
KATHERINE M. THIBAUT

Community Ecology
Macroecology
Conservation Ecology

National Ecological Observatory Network
1685 38th St., Suite 100
Boulder, CO 80301

Email kthibault@neoninc.org | **URL** <http://www.katethibault.com> | **Tel** 720-836-2491

EDUCATION

- 2006 **Ph.D.**, Biology, **University of New Mexico**, Albuquerque. *Advisor*: Dr. James H. Brown
Temporal dynamics in the structure and composition of a desert rodent community
- 1997 **B.S.**, Biology, *magna cum laude*, **Boston College**, Chestnut Hill, MA.

RESEARCH AND PROFESSIONAL EXPERIENCE

- 2011 - present **Vertebrate Ecologist**, National Ecological Observatory Network (NEON).
- 2010-2011 **Postdoctoral Research Associate**. Advancing macroecology using informatics and entropy maximization. Department of Biology, Utah State University. E.P. White, P.I.
- 2008-2009 **Postdoctoral Research Associate**. Understanding multimodality in animal size distributions. Department of Biology, Utah State University. Ethan P. White, P.I.
- 2005-2009 **Visiting Research Associate**. Department of Biology, Furman University.

PUBLICATIONS

- In press Kao, R. H., Gibson C. M., Gallery R. E., Meier C. L., Barnett D. T., Docherty K. M., Blevins K. K., Travers P. D., Azuaje E., Springer Y. P., **Thibault K. M.**, McKenzie V. J., Keller M., Alves L. F., Hinckley E. - L. S., Parnell J., & Schimel D. NEON Terrestrial Field Observations: Designing Continental-Scale, Standardized Sampling. *Ecosphere*.
- 2012 White, E.P., **K.M. Thibault**, and X. Xiao. Characterizing species abundance distributions across taxa and ecosystems using a simple maximum entropy model. *Ecology* 93:1772–1778. <http://dx.doi.org/10.1890/112177.1>
- 2011 **Thibault, K. M.**, S. Supp, M. Giffen, E. P. White, S. K. M. Ernest. Species composition and abundance of mammalian communities. *Ecology* 92:2316.
- 2011 **Thibault, K. M.**, E. P. White, A. H. Hurlbert, S. K. M. Ernest. Multimodality in the individual size distributions of bird communities. *Global Ecology & Biogeography*, 20:145-153.
- 2010 Perry, T. W., T. P. Newman (undergraduate), and **K. M. Thibault**. Evaluation of methods used to estimate size of a population of desert bighorn sheep (*Ovis canadensis mexicana*) in New Mexico. *Southwestern Naturalist*, 55:517-524.
- 2010 **Thibault, K. M.**, S. K. M. Ernest, and J. H. Brown. Redundant or complementary? Impact of a colonizing species on community structure and function. *Oikos*, 119:1719-1726.
- 2010 **Thibault, K. M.**, S. K. M. Ernest, E. P. White, J. H. Brown, and J. R. Goheen. Long-term insights into the influence of precipitation on community dynamics in desert rodents. *Journal of Mammalogy*, 91:787-797.
- 2008 Ernest, S. K. M., J. H. Brown, **K. M. Thibault**, E. P. White, and J. R. Goheen. Zero-sum dynamics, the niche, and metacommunities: a temporal perspective on community assembly. *American Naturalist*, 172:E257-E269.

- 2008 **Thibault, K. M.**, and J. H. Brown. Impact of an extreme climatic event on community assembly. *Proceedings of the National Academy of Sciences USA*, 105:3410-3415.
- 2006 Adams, R. A., and **K. M. Thibault**. Temporal resource partitioning by bats at water holes. *Journal of Zoology*, 270:466-472.
- 2004 **Thibault, K. M.**, E. P. White, and S. K. M. Ernest. Temporal dynamics in the structure and composition of a desert rodent community. *Ecology*, 85:2649-2655.
- 2004 White, E. P., S. K. M. Ernest, and **K. M. Thibault**. Tradeoffs in community properties through time in a desert rodent community. *American Naturalist*, 164:670-676.
- 2003 Adams, R. A., S. C. Pedersen, **K. M. Thibault**, J. Jadin, and B. Petru. Calcium as a limiting resource to insectivorous bats: can water holes provide a supplemental mineral source? *Journal of Zoology*, 260: 189-194.
- 2002 Bonaccorso, F. J., J. R. Winkelmann, E. R. Dumont, and **K. M. Thibault**. Home range of *Dobsonia minor* (Pteropodidae): a solitary, foliage-roosting fruit bat in Papua New Guinea. *Biotropica*, 34:127-135.
- 2000 Adams, R. A., and **K. M. Thibault**. Ontogeny and evolution of the Chiropteran hindlimb: assessing phylogenetic trends. Pages 316-332 in *Ontogeny, Functional Ecology, and Evolution of bats*. R. A. Adams & S. C. Pedersen, eds. Cambridge UP.
- 1999 Adams, R. A., and **K. M. Thibault**. Growth, development, and histology of the calcar in the little brown bat, *Myotis lucifugus*. *Acta Chiropterologica*, 1:215-221.
- 1999 Adams, R. A., and **K. M. Thibault**. New record of the Brazilian free-tailed bat, *Tadarida brasiliensis* in Colorado. *Southwestern Naturalist*, 44:542-543.

Technical Reports

- 2011 **Thibault, K. M.**, T. W. Perry, S. Cox, and N. Cox. Bat diversity and maternity roost study, Kirtland Air Force Base, Albuquerque, New Mexico. Prepared for the Department of Defense, Kirtland AFB.
- 2010 **Thibault, K. M.**, T. W. Perry, S. Cox, and N. Cox. Bat diversity and maternity roost study, Kirtland Air Force Base, Albuquerque, New Mexico. Prepared for the Department of Defense, Kirtland AFB.
- 2009 **Thibault, K. M.**, T. W. Perry, S. Cox, and N. Cox. Bat diversity and maternity roost study, Kirtland Air Force Base, Albuquerque, New Mexico. Prepared for the Department of Defense, Kirtland AFB.
- 2009 **Thibault, K. M.**, and T. W. Perry. Preliminary small mammal survey of the Cebolla Canyon Restoration Area, Bureau of Land Management Albuquerque Resource Area, New Mexico. Prepared for the Rio Puerco Alliance.
- 2008 **Thibault, K. M.**, T. W. Perry, S. Cox, and N. Cox. Bat diversity and maternity roost study, Kirtland Air Force Base, Albuquerque, New Mexico. Prepared for the Department of Defense, Kirtland AFB.
- 2006 **Thibault, K. M.**, and T. W. Perry. Bats of the Bureau of Land Management Socorro Resource Area, New Mexico: Survey results and experimental roost box study. Prepared for the Bureau of Land Management Socorro Field Office.

- 2006 **Thibault, K. M.**, T. W. Perry, and A. Dubois. Effects of the Scott Able Fire on bat communities in the Sacramento District of the Lincoln National Forest, New Mexico, 2001 – 2005. Prepared for the US Forest Service, Lincoln National Forest.
- 2005 **Thibault, K. M.**, and T. W. Perry. Bats of the Bureau of Land Management Socorro Resource Area, New Mexico: Survey results and initiation of experimental roost box study. Prepared for the Bureau of Land Management Socorro Field Office.
- 2004 **Thibault, K. M.**, and T. W. Perry. Bat diversity and maternity roost survey of the Bureau of Land Management Socorro Resource Area, New Mexico. Prepared for the Bureau of Land Management Socorro Field Office.
- 2004 Perry, T. W., and **K. M. Thibault**. Bat diversity and roost site survey of the Scott Able Fire Area, Sacramento District of the Lincoln National Forest, New Mexico. Prepared for the US Forest Service, Lincoln National Forest.
- 2003 **Thibault, K. M.**, and T. W. Perry. Bats of the Bureau of Land Management Socorro Resource Area, New Mexico: Species diversity and strategies of maternity roost site selection. Prepared for the Bureau of Land Management Socorro Field Office.
- 2003 **Thibault, K. M.** Strategies of roost utilization: Implications for the biogeography and conservation of temperate bats. Prepared for the New Mexico Department of Game and Fish Share with Wildlife program.
- 1999 Adams, R. A., and **K. M. Thibault**. Survey of Boulder County bats: A study in roost site distribution and community ecology. Prepared for City of Boulder (CO) Open Space and Boulder Mountain Parks.

SOFTWARE

- 2012 White, E. P. , **K. M. Thibault**, X. Xiao, D. J. McGlinn and S. Supp. METE: Python based tool for fitting and modeling the Maximum Entropy Theory of Ecology. <https://github.com/weecology/METE>

TEACHING EXPERIENCE

- 2005, 2007, 2009 **Instructor**. Wild Semester, Department of Biology, Furman University. Co-professor for a semester-long study away program based in the wilds of New Mexico that included three courses: Ecology, Field Zoology, Natural Resource Management.
- 2007 **Instructor**. African Ecology, Department of Biology, Furman University. Co-professor for a 3-week field course in South Africa.
- 2005 **Guest Lecturer**. Community Ecology (2 lectures). University of New Mexico.
- 2002 **Guest Lecturer**. Biogeography (2 lectures). University of New Mexico.
- 2001 **Graduate Teaching Assistant**. Flora of New Mexico. University of New Mexico.
- 2001 **Graduate Teaching Assistant**. Introductory Biology. University of New Mexico.
- 2000 **Graduate Teaching Assistant**. Human Anatomy & Physiology. Univ. of New Mexico.
- 1999 **Graduate Teaching Assistant**. Introductory Biology. University of New Mexico.

CONSERVATION | MANAGEMENT | CONTRACT EXPERIENCE

- 2010-2011 *Principal Investigator.* Diversity and maternity roost selection of bats of the Holloman Air Force Base, New Mexico.
- 2007-2011 *Principal Investigator.* Diversity and maternity roost selection of bats of the Kirtland Air Force Base, New Mexico.
- 2010 *Principal Investigator.* Habitat use by puma (*Puma concolor*) on Kirtland Air Force Base, New Mexico.
- 2009 *Principal Investigator.* Preliminary small mammal survey of the Cebolla Canyon Restoration Area, New Mexico.
- 2007 *Principal Investigator.* Diversity and abundance of bats of the proposed Texas Hills Wind Turbine site, New Mexico.
- 2001-2007 *Principal Investigator.* Diversity and maternity roost selection of bats of the Bureau of Land Management Socorro Resource Area, New Mexico.
- 2000 *Research Assistant.* Diversity and maternity roost selection of bats of the Bureau of Land Management Socorro & Albuquerque Resource Areas, NM. Travis W. Perry, P.I.
- 1996-1999 *Research Assistant.* Distribution and ecology of bats of Boulder County. City of Boulder Open Space, Boulder, Colorado. Rick A. Adams, P.I.
- 1998 *Research Assistant.* Ecology of bats in Fiordland National Park, New Zealand. Department of Conservation, Christchurch. Colin F. O'Donnell, Jane Sedgely, P.I.s

GRANTS AND AWARDS

- 2000-2005 National Science Foundation Graduate Research Fellowship
- 2002 New Mexico Department of Game & Fish Share with Wildlife Grant
- 2001 Graduate Women in Science Eloise Gerry Fellowship
- 2001 Max McGraw Wildlife Foundation Grant
- 2001 University of New Mexico Research, Project, and Travel Grant
- 2000 American Society of Mammalogists Grants-in-Aid
- 1999, 2001 Student Research Allocations Grant, University of New Mexico
- 1999 Grove Research Scholarship, University of New Mexico
- 1997 Phi Beta Kappa, Boston College

PRESENTATIONS

- 2012 **Thibault, KM.** American Society of Mammalogists.
- 2012 **Thibault, KM.** Ecological Society of America.
- 2011 **Thibault, KM,** TW Perry, C Finley. The Wildlife Society.
- 2011 **Thibault, KM.** American Society of Mammalogists.
- 2011 **Thibault, KM,** EP White, X Xiao. Ecological Society of America.
- 2011 **Thibault, KM,** RH Kao. TDWG – Biodiversity Information Standards.
- 2010 AH Hurlbert, **KM Thibault,** EP White, SKM Ernest. Ecological Society of America.
- 2009 **Thibault, KM,** EP White, AH Hurlbert, SKM Ernest. Ecological Society of America.

- 2009 **Invited speaker.** International Mammalogical Congress, Mendoza, Argentina.
- 2008 **Thibault, KM,** SKM Ernest. Ecological Society of America.
- 2007 **Thibault, KM,** SKM Ernest. American Society of Mammalogists.
- 2007 Ernest, S.K.M., J.H. Brown, **K.M. Thibault,** J.R. Goheen, E.P. White. American Society of Mammalogists.
- 2006 Ernest, S.K.M., J.H. Brown, **K.M. Thibault,** J.R. Goheen, E.P. White. Ecological Society of America.
- 2004 **Thibault, K.M.,** E.P. White, S.K.M. Ernest. Ecological Society of America.
- 2004 **Thibault, K.M.,** J.H. Brown. American Society of Mammalogists.
- 2001 **Thibault, K.M.** American Society of Mammalogists.
- 2001 **Thibault, K.M.** North American Symposium on Bat Research.
- 2000 **Thibault, K.M.** North American Symposium on Bat Research.
- 1999 Adams, R.A., **K.M. Thibault,** B. Petru. North American Symposium on Bat Research.
- 1998 **Thibault, K.M.,** R .A. Adams. North American Symposium on Bat Research.
- 1996 **Thibault, K.M.,** R .A. Adams. North American Symposium on Bat Research.

SOCIETY AFFILIATIONS AND SERVICE

- Societies Ecological Society of America, American Society of Mammalogists, The Wildlife Society
- Reviews *Ecology Letters, Ecology, Global Ecology and Biogeography, Oikos, Frontiers in Ecology and the Environment, Journal of Mammalogy, Proceedings of the Royal Society of London B, Western North American Naturalist, Basic and Applied Dryland Research, Museum of Southwestern Biology Publication Series*
- Thesis advisees **Undergraduate:** Carol Jane Roberson-2005, Annette Trierweiler -2005, Megan Pitman-2006, Thomas Newman-2007, Timothy Ritter-2007, Suellen Jacob-2008 **Masters:** Megan Pitman (2010)
- 2003 Mammalogist Faculty Search Committee, University of New Mexico
- 2000-2002 University of New Mexico Biology Graduate Student Association President

REFERENCES

- James H. Brown, Ph.D. Distinguished Professor, University of New Mexico.
- Michael A. Bogan, Ph.D. USGS Wildlife Biologist (Retired).
- S. K. Morgan Ernest, Ph.D. Associate Professor, Utah State University.
- Ethan P. White, Ph.D. Assistant Professor, Utah State University.
- David Tazik, Ph. D. Director of Biology, NEON, Inc.