

Curriculum Vitae
THOMAS C. MCEL RATH
PhD Candidate
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EDUCATION

Ph.D.	2010 - present	University of Georgia, Athens, GA
	Major professor:	Joseph V. McHugh
	GPA (cum/major):	3.93/4.0
	Degree	Entomology
	Candidacy achieved:	Fall 2014
B.A.	2010	Covenant College, Lookout Mountain, GA
	Advisor:	Timothy Morris
	GPA (cum.):	3.91
	Major	Biology
	Minor	Chemistry

PROFESSIONAL POSITIONS

Teaching Assistant - 2010-2016 - Dept. of Entomology & Division of Biological Sciences, UGA
Curatorial Assistant - 2010-2015 - Dept. of Entomology & UGA Collection of Arthropods
Lab Assistant - 2008-2010 - Organic Chemistry Lab, Dept. of Chemistry, Covenant College

TEACHING EXPERIENCE

A. Courses Taught/Co-taught

Insect Taxonomy (ENTO8010/ENTO8010L), Univ. of GA, F2012-5
Organismal Biology Lab for Majors (BIOL 1108L), Univ. of GA, S2014-6
Organismal Biology Lab for non-Majors (BIOL 1104L), Univ. of GA, F2011 - S2012
Medical Entomology Lab (ENTO3650L), Univ. of GA, F/S2010-11, S2013

B. Courses Assisted/Guest Assisted

General Entomology (ENTO6000L), Univ. of GA, F2012-S2013
Insect Taxonomy Lab (ENTO8010L), Univ. of GA, F2011
Medical Entomology Lab (ENTO3650L), Univ. of GA, F2011

PUBLICATIONS

- (*submitted*) **McElrath TC**, RA Androw, JV McHugh. *Antibothrus morimotoi* Sasaji, an Old World cocoon-forming beetle (Coleoptera: Coccinelloidea: Bothrideridae) newly established in North America.
- McElrath TC**, JA Robertson, MC Thomas, J Osborne, KB Miller, JV McHugh, MF Whiting. 2015. A molecular phylogenetic study of Cucujidae *sensu lato* (Coleoptera: Cucujoidea). Systematic Entomology 40(4):705-718. DOI: 10.1111/syen.12133
- inc. in "Coleoptera Evolution" Virtual Issue 2015
- DA Jenkins, C Millan-Hernandez, AR Cline, **TC McElrath**, B Irish, R. Goenaga. 2015. Attraction of Pollinators to Atemoya (*Annona squamosa* x *Annona cherimola*) in Puerto Rico Using Commercial Lures and Food Attractants. Journal of Economic Entomology. 108(4): 1923-1929. DOI: 10.1093/jee/tov136

ONLINE PUBLICATIONS

- McElrath TC.** 2016. Monotomidae Laporte, 1840. *in* Catálogo Taxonômico da Fauna do Brasil, <http://fauna.jbrj.gov.br/>.
- McElrath TC, Y Bousquet, & JV McHugh.** 2012. Monotomidae. Monotomid Beetles, Root-eating Beetles. <http://tolweb.org/Monotomidae/> *in* The Tree of Life Web Project, <http://tolweb.org/>.

PRESENTATIONS

INVITED

- McElrath TC, JV McHugh.** 2016. Undocumented cryptic beetle diversity in the southeastern USA: a case study highlighting the minute clubbed beetles of Georgia (Coleoptera: Monotomidae) - Advances in understanding Southeastern insect biodiversity symposium. Southeastern Branch Meeting of the ESA Raleigh, NC. 13-16 March 2016.
- McElrath TC, JA Robertson, MC Thomas, J Osborne, KB Miller, JV McHugh, MF Whiting.** 2015. Systematics of the flat bark beetles (Coleoptera: Cucujoidea). Enthusiasts of Diversity, Genetics, and Evolution (EDGE) seminar series at the University of Georgia. 23 January 2015.
- McElrath TC, OF Boyd, JV McHugh.** 2013. MonotomID - an interactive key on a tight budget - Interactive Keys Transforming Identification: Melding Traditional Methods with New Technologies Symposium. Annual Meeting of the Entomological Society of America, Austin, TX. 10-13 November 2013.
- McElrath TC and DC Mahan.** A stream quality survey of the upper Boardman River and selected tributaries, northwestern Michigan, utilizing benthic macroinvertebrates - Tri Beta Invited Guest Speaker - Covenant College, Lookout Mountain, GA. 27 November 2010.

ORAL

- McElrath TC, JA Robertson, J Osborn, KB Miller, MF Whiting & JV McHugh.** A molecular phylogenetic analysis of the basal Cucujoidea, with special consideration of the Cucujidae *sensu lato* (Coleoptera: Cucujiformia). 24- Graduate Student Ten-Minute Paper Competition: ESA:SysEB - Annual Meeting of the Entomological Society of America, Austin, TX. 11 November 2013
- McElrath TC, JA Robertson, J Osborn, KB Miller, MF Whiting & JV McHugh.** A molecular phylogeny of the flat bark beetles (Coleoptera: Cucujoidea). H.O. Lund Week graduate student oral competition - University of Georgia - Athens, GA. 28 March 2013.
- McElrath TC, JA Robertson, J Osborn, KB Miller, MF Whiting & JV McHugh.** A preliminary phylogenetic analysis of the basal Cucujoidea. PhD student ten-minute oral presentations - ESA:SEB Meeting - Baton Rouge, LA. 5 March 2013.
- McElrath TC, O Boyd, JV McHugh.** Monotomid ID: A multi-access Lucid™ key to the New World genera of Monotomidae. Graduate Student Ten-Minute Paper Competition: ESA:SysEB-2 - Annual Meeting of the Entomological Society of America, Knoxville, TN. 12 November 2012

POSTERS

- McElrath TC, JV McHugh.** 2015. A revision of *Crine* Pascoe (Coleoptera: Monotomidae). Graduate Poster Competition: SysEB - Phylogeny. Annual Meeting of the Entomological Society of America, Minneapolis, MN. November 15-18 2015
- McElrath TC, JV McHugh.** 2015. Minute-clubbed beetles of Georgia (Coleoptera: Monotomidae). Student Poster Competition - Georgia Entomological Society Annual Meeting, Jekyll Island, GA. 8-10 April 2015
- McElrath TC, JV McHugh.** 2015. A taxonomic review of *Bactridium* LeConte (Coleoptera: Monotomidae) occurring in America, north of Mexico. PhD Student Poster Competition - Southeastern Branch Meeting of the Entomological Society of America. 15-18 March 2015
- McElrath TC, OF Boyd, JV McHugh.** 2012. LUCID Key to the New World Genera of Monotomidae

- PhD Student Poster Competition - SEB/SWB Joint Branch Meeting of the Entomological Society of America. 4-7 March 2012
- Student Poster Competition - Georgia Entomological Society Annual Meeting, Statesboro, GA. 4-6 April 2012
- Student Poster Competition - H.O. Lund Week, Dept. of Entomology, University of Georgia, Athens, GA. 23-27 April 2012

HONORS AND AWARDS

University of Georgia

- 2015 3rd place - Graduate Student Poster Competition, GES Meeting 2015
- 2015 1st place - Linnaean Games Southeastern Branch Championship, SEB Meeting, Biloxi, MS
- 2013 1st place - Grad. Student TMP Competition: SysEB - ESA Nat'l Meeting 2013
- 2013 Outstanding Teaching Assistant Award - UGA Graduate School
- 2013 2nd place - Graduate Student Oral Presentation Competition - H.O. Lund Week
- 2012 1st place - National Linnaean Games Competition - ESA Nat'l Meeting 2012
- 2012 2nd place - Graduate Student Poster Competition - H.O. Lund Week
- 2012 1st place - PhD Student Poster Competition Section 1 - SEB/SWB Joint Meeting
- 2012 1st place - Linnaean Games Southeastern Branch Championship, SEB/SWB Joint Meeting

Covenant College

- 2010 Graduated *summa cum laude*
- 2009 POLYED Undergrad. Award for Excellence in Organic Chemistry

SUPPORT

Assistantships

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|---------|---------------------------------|--------------------------------------|
| 2014-6 | Graduate Teaching | Univ. of GA, Biology |
| 2013-5 | Teaching Collections Curational | Univ. of GA, Entomology |
| 2010-15 | Graduate Teaching | Univ. of GA, Entomology |
| 2012 | Museum Collection Curational | Univ. of GA Collection of Arthropods |
| 2011-12 | Graduate Teaching | Univ. of GA, Biology |
| 2011 | Teaching Collections Curational | Univ. of GA, Entomology |

Grants

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| 2015 | Research Travel Grant | H.H. Ross Memorial Fund (UGA) | \$750 |
| 2014 | Collections Grant | CanaColl Foundation Endowment Fund | \$170 |
| 2014 | Research Travel Grant | H.H. Ross Memorial Fund (UGA) | \$450 |
| 2014 | Ernst Mayr Travel Grant | Museum of Comparative Zoology | \$1460 |
| 2013 | Travel Grant | UGA Graduate School | \$500 |
| 2012 | Research Travel Grant | H.H. Ross Memorial Fund (UGA) | \$750 |
| 2010 | Travel Grant | H.H. Ross Memorial Fund (UGA) | \$1000 |

Scholarships

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|------|---|-------|
| 2016 | Georgia Entomological Society PhD Scholarship | \$500 |
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Collecting Contracts

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| 2015 | 30 live <i>Odontotaenius disjunctus</i> | Meredith Blackwell, LSU | ~\$150 |
| 2015 | 30 live <i>Odontotaenius disjunctus</i> | Meredith Blackwell, LSU | ~\$150 |

DEGREE RELATED TRAVEL

Museum visits

- 2016 North Carolina State University Insect Collection, Raleigh, NC, USA
- 2015 Field Museum of Natural History, Chicago, IL, USA
- 2015 C.A. Triplehorn Insect Collection @ Ohio State Univ., Columbus, OH, USA

2015 University of Tennessee at Chattanooga, Chattanooga, TN, USA
 2015 Clemson University Arthropod Collection, Clemson, SC, USA
 2015 Florida State Collection of Arthropods, Gainesville, Florida, USA
 2014 American Museum of Natural History, New York, New York, USA
 2014 Canadian National Collection of Insects, Arthropods, and Nematodes, Ottawa, Ontario, Canada
 2014 Cornell University Insect Collection, Cornell University, Ithaca, NY, USA
 2014 Museum of Comparative Zoology, Harvard University, Cambridge, MA, USA
 2014 Nat'l. Museum of Natural History, Smithsonian Institution, Washington, DC, USA
 2014 British Museum of Natural History, London, England, UK
 2013 Louisiana State Arthropod Museum, Baton Rouge, LA, USA
 2012 Nat'l. Museum of Natural History, Smithsonian Institution, Washington, DC, USA

Field experience

2015	Georgia	ENTO8010 Trip to Sapelo Island	~ 3 days
2015	Georgia	GMNH/Lund Club Trip to Sapelo Island	~ 4 days
2015	Florida	Cucuroid collecting, sand hills ecosystem	~ 1 day
2014	Georgia	ENTO8010 Trip to Sapelo Island	~ 3 days
2014	England	Collecting Coleoptera for BMNH Survey	~ 1 day
2013	Georgia	Targeted Cucuroid beetle collecting	~ 4 days
2012	Georgia	ENTO8010 Trip to Sapelo Island	~ 3 days
2012	Georgia	GMNH/Lund Club Trip to Sapelo Island	~ 4 days
2011	Georgia	ENTO8010 Trip to Sapelo Island	~ 3 days
2011	Georgia	Targeted collecting (beetles)	~ 2-3 days
2010	Georgia	General collecting	~ 20 days
2010	Georgia	ENTO8010 Trip to Sapelo Island	~ 3 days
2010	Michigan	Aquatic collecting	~ 4 days

Conferences & Workshops

2015 Entomological Society of America Annual Meeting, Minneapolis, MN
 2015 Entomological Collections Network Annual Meeting, Minneapolis, MN
 2015 iDigBio "Field to Database: Biodiversity Informatics and Data Management Skills for Specimen Based Research" - University of Florida. March 9 - 12, 2015
 2015 Georgia Entomological Society Annual Meeting, Jekyll Island, GA
 2015 Southeastern Branch Meeting - Entomological Society of America, Biloxi, MS
 2014 Southeastern Branch Meeting - Entomological Society of America, Greenville, SC
 2013 Entomological Society of America Annual Meeting, Austin, TX
 2013 Entomological Collections Network Annual Meeting, Austin, TX
 2013 Southeastern Branch Meeting - Entomological Society of America, Baton Rouge, LA
 2012 Entomological Collections Network Annual Meeting, Knoxville, TN
 2012 Entomological Society of America Annual Meeting, Knoxville, TN
 2012 Georgia Entomological Society Annual Meeting, Statesboro, GA
 2012 Joint Meeting of the Southeastern/Southwestern Branches of the Entomological Society of America, Little Rock, AR
 2010 Entomological Collections Network Annual Meeting, San Diego, CA
 2010 Entomological Society of America Annual Meeting, San Diego, CA

RELEVANT TEST SCORES

GRE (taken 13OCT2009)

	Score	Est. Adj. Score
Verbal Reasoning	600	160
Quantitative Reasoning	650	151
Analytical Writing	5.5	N/A

SELECTED CURATIONAL ACTIVITY

Taxon-focused projects (UGCA)

2010-6	Update of classification & genus-ID of unknowns	Monotomidae
2015	Update of classification & genus-ID of unknowns	Passandridae
2014	Update of classification & genus-ID of unknowns	Cucujidae
2014	Update of classification & genus-ID of unknowns	Laemophloeidae
2013	Update of classification & genus-ID of unknowns	Silvanidae
2012	Update of classification & genus-ID of unknowns	Coccinellidae

Specimens mounted

2016	~300 mixed minute beetles	UGCA
2015	~1500 mixed minute beetles	UGCA
2015	~40 Coccinellidae (<i>Scymnus</i>)	UGCA
2014	~357 mixed minute beetles	UGCA

Authoritative identifications (species level)

2016	~77 Monotomidae	N. Carolina St. Univ. Insect Collection
2015	~509 Monotomidae	Field Museum of Natural History
2015	~ 6 Monotomidae	Ohio State University Insect Collection
2014	~148 Monotomidae	American Museum Natural History
2014	~132 Monotomidae	Canadian Nat'l. Collection of Insects
2014	~148 Monotomidae	Cornell Univ. Insect Collection
2014	~55 Monotomidae	Museum Comparative Zoology
2014	~123 Monotomidae	Nat'l Mus. Nat. History, Smithsonian
2014	~280 Monotomidae	British Museum of Natural History
2014	~150 Monotomidae	Univ. of Alaska Museum
2014	~75 Monotomidae	Univ. of GA Collection of Arthropods

Special

2016	Demonstration Drawers - helped prepare six "wow" box type of demonstration collections for the Dept. of Entomology display cabinets, consisting of various insect orders	UGA Lund Club
2014	Agricultural Insects of GA - prepared for a two-drawer demonstration collection of agriculturally important insect pests in Georgia for a museum in northern Georgia	UGA Dept. of Entomology
2012	Teaching Collection - prepared a four-drawer teaching collection of insects for BIOL1104 lab classes	UGA Dept. of Biology

WEBSITES

www.monotomidae.com

- Features:
- LUCID interactive key to the New World genera of Monotomidae
 - Genus fact sheets with images of most species
 - Morphological atlas to Monotomidae
 - Pertinent literature relevant to identification of Monotomidae

MEMBERSHIPS

Entomological Society of America
Coleopterists Society
Georgia Entomological Society
H.O. Lund Entomology Club - UGA
Beta Beta Beta Biological National Honor Society

PROFESSIONAL AND SERVICE ACTIVITIES

Organizational Service

Entomological Society of America

2016	- Co-chair Student Affairs Committee	Southeastern Branch Regional Meeting, Raleigh, NC
	- Student Symposium Subcommittee Organizer	- "Advances in Understanding Southeastern Insect Biodiversity"
2015-6	- Student Representative (UGA)	Southeastern Branch Regional Meeting, Biloxi, MS
	- Student Symposium Subcommittee	- "Rising Issues in Biological Control"
2013	- Section Symposium Organizer	ESA National Meeting, Austin, TX 2013
	"Interactive Keys Transforming Identification: Melding Traditional Methods with New Technologies"	
	- Student Volunteer	ESA National Meeting, Austin, TX 2013

The Coleopterist's Society

2014-16	Facebook Admin
2014-15	Student Councilor

Georgia Entomological Society

2012	Representative (2012-2013)	Student Affairs Committee
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University of Georgia-Athens

2011-6	Lab Manager	McHugh Lab
2013-6	Team Captain	Linnaean Games
2013	Student Affairs Committee	Graduate Student Association
2012	GSA Dept. Representative	H.O. Lund Entomology Club
2011	PRESIDENT - (2011 - 2012)	H.O. Lund Entomology Club
2010	VICE-PRESIDENT - (2010 - 2011)	H.O. Lund Entomology Club

Covenant College

2009	Executive Council Member	<i>Beta Beta Beta</i>
2008-09	Student Representative	Founders Council

Identification Services

Bugguide.net

Ongoing: Expert identification services: Monotomidae

UGA Extension

Ongoing: Identification/confirmation of various insects, approx. 1-2 month

Medical consulting - Athens-Clarke County pediatrics

Ongoing: Identification of medically-relevant arthropods on an as-needed basis (approx. two per year); examples: stinging arthropods, various ingested insects

Reviews

Peer-reviewed articles

Annals of the Entomological Society of America	2
Insecta Mundi	1

Organisms, Diversity, and Evolution	1
Zootaxa	1

EDUCATIONAL OUTREACH (# of separate events)

Presentations and Q/A sessions with students of all ages (including some adult groups) using live and preserved arthropods, informational displays, and activities designed to introduce the science of entomology. Range of topics covered: general interest in insects, insect morphology, insect biodiversity, insect biology.

University of Georgia

2015	Insectival, Georgia Museum of Natural History, Georgia State Botanical Gardens, Athens, GA
2015	McHugh lab tours, UGA, Athens, GA, various
2014	Visiting underprivileged class group (approx. 20 students), UGA, Athens, GA
2013	Terrapin Beer Co. 1st Annual Sustainability Movement, Athens, GA
2012	Bug Camp, Dept. of Entomology, University of Georgia, Athens, GA
2012	Insectival, Georgia State Botanical Gardens, Athens, GA
2012	Annual Insect Zoo, Dept. of Entomology, University of Georgia, Athens, GA
2011	Insectival, Georgia State Botanical Gardens, Athens, GA
2011	Annual Insect Zoo, Dept. of Entomology, University of Georgia, Athens, GA