

Curriculum Vitae

Brian H. Reily

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EDUCATION

Masters of Science, Biology, 2017 (anticipated), Arizona State University (ASU), Tempe, Arizona

Bachelors of Science, Biological Sciences with an additional concentration in Marine Biology, 2014, Louisiana State University (LSU), Baton Rouge, Louisiana

Associate of Science, Natural Sciences, Biology Concentration, 2012, Baton Rouge Community College (BRCC), Baton Rouge, Louisiana

GRE: 159 verbal, 155 quantitative, 4 analytical writing

HONORS AND AWARDS

Fall 2013 LSU Chancellor's Honor Roll

2012-2014 LSU Howard Hughes Medical Institute Professors Program scholar

2012 BRCC Howard Hughes Medical Institute Professors Program scholar

\$3000 scholarship by OTS for summer 2014 Organization for Tropical Studies (OTS)

Tropical Biology in Costa Rica field course

\$3500 by LSU Howard Hughes Medical Institute program for summer 2014

Organization for Tropical Studies (OTS) Tropical Biology in Costa Rica field course

\$500 supply stipend by Louisiana State Arthropod Museum for summer 2014

Organization for Tropical Studies (OTS) Tropical Biology in Costa Rica field course

2014 Tyrone Davis Award for Academic and Research Excellence

Awarded by LSU Office of Strategic Initiatives in memory of former student Tyrone Davis, who passed away in a tragic hit-and-run accident in February of 2013. Tyrone was a close colleague of mine and a brilliant young man. I consider this one of the greatest honors I have ever been given.

\$19500/year stipend for Graduate Internship at Arizona State University's School of Life Sciences

RESEARCH INTERESTS

My primary research interests involve the interactions of insectivorous members of the family Cleridae. Additionally, I am interested in pursuing studies of the systematics and biogeography of the cleroid families Cleridae, Trogossitidae, Melyridae, and the coccinellid tribe Cephaloscymnini. I am currently collaborating with USDA-APHIS-CPHST Phoenix lab on a

study regarding effects of novel grasshopper and Mormon cricket treatment methodologies on non-target rangeland arthropods.

PROFESSIONAL EXPERIENCE

Graduate Assistant: Hasbrouck Insect Collection at Arizona State University (ASUHC)

2015-present

Tempe, Arizona

Advisor: Dr. Nico Franz, Curator of Insects, Director of the Biodiversity Knowledge Integration Center

- Preserved and identified insects using appropriate scientific literature and standard techniques
- Provided preliminary sorting and identification for sampling of the effects of Chlorantraniliprole on New Mexican Range land arthropod biodiversity in conjunction with the USDA-APHIS-CPHST Phoenix, AZ Laboratory
- Collected specimens using standard techniques and equipment (mercury vapor lamp/black light, sweep net, beating sheet)
- Assisted with instruction and preparation of field trips for General Entomology (BIO 386, Fall 2015)

Research Associate: Louisiana State University

2015

Baton Rouge, Louisiana

Supervisor: Dr. Linda Hooper-Bui

- Sorted arthropod specimens arthropods collected along Louisiana Gulf Coast in conjunction with a study on the effects of disturbance (via hurricane and oil spill) on marsh arthropod communities (10,000 + specimens) to morphospecies and subsequently provided authoritative identifications for these specimens
- Assembled presentations on identification of arthropods to order or suborder for use in instructing student workers
- Mentored four undergraduate students and supervised them in the lab
- Assisted in moving two large labs between buildings on campus

Undergraduate Researcher: Louisiana State Arthropod Museum (LSAM)

2012-2015

Baton Rouge, Louisiana

Advisor: Dr. Christopher E. Carlton, museum director

- Developed species rarefaction curves for forest canopy beetle diversity using EcoSim
- Preserved and identified insects using appropriate scientific literature and standard techniques (~2000 specimens)
- Provided genus level identifications for the collection's Cleridae specimens of North America (~1000 specimens)
- Provided species level identifications for Louisiana Cleridae (~600 specimens)
- Provided genus level identifications for the collection's Evaniidae (~50 specimens)

- Collected specimens using standard techniques and equipment (mercury vapor lamp/black light, flight intercept trap, canopy malaise, sweep net, Berlese funnel, leaf-litter sifting)
- Assisted in the upkeep of colonies of Asian house cricket and multiple species of Blattodea for scientific study
- Assembled exhibits for use in public outreach programs

Frost Summer Intern: Frost Entomological Museum at Penn State (FEM)

Summer, 2013

State College, Pennsylvania

Advisor: Dr. Andrew Deans, museum director

- Performed routine collection management tasks such as specimen sorting and mounting
- Evaluated large numbers of pinned insects (10,000+ specimens) for signs of collection pests and mold and attempted to provide mediation for damaged specimens through transfer to more adequate housing, active treatment by freezing, and proposal of deaccessioning of unsalvageable materials
- Performed maintenance and cleanup of museum's collecting supplies
- Assisted in cataloguing and identification of specimens using appropriate literature
- Provided genus level identification and sorting for collection's Evaniidae based on current keys
- Performed dissections of dry-mounted evaniid mouthparts and evaluated characters of the mouth and wings for development of generic keys
- Collected live specimens for a study regarding internal morphology of the genus *Gasteruption* (Family Gasteruptionidae)

Library Page: East Baton Rouge Parish Public Library, Carver Branch Library

2008-2012

Baton Rouge, Louisiana

- Repaired damaged items and assisted in the processing of destroyed items
- Assisted with collection upkeep and maintenance
- Assisted in the training of new employees on basic library procedures
- Helped patrons locate and obtain requested materials

CONFERENCE AND SYMPOSIUM PRESENTATIONS

Toward an understanding of the effects of Chlorantraniliprole treatment on non-target rangeland insects. B. H. Reily. (Research Talk).

National Grasshopper Management Board 2016 Annual Meeting:
January 20, 2016, Denver, Colorado

Cleridae of Louisiana. B. H. Reily and C. E. Carlton. (Poster presentation).

Louisiana State University Undergraduate Research Conference:
31 October, 2014, Baton Rouge, Louisiana

The effects of leafcutter trails on duff-dwelling biological communities. B. H. Reily. (Research Talk).

La Selva Symposium, Organization for Tropical Studies. La Selva Biological Station, Heredia, Costa Rica: 19 July, 2014

Canopy Coleoptera of Two Louisiana Ecoregions. B. H. Reily, M. L. Ferro, P. J. Newell, and C. E. Carlton. (Poster Presentation).

Entomological Society of America Southeastern Branch Annual Meeting:
04 March, 2013, Baton Rouge, Louisiana

Comparison of Canopy Coleoptera in Northern Backswamp and Southern Holocene Meander Belt Ecoregions in Louisiana. B. H. Reily, M. L. Ferro, P. J. Newell, and C. E. Carlton. (Poster Presentation).

Louisiana State University Undergraduate Research Conference:
26 October, 2012, Baton Rouge, Louisiana

Comparison of Canopy Coleoptera in Northern Backswamp and Southern Holocene Meander Belt Ecoregions in Louisiana. B. H. Reily, M. L. Ferro, P. J. Newell, and C. E. Carlton. (Poster Presentation).

Louisiana Biomedical Research Network Summer Undergraduate Research Forum:
27 July, 2012, Baton Rouge, Louisiana

PROFESSIONAL SKILLS

- Proficient with the use of dichotomous identification keys
- Proficient with optical microscopy techniques
- Proficient in Microsoft Word, Microsoft Excel, and Microsoft Powerpoint
- Proficient with multiple standard entomological collection techniques
- Proficient with manual dissection of sclerotized structures in insects
- Working knowledge of EcoSim, JMP, and ImageJ
- Working knowledge of Syncroscopy Auto Montage and Photoshop

ACADEMIC AND PROFESSIONAL ORGANIZATIONS

- Member 2012-present, The Coleopterists Society
- Member 2013-2014, Entomological Society of America
- Parliamentarian 2011-2012, BRCC Environmental Science Club
- Chair 2012, BRCC Facilities Improvement Committee

TEACHING EXPERIENCE

- Field Assistant, Louisiana State University, ENTM 4005 Insect Taxonomy – Spring 2013,

Spring 2015

Led hikes at Feliciana Preserve and Kisatchie National Forest's Caroline Dorman Trail. Assisted students with collecting and in-field identifications. Provided a brief, instructional discussion of the history and biology of Louisiana's longleaf pine forests. Demonstrated various collecting methods including UV light sheet, sweep net, and D-frame kick net.

- Assistant Instructor, Great Smoky Mountains Institute at Tremont, Smoky Mountains Science

Teacher Institute – June 2014

Assisted in teaching course in general entomology for elementary school teachers. Provided assistance with collecting and in-field identification of arthropods. Demonstrated various collecting methods including UV light sheet, sweep net, and flight intercept trap

COMMUNITY OUTREACH

- Louisiana Earth Day, wetlands tent – April 17, 2011
- Louisiana Earth Day, wetlands tent – April 22, 2012
- LSU AgCenter's AgMagic – April 28, 2012
- LSU ACT Prep Academy – fall 2012
- LSU ACT Prep Academy – spring 2013
- National Geographic's BioBlitz 2013 at Jean Laffite National Park, LA – May 15-18, 2013
- Sinnemahoning BioBlitz 2013 at Sinnemahoning State Park, PA: May 20-21, 2013
- Baton Rouge Garden Show, Department of Entomology table – March 29, 2014
- Audubon Insectarium's Beetlemania – September 7, 2014
- Judge at LSU EnvironMentors Science Fair at Scotlandville High – April 20, 2015
- Beer and Bones 2015, Arizona Museum of Natural History – April 24, 2015

FIELD EXPEDITIONS

- FEM Carnegie Mellon Powdermill Nature Reserve (Pennsylvania) collecting trip – July 22-23, 2013
- LSAM Chiricahua Mountains (Arizona/New Mexico) collecting trip – July 28- August 8, 2013
- LSAM Great Smokey Mountain National Park (Tennessee/North Carolina) collecting trip – June 13-18, 2014
- Collecting and fieldwork at Palo Verde Biological Station, Las Alturas Biological Station, Las Cruces Biological Station, and La Selva Biological Station (Costa Rica) – June 23- July 22, 2014
- Frequent collecting trips to Feliciana Preserve (Louisiana)

MUSEUMS VISITED

- Frost Entomological Museum, Pennsylvania State University, State College, PA – May 20- July 27, 2013
- The Field Museum, Chicago, IL – April 14-16, 2014
- Denver Museum of Nature and Science, Denver, CO – January 21-22, 2016

UNDERGRADUATE COURSEWORK

- Introductory biology I[†] & II[†]
- General chemistry I[†] & II[†]
- General physics I[†] & II[†]
- Organic chemistry I & II[†]
- Microbiology[†]
- Principles of genetics[‡]
- Principles of ecology
- Natural resource conservation[‡]
- Evolution
- Conservation biology[‡]
- Invertebrate zoology[†]
- Oceanography
- Marine life processes
- Marine geological and physical processes
- Insect ecology
- Molecular cell biology
- Biochemistry
- Tropical Biology[§]
- Marine communities

GRADUATE COURSEWORK

- Biometry[†] (R-based)
- Meta-analysis
- Programming for biologists (Python-based)
- Current topics in systematics (Repeated, semesterly discussion group)

† indicates laboratory section completed in addition to lecture

‡ indicates discussion section completed in addition to lecture

§ indicates a field work intensive course with laboratory work and lecture

MISCELLANEOUS ITEMS

January 02- January 10, 2014 – Assisted Retiring Boyd Professor Dr. Meredith Blackwell in the cleanout of her former laboratory

Assisted with collection of *Maclura pomifera* samples for entomological review (Ferro, M. L. 2014. A cultural and entomological review of the Osage orange (*Maclura pomifera* (Raf.) Schneid.) (Moraceae) and the origin and early spread of "hedge apple" folklore. Southeastern Naturalist. 13 (Monograph 7): 1–34.)