

SARAH E. WITTMAN

University of Vermont, Department of Biology
118 Marsh Life Science, 109 Carrigan Drive, Burlington, VT 05405
802-656-7708 • swittman@uvm.edu • <https://www.uvm.edu/cas/biology/profile/sarah-wittman>

EDUCATION

2007 Ph.D., Biology, University of Vermont
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

PROFESSIONAL EXPERIENCE

2023-now *Senior Lecturer*, Department of Biology, University of Vermont
2016-2023 *Lecturer*, Department of Biology, University of Vermont
2015-2016 *Adjunct Professor*, Community College of Vermont, Winooski, VT
2013-2016 *Adjunct Professor*, Champlain College, Burlington, VT
2009-2012 *Postdoctoral Researcher*, La Trobe University, Christmas Island National Park, Australia
2007-2009 *Postdoctoral Fellow*, Smithsonian Institute, Mpala Research Station, Kenya
2001-2007 *Graduate Teaching Fellow*, Department of Biology, University of Vermont

TEACHING EXPERIENCE

2016-now *Lecturer/Senior Lecturer*, University of Vermont
Principles of Biology, Exploring Biology, Ecology and Evolution, Plant-Animal Interactions, Community Ecology, Sociobiology, Biology of Symbiosis, First Year Zoology Seminar, Exploring Biology Faculty Lab Coordinator, Undergraduate Teaching Assistantship
2013-2016 *Adjunct Professor*
Human Biology, Environmental Earth Science – Champlain College
Introduction to Biology: Cells and Genes – Community College of VT
2001-2007 *Graduate Teaching Fellow*, University of Vermont
Taught laboratory sections of general biology and ecology courses
2005 *Virtual Laboratory Coordinator*, University of Vermont
Designed online non-majors biology laboratory course
2003-2005 *Graduate Student Mentor* 2003-2005, University of Vermont
Supervised undergraduate field ecology research projects

RESEARCH EXPERIENCE

2009-2010 *Postdoctoral Research Fellow*, La Trobe University, Christmas Island, Australia
Yellow crazy ant indirect biocontrol research program
2007-2009 *Smithsonian Postdoctoral Fellow*, Mpala Research Centre
Acacia ant-plant mutualism and termite keystone species research

2002-2007 *Graduate Research Assistant*, University of Vermont
 Ant community assembly in the Siskiyou-Klamath ecoregion

2005 *Research Field Assistant*, University of Illinois
 Argentine ant nutritional and invasion ecology research

2001-2002 *Graduate Research Assistant*, University of Vermont
 Carnivorous plant nutrient stoichiometry research

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, Freauuff 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, Freauuff 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

2025 UVM Driving Change Program HHMI Inclusive Classroom Grant, Restructuring Introductory BCOR Courses

2024 Kroepsch-Maurice Excellence in Teaching Award nomination, Senior Lecturer, University of Vermont

2021 Prelock Online Teaching Award nomination, University of Vermont

2020 Kroepsch-Maurice Excellence in Teaching Award nomination, Lecturer, University of Vermont

2007 Mpala Postdoctoral Fellowship, Smithsonian Institute

2007 Roberto Fabri Fialho Award in Graduate Student Excellence, University of Vermont

- 2007 Outstanding Graduate Teaching Assistant of the Year, 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

PROFESSIONAL DEVELOPMENT

- 2025 UVM Center for Teaching and Learning SoTL Symposium: Building Community Trust in the Classroom and Learning in a Time of Generative AI, presented by Peter Felten
- 2025 The Norton Guide to Equity-Minded Teaching Workshop: The Three Es of Teaching with AI: Ethics, Equity, and Empowerment, hosted by Flower Darby
- 2025 UVM Inclusive Excellence Symposium: Revolutionary Love is the Call of Our Times, presented by Valarie Kaur
- 2024 HHMI Community of Practice: Navigating the Friction of Content Coverage and Inclusive Excellence in Introductory STEM Courses, UVM Driving Change Program
- 2024 Using AI Across the Disciplines: A Faculty Learning Community, UVM Writing in the Disciplines
- 2024 UVM Inclusive Excellence Symposium: Operationalizing Love: Centering Love in our Intersectional Justice Work, presented by Durrelle Brooks
- 2023 UVM College of Arts and Sciences: Faculty DEI Workshop
- 2023 UVM Center for Health and Wellbeing: Recognizing and Responding to Student Mental Health Needs
- 2023 UVM Center for Teaching and Learning: Transparency in Teaching and Learning (TILT) Learning Group
- 2023 UVM Inclusive Excellence Symposium: Transformative Power of Comedy: Storytelling as Healing Praxis, presented by D'Lo
- 2022 UVM Faculty Development Series: Teaching STEM Students How to Learn: Metacognition is the Key, hosted by Sandra McGuire
- 2022 Yellowdig Learning Platform: Student Roundtable Discussion on Learning Experiences
- 2021 UVM Concerning and Risky Event (CARE) Team: Resources for Students in Crisis
- 2021 UVM Contemplative Faculty Fellow: year-long faculty learning community supporting contemplative pedagogy best practices
- 2021 UVM Center for Teaching and Learning: Contemplative Practices for Anti-Racist Education & Trauma Informed Teaching, Guest Speaker Kamilah Majied
- 2021 UVM Biology Department: Anti-racism workshops with Brandon Ogbunu, Princeton University
- 2021 UVM Center for Teaching and Learning: Student Voices Panel, Reflections on Grading and Instructor Feedback
- 2021 UVM Center for Teaching and Learning: Establishing Empathetic Presence in Online, Writing-Intensive Courses
- 2020 UVM Center for Teaching and Learning: Writing-intensive Courses in Online Environments
- 2020 UVM Center for Teaching and Learning: Teaching in Tumultuous Times Faculty Panel

- 2020 UVM Center for Teaching and Learning: Student Voices Panel Discussion – Building Classroom Connection during a Pandemic
- 2020 Macmillan Learning: iClicker Cloud Training
- 2020 UVM Center for Teaching and Learning: Microsoft Teams Workshop
- 2020 UVM Continuing & Distance Education: Summer Teaching Online Bootcamp
- 2020 UVM Learning Community: Teaching and Learning in the Diverse Classroom, 5-week Cornell University MOOC
- 2019 UVM 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
- 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
- 2015 Evidence-Based Teaching in Higher Education: Strategies to Improve Student Learning Seminar, Community College of Vermont

SERVICE AND OUTREACH

- 2025 UVM Honors College: Honors thesis committee Chair
- 2025 Tuttle Middle School Science Volunteer Judge
- 2023 UVM Plant Biology Department Search Committee
- 2023 UVM Honors College: Honors thesis committee member
- 2021 UVM Honors College: Honors thesis committee member
- 2020 UVM Biology Department: Committee member to review and revise Reappointment, Promotion, and Tenure guidelines
- 2018 UVM Catamount Commitment Program Mentor
- 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
- 2005 Biology Department Senator, Graduate Student Senate, University of Vermont
- 2005 Graduate Student Mentor, βββ National Biological Honor Society, University of Vermont
- 2004 Graduate Student Representative, Department of Biology Advisory Council, University of Vermont

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

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, Melbourne, Victoria
- 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.