

B. Elijah Carter, Ph.D.

Odum School of Ecology
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EDUCATION

- Aug 2013 - SYRACUSE UNIVERSITY, DEPARTMENT OF SCIENCE TEACHING Syracuse, NY
Aug 2015 *Ph.D. in College Science Teaching – Awarded August 2015*
- Researching correlations among students' conceptions of the Nature of Science, evolution, global climate change, and demographic factors.
 - Design and implementation of educational interventions around these topics in the context of introductory biology courses.
- Aug 2012- SYRACUSE UNIVERSITY, THE GRADUATE SCHOOL & DEPARTMENT OF BIOLOGY Syracuse, NY
May 2014 *Future Professoriate Program Certificate in University Teaching – Awarded May 2014*
- Aug 2010 - SYRACUSE UNIVERSITY, DEPARTMENT OF BIOLOGY Syracuse, NY
Dec 2013 *Master of Science in Biology – Awarded December 2013*
- Masters Thesis: "Nature of Science Conceptions, Attitudes towards Evolution and Global Climate Change, and Course Achievement in an Introductory Biology Course"
- Aug 2004 - UNIVERSITY OF GEORGIA Athens, GA
Dec 2008 *B.S. in Ecology, Odum School of Ecology (Cum Laude)*
- Honors Thesis: "Ant-Plant Interactions: Mutualism or Uneasy Balance of Exploitation?"
- Music Business Certificate Program*
- Participant in highly selective 15 credit-hour program to develop skills in music business, including team projects, student-run record label, and internship experience.

EXPERIENCE

- May 2016 - University of Georgia, Odum School of Ecology Athens, GA
Present *Postdoctoral Associate, IDEAS NRT program*
- Act as internal evaluator for a new NSF NRT program
 - Conduct semi-structured interviews with student, faculty, and administrator participants
 - Assist in formulating learning objectives for program-specific courses
 - Act as a resource to course instructors for evidence-based pedagogical techniques
 - Pursue education research
- May 2016 - University of Georgia, Division of Biological Sciences Athens, GA
Aug 2016 *Instructor: BIOL 1103 E*
- Teach the online version of non-majors introductory biology course
 - Conduct online office hours, moderate discussion boards, grade assignments
- August 2015 - University of Georgia, Division of Biological Sciences Athens, GA
May 2016 *Postdoctoral Research and Teaching Associate*
- Teach non-majors introductory biology courses, BIOL1103
 - Topics include genetic variation, metabolism, immune system function, and global cycling
 - Pursue independent education research
- January 2015 - SYRACUSE UNIVERSITY, BIOLOGY DEPARTMENT Syracuse, NY
Present *Graduate Instructor*
- Design and teach a special topics course in Biology – Biology 200: Topics in Ecology & Evolution

- Aug 2010 - Present **SYRACUSE UNIVERSITY, BIOLOGY DEPARTMENT** Syracuse, NY
Teaching Assistant
- Teach two laboratory sections weekly exercises on diverse topics, ranging from enzyme function to plant and fungal diversity.
 - Create and grade weekly quizzes, and lead discussion of relevant topics
- June 2014 - July 2014 **ARKANSAS GOVERNOR'S SCHOOL** Conway, AR
Natural Sciences Faculty
- Teach a natural sciences course at a six-week summer program for gifted and talented rising seniors in Arkansas.
 - Focused on ecology and evolution, especially how scientists collect data to "tell a story."
- Nov 2009 - July 2010 **UNIVERSITY OF GEORGIA COSTA RICA** San Luis de Monteverde, CR
Resident Naturalist
- Guided natural history hikes, bird walks, and night hikes with groups of students (from middle school to college), professors, and tourists
 - Gave presentations on insect, bird, and plant ID and taxonomy.
 - Translated tours of sustainable organic farms and coffee processing, as well as cooking classes with local families.
- Mar-June 2009 **NATIONAL PARK SERVICE** Prince, WV
Field Technician
- Worked on a long-term monitoring program of songbirds near National Park streams.
 - Traversed often-treacherous one kilometer transects following streams in two National River areas.
 - Observed Louisiana Waterthrush and other focal species by sight and sound.
 - Carried out point counts of all songbird species as well as vegetation cover estimates and hemlock health evaluations at each of five transect points for each of 25 study sites.
- March 2009 **UNIVERSITY OF GEORGIA'S GO GREEN ALLIANCE** Athens, GA
Sustainapalooza: Co-organizer
- Worked with the University's Recycling Coordinator to create a free outdoor festival to promote sustainability on campus and in the community beyond.
 - Booked seven local bands to perform, and found over 50 organizations to table at the event.
 - Coordinated activities, organizations, and performances at the event itself.
- Feb 2009 **UNIVERSITY OF GEORGIA OFFICE OF ACADEMIC SPECIAL PROGRAMS** Athens, GA
Georgia Junior Science and Humanities Symposium: Judge
- Attended audiovisual presentations from outstanding high school student researchers.
 - Questioned the presenters to determine their depth of understanding and communication ability.
 - Participated in the process of selecting the students who would continue to the next round of competition.
- Nov 2008 - Jan 2009 **UNIVERSITY OF GEORGIA: ODUM SCHOOL OF ECOLOGY** Athens, GA
Sustainability Guidelines Committee
- Sat on a small committee with the purpose of producing a written set of goals to increase the environmental sustainability of the Odum School of Ecology.
 - Produced and presented these goals to faculty, staff, and students.
- July 2008/9 **UNIVERSITY OF GEORGIA OFFICE OF ACADEMIC SPECIAL PROGRAMS** Athens, GA
AP Environmental Science Training Program: Lab Assistant
- Prepared labs for use by high school teachers seeking to become certified to teach AP environmental science.
 - Assisted teachers with lab techniques while maintaining laboratory safety.
 - Returned for a second year with the same program.

- June-Aug 2008 **UNIVERSITY OF GEORGIA: CENTER FOR UNDERGRADUATE RESEARCH OPPORTUNITIES** Athens, GA
Independent Undergraduate Researcher
- Performed a diversity and abundance study of *Aphaenogaster* ants in primary and secondary successional temperate forest.
 - Recorded nest locations as determined by the use of protein baits and turning logs.
- Jan-Aug 2008 **GEORGIA MUSEUM OF NATURAL HISTORY** Athens, GA
Assistant/Education specialist
- Cleaned, transported, and organized specimens in the invertebrate and ichthyological collections.
 - Created presentations on Georgia habitats as a resource for teachers seeking materials for an updated state science curriculum.
- May-Aug 2007 **SMITHSONIAN TROPICAL RESEARCH INSTITUTE** Panama City, Panama
Research Assistant
- Lived and worked on Barro Colorado Island through an NSF-funded Research Experience for Undergraduates program.
 - Collected data on leaf functional traits of tropical upper-canopy tree species.

PUBLICATIONS

- **Carter, BE**, & Wiles, JR. (2016). Comparing effects of comedic and authoritative video presentations on student knowledge and attitudes about climate change. *Bioscene*. 42, (1), 16-22
- **Carter, BE**, Conn, CC, & Wiles, JR. (2016). Concern About Hunger May Increase Receptivity to GMOs. *Trends in Plant Science*. 21, (7), 539-541. doi: 10.1016/j.tplants.2016.05.003
- **Carter, BE**, Infanti, L, & Wiles, JR. (2015). Boosting students' attitudes and knowledge about evolution sets them up for college success. *The American Biology Teacher*. 77(2), 113-116.
- Snyder, JJ, **Carter, BE**, & Wiles, JR. (2015). Implementation of the Peer-Led Team-Learning Instructional Model as a Stopgap Measure Improves Student Achievement for Students Opting Out of Laboratory. *CBE-Life Sciences Education*, 14(1), ar2.
- **Carter, BE**, & Wiles, JR. (2014). Scientific consensus and social controversy: exploring relationships between students' conceptions of the nature of science, biological evolution, and global climate change. *Evolution: Education and Outreach*, 7(1), 6.
 - Designated a "Highly accessed" article by SpringerOpen. doi:10.1186/s12052-014-0006-3
- Torrance, D., and Craig, G. (2013; **Carter, BE**, Contributing Author) *Key Connections: Climate Change in the Florida Keys*. iBooks interactive magazine.
- Siefert, A., Ravenscroft, C., Althoff, D., Alvarez-Yépiz, J.C., **Carter, BE**, Glennon, KL, Heberling, M., Jo, I., Pontes, A., Sauer, A., Willis, A., and Fridley, J.D. (2012). Scale dependence of vegetation -environment relationships: a meta-analysis of multivariate data. *Journal of Vegetation Science*, 23(5), 942-951.

PRESENTATIONS

- **Carter, BE**, Infanti, L, & Wiles, JR. "Boosting students' attitudes and knowledge about evolution sets them up for college success," Multimedia presentation at the National Association for Research in Science Teaching annual conference, April 2015.
- **Carter, BE**, Conn, CC, & Wiles, JR. "HungerU at Syracuse University: Impacts of an Informal Education Experience on Student Attitudes toward the Science of Food Sourcing," Multimedia presentation at the Association of College and University Biology Educators annual conference, Portland, OR, 16 October, 2014
- **Carter, BE**, & Wiles, JR. "Exploring a potential link between student attitudes towards evolution and global climate change vis-à-vis the nature of science" Multimedia presentation at the 8th annual Summer Symposium at the Paleontological Research Institution, Ithaca, NY, August 2014.
- **Carter, BE**, & Wiles, JR. "Scientific consensus and social controversy: exploring relationships between students' conceptions of the nature of science, biological evolution, and global climate change." Multimedia presentation at the National Association for Research in Science Teaching annual conference, April 2014

- **Carter, BE**, Wiles, JR., “HungerU at Syracuse University: Impacts of an Informal Education Experience on Student Attitudes toward the Science of Food Sourcing” Poster presentation for the Association of College and University Biology Educators Conference, October 2013
- **Carter, BE**, Wiles, JR., “Exploring relationships between students’ conceptions of the nature of science, evolution and global climate change.” Multimedia presentation for the Association of College and University Biology Educators Conference, October 2013
- **Carter, BE**, Wiles, JR., “Exploring relationships between students’ conceptions of the nature of science, evolution and global climate change.” Poster presentation for the Association of College and University Biology Educators Conference, October 2013

SKILLS AND ACTIVITIES

- Advanced language skills in Spanish
- Knowledge of Windows and Macintosh systems. Knowledge of Microsoft Office, Apple iLife/iWork, and OpenOffice.org/LibreOffice suites, iBooks Author, and intermediate skills in coding and analysis in R.
- Play various instruments including saxophones, clarinets, guitar, and didgeridoo
- Avid backpacker, cyclist, (indoor) rock climber, kayaker, and bird watcher
- Roller derby referee, Women's Flat Track Derby Association

AWARDS AND HONORS

- 2014 Association of College and University Biology Educators Carlock Award for Graduate Research
- Syracuse University Outstanding Teaching Assistant Award
- 2014 Biology Graduate Student Organization Travel Grant
- 2014 Marvin Druger Travel Award
- 2013 Association of College and University Biology Educators Carlock Award for Graduate Student Research
- Honorable Mention, National Science Foundation Graduate Research Fellowship Program
- Sigma Xi Grants in Aid of Research Grant
- Syracuse University Biology Department Travel Grant
- UGA Honors Program participant (graduate with honors)
- Georgia Governor’s Scholarship
- HOPE Scholarship
- Robert C. Byrd Honors Scholarship
- UGA Charter Scholarship
- UGA Dean’s List (6 semesters)

REFERENCES

Dr. Jason Wiles
 Ph.D. Advisor and coauthor
 Associate Professor of Biology
 Syracuse, University
 315-443-3193
 jwiles01@syr.edu

Dr. Peggy Brickman
 Postdoc Supervisor
 Professor, Plant Biology
 University of Georgia
 706-542-1690
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Dr. George Harper
 Associate Professor of Biology
 Hendrix College, Conway AR
 501-450-1359
 harper@hendrix.edu