology & Evolution
Biology 312: Herpetology
Biology 370: Conservation Biology
Biology 361/2: Directed Study
Biology 451: Senior Research

Biology 452: Advanced Senior Research
FYS 102: Conserving Biodiversity
FYS 103/AC 101: Engaging the Mission/Advising Circles

GRANTS AND HONORS:

John and Christine Warner Professor (2019-2022)
Charles A. Brickman Teaching Excellence Award recipient (2017)
R. C. Good Faculty Fellowship (2017-2018)
Bayley-Bowen Faculty Fellow (2007-2010)
ODK Esteemed Faculty Award – Sciences Division (2006)
DURF Grant, Long-term study of pond-breeding amphibians in an intact upland habitat - (2005, 2006, 2009)
Massachusetts Environment Trust Grant, Impacts of upland habitat loss on amphibians (w/ J.M. Reed, J. Regosin) - \$23,500 (2000-2002)
Tufts Institute for the Environment Fellowship - \$6,000 (2000)
Elizabeth F. Fisher Fellowship - \$1,500 (1999)
1st Place: Best presentation at Tufts Graduate Student Symposium (2000)
Undergraduate Honors in Biological Sciences (1997)
Sigma Xi Honors Society nomination (1997)

PROFESSIONAL SOCIETIES:

Society for Conservation Biology
Sigma Xi
Ecological Society of America
American Society of Ichthyologists and Herpetologists
Society for the Study of Amphibians and Reptiles

PEER REVIEWED MANUSCRIPTS:

- Homan, R.N.** 2019. Climate-related correlates of several metrics of breeding phenology in a Spotted Salamander (*Ambystoma maculatum*) population in Ohio. *Journal of Herpetology* 53:257-262.
- Homan, R.N.,** M.A. Holgerson*, and L.M. Biga*. 2018. A long-term demographic study of a spotted salamander (*Ambystoma maculatum*) population in central Ohio. *Herpetologica* 74:109-116.
- Homan, R.N.,** J.R. Bartling*, R.J. Stenger*, and J.L. Brunner. 2013. Detection of Ranavirus in Ohio, USA. *Herpetological Review* 44:615-618.
- Homan, R.N.,** M.A. Atwood*, A.J. Dunkle*, and S.B. Karr*. 2010. Movement orientation by adult and juvenile Wood Frogs (*Rana sylvatica*) and American Toads (*Bufo americanus*) over multiple years. *Herpetological Conservation and Biology* 5:64-72.

- Homan, R.N.**, C.D. Wright*, G. W. White*, L.F. Michael*, B. S. Slaby*, and S.E. Edwards*. 2008. Multiyear study of the migration orientation of *Ambystoma maculatum* (Spotted Salamanders) among varying terrestrial habitats. *Journal of Herpetology* 42:600-607.
- Windmiller, B., **R. N. Homan**, J. V. Regosin, L. A. Willitts, D. L. Wells and J. M. Reed. 2008. Breeding Amphibian Population Declines Following Loss of Upland Forest Habitat around vernal pools in Massachusetts, USA. In *Urban Herpetology*, J.C. Mitchell, R.E. Jung, and B. Bartholomew, editors. *Herpetological Conservation* 3:41-51.
- Homan, R.N.**, B. S. Windmiller, and J. M. Reed. 2007. Comparative life histories of two sympatric *Ambystoma* species at a breeding pond in Massachusetts. *Journal of Herpetology* 41:401-409.
- Regosin, J.V., B.S. Windmiller, **R.N. Homan**, and J.M. Reed. 2005. Variation in terrestrial habitat use among four pool-breeding amphibian species and its conservation implications. *Journal of Wildlife Management* 69:1481-1493.
- Homan, R.N.**, J.M. Reed, and B.S. Windmiller. 2004. Critical thresholds associated with habitat loss for two vernal pool-breeding amphibians. *Ecological Applications* 14:1547-1553.
- Homan, R.N.**, J.M. Reed, and L.M. Romero. 2003. Corticosterone concentrations in free-living spotted salamanders (*Ambystoma maculatum*). *General and Comparative Endocrinology* 130:165-171.
- Homan, R.N.**, J.V. Regosin, D.M. Rodrigues*, J.M. Reed, B.S. Windmiller, and L.M. Romero. 2003. Impacts of varying habitat quality on the physiological stress of Spotted Salamanders (*Ambystoma maculatum*). *Animal Conservation* 6:11-18.
- Homan, R.N.**, J.M. Reed, and B.S. Windmiller. 2003. Analysis of spotted salamander (*Ambystoma maculatum*) growth rates based on long-bone growth rings. *Journal of Herpetology* 37:617-621.

* denotes undergraduate coauthor

PEER REVIEWED CONFERENCE PRESENTATIONS:

- Homan, R.N.** 2018. Relationships between local climate variables and spotted salamander phenology differ for early versus median breeders. North American Congress for Conservation Biology.
- Homan, R.N.** 2016. A decade-long demographic study of a Spotted Salamander population in central Ohio. 101st Annual Meeting of the Ecological Society of America.
- Reding, J.A., G.R. Smith, J.E. Rettig, **R.N. Homan**, D.J. Spieles, T.D. Schultz, A.C. McCall, and B.J. Sodergren. 2016. The Granville Schools Land Lab: A K-12/College/Government Teaching and Research Collaboration. 101st Annual Meeting of the Ecological Society of America.

- Homan, R.N.**, J.R. Bartling*, R.J. Stenger*, and J.L. Brunner. 2013. Detection of ranavirus in five amphibian species among three Ohio ponds. 98th Annual Meeting of the Ecological Society of America.
- Homan, R.N.** 2011. Multiyear demographic study of three co-occurring pond-breeding amphibian species. 96th Annual Meeting of the Ecological Society of America.
- Rumschlag, S.L., T. Lan, and **R.N. Homan**. 2010. A pilot study examining the role of conspecific chemical cues affecting juvenile American toad (*Bufo americanus*) orientation behavior. 95th Annual Meeting of the Ecological Society of America.
- Homan, R.N.**, M.A. Atwood*, A. Dunkle*, and S. Karr*. 2009. Multi-year study of adult and juvenile Wood Frog and American Toad migration orientations. 94th Annual Meeting of the Ecological Society of America.
- Homan, R.N.**, C.D. Wright*, L.F. Michael*, and S.A. Edwards*. 2007. Distribution of *Ambystoma maculatum* among different habitat types surrounding a single breeding pond. 92nd Annual Meeting of the Ecological Society of America.
- Homan, R.N.**, C. Wright*, and D. Walker*. 2006. Correlates of location and movement of Spotted Salamanders (*Ambystoma maculatum*) in the breeding pond. Joint Meeting of Ichthyologists and Herpetologists.
- Wright, C.D.* and **R.N. Homan**. 2006. Demographic correlates between upland and wetland usage in a breeding population of *Ambystoma maculatum* (Spotted Salamanders). Ohio Academy of Sciences Meeting, Dayton, OH
- Homan, R.N.**, B.S. Windmiller, and J.M. Reed. 2004. Demographic clues about differences in relative vulnerabilities of two sympatric *Ambystoma* species. 18th Annual Meeting of the Society for Conservation Biology.
- Homan, R.N.**, B.S. Windmiller, and J.M. Reed. 2003. Critical Thresholds Associated with Habitat Loss for Two Vernal Pool-Breeding Amphibians. 17th Annual Meeting of the Society for Conservation Biology.
- Newcomb Homan, R.**, B.S. Windmiller, and J.M. Reed. 2001. Demographic Consequences of Upland Habitat Loss on Two *Ambystoma* Species in Eastern Massachusetts. 86th Annual Meeting of the Ecological Society of America.
- Newcomb Homan, R.**, B.S. Windmiller, and J.M. Reed. 1999. The Effects of Upland Habitat Loss on two Species of Mole Salamander (*Ambystoma laterale* and *A. maculatum*). Joint Meeting of the American Society of Ichthyologists & Herpetologists, American Elasmobranch Society, Herpetologists League, and Society for the Study of Amphibians & Reptiles.

INVITED TALKS (NOT PEER REVIEWED):

Homan, R.N. 2012. Fluctuation and Stability: A Seven Year Study of Spotted Salamander (*Ambystoma maculatum*) Demography and Migratory Orientations. Ohio Amphibian Research and Conservation Conference. Columbus, OH.

Homan, R.N. 2008. Impacts of varying quantity and quality of terrestrial habitat on Spotted Salamanders. Ohio Amphibian Research and Conservation Conference. Columbus, OH.

Homan, R.N. 2008. Impacts of terrestrial habitat loss on amphibians: Perspectives from multiple spatial scales. Wellesley College, Wellesley, MA

* denotes undergraduate coauthor

SELECTED SERVICE ACTIVITIES:

For Biology Department:

Chair of the Biology Department (2019-2022)

Search Committee member: Tenure-track Organismal Biologist (2018)

Co-organized Biology Senior Research Symposium and Awards Banquet (2014-2016)

Denison University Biological Society Advisor (2013-present)

Search Committee member: Visiting Organismal Biologist (2013)

Search Committee Chair: Visiting Organismal Biologist (2009)

Search Committee member: Tenure-track Plant Biologist (2005)

Search Committee member: Tenure-track Cell Biologist (2004)

For Denison University:

New Faculty Learning Community, co-leader (Fall 2017- present)

Faculty Research Dinner Planning Group (Fall 2017 – present)

President's Advisory Board (2014 – 2017)

Extra-departmental member of Chemistry & Biochemistry external review (Spring 2017)

Extra-departmental member of Computer Science external review (Fall 2015-Spring 2016)

Faculty Advisor: Duke's Nicholas School of the Environment 3-2 Program (2008-2018)

Member of Denison's Institutional Animal Care and Use Committee (2004-Present)

Co-coordinator of Engagement Group #4 (Spring 2014)

Member of ENVIS Program Committee (Spring 2013 – Spring 2014)

Member of the University Honor Committee (Fall 2012-Spring 2014)

Member of Student Enrollment and Retention (SERC) committee (Fall 2012-Spring 2014),

Chair of SERC (Fall 2013-Spring 2014)

Alumnae College Talk (summer 2012)

Member of Denison's IRB (2012- Spring 2014)

Officer in Denison's Sigma Xi chapter (2010-2013)

Search Committee member: Director of Career Services (2011)

June Orientation Faculty Advisor (2006, 2007, 2009, 2010 - 2016)

Campus Affairs Council member (2009-2011)

One of four Denison Faculty to attend Mellon 23 Assembly on Liberal Education (2010)

Search Committee member: Campus Sustainability Coordinator (2009)

Denison representative at GLCA GALI conference (2009)
Focus the Nation roundtable on Climate Change panelist (2008)
Registrar's Advisory Board member (Fall 2005 – Fall 2008)
Participant in small faculty meeting with representative of Arthur Vining Davis
Foundation (2007)
August Orientation Faculty Advisor (2004)

For greater scientific community:

Reviewer for: *Amphibia-Reptilia*, *Biological Conservation*, *Copeia*, *Ethology*, *Herpetological Conservation and Biology* (x2), *Journal of Applied Ecology*, *Journal of Herpetology*, *Journal of North American Herpetology*, *Journal of Wildlife Management* (x2), *Northwestern Naturalist*, *Wetlands*
Led amphibian walks for the Licking Parks District (2015, 2016)
Gave tour of BioReserve to Girl Scout Troup (2012)
Gave tour of BioReserve to Garden of Hope (2011)
Guest Editor for: *Northeastern Naturalist*
Speaker at Evolution Conference for Ohio high school teachers - Denison (2006)
Outside examiner for Earlham College Senior Comprehensive Exams (2005, 2008)