

SHANNON K. CARTER

Rice University, 6100 Main St., MS-170, Houston, TX 77005
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EDUCATION

- 2014 – **Ph.D. Candidate** Biosciences, Rice University
Thesis: *Linking phenological shifts to species interactions*
Advisor: Volker H. W. Rudolf
- 2010-2014 **B.S.** Biology, Baylor University. *Magna cum laude*
Thesis: *Heterogeneity in body size and habitat influence community interactions*

PUBLICATIONS

- Carter, S.K.**, V.H.W. Rudolf (in review). Shifts in phenological mean and variance interact to shape competitive outcomes.
- Carter, S.K.**, D. Saenz, and V.H.W. Rudolf (2018). Shifts in phenological distributions alter numerical overlap of interacting species. *Ecology Letters*.
- Carter, S.K.**, D.S. Vodopich, and P.W. Crumrine (2018). Heterogeneity in body size and habitat complexity influence community structure. *Journal of Freshwater Ecology* 33:1, 239-249.
- Carter, S.K.**, J.R. Singhurst, and W.C. Holmes (2014). *Puccinellia parishii* (Poaceae, Poaeae): A genus and species new to Texas. *Phytoneuron* 58: 1-4.

SELECT AWARDS & FELLOWSHIPS

- 2018 American Society of Naturalists Student Research Award
- 2018 Best Graduate Student Paper, Rice University EEB
- 2016 NSF Graduate Research Fellowship Program - Honorable Mention
- 2016 Best Student Presentation, Rice University EEB
- 2015 Outstanding Teaching Assistant, Rice University EEB
- 2015 East Texas Herpetological Society Grant
- 2015 Houston Livestock Show and Rodeo Endowed Scholarship

PRESENTATIONS

Invited Speaker

- Carter, S.K.** (2018). Timing is everything: How climate change is disrupting nature's calendar. *School of Natural Sciences Homecoming, Science in a Flash*. Houston, TX.
- Carter, S.K.** (2016). Climate change and frog croaks. *Bellaire High School AP Biology Seminar Series*. Houston, TX.
- Carter, S.K.**, D. Saenz, & V.H.W. Rudolf (2016). Single measures of phenology may not accurately predict phenological shifts. *Biosciences Retreat*. Houston, TX.

Shannon K. Carter

Contributed Session Talks

- Carter, S.K.** & V.H.W. Rudolf (2018). Experimental manipulation of phenology to test effects on competitive outcomes. *Ecological Society of America*. New Orleans, LA.
- Carter, S.K.** & V.H.W. Rudolf (2018). Linking phenological synchrony to species interactions with agent-based modelling. *American Society of Naturalists*. Monterey, CA.
- Carter, S.K.** & V.H.W. Rudolf (2017). Linking phenological synchrony to species interactions with agent-based modelling. *Ecological Society of America*. Portland, OR.
- Carter, S.K.**, D. Saenz & V.H.W. Rudolf (2016). Shifts in phenological distributions alter temporal overlap of interacting species. *Ecological Society of America*. Fort Lauderdale, FL.
- Carter, S.K.**, D. Saenz & V.H.W. Rudolf (2016). Single measures of phenology may not accurately predict phenological shifts. *American Society of Naturalists*. Monterey, CA.
- Carter, S.K.**, D. Saenz & V.H.W. Rudolf (2015). Single measures of phenology may not accurately predict phenological shifts. *Ecological Society of America*. Baltimore, MD.
- Carter, S.K.**, D.S. Vodopich & P.W. Crumrine (2014). Heterogeneity in body size and habitat influence community interactions. *TriBeta Regional Convention*. Kingston, OK.
- Carter, S.K.**, D.S. Vodopich & P.W. Crumrine (2014). Heterogeneity in body size and habitat influence community interactions. *Dallas Baptist University Research Symposium*. Dallas, TX.

Posters

- Carter, S.K.**, D. Saenz & V.H.W. Rudolf (2017). Shifts in phenological distributions alter temporal overlap of interacting species. *University of Houston Ecology Symposium*. Houston, TX.

TEACHING AND OUTREACH

2018	Coordinator , Biosciences Professional Development Series Founded and coordinated a department-wide professional development panel series for graduate students. Selected topics, invited speakers, led meetings	<i>Rice University</i>
2017, 2018	Instructor , Freshman Research Seminar Introduced freshman students to ecology research at Rice. Taught students to read scientific literature and find research opportunities.	<i>Rice University</i>
2015-2018	Certificate in Teaching & Learning , Center for Teaching Excellence Completed a four-course accredited certificate program in pedagogy. Curriculum combined formal pedagogical training, mentoring, and practical experience.	<i>Rice University</i>
2015-2017	Co-Instructor , EEB Academy 2-week summer internship to introduce high school seniors to research in ecology and evolution. Taught data collection, analysis, and presentation	<i>Rice University</i>

- 2014-2017 **Teaching Assistant** *Rice University*
Courses: Infectious Disease Biology; Conservation Biology; Coral Reef Ecosystems
 For each, created and presented two lectures, supervised student discussion groups, held review sessions, grading, contributed to exam writing
- 2015 **Instructor, Graduate Student Professional Development** *Rice University*
 Organized and led a graduate student course designed to improve graduate professional development and public speaking skills.
- 2015— **Instructor, OWLLS Outreach** *Rice University*
 Design and conduct hands-on ecology lessons for local underserved K-12 schools. To date we have visited 55 classrooms, totaling over 1300 students.
- 2014-2017 **Project Supervisor, Phenology Project** *Houston Arboretum & Nature Center*
 Lead two hikes per month to train local citizens to collect data for the Nature's Notebook, a citizen science initiative of the National Phenology Network.

MEDIA COVERAGE

- 2018 **Enquiry: Developing a quantum dot tagging method for tadpoles** Houston, TX
 Interviewed about novel protocol for Rice's Natural Science research magazine
- 2017 **Rice News: Dragonflies reveal how biodiversity changes in time and space** Houston, TX
 Interviewed about research methods and results used in the lab. <http://bit.ly/2AiXrUp>
- 2016 **KHOU11: City trash piles havens for mosquitos** Houston, TX
 Interviewed by local news station regarding mosquito habitats and ecology.
<http://bit.ly/1SVAQh5>

MISCELLANEOUS

- 2015-2016 **Personnel Manager, Valhalla Graduate Student Pub**
 Managed a staff of over 100 employees and a budget of over \$250,000. Duties included hiring and training 35 new staff, organizing events, managing certifications
- 2016-2018 **Rice University Cycling & Triathlon**
 Compete in triathlons (sprint, Olympic, and half ironman distances), half and full marathons, and road cycling