

CURRICULUM VITAE

Sarah E. Wittman

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Biology Department
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EDUCATION

2007 Ph.D., Biology, University of Vermont, Burlington, VT
2005 Ant Course, California Academy of Sciences and Museum of Comparative Zoology, Southwestern Research Station, Portal, AZ
2001 B.S., Biology and Environmental Science, *Summa cum laude*
St. Norbert College, De Pere, WI

ACADEMIC POSITIONS

2016-present *Lecturer*
University of Vermont, Biology Department, Burlington, VT
2013-2016 *Adjunct Professor*
Champlain College, Burlington, VT
Community College of Vermont, Winooski, VT
2009-2012 *Postdoctoral Researcher*
La Trobe University and Christmas Island National Park, Australia
2007-2009 *Postdoctoral Fellow*
Smithsonian Institute – Mpala Research Station, Kenya
2001-2007 *Graduate Teaching Fellow*
Biology Department – University of Vermont

RESEARCH EXPERIENCE

Postdoctoral Research Fellow 2009-2012, La Trobe University, Christmas Island, Australia
Conducted invasion ecology research on tropical rainforest island ecosystem
Smithsonian Postdoctoral Fellow 2007-2009, Mpala Research Centre
Researched ant-plant mutualisms and keystone species in East African savanna
Graduate Research Assistant 2002-2007, University of Vermont
Investigated role of natural disturbance in community assembly and species coexistence in serpentine woodlands and wetlands
Research Field Assistant 2005, University of Illinois
Collected plant and insect samples in Argentina for nutritional and invasion ecology research
Graduate Research Assistant 2001-2002, University of Vermont
Investigated role of nitrogen input in carnivorous plant ecology

TEACHING EXPERIENCE

Lecturer 2016-present, University of Vermont

Principles of Biology, Exploring Biology, Ecology and Evolution, Plant-Animal Interactions, Community Ecology, Sociobiology, Biology of Symbiosis

Adjunct Professor 2013-2016

Human Biology, Environmental Earth Science – Champlain College
Introduction to Biology: Cells and Genes – Community College of VT

Graduate Teaching Fellow 2001-2007, University of Vermont

Taught laboratory sections of introductory biology and intermediate ecology courses

Virtual Laboratory Coordinator 2005, University of Vermont

Designed, organized, and ran content for online non-majors biology laboratory course

Graduate Student Mentor 2003-2005, University of Vermont

Supervised several undergraduate field ecology research projects

PUBLICATIONS

- Wittman SE, O'Dowd DJ, Green, PT. 2018. Carbohydrate supply drives colony size, aggression, and impacts of an invasive ant. *Ecosphere* 9(9):e02403.
- Wittman SE. 2014. Impact of ant invasions on native ant communities worldwide. *Myrmecological News*. 19:111-123. (Invited Review)
- Tillberg CV, Edmonds B, Freauff A, Hanisch PE, Paris C, Smith CR, Tsutsui ND, Wills BD, Wittman SE, Suarez AV. 2014. Foraging ecology of the tropical giant hunting ant *Dinoponera australis* (Hymenoptera: Formicidae) – evaluating mechanisms for high abundance. *Biotropica*. 46:229-237.
- Porensky LM, Wittman SE, Riginos CR, Young TP. 2013. Herbivory and drought interact to enhance diversity and spatial patterning in a savanna understory. *Oecologia*. 173: 591-602.
- Smith CR, Suarez AV, Tsutsui ND, Wittman SE, Edmonds B, Freauff A, Tillberg CV. 2011. Nutritional asymmetries are related to division of labor in a queenless ant. *PLoS ONE* 6(8): e24011.
- Wittman SE, Gotelli NJ. 2011. Predicting community structure of ground-foraging ant assemblages with Markov models of behavioral dominance. *Oecologia*. 166:207-219.
- Wittman SE, Sanders NJ, Ellison AM, Jules ES, Gotelli NJ. 2010. Species interactions and thermal constraints on ant community structure. *Oikos*. 119:551-559.
- Sanders NJ, Gotelli NJ, Wittman SE, Ratchford JS, Ellison AM, Jules ES. 2007. Assembly rules across spatial scales and habitats. *Journal of Biogeography*. 34:632-641.
- Ratchford JS, Wittman SE, Jules ES, Ellison AM, Gotelli NJ, Sanders NJ. 2005. The effects of fire, local environment and time on ant assemblages in fens and forest. *Diversity and Distributions*. 11:487-497.
- Wakefield AE, Gotelli NJ, Wittman SE, Ellison AE. 2005. Prey addition alters nutrient stoichiometry of the carnivorous plant *Sarracenia purpurea*. *Ecology*. 86:1737-1743.

GRANTS, FELLOWSHIPS, AWARDS

- 2007 Mpala Postdoctoral Fellowship, Smithsonian Institute
- 2007 Roberto Fabri Fialho Award in Graduate Student Excellence, Graduate College, University of Vermont
- 2007 Outstanding Graduate Teaching Assistant of the Year, Graduate College, University of Vermont
- 2006 Instructional Incentive Grant, Center for Teaching and Learning, University of Vermont
- 2006 Travel Grant, Graduate College, University of Vermont
- 2005 Summer Research Fellowship, Graduate College, University of Vermont
- 2002 Helix Summer Fellowship Award, University of Vermont
- 2001 Graduate Teaching Fellowship, Biology Department, University of Vermont

SELECTED PROFESSIONAL PRESENTATIONS

- 2011 The role of scale insects in the formation of yellow crazy ant (*Anoplolepis gracilipes*) supercolonies on Christmas Island, Indian Ocean. Annual Conference of the Ecological Society of Australia, Hobart, Tasmania
- 2011 Cascading effects of an ecosystem engineer in a semi-arid grassland. Invited Seminar, Department of Zoology, La Trobe University
- 2010 The role of termites as ecosystem engineers in an East Africa savanna. International Meeting of the Association for Tropical Biology and Conservation, Bali, Indonesia.
- 2008 Effects of species interactions and thermal constraints on ant community structure. International Conference of Entomology, Durban, South Africa
- 2008 Keystone species effects in an East African savanna. Invited Seminar, Smithsonian Environmental Research Center, Edgewater, MD
- 2006 Competitive interactions of ground-foraging ants in the Siskiyou-Klamath Ecoregion. International Conference of the International Union for the Study of Social Insects, Washington, D.C.

PROFESSIONAL DEVELOPMENT, SERVICE, OUTREACH

- 2019 CAS Faculty Development Series: Teaching International Students: Communicating in the Classroom and Beyond
- 2019 UVM Faculty Learning Community: Getting the Most out of Student Peer Review
- 2019 UVM Center for Teaching and Learning: "Active Learning in STEM Disciplines: The Benefits of Collaboratively Developing Lessons for the Undergraduate Classroom"
- 2018 Catamount Commitment Mentor Program
- 2017 UVM Faculty Development Series "Engaging students and reducing resistance in the diversity classroom: Transforming pedagogies"
- 2017 ESA Education Scholar Certification
- 2017 Fostering Academic Success in STEM Teaching Conference, University of New Hampshire
- 2016 UVM Faculty Development Workshop, "Teaching Resilience"

- 2015 Service Learning for Undergraduate Teaching Seminar, Champlain College
Presented by Susan Munkres, Director of the Community-University Partnerships
and Service Learning (CUPS)
- 2015 Evidence-Based Teaching in Higher Education: Strategies to Improve Student
Learning Seminar, Community College of VT
Presented by Victor Benassi and Maryellen Weimer through Magna Online
- 2014 Vermont Invasives First Detector Volunteer
- 2010 "Christmas Island: Unique Environment Under Threat" Radio Interview, *The
Science Show*, ABC Radio National. Broadcast 12 June 2010.
- 2010 "What can stable isotopes do for you?" Presented to Christmas Island National
Park Invasive Species Team, Christmas Island, Australia
- 2008 "Ecology of East African savannas." Presented to High School Biology Students
at Essex High School, Essex Junction, VT and Victor J. Andrew High School, Tinley
Park, IL
- 2007 Completion of Graduate Fellow Teaching Program, Center for Teaching and
Learning, University of Vermont (UVM)
- 2005 Biology Department Senator, Graduate Student Senate, UVM
- 2005 Graduate Student Mentor, *βββ* National Biological Honor Society, UVM
- 2004 Graduate Student Representative, Department of Biology Advisory Council, UVM

MANUSCRIPT REVIEW

*Austral Ecology, Behavioral Ecology and Sociobiology, Biological Invasions,
Conservation Biology, Ecography, Ecological Entomology, Insectes Sociaux, Journal
of Animal Ecology, Journal of Applied Ecology, Journal of Insect Conservation,
Myrmecological News, Northeastern Naturalist (Guest Editor), Oecologia, Oikos*