Scott Chamberlain

- Code on GitHub: https://github.com/schamberlain
- Website: http://schamberlain.github.io/scott/
- Blog: http://schamberlain.github.io/
- LinkedIn: http://www.linkedin.com/profile/view?id=198453270
- Twitter: @recology_
- Email: scott@ropensci.org

Education

- 2012 Ph.D Dept. of Ecology & Evolutionary Biology, Rice University
- 2009 M.A. Dept. of Ecology & Evolutionary Biology, Rice University
- 2003 B.S. Biological Sciences, California State University

Programming

- R >> I have developed R software for 7 years, for research projects, and as packages (see them on GitHub). I co-founded a developer collective to make R software tools for scientists called rOpenSci (http://ropensci.org/).
- Python >> I have programmed in Python for about a year now, and am relatively comfortable throughtout the language, having used it for a variety of simulations.
- Ruby >> I have picked up Ruby in the last year as well, and am getting more comfortable (e.g. a) I have deployed an app to Heroku to monitor the many web APIs that we at rOpenSci consume, and b) I wrote a tiny gem to get Bibtex style references by inputting a DOI here).
- HTML/CSS >> I use HTML often for my own website and blog, and occasionally customize CSS.
- Databases >> I am familiar with and use many databases, including SQL (MySQL, SQLite, PostgreSQL) and NoSQL (CouchDB).

Projects/Working Groups

- 2012-pres DataONE - Community Education and Engagement Working Group
- 2012-pres British Ecological Society (BES) Digital Strategy Working Group
- 2011-pres rOpenSci: co-founded developer collective to make R (#rstats) packages to facilitate use of open source journals and data sets. Website; Code.

Publications

- Chamberlain, S.A., J.A. Rudgers, & K.D. Whitney. *Accepted*. Proximity to agriculture alters abundance and community composition of wild sunflower mutualists and antagonists. *Ecosphere*.
- Chamberlain, S.A. *Accepted*. Consuming Article-Level Metrics: Observations and Lessons from Comparing Aggregator Provider Data. *Information Standards Quarterly*. github pdf web
- Chamberlain, S.A., S.M. Hovick,... et al... K.D. Whitney. 2012. Does phylogeny matter? Assessing the impact of phylogenetic information in ecological meta-analysis. *Ecology Letters* 15(6):627-636. pdf
- 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. pdf
- 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*. pdf

- 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. pdf
- 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. pdf
- Chamberlain, S.A., & J.N. Holland. 2009. Quantitative synthesis of context-dependency in ant-plant protection mutualisms. *Ecology* 90(9):2384-2392. pdf *
- 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. pdf
- Chamberlain, S.A.& J.N. Holland. 2009. Body size predicts degree in ant-plant mutualistic networks. *Functional Ecology* 23:196-202. pdf
- 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. pdf
- 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. pdf
- 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. pdf
- 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. pdf
- 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. pdf

*Also, please see two other meta-analyses on this same topic:

- Trager, M.D., S. Bhotika, J.A. Hostetler, G.V. Andrade, M.A. Rodriguez-Cabal, C.S. McKeon, C.W. Osenberg and B.M. Bolker. 2010. Benefits for plants in ant-plant protective mutualisms: A meta-analysis. *PLoS ONE* 5(12): e14308. doi:10.1371/journal.pone.0014308

- Rosumek F.B. ,et al. 2009. Ants on plants: a meta-analysis of the role of ants as plant biotic defenses. *Oecologia* 60:537–549

In review/prep

- Chamberlain, S.A., J.A. Rudgers, and J.L. Bronstein. In prep. How context-dependent are species interactions.
- Chamberlain, S.A., J.A. Rudgers, and K.D. Whitney. In prep. Proximity to crop sunflowers affects patterns of natural selection in a wild relative through plant mutualists and antagonists.

Presentations

- 2012 Chamberlain, S.A., J.A. Rudgers & K.D. Whitney. Effects of agriculture on evolution of native species. Poster presented at the 97th Ecological Society of America Meeting.
- 2011 Chamberlain, S.A. Does phylogeny matter? Assessing the impact of phylogenetic information in ecological meta-analysis. Invited talk at the FAB* lab at Simon Fraser University.
- 2011 Chamberlain, S.A., & K.D. Whitney. Comparison of plant mutualist and antagonist arthropod communities near crop and wild sunflowers. Oral presentation at the 96th Annual meeting of the Ecological Society of America.

- 2011 Chamberlain, S.A. How important is accounting for evolutionary history in ecological meta-analyses? Oral Presentation at the 3rd 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 94thannual 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 6th 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 10th 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 56th 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 93rdAnnual Meeting.
- 2007 S.A. Chamberlain. Community context reveals alternative function of extrafloral nectar. Oral presentation-California Botanical Society 22nd 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 92ndAnnual 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.

Grants

- 2012 Public Library of Science & Mendeley Binary Battle - 3rd place in code competition ($1,000) - together with Carl Boettiger and Karthik Ram
- 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)
- 2002 National Science Foundation REU (Research Experience for Undergraduates), California State University, Chico ($3,000)

Student mentoring

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)

Extramural service and community outreach

- 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 service

African Journal of Agricultural Research, Agricultural & Forest Entomology (2), The American Naturalist, Annals of Botany (2), Biological Invasions, Ecography, Ecological Complexity, Ecological Entomology, Ecology (2), Ecology Letters, Environmental Management, Evolutionary Ecology, Florida Entomologist (2), Journal of Avian Biology, Journal of Tropical Ecology, Methods in Ecology and Evolution, New Phytologist, Oecologia, Oikos (3), Plant Ecology, Population Ecology (2), Proceedings of the Royal Society B, The R Journal

References

- Dr. Elizabeth Elle, Biology Dept., Simon Fraser University, eelle@sfu.ca
- Dr. Robert Schlising, Biology Dept., California State University, Chico, rschlising@csuchico.edu
- Dr. Jennifer Rudgers, Biology Dept., University of New Mexico, jrudgers@unm.edu
- Dr. Ken Whitney, Biology Dept., University of New Mexico, kwhitney@unm.edu