

## BETSIE B. ROTHERMEL

Archbold Biological Station, 123 Main Drive, Venus, FL 33960  
phone: (863) 465-2571, email: brothermel@archbold-station.org

### EDUCATION

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2003	University of Missouri-Columbia	Ph.D. Biological Sciences Advisor: Dr. R.D. Semlitsch
1994	Pennsylvania State University	M.S. Ecology, Conservation Biology option Advisor: Dr. R.H. Yahner
1990	Cornell University	B.S. Natural Resources

### PROFESSIONAL POSITIONS

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2016-present	<u>Associate Research Biologist</u> and <u>Program Director</u> , Restoration Ecology and Herpetology Program, Archbold Biological Station, Venus, FL
2008-2016	<u>Assistant Research Biologist</u> and <u>Program Director</u> , Restoration Ecology and Herpetology Program, Archbold Biological Station, Venus, FL
2006-2008	<u>Assistant Professor</u> in Department of Biology and <u>Principal Investigator</u> , The Center of Excellence for Field Biology, Austin Peay State University, Clarksville, TN
2006-2009	<u>Adjunct Faculty</u> , Odum School of Ecology, University of Georgia
2003-2006	<u>Assistant Research Scientist</u> (February – May 2006); <u>Postdoctoral Research Associate</u> (September 2003 – January 2006), University of Georgia, Savannah River Ecology Lab, Aiken, SC. Faculty Mentor: Dr. J.W. Gibbons.
1998-1999	<u>Resource Management Assistant</u> , Georgia Department of Natural Resources, State Parks & Historic Sites Division, Atlanta, GA – Coordinated a pilot project to develop recommendations for conserving biodiversity in four state parks. Developed maps and educational materials for park personnel using a geographic information system (GIS).
1996-1998	<u>Director of Education</u> (June 1997 – June 1998) & <u>Volunteer Coordinator</u> (January 1996 – June 1997), Georgia Wildlife Federation, Conyers, GA – Coordinated the Backyard & Schoolyard Wildlife Habitat programs. Conducted public outreach and handled requests for information. Managed a 500-person volunteer program, special events and field projects, including stream monitoring, bird counts, and Gopher Tortoise surveys. Produced newsletters for environmental educators and GWF members.
1995	<u>Stewardship Assistant</u> , The Nature Conservancy of Georgia, Atlanta, GA – Wrote fire management plans and served on fire crew. Monitored rare plant populations. Assisted with preserve management and supervised volunteers.
1992	<u>Staff Assistant</u> , Zoo Atlanta, Atlanta, GA – Trained and supervised participants in Junior Zoo Crew, a youth volunteer program.

1990-1991 Assistant Scientist, Versar, Inc. Columbia, MD – Conducted monitoring of estuarine systems for the US EPA’s Environmental Monitoring and Assessment Program (EMAP).

## **RESEARCH INTERESTS**

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- Population biology, behavioral ecology, and natural history of amphibians and reptiles
- Ecological restoration of agriculturally impacted wetlands
- Disturbance dynamics and community ecology of seasonal wetlands
- Amphibian disease ecology

## **PUBLICATIONS (+undergraduate co-authors)**

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### **REFEREED JOURNAL ARTICLES**

1. Balcom BJ, Yahner RH (1996) Microhabitat and landscape characteristics associated with the threatened Allegheny Woodrat. *Conserv Biol* 10:515-525
2. Boone MD, Bridges CM, Rothermel BB (2001) Growth and development of larval Green Frogs (*Rana clamitans*) exposed to multiple doses of an insecticide. *Oecologia* 129:518-524
3. Rothermel BB, Semlitsch RD (2002) An experimental investigation of landscape resistance of forest versus old-field habitats to emigrating juvenile amphibians. *Conserv Biol* 16:1324-1332
4. Boone MD, Semlitsch RD, Fairchild JF, Rothermel BB (2004) Effects of an insecticide on amphibians in large-scale experimental ponds. *Ecol Appl* 14:685-691
5. Rittenhouse TAG, Doyle MC<sup>+</sup>, Mank CR<sup>+</sup>, Rothermel BB, Semlitsch RD (2004) Substrate cues influence habitat selection by Spotted Salamanders. *J Wildl Manage* 68:1151-1158
6. Rothermel BB (2004) Migratory success of juveniles: a potential constraint on connectivity for pond-breeding amphibians. *Ecol Appl* 14:1535-1546
7. Rothermel BB, Luhring TM<sup>+</sup> (2005) Burrow availability and desiccation risk of Mole Salamanders (*Ambystoma talpoideum*) in harvested versus unharvested forest stands. *J Herpetol* 39:619-626
8. Todd BD, Rothermel BB (2006) Assessing quality of clearcut habitats for amphibians: effects on abundances versus vital rates in the Southern Toad (*Bufo terrestris*). *Biol Conserv* 133:178-185
9. Rothermel BB, Semlitsch RD (2006) Consequences of forest fragmentation for juvenile survival in spotted (*Ambystoma maculatum*) and marbled (*A. opacum*) salamanders. *Can J Zool* 84:797-807
10. Gibbons JW et al. (25<sup>th</sup> of 25 authors) (2006) Remarkable amphibian biomass and abundance in an isolated wetland: implications for wetland conservation. *Conserv Biol* 20:1457-1465
11. Graeter GJ, Rothermel BB (2007) The effectiveness of fluorescent powdered pigments as a tracking technique for amphibians. *Herpetol Rev* 38:162-166
12. Rothermel BB, Jensen JB, Camp CD, Schwaner TD (2007) *Desmognathus folkertsi* (Dwarf Black-bellied Salamander), Geographic Distribution. *Herpetol Rev* 38:213

13. Rothermel BB, Walls SC, Mitchell JC, Dodd, CK, Jr., Irwin L, Green DE, Vazquez VM, Petranksa JW, Stevenson DJ (2008) Widespread occurrence of the amphibian chytrid fungus *Batrachochytrium dendrobatidis* in amphibian populations in the southeastern USA. *Dis Aquat Org* 82:3-18
14. Hocking DJ, Rittenhouse TAG, Rothermel BB, Johnson JR, Conner CA, Harper EB, Semlitsch RD (2008) Breeding and recruitment phenology of amphibians in Missouri oak-hickory forests. *Am Midland Nat* 160:41-60
15. Graeter GJ, Rothermel BB, Gibbons JW (2008) Habitat selection and movement of pond-breeding amphibians in experimentally fragmented pine forests. *J Wildl Manage* 72:473-482
16. Todd BD, Rothermel BB, Reed RN, Luhring TM, Schlatter K<sup>+</sup>, Trenkamp L<sup>+</sup>, Gibbons JW (2008) Habitat alteration increases invasive fire ant abundance to the detriment of amphibians and reptiles. *Biol Invasions* 10:539-546
17. Vazquez VM, Rothermel BB, Pessier AP (2009) Experimental infection of North American plethodontid salamanders with the fungus *Batrachochytrium dendrobatidis*. *Dis Aquat Org* 84:1-7
18. Chatfield MWH, Rothermel BB, Brooks C, Kay J<sup>+</sup> (2009) Detection of *Batrachochytrium dendrobatidis* in amphibians from the Great Smoky Mountains of North Carolina and Tennessee, USA. *Herpetol Rev* 40:176-179
19. Todd BD, Luhring TM, Rothermel BB, Gibbons JW (2009) Effects of forest removal on amphibian migrations: implications for habitat and landscape connectivity. *J Appl Ecol* 46:554-561
20. Semlitsch RD, Todd BD, Blomquist SM, Calhoun AJK, Gibbons JW, Gibbs JP, Graeter GJ, Harper EB, Hocking DJ, Hunter ML, Jr., Patrick DA, Rittenhouse TAG, Rothermel BB (2009) Effects of timber harvest on amphibian populations: understanding mechanisms from forest experiments. *BioScience* 59:853-862
21. Castellón TD, Rothermel BB, Nomani SZ (2012) Gopher Tortoise (*Gopherus polyphemus*) burrow densities in scrub and flatwoods habitats of peninsular Florida. *Chelonian Conserv Biol* 11:153-161
22. Jones MEB, Armién AG, Rothermel BB, Pessier AP (2012) Granulomatous myositis associated with a novel alveolate pathogen in an adult Southern Leopard Frog (*Lithobates sphenoccephalus*). *Dis Aquat Org* 102:163-167
23. O'Connor JH<sup>+</sup>, Rothermel BB (2013) Distribution and population characteristics of African Jewfish and Brown Hoplo in modified wetlands in south Florida. *Am Midland Nat* 170:52-65
24. Rothermel BB, Travis ER, Miller DL, Hill RL, McGuire JL, Yabsley MJ (2013) High occupancy of stream salamanders despite high *Ranavirus* prevalence in a southern Appalachians watershed. *EcoHealth* 10:184-189
25. Rothermel BB, Forsburg ZR<sup>+</sup>, Phillips NC<sup>+</sup> (2013) *Osteopilus septentrionalis* (Cuban Treefrog), Post-invasion Spread. *Herpetol Rev* 44:656-657
26. Rothermel BB, Castellón TD (2014) Factors influencing reproductive output and egg size in a southern population of Gopher Tortoises. *Southeastern Nat* 13:705-720

27. Bateman PW, Fleming PA, Jones BC, Rothermel BB (2014) Defensive responses of Gopher Tortoises (*Gopherus polyphemus*) are influenced by risk assessment and level of habituation to humans. *Behaviour* 151:1267-1280
28. Drake DL, Ousterhout BH, Johnson JR, Anderson TL, Peterman WE, Shulse CD, Hocking DJ, Lohraff KL, Harper EB, Rittenhouse TAG, Rothermel BB, Eggert LS, Semlitsch RD (2015) Pond-breeding amphibian community composition in Missouri. *Am Midland Nat* 174:180-187
29. Scott DE, Yanes Y, Rothermel BB, Pilgrim M, Romanek CS (2015) Efficacy of labeling wetlands with enriched <sup>15</sup>N to determine amphibian dispersal. *Wetlands* 35:349-356
30. Yuan ML<sup>+</sup>, Dean SH<sup>+</sup>, Longo AV, Rothermel BB, Tuberville TD, Zamudio KR (2015) Kinship, inbreeding, and fine-scale spatial structure influence gut microbiota in a hindgut-fermenting tortoise. *Mol Ecol* 24:2521-2536
31. Noss CF<sup>+</sup>, Rothermel BB (2015) Juvenile recruitment of Oak Toads (*Anaxyrus quercicus*) varies with time-since-fire in seasonal ponds. *J Herpetol* 49:364-370
32. Castellón TD, Rothermel BB, Nomani SZ (2015) A comparison of line-transect distance sampling methods for estimating Gopher Tortoise population densities. *Wildl Soc Bull* 39:804-812
33. Rothermel BB, Miller DL, Travis ER, Gonynor McGuire JL, Jensen JB, Yabsley MJ (2016) Disease dynamics of red-spotted newts and their anuran prey in a montane pond community. *Dis Aquat Org* 118:113-127
34. Bauder JM, Breininger DR, Bolt MR, Legare ML, Jenkins CL, Rothermel BB, McGarigal K (2016) Seasonal variation in Eastern Indigo Snake (*Drymarchon couperi*) movement patterns and space use in peninsular Florida at multiple temporal scales. *Herpetologica* 72:214-226
35. Bauder JM, Breininger DR, Bolt MR, Legare ML, Jenkins CL, Rothermel BB, McGarigal K (2016) The influence of sex and season on conspecific spatial overlap in a large, actively-foraging colubrid snake. *PLoS ONE* 11(8): e0160033
36. Tucker RC, Rothermel BB, Daskin JH (2017) Preparing Florida pasture for grassland restoration: Seedling establishment after herbiciding and tilling. *Nat Areas J* 37:39-48
37. White KN, Rothermel BB, White MT (2017) *Aspidoscelis sexlineata sexlineata* (Eastern Six-lined Racerunner), Reproduction. *Herpetol Rev* 48:185-186
38. White KN, Rothermel BB, White MT (2017) *Sceloporus woodi* (Florida Scrub Lizard), Nest Site. *Herpetol Rev* 48:200-201
39. Robertson JM, Fitzpatrick SW, Rothermel BB, Chan LM (2018) Fire does not strongly affect genetic diversity or structure of a common treefrog in the endangered Florida scrub. *J Heredity* 109:243-252
40. Castellón TD, Rothermel BB, Bauder JM (2018) Gopher Tortoise burrow use, home range, seasonality and habitat fidelity in scrub and mesic flatwoods of southern Florida. *Herpetologica* 74:8-21
41. Bauder JM, Breininger DR, Bolt MR, Legare ML, Jenkins CL, Rothermel BB, McGarigal K (2018) Multi-level, multi-scale habitat selection in a wide-ranging, federally threatened snake. *Landscape Ecol* 33:743-763

42. White KN, Rothermel BB, Zamudio KR, Tuberville TD (2018) Male body size predicts overall reproductive success but not within-clutch paternity patterns in Gopher Tortoises (*Gopherus polyphemus*). *J Heredity* 109:791-801
43. Howell HJ, Mothes CC, Clements SL, Catania SV, Rothermel BB, Searcy CA (2019) Amphibian responses to livestock use of wetlands: new empirical data and a global review. *Ecol Applications* 29:e01976 [doi 10.1002/eap.1976]
44. Yuan ML, White KN, Rothermel BB, Zamudio KR, Tuberville TD (2019) Close kin mating, but not inbred parents, reduces hatching rates and offspring quality in a threatened tortoise. *J Evol Biol* 32:1152-1162 [doi 10.1111/jeb.13518]
45. McHugh SW, White KN, Rothermel BB, Tuberville TD, Zamudio KR (2019) Nesting and false nesting behaviors of Gopher Tortoises (*Gopherus polyphemus*). *Herpetol Rev* 50:453-459
46. Lawson GR, Norden AW, Rothermel BB (2019) *Anolis cristatellus* (Crested Anole), Geographic Distribution. *Herpetol Rev* 50:524
47. Howell HJ, Rothermel BB, White KN, Searcy CA (2020) Gopher Tortoise demographic responses to a novel disturbance regime. *J Wildl Manage* 84:56-65 [doi 10.1002/jwmg.21774]
48. Castellón TD, Anderson CD, Rothermel BB, Beck JL (2020) Differential effects of elevation and microtopography on Gopher Tortoise burrow distributions in southern Florida. *Copeia* 108:140-150 [doi: 10.1643/CH-19-228]
49. Bauder JM, Breininger DR, Bolt MR, Legare ML, Jenkins CL, Rothermel BB, McGarigal K (2020) Movement barriers, habitat heterogeneity, or both? Testing hypothesized effects of landscape features on home range sizes in Eastern Indigo Snakes. *J Zool* [doi: 10.1111/jzo.12777]
50. Harman MEA, Rothermel BB, Greene AH (In press) *Anaxyrus quercicus* (Oak Toad), Coloration. *Herpetol Rev*

#### **BOOKS, BOOK CHAPTERS, AND OTHER NON-REFEREED PUBLICATIONS**

1. McCollum J, Rothermel B, Rabolli C (1996) *Georgia Wildlife Viewing Guide*. Georgia Wildlife Press, Conyers, GA
2. Semlitsch RD, Rothermel BB (2003) A foundation for conservation and management of amphibians. Pp 242-259 In: Semlitsch RD (ed). *Amphibian Conservation*. Smithsonian Institution Press, Washington, DC
3. Bishop CA, Cunnington DC, Fellers GM, Gibbs JP, Pauli BD, Rothermel BB (2003) Physical habitat and its alteration: a common ground for exposure of amphibians to environmental stressors. Pp 209-241 In: Linder G, Krest SK, Sparling DW (eds). *Amphibian Decline: An Integrated Analysis of Multiple Stressor Effects*. SETAC Press, Pensacola, FL
4. Rothermel BB (2008) *Hyla cinerea* In: Jensen J, Camp C, Gibbons JW, Elliott M (eds). *Amphibians and Reptiles of Georgia*. University of Georgia Press, Athens, GA
5. Rothermel BB, Gibbons JW (2008) *Virginia valeriae* In: Jensen J, Camp C, Gibbons JW, Elliott M (eds). *Amphibians and Reptiles of Georgia*. University of Georgia Press, Athens, GA
6. Mendelson JR, III, Pramuk JB, Gagliardo R, Pessier A, Rothermel BB, Zippel KC, Bevier C, Preest M, Crother B (2009) Considerations and recommendations for raising live amphibians in classrooms. *Herpetol Rev* 40:142-144

**TECHNICAL REPORTS**

Rothermel BB, Travis ER (2011) Establishment of an Amphibian Monitoring Program in the Southern Blue Ridge. Final Report for 2008-2010 to the Georgia Department of Natural Resources, Wildlife Resources Division. 151 pp.

Castellón TD, Rothermel BB (2012) Population Survey and Monitoring of the Gopher Tortoise (*Gopherus polyphemus*) at Avon Park Air Force Range. Final Report for 2008-2011 to U.S. Air Force. Cooperative Agreement W81XWH-06-2-0026. 253 pp.

Rothermel BB, Fort JL, O'Connor KM, Beck JH (2017) Population Monitoring and Management of Gopher Tortoises (*Gopherus polyphemus*) and Eastern Indigo Snakes (*Drymarchon couperi*) at Avon Park Air Force Range. Final Report for 2014-2017 to U.S. Air Force. Cooperative Agreement W9126G-12-2-00013. 142 pp.

**GRANTS**

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|---------|---|
| 2003-08 | National Science Foundation, Collaborative Research: Land-use practices and persistence of amphibian populations. Award No. DEB-0242874. PI: R.D. Semlitsch, co-PIs: ML Hunter, JP Gibbs, JW Gibbons, BB Rothermel. Total award \$1,200,000 ( <i>UGA share: \$283,452</i> ) |
| 2004-07 | National Park Service: Incidence of chytrid fungal parasitism in southeastern national parks. PI: J.W. Gibbons, co-PI: BB Rothermel. \$46,243   |
| 2006    | Declining Amphibian Populations Task Force Seed Grant: Assessing the susceptibility of North American plethodontid salamanders to chytrid fungal infection. BB Rothermel, VM Vazquez. \$2,000   |
| 2007    | National Park Service, Appalachian Highlands Research Grant: Prevalence and potential threat of an emerging disease to amphibians in the Appalachian Highlands. BB Rothermel, M Chatfield. \$2,000  |
| 2007-08 | U.S. Environmental Protection Agency, Regional Environmental Priorities (REP): Enhancement of watershed protection measures in the karst region of Pleasant Grove Creek, Kentucky. PI: AN Barrass, co-PIs: BB Rothermel, M Wilson, DM Rogers. \$75,000                      |
| 2008-10 | Georgia Department of Natural Resources, Nongame Conservation Section: Establishment of an amphibian monitoring program in the Southern Blue Ridge of Georgia. PI: BB Rothermel. \$101,529  |
| 2008-11 | U.S. Department of Defense: Population monitoring of Gopher Tortoises at Avon Park Air Force Range, Florida. PI: BB Rothermel. \$394,613  |
| 2012-15 | Disney Worldwide Conservation Fund: Restoring habitat for Gopher Tortoises. PI: BB Rothermel. Three annual awards, total \$74,900   |
| 2014-15 | Riverbanks Zoo Conservation Support Fund: Characterizing social interactions among Gopher Tortoises: a pilot study with implications for translocation and long-term conservation. PI: TD Tuberville, co-PI: BB Rothermel. \$4,800  |
| 2014-17 | U.S. Department of Defense: Population surveys of Gopher Tortoises and Eastern Indigo Snakes at Avon Park Air Force Range, Florida. PI: BB Rothermel. \$378,430   |

- 2015-16 Riverbanks Zoo Conservation Support Fund: Mating system and male reproductive success in a high-density Gopher Tortoise population. PI: TD Tuberville, co-PIs: BB Rothermel, K Zamudio, KN White. \$3,722
- 2015-18 National Science Foundation, CSBR Natural History Collections: Transforming accessibility to the rich, site-based, multi-taxon collection of Archbold Biological Station. Award No. DBI-1458229. PI: H Swain, co-PIs: M Deyrup, R Bowman, E Menges, B Rothermel. Total award \$449,164 (*Rothermel share \$6,476*)
- 2019 Florida Fish and Wildlife Conservation Commission: Walking versus riding: an assessment of relative effectiveness of two methods for conducting Gopher Tortoise burrow surveys. PI: BB Rothermel, co-PI: LL Smith. \$6,792
- 2019-2020 Florida Cattle Enhancement Fund: What is the optimal grazing regime to maintain wetland forage production? PI: EH Boughton, co-PIs: G Sonnier, BB Rothermel. \$16,257

## CONTRACTS

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- 2012-16 U.S. Department of Agriculture, Wildlife Habitat Incentives Program (WHIP), Working Lands for Wildlife: Habitat improvements for Gopher Tortoises on the Archbold Reserve. K Main (Project Director), BB Rothermel. \$34,945
- 2013-17 U.S. Department of Agriculture, Wetlands Reserve Program: Landowner agreement for wetland restoration enhancements - Mary's Creek, Frances Creek, and Cutthroat Seep WRPs on the Archbold Reserve. BB Rothermel (Project Director), HM Swain. \$497,360
- 2014-18 U.S. Department of Agriculture, Wetlands Reserve Program: Landowner agreement for wetland restoration - Cutthroat Prairie WRP and East Prairie WRE on the Archbold Reserve. BB Rothermel (Project Director), HM Swain. \$554,615
- 2017-18 U.S. Department of Agriculture, Wetlands Reserve Program: Landowner agreement for gully repair - Cutthroat Seep WRP on the Archbold Reserve. BB Rothermel (Project Director), HM Swain. \$81,216
- 2017-19 U.S. Department of Agriculture, Wetlands Reserve Program: Landowner agreement for revegetation - Cutthroat Seep WRP on the Archbold Reserve. BB Rothermel (Project Director). \$1,800
- 2015-24 U.S. Fish and Wildlife Service, Partners for Fish and Wildlife: Sandhill restoration and management for Gopher Tortoises at Archbold Biological Station. KN Main (Project Director), BB Rothermel, ES Menges. \$10,000

## RESEARCH PRESENTATIONS

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### INVITED PRESENTATIONS (last 10 years)

- Rothermel BB, Smith LL (Oct. 2013) Living on the edge: Challenges and considerations for managing Gopher Tortoise habitats with fire. Invited talk. The Wildlife Society, 20<sup>th</sup> Annual Conference, Effects of Wildland Fire and Fire Management on Herps Symposium, Milwaukee, WI

Rothermel BB, Royal EJ (Jul. 2017) Driven by extremes: Pond community structure on an ancient sand ridge in Florida. Invited poster. HL/SSAR/ASIH Symposium – The Science, Management, and Policy of Amphibian Conservation: Extending the Legacy of Ray Semlitsch, Austin, TX

Rothermel BB (Feb. 2019) Demographic and behavioral responses of Gopher Tortoises to altered disturbance regimes in southern Florida. Departmental seminar. University of Florida, Department of Wildlife Ecology and Conservation, Gainesville, FL

#### **CONTRIBUTED PRESENTATIONS AT PROFESSIONAL MEETINGS (first-authored, last 10 years)**

Rothermel BB, Travis ER, Hill RL, Miller DL (Jul. 2011) Stream salamander occupancy and pathogen prevalence in a protected watershed in the southern Blue Ridge Mountains, USA. Poster. Joint Meeting of Ichthyologists & Herpetologists, Minneapolis, MN

Rothermel BB, Boughton EH, Daskin JH (Apr. 2012) Initial responses of Florida endemic cutthroat grass and wet prairie vegetation to cattle exclusion and alternative fire regimes. Poster. Association of Southeastern Biologists, Athens, GA

Rothermel BB, Castellón TD (Aug. 2012) Contrasting patterns of Gopher Tortoise habitat use and burrow size distributions in Florida scrub and mesic flatwoods. Oral. World Congress of Herpetology, Vancouver, BC

Rothermel BB, White KN, White MT, Zamudio KR, Tuberville TD (Jul. 2016) Patterns of reproductive output in Gopher Tortoises inhabiting modified sandhill in southern Florida, USA. Oral. Joint Meeting of Ichthyologists & Herpetologists, New Orleans, LA

Rothermel BB, Fort JL, O'Connor KM, Beck JH (Oct. 2017) Gopher Tortoise abundance and patterns of juvenile recruitment in scrub communities at Avon Park Air Force Range, FL. Oral. Gopher Tortoise Council, Edgefield, SC

Rothermel BB, Howell HJ, White KN, Searcy CA, Tuberville TD, Yuan ML, Zamudio KR (Jul. 2019) Demographic consequences of habitat alteration and inbreeding for a Gopher Tortoise population in southern Florida. Oral. Joint Meeting of Ichthyologists & Herpetologists, Snowbird, UT

#### **CONSERVATION AND PUBLIC OUTREACH**

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##### **WETLAND RESTORATION**

- Provided technical input and oversight for six wetland restoration projects encompassing 1,503 acres on the Archbold Reserve and funded via the USDA Wetlands Reserve Program (WRP). Reviewed multiple versions of restoration plans and engineering drawings/specifications and communicated detailed comments to USDA-NRCS staff and engineering consultants prior to construction.

##### **EMERGING DISEASES/INVASIVE SPECIES**

- Gave presentations on amphibian diseases (Lake Wales Ridge Ecosystem Working Group, 2010) and invasive cichlids (Central Florida Invasive Species Workshop, 2014)

##### **GOPHER TORTOISE CONSERVATION**

- Organized and hosted regional meeting on tortoise ecology and management on central Florida ridgeland in 2015, attended by 100 people representing > 20 organizations

- Organized and hosted 40<sup>th</sup> Annual Meeting of the Gopher Tortoise Council held at Archbold Biological Station in 2018, attended by 140 people
- Contributed to USFWS Species Status Assessment as member of Gopher Tortoise Expert Team
- With funding from Disney Conservation Fund, supervised college interns to produce a three-video series *Getting to Know the Gopher Tortoise*, which was disseminated via DVDs to local teachers and YouTube [www.youtube.com/user/ArchboldExpeditions](http://www.youtube.com/user/ArchboldExpeditions) (> 7,000 views to date).
- Co-wrote and produced film *Queen of Red Hill: A Remarkable Tale of Tortoises and Conservation in Florida*, funded in part by Disney Conservation Fund. Distributed via regional film festivals and social media (> 22,000 views to date).
- Led two Tortoise Tracker family events and gave six public lectures on Gopher Tortoise ecology and conservation since 2013

#### **REGIONAL/NATIONAL HERPETOLOGICAL CONSERVATION**

- Regularly provide scientific information to agencies managing at-risk reptile and amphibian species in Florida
- During 7-year tenure as Chair of the Conservation Committee for the Society for the Study of Amphibians and Reptiles, coordinated and helped draft and distribute SSAR's comments and letters advocating greater protection for imperiled species and actions to address threats such as overharvesting, habitat loss, agricultural chemicals, and introduction of fungal pathogens

#### **TEACHING AND ADVISING**

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##### **FORMAL COURSES TAUGHT**

- 1999            Introductory Biology, University of Missouri – taught 4 lab sections per week
- 2006-08        Diversity of Life, Austin Peay State University – Lecture and lab sections of a biology course for non-science majors (4 semesters)

##### **LECTURES GIVEN IN COURSES**

- 2004            Amphibian and Reptile Conservation, Davidson College
- 2007            Amphibian Ecology and Conservation, University of Tennessee-Knoxville
- 2009, 2012     Conservation of Amphibians & Reptiles, University of Florida
- 2011            Water, Wetlands, & Wildlife, University of Tampa
- 2011            Environmental Science, Bridgewater College
- 2014, 2016     Herpetology, Boston University
- 2016            Herpetology, University of South Florida – St. Petersburg
- 2017            Conservation Biology, Concordia College
- 2018, 2020     Advanced Ecology, Wabash College
- 2019            Biology of Amphibians & Reptiles, Eckerd College

##### **POSTDOCTORAL FELLOWS**

- 2009-2011     Traci D. Castellón

## GRADUATE STUDENTS

2007-08 Lacey Robertson, M.S., Austin Peay State University – Use of agricultural wetlands by treefrogs in western Kentucky and adjacent Tennessee

## GRADUATE STUDENT COMMITTEES

2005 Gabrielle Graeter, M.S., University of Georgia – Habitat selection and movement patterns of amphibians in altered forest habitats  
2009 Tyler Lawson, M.S., College of Charleston – Habitat effects on chytrid infection in the critically endangered *Agalychnis moreletii*  
2015 Caitlyn Debevec, M.S., University of Central Florida – Effect of landscape variables on adult mosquito diversity and behavior  
2016 Audrey Wilson, M.S., University of Florida – Cane Toad habitat use and distribution in Florida  
2017 K. Nicole White, M.S., University of Georgia – Size, siring success, and multiple paternity in the Gopher Tortoise (*Gopherus polyphemus*)

## UNDERGRADUATE AND POST-BACCALAUREATE RESEARCH MENTORING

Savannah River Ecology Lab Research Experiences for Undergraduates (NSF REU) students:

2004 Thomas Luhring (University of Georgia), Aaliyah Green (Rutgers University)  
2005 Rachel Mahan (University of Missouri), Lester Trenkamp (Southern Utah University), Karen Schlatter (McGill University)

Archbold Herpetology and Restoration Ecology research interns:

2009 Ray Grater (Kutztown University)  
2010 Zachery Forsburg (Shippensburg University), José Lopez (SUNY-ESF), Naima Phillips (Lewis & Clark College)  
2011 Alexander Biggs (University of North Carolina-Wilmington), Susan Caster (University of Georgia), Jason O'Connor (University of Miami)  
2012 Kevin Moses (Howard University), Clay Noss (University of Florida)  
2013 Samantha Dean (Cornell University), Livvy Jones (Washington University-St. Louis)  
2014 Harrison Goldspiel (Brandeis University), Gabriel Kamener (University of Florida), Michael Yuan (Cornell University)  
2015 Amanda Chang (Princeton University)  
2016 Jonathan Carcione (Princeton University), Ethan Royal (Stetson University)  
2017 Simon King (Appalachian State University), Elizabeth Shadle (University of Rhode Island)  
2018 Madison Harman (Duke University)  
2019 Garrett Lawson (Arkansas Tech University)

Disney-funded summer tortoise interns:

2013-15 Candida Dale (University of South Florida), Samantha Dillon (South Florida State College), Sophia Finn (Eckerd College), Gabriel Kamener (Edison State College), Ethan Noel (University of Florida), Brianna Price (University of South Florida), Nicole Salvatico (University of Central Florida), Lexi Siegle (Florida Gulf Coast University), Zachary Steele (University of South Florida)

## **ARCHBOLD ADMINISTRATIVE RESPONSIBILITIES**

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**ARCHBOLD RESERVE:** I serve as the primary liaison with USDA Natural Resources Conservation Service for Wetlands Reserve Program easements on the Archbold Reserve, coordinating WRP restorations funded via agreements between USDA and ABS. I also coordinate environmental monitoring and provide input on Reserve land management activities (e.g., exotics control, prescribed fire, grazing).

**ARCHBOLD ANIMAL USE COMMITTEE:** As Chair of this committee, I handle review of animal use applications submitted by visiting investigators wishing to conduct research on vertebrate animals.

**VISITING RESEARCH & INSTRUCTION:** As director of the Restoration Ecology and Herpetology Program, I regularly host visiting scientists and classes using ABS as a field site for research or instruction related to these program areas, thereby facilitating use of the field station for many studies on which I am not a co-PI.

**COLLECTIONS MANAGEMENT:** I serve as curator of Archbold's wet collection of ~2,600 reptile and amphibian specimens and ~200 fish specimens.

## **PROFESSIONAL SERVICE**

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| 2002-2003    | President, Missouri Chapter of the Society for Conservation Biology                                  |
| 2008         | Highlands Biological Station Board of Scientific Advisors  |
| 2010-2012    | Domain Science and Education Coordination Committee, NEON  |
| 2004-2014    | Wharton Conservation Center Advisory Panel, Georgia Wildlife Federation                              |
| 2015-present | Board Member, C. H. Wharton Conservation Center  |
| 2007-present | Conservation Committee, Society for the Study of Amphibians and Reptiles (served as Chair 2007-2015) |
| 2017-present | Co-Chair and Past Co-Chair, Gopher Tortoise Council  |
| 2018-present | Chair, Student Poster Award Committee, Society for the Study of Amphibians and Reptiles              |

Reviewer (2015-2020): *Animal Conservation, Behavioral Ecology, Chelonian Conservation and Biology, Diseases of Aquatic Organisms, Ecological Applications, Herpetologica, Herpetological Conservation and Biology, Herpetological Review, Journal of Wildlife Management, Natural Areas Journal*

## **PROFESSIONAL AFFILIATIONS**

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Ecological Society of America  
Society for Conservation Biology  
The Wildlife Society

American Society of Ichthyologists & Herpetologists  
Society for the Study of Amphibians and Reptiles  
Gopher Tortoise Council