

VERITY LYNN MATHIS

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EDUCATION

- 2013 Ph.D., Biological Sciences, Louisiana State University, Baton Rouge LA.
Dissertation title: "Evolutionary and ecological dynamics of a rapid radiation of pocket gophers (*Thomomys*) in Mexico." Advisor: Dr. Mark S. Hafner.
- 2006 M.S., Wildlife Sciences, New Mexico State University, Las Cruces NM. Thesis Title: "Inbreeding avoidance alters the environmental potential for polygamy in the banner-tailed kangaroo rat, *Dipodomys spectabilis*." Advisor: Dr. Gary W. Roemer
- 2000 B.S., Fishery and Wildlife Sciences (wildlife concentration) and B.S., Zoology, North Carolina State University, Raleigh NC
- 1996 Graduate, D. H. Conley High School, Greenville NC

WORK AND RESEARCH EXPERIENCE

- 2014-Present **Mammal Collections Manager**, University of Florida Museum of Natural History, Gainesville FL. Manage and oversee the daily operations in the mammal research collections including loans, visitors, ordering supplies, managing budgets, and general collection management. Also assist with outreach activities and answer questions for general public as well as other researchers.
- 2012-2014 **Coordinator of Research and Collections**, Mississippi Museum of Natural Science, Jackson MS. Coordinate the conservation research and scientific collections program for the MMNS, a bureau of the MS Dept. of Wildlife, Fisheries, and Parks. Supervise biologists and curators, manage federal and state grants, assist with research implementation, and oversee growth and maintenance of the scientific collections.
- 2006-2012 **Graduate Assistant**, Dept. of Biological Sciences and Louisiana Museum of Natural Science, Louisiana State University, Baton Rouge LA. As a part of my dissertation research, I performed small mammal trapping in remote localities, employed a variety of morphological and molecular techniques (including DNA sequencing) and analyses on small mammals and their ectoparasites, prepared specimens for deposition into museum collection, worked in a GIS environment using ArcGIS (vers. 9 and 10) and DIVA-GIS.
- 2005 **Visiting Researcher**, Smithsonian Institution Genetics Lab, Washington DC. Supervisor: Dr. Jesus E. Maldonado. Ran PCRs, sequenced and analyzed microsatellite data as a part of my masters research.
- 2005 **Research Assistant**, NPSpecies database project for Dr. Jennifer Frey (contracted supervisor), New Mexico State University, Las Cruces NM. Contributed species account information to the NPSpecies database.

- 2004 **Research Assistant**, small mammal ecology in the lab of Dr. Walter Whitford, New Mexico State University, Las Cruces NM. Analyzed small mammal trapping data for publication.
- 2003-2004 **Biological Technician**, Frey Biological, Las Cruces NM. Supervisor: Dr. Jennifer Frey. Performed field surveys for a variety of mammalian species, including state endangered small mammals. Prepared small mammal skins and skeletons for deposition into museum collections.
- 2003 **Research Assistant**, black-tailed prairie dog project in the lab of Dr. Gary Roemer, New Mexico State University, Las Cruces NM. Performed behavioral surveys on reintroduced black-tailed prairie dog colonies. Also aided in the trapping, handling and releasing of monitored prairie dog colonies.
- 2003-2006 **Graduate Assistant**, Dept. of Wildlife and Fishery Sciences, New Mexico State University, Las Cruces, NM. For my master's thesis, I collected genetic and life history data on several populations of banner-tailed kangaroo rats throughout New Mexico. Duties included live-trapping animals, recording vegetation data, working in GIS, and performing microsatellite-based genetic analyses. Supervised undergraduates and performed field work in remote locations.
- 2002 **Research Technician**, ECASE Project, Purdue University, West Lafayette IN. Supervisor: Dr. Rob Swihart. Was the small mammal leader on a four-person crew. Live-trapped and processed small mammals at various field sites.
- 2001-2002 **Radio Telemetry Intern**, USFWS Red Wolf Recovery Program, Manteo NC. Supervisor: Chris Lucash. Used radio telemetry to monitor populations of reintroduced red wolves in and around Alligator River National Wildlife Refuge.
- 2001 **Conservation Assistant**, Camp Bullis Military Training Site, San Antonio TX. Supervisor: Jackie Schlatter. Performed surveys for endangered golden-cheeked warblers and black-capped vireos, participated in small mammal trapping, deer surveys, and GIS groundtruthing.
- 1998 **Summer Intern**, Carnivore Preservation Trust, Pittsboro NC. Aided with care and maintenance of captive carnivores.

CURATORIAL EXPERIENCE

- 2008, 2010-2011 **Curatorial Assistant**, Mammal Collections, LSU Museum of Natural Science, Louisiana State University, Baton Rouge LA. Assisted with daily maintenance and care of the collection, catalogued incoming specimens, and processed loan requests
- 2003, 2005 **Curatorial Assistant**, Vertebrate Wildlife Collection, Dept. of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces NM. Reorganized the long-neglected research and teaching collections, started and maintained dermestid beetle colony, prepared and catalogued new specimens, supervised undergraduates.
- 1999-2001 **Research and Mammal Collections Volunteer**, North Carolina State Museum of Natural Sciences, Raleigh NC. Assisted with maintenance of the collections, prepared and catalogued incoming specimens.

TEACHING, OUTREACH, AND MENTORING EXPERIENCE

- 2006-2012 **Teaching Assistant**, Mammalogy (BIOL 4141) for 5 semesters, Honors Biology Lab (BIOL 1503) for 2 semesters, Biology Laboratory for Science Majors II (BIOL 1209) for 1 semester, Dept. of Biological Sciences, Louisiana State University, Baton Rouge LA. Created original lab material, taught both lower and upper undergraduate-level labs.
- 2010-2011 **HHMI Outreach Assistant**, HHMI Scope-on-a-Rope program, Dept. of Biological Sciences, Louisiana State University, Baton Rouge LA. Supervisor: Adrienne Steele. Assisted with teacher workshops and presentations to schoolchildren for the promotion and use of the HHMI funded Scope-on-a-Rope (a hand-held video microscope) program.
- 2007-2011 **Mentored** female undergraduate in the LSU Museum of Natural Science, Louisiana State University. Supervised and trained her on molecular techniques for 4 years. She is now pursuing her master's degree in Natural Science at LSU.
- 2006 **Teaching Assistant**, Introduction to Natural Resources Management (WLSC 110), Dept. of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces NM. Monitored and participated in online discussions for a web-based distance learning course.

PUBLICATIONS

- In press **Mathis, VL**, MS Hafner, DJ Hafner. Evolution and phylogeography of the *Thomomys umbrinus* species complex (Rodentia: Geomyidae). *Journal of Mammalogy* 95:xx-xx.
- 2013 **Mathis, VL**, MS Hafner, DJ Hafner, and JW Demastes. *Thomomys nayarensis*, a new species of pocket gopher from the Sierra del Nayar, Nayarit. *Journal of Mammalogy* 94: 983-994.
- 2013 **Mathis, VL**, MS Hafner, DJ Hafner, and JW Demastes. Redescription and resurrection of the pocket gopher *Thomomys sheldoni* from the Sierra Madre Occidental of Mexico. *Journal of Mammalogy* 94: 544-560.
- 2011 Hafner, MS, AR Gates, **VL Mathis**, JW Demastes and DH Hafner. Redescription of the pocket gopher *Thomomys atrovarius* from the Pacific coast of mainland Mexico. *Journal of Mammalogy* 92: 1367-1382.
- 2010 Facka, AN, GW Roemer, **VL Mathis**, M Kam and E Geffen. Drought leads to collapse of black-tailed prairie dog populations reintroduced to the Chihuahuan Desert. *Journal of Wildlife Management* 74: 1754-1762.
- 2006 **Mathis, VL**, WG Whitford, FR Kay, and PU Alkon. 2006. Effects of grazing and shrub removal on small mammal populations in southern New Mexico. *Journal of Arid Environments* 66: 76-86.

POPULAR ARTICLES

- 2011 Mathis, VL. Travels in Mexico: the search for a new species of pocket gopher. Museum Quarterly, a publication of the LSU Museum of Natural Science, Volume 29, Issue 2, Pages 4-5.
- 2008 Mathis, VL. In the mountains of Mexico. Museum Quarterly, a publication of the LSU Museum of Natural Science, Volume 26, Issue 1, Pages 6-7.

PROFESSIONAL PRESENTATIONS**INVITED TALKS PRESENTED**

- 2010 *Hidden contact, invisible barriers: understanding evolutionary dynamics at a contact zone using a model mammalian host-parasite system.* Invited seminar, North Carolina State Museum of Natural Sciences, Raleigh NC
- 2009 *Walk like a mammal.* LSU Museum of Natural Science Special Saturday Science Program
- 2007 *Altering the potential for polygamy: the effect of inbreeding on a philopatric rodent.* LSU Museum of Natural Science seminar series, Louisiana State University, Baton Rouge LA

TALKS PRESENTED

- 2012 **Mathis VL** and MS Hafner. *Modeling ecological niches in a rapid radiation within the *Thomomys umbrinus* complex.* 92nd annual meeting of the American Society of Mammalogists, Reno, NV and the LSU BioGrads Research Symposium, Louisiana State University, Baton Rouge LA
- 2009 **Mathis VL**, MS Hafner, and DJ Hafner. *Phylogeography of *Thomomys umbrinus*: preliminary evidence of genetic isolation.* 56th annual meeting of the Southwestern Association of Naturalists, Monterrey, Nuevo Leon, Mexico and the LSU BioGrads Research Symposium, Louisiana State University, Baton Rouge LA
- 2007 **Mathis VL**, JE Maldonado, and GW Roemer. *Love Thy Neighbor? Investigating the effects of population density on a philopatric rodent.* 54th annual meeting of the Southwestern Association of Naturalists, Stephenville TX
- 2006 **Mathis VL**, JE Maldonado, and GW Roemer. *Staying close to home: Genetic structure, relatedness, and spatial autocorrelation among different densities of the banner-tailed kangaroo rat (*Dipodomys spectabilis*).* 86th annual meeting of the American Society of Mammalogists, Amherst MA
- 2006 **Mathis VL**, JE Maldonado, and GW Roemer. *Density and genetic structure: Investigating genetic spatial autocorrelation in populations of the banner-tailed kangaroo rat (*Dipodomys spectabilis*).* 19th annual New Mexico State University Dept. of Biology Research Symposium, Las Cruces NM and the 53rd annual meeting of the Southwestern Association of Naturalists, Colima, Jalisco, Mexico
- 2005 **Mathis VL**, WG Whitford, FR Kay, and PU Alkon. *Effects of grazing and shrub removal on small mammal populations in southern New Mexico.* 6th Chihuahuan Desert Research Institute Symposium, Alpine TX and the 37th annual joint meeting of the NM/AZ chapters of The Wildlife Society and American Fisheries Society, Safford AZ

POSTERS PRESENTED

- 2013 **Mathis VL**, MS Hafner, DJ Hafner, and JW Demastes. **Thomomys nayarensis*, a new species of pocket gopher from the Sierra del Nayar, Nayarit.* 93rd annual meeting of the American Society of Mammalogists, Philadelphia PA.
- 2011 Hafner MS, AR Gates, **VL Mathis**, JW Demastes, DJ Hafner. *Resurrecting a species of pocket gopher (genus *Thomomys*) using molecules, morphology and niche modeling.* 91st annual meeting of the American Society of Mammalogists, Portland OR, the Dean's Circle Dinner for the College of Science, Louisiana

- State University, Baton Rouge LA, and the LSU BioGrads Research Symposium, Louisiana State University, Baton Rouge LA
- 2010 **Mathis VL**, MS Hafner and DJ Hafner. *Cryptic parasites on cryptic hosts: preliminary population genetics of chewing lice (Mallophaga)*. Evolution 2010, Portland OR and the LSU BioGrads Research Symposium, Louisiana State University, Baton Rouge LA
- 2010 **Mathis VL**, MS Hafner and DJ Hafner. *Using cryptic parasites to uncover cryptic hosts: a potential new species of pocket gopher (Thomomys) in western Mexico*. 90th annual meeting of the American Society of Mammalogists, Laramie, WY
- 2005 **Mathis VL** and JK Frey. *Geographic variation in relictual populations of red squirrel (Tamiasciurus hudsonicus) in the American Southwest*. 52nd annual meeting of the Southwestern Association of Naturalists, Hunstville, TX and the 85th annual meeting of the American Society of Mammalogists, Springfield MO

GRANTS, HONORS AND AWARDS

- 2012 LSU Museum of Natural Science Outstanding Graduate Student Award
- 2007-2012 BioGrads Research Awards
- 2010 American Society of Mammalogists student travel award to attend annual conference in Laramie, WY
- 2009-2010, 2012 LSU Graduate School travel award
- 2006-2010 Graduate Stipend Enhancement Award, Louisiana State University
- 2006 Southwestern Association of Naturalists (SWAN) student travel award to attend annual conference in Colima, Mexico
- 2005-2006 New Mexico State University Graduate School Assistantship Award
- 2005-2006 Doña Aña County Associated Sportsmen Scholarship
- 2005 Biodiversity Conservation Scholarship, NM Chapter of The Wildlife Society
- 2005 T&E, Incorporated Research Grant. Funded \$2500.00 (Co-Principal Investigator, Dr. Gary Roemer)
- 2004-2005 Irma Shockley Scholarship, NMSU Dept. of Fishery & Wildlife Sciences
- 2004 T&E, Incorporated Research Grant. Funded \$1450.00 (Co-Principal Investigator, Dr. Gary Roemer)
- 2004 American Society of Mammalogists Grant-in-Aid. Funded \$1272.00
- 2004 Sigma Xi Grant-in-Aid-of-Research. Funded \$195.00

ACADEMIC & PROFESSIONAL SERVICE

- 2013 Level One certified training, Microsoft Access 2007, ITS Services, Jackson MS
- 2013 Attended TRACs training at Region 4 USFWS Headquarters, Atlanta GA
- 2013 Attended Basic Grants Management Training course at the USFWS National Center for Conservation Training, Shepherdstown WV.
- 2012 Judge, LSU Chapter of EnvironMentors Annual Science Fair
- 2010-present Reviewer, *Molecular Ecology*, *The Southwestern Naturalist*, *Journal of Mammalogy*
- 2010 Moderator, Triple Ex Undergraduate Research Symposium, Louisiana State University
- 2010 Graduate Facilitator, NSF-STAR Mini-Institute, Louisiana State University

- 2008-2009 Coordinator, LSU Museum of Natural Science Seminar Series
2008-2009 President, BioGrads Organization (non-profit organization for biology graduate students at LSU)
2007-2008 Fundraiser Coordinator, BioGrads Organization
2007, 2011 Graduate Mentor, BIOS (Biology Intensive Orientation for Students) Program at Louisiana State University
2006 Poster Session Judge, 41st Annual Wildlife Society Western Section Student Conclave, New Mexico State University
2004-2005 President, NMSU Dept. of Fishery & Wildlife Sciences Graduate Student Organization

PROFESSIONAL ASSOCIATIONS

- American Society of Mammalogists (Member, Public Education Committee, 2011-present)
Society of Systematic Biologists
Society for the Study of Evolution