

Noah Charney
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Education

- Ph.D. Organismic and Evolutionary Biology, University of Massachusetts Amherst, MA (2011).
 B.A. Physics, Amherst College, MA (2002).

Peer Reviewed Publications

- Charney, N. D.** (In Press). Relating hybrid advantage and genome replacement in unisexual salamanders. *Evolution*.
- Jones, M. T., L. L. Willey, **N. D. Charney**. (In Press). *Gopherus Polyphemus* distribution note. *Herpetological Review*.
- Charney, N. D.**, B. H. Letcher, A. Haro, P. S. Warren. 2009. Terrestrial Passive Integrated Transponder Antennae for Tracking Small Animal Movements. *Journal of Wildlife Management*, 73(7): 1245-1250.
- Ahern, J., L. Jennings, B. Fenstermacher, P. Warren, **N. Charney**, S. Jackson, J. Mullin, Z. Kotval, S. Brena, S. Civjan, E. Carr. 2009. Issues and Methods for Transdisciplinary Planning of Combined Wildlife and Pedestrian Highway Crossings. *Transportation Research Record, No. 2123, Journal of the Transportation Research Board of the National Academies, Washington DC*.
- Rogers, L., D. Stimson, K. Holden, D. Kay, D. Kaye, R. McAdow, B. Metcalfe, B. Windmiller, **N. Charney**. 2009 Wildlife tunnels under a busy, suburban Boston roadway. In *Proceedings of the 2009 International Conference on Ecology and Transportation*, edited by P. J. Wagner, D. Nelson, and E. Murray, Raleigh, NC: Center for Transportation and the Environment. North Carolina State University.
- Warren, P. S., S. B. Lerman, **N. D. Charney**. 2008. Plants of a feather: Spatial autocorrelation of gardening practices in suburban neighborhoods. 2008. *Biological Conservation* 141: 3.
- Heidenreich, B. J., O. T. Elliott, **N. D. Charney**, K. A. Virgien, A. W. Bridges, M. A. McKeon, S. K. Peck, D. Krause, Jr., J. E. Gordon, L. R. Hunter, and S. K. Lamoreaux. 2005. Measurement of the electron electric dipole moment using GdIG. *Physical Review Letters*. 95: 253004.
- Hunter, L. R., S. E. Maxwell, K. A. Ulmer, **N. D. Charney**, S. K. Peck, D. Krause, Jr., S. Ter-Avetisyan, and D. DeMille. 2002. Detailed spectroscopy of the $a(1) [^3 \Sigma^+]$ state of PbO. *Physical Review A*. 65: 030501.

Publications in Review

- Charney, N. D.** On expert opinion and spatial scale: parameterizing an amphibian model. (In Review at *Ecological Modeling*).

Publications in Preparation

- Charney, N. D.**, Kubel, J. and C. S. Eiseman.. Temporally adaptive sampling can improve detection rates. (In Preparation for *Ecological Applications*).
- Charney, N. D.** A variable-comparison approach to understanding amphibian distributions. (In Preparation for *Northeastern Naturalist*).
- Record, S. and **N. D. Charney**. An integral projection model for a metapopulation. (In Preparation for *The American Naturalist*).
- Charney, N. D.** and S. Record. Estimating colonization rates for Furbish's lousewort by modeling habitat turnover. (In Preparation for *Ecological Modeling*).
- Record, S. and N.D. Charney**. Testing the effects of priors on prediction error in Bayesian demographic models. (In preparation for *Ecological Applications*).

Other Works

- Charney, N. D.** In Prep. Alpine Fauna. In M. Jones and L. Willey, eds. *Eastern Alpine Guide: Ecology, Conservation, and Recreation Above Treeline in Eastern North America*.
- C. S. Eiseman and **N. D. Charney**. 2010. *Tracks and Sign of Insects and Other Invertebrates*. Harrisburg, PA: Stackpole Books, 582 pages.
- Charney, N.** and S. Record. 2009. Vegetarian: Jost Diversity Measures for Community Data. R package version 1.0. <http://CRAN.R-project.org/package=vegetarian>.

Research Positions

- Research Assistant, Wildlife Overpass Feasibility Study, University of Massachusetts, Amherst, MA (2007). Consulted on wildlife benefits of proposed passage structures over Route-2 near Walden Pond, MA.
- Research Assistant, Study of Wildlife Underpass, University of Massachusetts, Amherst, MA (2005-2007). Advised and assisted using GIS to collect snow tracking data studying effectiveness of wildlife underpasses.
- Field Assistant, Cavity Nesting Bird Study, University of Massachusetts, Amherst, MA (2006). Located and monitored actively nesting birds..
- Field Assistant, Amphibian and Reptile Study, University of Vermont, VT (2004). Conducted plot-surveys of amphibians, reptiles, vegetation, and habitat structure across Vermont.
- Field Assistant, Bird Nest Monitoring Study, Amherst College, Amherst, MA (2004). Monitored activities of nesting birds.
- Participant, Keeping Track Wildlife Monitoring Program, Huntington, VT, Amherst, MA (2002-2005). Monitored and identified wildlife corridors in order to prioritize conservation efforts.
- Research Assistant, Physics Department, Amherst College, Amherst, MA (2001- 2002). Developed and worked independently on new approaches to finding the electron EDM.
- Volunteer, Amphibian Monitoring Program, Amherst, MA & Nashville, TN (1997-2001). Monitored frog and toad populations under nationally organized effort.
- Participant, Vanderbilt Summer Research Experience for Undergraduates in Physics, Nashville, TN (1999). Collected and analyzed original data on variable stars.

Awards and Funding

Nantucket Biodiversity Initiative (2011)	\$500
National Outdoor Book Award – Best Nature Guidebook (2010)	---
Switzer Environmental Fellowship (2010-2011)	\$15,000
National Science Foundation Graduate Research Fellowship (2007-2010)	\$121,500
University of Massachusetts Amherst Jane Hallenbeck Bemis Endowment for Research in Natural History Scholarship (2010)	\$3,000
Massachusetts Natural Heritage and Endangered Species Program Small Research Grant (2008)	\$5,600
Massachusetts Natural Heritage and Endangered Species Program Contracts (2009-2010)	\$24,000
University of Massachusetts Organismic and Evolutionary Biology Travel Grants (2007, 2009)	\$600
Amherst College Lloyd I. Rosenblum Memorial Fellowship for Graduate Studies (2007, 2008)	\$8,000
Amherst College John Woodruff Simpson Fellowship for Graduate Studies (2006)	\$4,000

Teaching

Adjunct Ecology Faculty, **Hampshire College**. Courses taught: *Rare Species Conservation and Ecology Through Animal Tracking* (2010-2011).

Instructor, *Winter Tracking Workshop*, **University of Massachusetts Amherst** (2006, 2007, 2009), **Amherst College** (2004, 2005).

Teaching Assistant, *Wildlife Conservation and Introductory Biology*. **University of Massachusetts Amherst** (2007).

Physics Teaching Fellow, **Amherst College** (2003-2005).

Public Educator, **Cumberland Science Museum**, Nashville, TN (1993-1999)

Conference Presentations

Tracks and Sign of Insects, Northeast Wildlife Trackers Conference. Leominster, MA (2010).

Wildlife Cameras for Small Animals: Monitoring an Underpass (poster). Northeastern Transportation and Wildlife Conference. Amherst, MA (2010).

Frogs and salamanders in a fragmented landscape: defining relevant scales. International Symposium on Urban Wildlife and the Environment. Amherst, MA (2009).

New technique for studying small salamander movement using PIT tags (poster). Fifth Conference on the Biology of Plethodontid Salamanders. San Cristóbal de las Casas, Mexico (2007).

Colloquia and Workshops

***E-ZPass* for Salamanders**

New England Chapter of the Wildlife Society Fall Workshop. Hadley, MA (upcoming).

Movin' and Grovin' Salamanders: Conservation Implications of Large Scales and Quirky Sex

University of Massachusetts Lowell Biology Department, Lowell, MA (2010)

Panel on Applied Careers in Animal Behavior

School of Cognitive Sciences Wednesday Talks, Hampshire College, Amherst, MA (2011)

Animal Tracking: An Old Tool for Modern Biologists

School of Cognitive Sciences Wednesday Talks, Hampshire College, Amherst, MA (2009)

Guest Lecture, Animal Tracking

Animal Behavior, Hampshire College, Amherst, MA (2009, 2010).

Ecology, Hampshire College, Amherst, MA (2009)

Guest Lecture, Navigation

Harvard Forest, Petersham, MA (2009, 2010)

Guest Instructor, Animal Tracking Field Walk

Deerfield Academy, Deerfield, MA (2010, 2011)

Spiders Talk and Field Walk

Friends of Fresh Pond Reservation, Cambridge, MA (2011)

Insect Tracking Talk

Connecticut Entomological Society, New Haven, CT (2011)

New England Botanical Club, Framingham, MA (2011)

Grace Grossman Environmental Center, Nantucket, MA (2011)

Great Falls Discovery Center, Turners Falls, MA (2011)

University of Massachusetts Amherst Department of Environmental Conservation, Amherst, MA (2011)

GoodWorks, Lieper's Fork, TN (2011)

Bone Room, Berkeley, CA (2011)
Museum of Comparative Zoology at Harvard University, Cambridge, MA (2010)
Yale University School of Forestry, New Haven, MA (2010)
Hitchcock Center for the Environment, Amherst, MA (2010)
Warner Park Nature Center, Nashville, TN (2010)
American Museum of Science and Energy , Oak Ridge, TN (2010)
Victor Wooten's Bass/Nature Camp, Centerville, TN (2010)
Leslie Science and Nature Center, Ann Arbor, MI (2010)
Taber Art Gallery, Holyoke Community College, Holyoke, MA (2010).

Insect Tracking Field Walk

Project Native, Housatonic, MA (2011)
Riekes Center, Menlo Park, CA (2011)
Four Winds Nature Institute, Norwich, VT (2011)
Berkshire Environmental Action Team, Lenox, MA (2011)
Athol Bird and Nature Club, Athol, MA (2010)
Forest Park BioBlitz, Springfield, MA (2010)
Vermont Coverts Program, Grafton, VT (2010)
Earthwork Programs, Montague, MA (2010)

Insect Tracking Talk and Field Walk

Arcadia Wildlife Sanctuary, Easthampton, MA (2011)

Outreach

Invertebrate Photography Installations:

US Fish and Wildlife Service Northeast Regional Office, Hadley, MA (scheduled: 2012)
Great Falls Discovery Center, Turners Falls, MA (2011)
University of Massachusetts Student Art Gallery, Amherst, MA (2010)
Taber Art Gallery, Holyoke Community College, Holyoke, MA (2010)
Cummington Community House, Cummington, MA (2009)

West Meade Conservancy: Founder & subject of children's book *Noah and the Arc* (2006 – 2011).

Popular Media Coverage: *The Boston Globe* (2 articles), *The Tennessean* (7 articles), *Northern Woodlands*, *The Buffalo News*, *The Daily Hampshire Gazette*, *The Berkshire Eagle*, *The News* (7 articles), *The Washington Post*, *Masslive*, and upcoming stories in *Science News* and *Orion Magazine*.

Professional Activities

Reviewer: *Journal of Wildlife Management*, *Journal of Biogeography*

Member: Ecological Society of America (Natural History Section), Society for Conservation Biology