# **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

# PROFESSIONAL AND RESEARCH EXPERIENCE

- 2014-Present **Mammalogy Collections Manager**, Florida Museum of Natural History, University of Florida, Gainesville FL.
- 2012-2014 **Coordinator of Research and Collections**, Mississippi Museum of Natural Science, Jackson MS.
- 2008, 2010-2011 **Curatorial Assistant**, Mammal Collections, LSU Museum of Natural Science, Louisiana State University, Baton Rouge LA.
- 2006-2012 **Graduate Assistant**, Dept. of Biological Sciences and Louisiana Museum of Natural Science, Louisiana State University, Baton Rouge LA.
- 2005 **Visiting Researcher**, Smithsonian Institution Genetics Lab, Washington DC. Supervisor: Dr. Jesus E. Maldonado.
- 2005 **Research Assistant**, NPSpecies database project for Dr. Jennifer Frey (contracted supervisor), New Mexico State University, Las Cruces NM.
- 2004 **Research Assistant**, small mammal ecology in the lab of Dr. Walter Whitford, New Mexico State University, Las Cruces NM.
- 2003-2004 **Biological Technician**, Frey Biological, Las Cruces NM. Supervisor: Dr. Jennifer Frey.
- 2003 **Research Assistant**, black-tailed prairie dog project in the lab of Dr. Gary Roemer, New Mexico State University, Las Cruces NM.
- 2003, 2005 **Curatorial Assistant**, Vertebrate Wildlife Collection, Dept. of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces NM.
- 2003-2006 **Graduate Assistant**, Dept. of Wildlife and Fishery Sciences, New Mexico State University, Las Cruces, NM.
- 2002 **Mammal Research Technician**, ECASE Project, Purdue University, West Lafayette IN. Supervisor: Dr. Rob Swihart.
- 2001-2002 **Radio Telemetry Intern**, USFWS Red Wolf Recovery Program, Manteo NC. Supervisor: Chris Lucash.

- 2001 **Conservation Assistant**, Camp Bullis Military Training Site, San Antonio TX. Supervisor: Jackie Schlatter.
- 1998 **Intern**, Carnivore Preservation Trust, Pittsboro NC.

### TEACHING AND OUTREACH

- 2018 Participated in "Bats and Beyond" Electronic field trip for Streaming Science
- 2018 Assisted with UF Explore Research video on humpback whales
- 2016 Assisted with UF Explore Research video on Florida Panthers
- 2015 Taught mammalian characteristics lecture for Mammalogy (UF ZOO 4926/5486C) and a lab on preparing mammal specimens for Wildlife Techniques (UF WIS 6934/4945C)
- 2014-Present Give tours and presentations as well as mentor volunteers at FLMNH
- 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.
- 2010-2011 **HHMI Outreach Assistant**, HHMI Scope-on-a-Rope program, Dept. of Biological Sciences, Louisiana State University, Baton Rouge LA. Supervisor: Adrienne Steele.
- 2006 Teaching Assistant, Introduction to Natural Resources Management (WLSC 110), Dept. of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces NM.

# UNDERGRADUATE STUDENTS SUPERVISED/MENTORED

- 2019-present Melissa Duque. Works as skeletal preparators\ at the Specimen Prep Lab (co-supervised).
- 2019 Gabriella Foursa. Assisted with mammalogy collection curation activities.
- 2018 Candace Fuhrmann. Assisted with fluid collection curation in association with IMLS grant.
- 2017-2020 Eve Rowland. Assisted with mammalogy collection activities as a volunteer, worked as research undergraduate on a USFWS-collaborative project on morphological variation in Atlantic coast beach mice.
- 2016-2017 Jennifer Newkirk. Performed preparation of mammalian specimens and worked as a skeletal preparator at the Specimen Prep Lab (co-supervised).
- 2014-2018 Joshua Ringer. Worked on skeletal preparation activities at the Specimen Prep Lab (co-supervised).

#### **PUBLICATIONS**

- In review Vannatta JM, JA Gore, **VL Mathis**, BD Carver. Eumops floridanus (Chiroptera: Molossidae). Submitted to Mammalian Species.
- In review Kays R, M Lasky, ML Allen, R Dowler, MTR Hawkins, AG Hope, BA Kohli, **VL Mathis**, B McLean, LE Olson, CW Thompson, D Thornton, J Widness & MV Cove. What is a picture worth: Which mammals can be identified from camera traps and citizen scientist photographs? Submitted to Journal of Mammalogy.

- 2021 **Mathis VL** and DL Reed. Two new recent country records of mormoopid bats (Chiroptera: Mormoopidae) from Long Island, The Bahamas. Florida Field Naturalist 49(1): 13-17.
- 2020 Potash, AD, DU Greene, **VL Mathis**, B Baiser, LM Conner, and RA McCleery. Ecological drivers of eastern fox squirrel pelage polymorphism. *Frontiers in Ecology and Evolution* 8:119. doi: 10.3389/fevo.2020.00119
- 2020 Potash, AD, DU Greene, GA Foursa, **VL Mathis**, LM Conner, and RA McCleery. A comparison of animal color measurements using a commercially available digital color sensor and photograph analysis. *Current Zoology* 1–14. doi:10.1093/cz/zoaa016.
- 2017 **Mathis, VL**, MS Ascunce, KG Logan-Lopez, RW DeYoung, RL Honeycutt, KV Olson, G Kassau, NJ Silvy, and DL Reed. Insights into the genetic origins of white-tailed deer on the Naval Station Guantanamo Bay. *Caribbean Naturalist* 45: 1-20.
- 2014 **Mathis, VL**, MS Hafner, and DJ Hafner. Evolution and phylogeography of the *Thomomys umbrinus* species complex (Rodentia: Geomyidae). *Journal of Mammalogy* 95: 754-771.
- 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. Effects of grazing and shrub removal on small mammal populations in southern New Mexico. *Journal of Arid Environments* 66: 76-86.

#### ARTICLES WRITTEN

- 2019 Mathis, VL. What can you learn from studying an animal's scat? Published online for The Conversation, 25 November 2019.
- 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

2018: Bats: demystifying one of the world's most misunderstood mammals. Invited talk at Randell Research Center

- 2018 Bats: Masters of the Night members reception opening exhibit talk
- 2016 2D imaging workflows for dry-preserved specimens (mammals and birds). Copresented with Gil Nelson, iDigBio Vertebrate Digitization Workshop Two, Berkeley CA
- 2015 *Choosing an appropriate database*. American Society of Mammalogists ASM/iDigBio Collections Digitization and Imaging Workshop.
- 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

- 2017 **Mathis VL**, HM Gough, KA Speer, and DL Reed. *Is* Tadarida brasiliensis *a ring species?* 97<sup>th</sup> annual meeting of the American Society of Mammalogists, Moscow, ID
- 2012 **Mathis VL** and MS Hafner. *Modeling ecological niches in a rapid radiation within the Thomomys umbrinus complex.* 92<sup>nd</sup> 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.* 56<sup>th</sup> 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*. 54<sup>th</sup>

  annual meeting of the Southwestern Association of Naturalists, Stephensville 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). 86<sup>th</sup> 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). 19<sup>th</sup> annual New Mexico State University Dept. of Biology Research Symposium, Las Cruces NM and the 53<sup>rd</sup> 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. 6<sup>th</sup> Chihuahuan Desert Research Institute Symposium, Alpine TX and the 37<sup>th</sup> annual joint meeting of the NM/AZ chapters of The Wildlife Society and American Fisheries Society, Safford AZ

#### POSTERS PRESENTED/CO-AUTHORED

- 2019 Rowland, EN and **VL Mathis**. *The future of museum mammalogy collections*. 99<sup>th</sup> annual meeting of the American Society of Mammalogists, Washington, DC
- 2019 **Mathis, VL**. Curation of the Florida Museum of Natural History's fluid-preserved mammal collection: lessons learned for future curation efforts. Annual meeting of the Society for the Preservation of Natural History Collections, Chicago, IL.
- 2018 **Mathis, VL** and DL Reed. *Two new recent country records of mormoopid bats in the Bahamas (Chiroptera: Mormoopidae)*. 98<sup>th</sup> annual meeting of the American Society of Mammalogists, Manhattan, KS.
- 2016 **Mathis VL** and DL Reed. *The mammal collections at the Florida Museum of Natural History: a valuable resource for research and conservation*. Joint meetings of the 21<sup>st</sup> annual Southeastern Bat Diversity Network and the 26<sup>th</sup> annual Colloquium on the Conservation of Mammals in the Southeastern US, Guntersville AL.
- 2013 **Mathis VL**, MS Hafner, DJ Hafner, and JW Demastes. *Thomomys nayarensis*, a new species of pocket gopher from the Sierra del Nayar, Nayarit. 93<sup>rd</sup> 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.* 91<sup>st</sup> 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*. 90<sup>th</sup> 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.* 52<sup>nd</sup> annual meeting of the Southwestern Association of Naturalists, Hunstville, TX and the 85<sup>th</sup> annual meeting of the American Society of Mammalogists, Springfield MO

# GRANTS, HONORS AND AWARDS

- 2018 Recipient, ASM Purple Baculum Award
- 2018 FLMNH Travel Award
- 2017-2019 IMLS Museums for America Grant (collections stewardship program). **Funded \$19,692.**
- 2017 American Society of Mammalogists early career travel award
- 2016 FLMNH Professional Development Award.
- 2012 LSU Museum of Natural Science Outstanding Graduate Student Award
- 2007-2012 LSU BioGrads Research Awards
- 2010 American Society of Mammalogists student travel award

- 2009-2010, 2012 LSU Graduate School travel awards
- 2006-2010 Graduate Stipend Enhancement Award, Louisiana State University
- 2006 Southwestern Association of Naturalists (SWAN) student travel award
- 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 \$2,500.00** (Co-Principal Investigator, Dr. Gary Roemer)
- 2004-2005 Irma Shockley Scholarship, NMSU Dept. of Fishery & Wildlife Sciences
- 2004 T&E, Incorporated Research Grant. **Funded \$1,450.00** (Co-Principal Investigator, Dr. Gary Roemer)
- 2004 American Society of Mammalogists Grant-in-Aid. Funded \$1,272.00
- 2004 Sigma Xi Grant-in-Aid-of-Research. Funded \$195.00

# ACADEMIC & PROFESSIONAL SERVICE/TRAINING

- 2020 Participated in iDigTRIO shadowing event at FLMNH.
- 2019 Attended "Intro to Data Analysis with R and Version Control" hosted by UF Data Carpentries Club
- 2018 Participated in a "Women in STEM" panel for the 55<sup>th</sup> Florida Junior Science, Engineering, and Humanities Symposium
- 2017 Hosted the ASM Public Education Committee's workshop "Expanding your Broader Impacts to the PreK-12 Classroom: The Do's and Don'ts for Professional Mammalogists", annual meeting of ASM, Moscow ID.
- 2016 Attendee, iDigBio Strategies for Vertebrate Digitization Workshop Two, Berkeley, CA.
- 2015 Attendee, iDigBio Strategies for Vertebrate Digitization Workshop, Cornell Laboratory of Ornithology, Ithaca NY
- 2014-Present Member, FLMNH Specimen Prep Lab committee
- 2013 Attendee, 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, Journal of Mammalogy, Southwestern Naturalist, Molecular Ecology, University of Alabama Press
- 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, 41<sup>st</sup> Annual Wildlife Society Western Section Student Conclave, New Mexico State University
- 2004-2005 President, NMSU Dept. of Fishery & Wildlife Sciences Graduate Student Organization
- 1999-2001 Research and Mammal Collections Volunteer, North Carolina State Museum of Natural Sciences, Raleigh NC.

# PROFESSIONAL SOCIETY ASSOCIATIONS

Florida Bat Working Group (2017-present)

Society for the Preservation of Natural History Collections (2015-present)

American Society of Mammalogists (2003-present)

Public Education Committee (Member 2011-2015, Co-Chair 2016-2019, Chair 2020-present)

Program Committee (Member 2014-present)

Biodiversity Committee (Member 2018-present)