

## SCOTT ALAN CHAMBERLAIN

### CURRICULUM VITAE

DEPT. OF ECOLOGY & EVOLUTIONARY BIOLOGY • RICE UNIVERSITY • MS-170  
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 CODE <https://github.com/SChamberlain>

#### APPOINTMENTS

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| 2012-2014 | Canadian Pollination Initiative (CANPOLIN) Postdoctoral Fellow<br>Simon Fraser University |
| 2011-pres | Associate Editor and Blogger, <i>Journal of Ecology</i>                                   |

#### EDUCATION

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| 2008-(expected Spring '12) | Ph.D. Dept. of Ecology & Evolutionary Biology, Rice University |
| 2009                       | M.A. Dept. of Ecology & Evolutionary Biology, Rice University  |
| 2005                       | - - - Dept. of Entomology, University of Arizona.              |
| 2003                       | B.S. Biological Sciences, California State University          |

#### PUBLICATIONS (undergraduate students are underlined)

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13. **Chamberlain, S.A.**, S.M. Hovick, ...et al...K.D. Whitney. (In review). Does phylogeny matter? Assessing the impact of phylogenetic information in ecological meta-analysis. **Ecology Letters**.
12. **Chamberlain, S.A.**, & J.A. Rudgers. 2012. How do plants balance multiple mutualists? Correlations among traits for attracting protective bodyguards and pollinators in cotton (*Gossypium*). **Evolutionary Ecology** 26:65-77.
11. Holland, J.N., **Chamberlain, S.A.** and T.E.X. Miller. 2011. Consequences of ants and extrafloral nectar for a pollinating seed-consuming mutualism: ant satiation, floral distraction, or plant defense? **Oikos**.
10. **Chamberlain, S.A.**, J.K. Kilpatrick, & J.N. Holland. 2010. Do extrafloral nectar resources, abundances, and body sizes contribute to the structure of ant-plant mutualistic networks? **Oecologia** 164:741-750.
9. Holland, J.N., **Chamberlain, S.A.**, & K.C. Horn. 2010. Temporal variation in extrafloral nectar secretion by reproductive tissues of the senita cactus, *Pachycereus schottii* (Cactaceae), in the Sonoran Desert of Mexico. **Journal of Arid Environments** 74(6):712-714.
8. **Chamberlain, S.A.**, & J.N. Holland. 2009. Quantitative synthesis of context-dependency in ant-plant protection mutualisms. **Ecology** 90(9):2384-2392.
7. Holland, J.N., **S.A. Chamberlain**, A.M. Waguespack, and A.S. Kinyo. 2009. Effects of pollen load and donor diversity on variation in seed and fruit size in a columnar cactus, *Pachycereus schottii* (Cactaceae). **International Journal of Plant Sciences** 170:467-475.
6. **Chamberlain, S.A.** & J.N. Holland. 2009. Body size predicts degree in ant-plant mutualistic networks. **Functional Ecology** 23:196-202.

5. Holland, J.N., **Chamberlain, S.A.**, & K.C. Horn. 2009. Constitutive and induced extrafloral nectar production: optimal defense theory predicts plant resource investment in a protection mutualism. **Journal of Ecology** 97(1):89-96.
4. **Chamberlain, S.A.** & J.N. Holland. 2008. Density-mediated and context-dependent consumer-resource interactions between ants and extrafloral nectar plants. **Ecology** 89(5):1364-1374.
3. **Chamberlain, S.A.** & R.A. Schlising. 2008. Role of honey bees (Hymenoptera: Apidae) in the pollination biology of a California native plant, *Triteleia laxa* (Asparagales: Themidaceae). **Environmental Entomology** 37(3):808-816.
2. Holland, J.N. & **S.A. Chamberlain**. 2007. Ecological and evolutionary mechanisms for low seed:ovule ratios: need for a pluralistic approach? **Ecology** 88(3):706-715.
1. Schlising, R.A. & **S.A. Chamberlain**. 2006. Biology of the geophytic lily, *Triteleia laxa* (Themidaceae), in grasslands of the Northern Sacramento Valley. **Madroño** 53(4):321-341.

#### **PUBLICATIONS –IN PREPARATION**

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- Chamberlain, S.A.**, J.A. Rudgers, and J.L. Bronstein. *In preparation*. Comparing variation in interaction outcome among competition, predation, and mutualism: a meta-analysis.
- Chamberlain, S.A.**, et al. (many authors). *In preparation*. Community structure of salt marsh communities across three spatial and three organizational scales.

#### **PUBLICATIONS (NON-REFEREED)**

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- Hubbell, J.G., **S. Chamberlain**, K. Cooper-Carter, S. Strachan & R. Holman. 2004. Restoration Plan for Riparian Restoration After Tamarix treatment at demonstration sites on Red Bank Creek in Tehama County, California. California State University, Chico Research Foundation. Unpublished report.
- River Partners. 2004. Survey of Planted Elderberry on Sacramento River National Wildlife Refuge Riparian Restoration Sites for Use by Valley Elderberry Longhorn Beetles. Tehama, Butte and Glenn County, California. Helen Swagerty & **Scott Chamberlain**. Chico, California.
- Hunt, J.W., **S. Chamberlain** & D.M. Wood. 2003. Comparison of surface-active beetle (Order: Coleoptera) assemblages in remnant and restored riparian forests of varying ages on the Middle Sacramento River, California. Report to The Nature Conservancy.
- Chamberlain, S.** 2003. Feasibility study on the foraging ecology of passerines in riparian forest, with emphasis on the black-headed grosbeak (*Pheucticus melanocephalus*). NSF Research Experience for Undergraduates (REU) Project Report.

#### **PRESENTATIONS (POSTERS AND ORAL)**

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| 2011 | <b>Chamberlain, S.A.</b> Does phylogeny matter? Assessing the impact of phylogenetic information in ecological meta-analysis. Invited talk at the FAB* lab at Simon Fraser University.  |
| 2011 | <b>Chamberlain, S.A.</b> , & K.D. Whitney. Comparison of plant mutualist and antagonist arthropod communities near crop and wild sunflowers. Oral presentation at the 96 <sup>th</sup> Annual meeting of the Ecological Society of America. |
| 2011 | <b>Chamberlain, S.A.</b> How important is accounting for evolutionary history in ecological meta-analyses? Oral Presentation at the 3 <sup>rd</sup> annual Rice University-University of Houston Joint Graduate Student Conference          |

- 2009 **Chamberlain, S.A.**, & J.A. Rudgers. Extrafloral-floral nectar trade-offs or synergies in cotton (*Gossypium*). Poster presentation at the 94<sup>th</sup> annual meeting of the Ecological Society of America.
- 2009 **Chamberlain, S.A.**, & J.A. Rudgers. Comparing variation in interaction outcome among competition, predation, and mutualism: a meta-analysis. Oral presentation at the 6<sup>th</sup> Annual Southeastern Ecol. and Evol. Conference at the University of Florida.
- 2009 **Chamberlain, S.A.**, & J.A. Rudgers. Comparing variation in interaction outcome among competition, predation, and mutualism: a meta-analysis. Oral presentation at the 10<sup>th</sup> Annual Ecological Inegration Symposium at Texas A&M University.
- 2008 **Chamberlain, S.A.**, & J.N. Holland. Factors influencing extrafloral nectar mediated ant-plant interactions in the Sonoran Desert. Poster presentation at Entomological Society of America's 56<sup>th</sup> Annual Meeting.
- 2008 Holland J.N., **S.A. Chamberlain**, & K.C. Horn. Costs of mutualism: Optimal defense theory predicts investment in extrafloral nectar resources in ant-plant interactions. Oral presentation at Ecological Society of America's 93<sup>rd</sup> Annual Meeting.
- 2007 **S.A. Chamberlain**. Community context reveals alternative function of extrafloral nectar. Oral presentation-California Botanical Society 22<sup>nd</sup> Graduate Student Meeting.
- 2007 Hunt, J.W., **S.A. Chamberlain** & D.M. Wood. Surface-active beetles as indicators of habitat change in riparian restoration along the Sacramento River, California, USA. Oral presentation at Ecological Society of America's 92<sup>nd</sup> Annual Meeting.
- 2003 Hunt, J.W., **S.A. Chamberlain** & D.M. Wood. Comparison of surface-active beetle (Order: Coleoptera) assemblages in remnant and restored riparian forests of varying ages on the Middle Sacramento River, California. Poster presented at CALFED Bay-Delta Conference.

#### TEACHING

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- 2010 Fall, Teaching Assistant, *Science Communication*, Dr. Solomon, Rice University
- 2009 Spring, Teaching Assistant, *Insect Biology* (BIOS 326)), Dr. Rudgers, Rice University
- 2007 Fall, Teaching Assistant, *Ecology* (BIOS 325), Dr. Holland, Rice University
- 2007 Spring, Teaching Assistant, *Plant Diversity* (BIOS 336), Dr. Whitney, Rice University

#### AWARDS

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- 2011 Ecological Society of America Population Biology Section Travel Award to the 2011 ESA Conference (\$250)
- 2010-2011 Lodieska Stockbridge Vaughn Fellowship (\$16,250 towards stipend)
- 2010 Prairie Biotic Research, Inc. (\$896)
- 2009 Envision Grant, Leadership Rice, Rice University (\$1,618) – together with Rice undergraduates Samuel Jacobson and Myra Lara
- 2009 Best Thesis, Department of Ecology and Evolutionary Biology, Rice University
- 2006-2007 Wray-Todd Graduate Fellowship
- 2008 Best Graduate Student Paper, presented by Department of Ecology and Evolutionary Biology, Rice University (\$100)

- 2007-2008 Academic & Research Support Fund, Rice University, *Induced antiherbivore defenses across multiple economically important plant species* (\$500)
- 2007 National Science Foundation, Graduate Research Fellowship Program (GRFP), *Complex mutualistic networks: from structure to dynamic stability* (Honorable Mention)
- 2002 National Science Foundation REU (Research Experience for Undergraduates), California State University, Chico (\$3,000)

#### STUDENT MENTORING

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Larry Liu (Summer 2008), Rameez Anwar (Fall 2008-Spring 2009), Yosuke Akiyama (Fall 2008-Spring 2009), Rohini Sigireddi (Summer 2009), Neha Deshpande (Summer 2009), Matt King (Spring 2010), Tianshi Ji (Fall 2010), Morgan Black (Fall 2010-present), Roy Wu (Fall 2010), Thanh Vu (Spring 2011-present), Charles Danan (Spring 2011-present)

#### WORKSHOPS ATTENDED

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- 2011 A Brief Introduction to Bayesian and Hierarchical Bayesian Modeling in Ecology (1 day workshop), 96<sup>th</sup> annual meeting of the Ecological Society of America.
- 2009 An Introduction to Structural Equation Modeling (1 day workshop), 94<sup>th</sup> annual meeting of the Ecological Society of America.
- 2009 An Introduction to Meta-analysis in Ecology and Evolutionary Biology, National Evolutionary Synthesis Center (NESCent), July 6-10, 2009
- 2008 Distributed Graduate Functional Ecology Seminar Capstone Meeting, National Center for Ecological Analysis and Synthesis (NCEAS), March 27-31, 2008
- 2007 Ant Course, Southwest Research Station (SWRS), Portal, AZ, August 2-12, 2007 – Identification, collection, curation, and ecology of North American ants

#### EXTRAMURAL SERVICE AND COMMUNITY OUTREACH

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- 2011-pres Working Group Member of the International Network of Next-Generation Ecologists (INNGE). Website: <http://innge.net/>
- 2010 Organized the Rice University-University of Houston Joint Graduate Student Conference
- 2008-pres Board Member, Rice University Bicycle Safety Committee, Graduate Student Representative to prepare a bicycle safety policy for Rice University
- 2007-2010 Treasurer/Secretary, Ecology & Evolutionary Biology Graduate Student Association, Rice University.
- 2004-2005 Board Member, Friends of Bidwell Park Board of Directors, Chico, California. Advocacy for sound environmental stewardship of parks.

#### PEER REVIEW ( $N_{PAPERS} = 22$ ; $N_{JOURNALS} = 18$ )

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*African Journal of Agricultural Research, Agricultural & Forest Entomology* (2), *The American Naturalist*, *Ecography*, *Ecological Complexity*, *Ecological Entomology*, *Ecology Letters*, *Environmental Management*, *Evolutionary Ecology*, *Florida Entomologist*, *Journal of Avian Biology*, *Methods in Ecology and Evolution*, *New Phytologist*, *Oecologia*, *Oikos* (3), *Plant Ecology*, *Population Ecology* (2), *The R Journal*

**COMPUTER PROGRAMMING**

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R: Statistics, graphics, numerical simulations. Used for ecological, evolutionary, and phylogenetic work.

rOpenSci: I started a code development project with three colleagues to make R (#rstats) packages to facilitate use of open source journals and data sets in all science disciplines. See our website for more information (<http://ropensci.org/>), and our code (<https://github.com/ropensci>).

**PROFESSIONAL SOCIETY MEMBERSHIP**

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Botanical Society of America, Ecological Society of America, Society for the Study of Evolution

**PROFESSIONAL REFERENCES**

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Dr. Tom Miller  
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