Geneviève Kathleen Smith Ph.D.

512.689.0216
genevieve.smith@utexas.edu
genevievekathleensmith.github.io

EDUCATION

Ph.D. 2013 Ecology, Evolution & Behavior The University of Texas at Austin

M.Sc. 2007 Biology, with great distinction McGill University

B.Sc. 2001 Biology & History, with distinction McGill University

SKILLS

Communication Experienced speaker at academic meetings, workshops, & public outreach lectures, statistical consultant for graduate students & faculty, plus >10 years of teaching & curriculum development.

Analytical Very strong statistical background, including regression methods: GLM, linear, logistic, & hierarchical models; ordination: PCA, CA, & NMDS; ODEs; SEMs; time series & wavelet analysis; Bayesian models.

Computational Experienced in diverse methods, e.g. simulation modeling, handling large data sets, & data visualization with a variety of tools including R, Python, SAS, SPSS, MATLAB & D3.

EXPERIENCE

Statistical Consultant & Graduate Fellow
Division of Statistics and Scientific Computation UT Austin 2012-2013

- Consulted faculty & graduate students on selecting and using statistical tools
- Collaborated on analyses of socioeconomic, mental health, and literary data
- Presented tutorials on statistical methods and consulting techniques

Graduate Student Researcher
Department of Integrative Biology UT Austin 2007-2013

- Performed field surveys, genetic laboratory work, and ecological experiments
- Published several academic manuscripts & presented at national conferences
- Built multiple theoretical ecological models & compiled data from public online sources

Department of Biology McGill University 2004-2007

- Monitored mussel populations along >100 km of coastline
- Modeled population connectivity patterns
- Analyzed >15 million years of forest dynamics using pollen records

Graduate Teaching Assistant
UT Austin 2007-2013 & McGill University 2004-2007

- Taught computer labs, field labs, molecular labs, scientific writing & statistics
- Lectured to >50 undergraduates, led seminar discussions, coordinated field trips
- Supervised undergraduate teaching assistants, maintained online course materials

Science & Technology Research Intern
Research Branch Canadian Library of Parliament 2001-2002

- Briefed Members of Parliament on diverse science policy topics
- Provided legislative summaries & research support for MPs & committees

WORKSHOPS & COURSES

Software Carpentry Instructor Training, April-June 2014 (ongoing), teaching.software-carpentry.org
Machine Learning, Mar-Jun 2014, Coursera/Stanford University
Software Carpentry Bootcamp (instructor helper), Feb 2014, University of Missouri, Kansas City
Presenting Data and Information by Edward Tufte, Feb 2014, Austin, Texas
Scientific Python & High Performance and High Throughput Computing with R, Scientific Software Days, Dec 2013, The University of Texas at Austin
Programming for Data Analysis, Sept-Oct 2013, Coursera/Johns Hopkins University
Big Data in Biology (invited participant), May 2013, Okinawa Institute for Science & Technology, Okinawa, Japan
Software Carpentry Bootcamp, May 2012, Dec 2012, The University of Texas at Austin

AWARDS

Doctoral Research Scholarship, Fonds québécois de la recherche sur la nature et les technologies
Graduate Dean's Prestigious Fellowship Supplement, The University of Texas at Austin
Visiting Graduate Fellowship, W.K. Kellogg Biological Station, Michigan State University
Research Fellowship, EEB Graduate Program, The University of Texas at Austin

ACADEMIC PUBLICATIONS

Bruster, D. S., & **G. K. Smith**. A New Chronology for Shakespeare's Plays. *Submitted to* Literary & Linguistic Computing.
Smith, G. K., & M. A. Leibold. In revision. Experimental evidence for both niche equivalence and niche differentiation within a cryptic species complex.
Smith, G. K., G. A. Wellborn, & M. A. Leibold. In revision. Geographical variation in ecological divergence and niche overlap in a complex of cryptic *Hyalella* amphipods.
McTavish*, E. J., **G. K. Smith***, R. Guerrero, & E. Gering. 2012. Flight morphology variation in a damselfly with female-limited polymorphism. Evolutionary Ecology Research, 14: 1–17.
Smith, G. K., E. Gering, R. F. Guerrero, E. J. McTavish, & T. Lydgate. 2009. *Theobroma cacao* Agroecology in Kauai: A Case Study. Pacific Agriculture & Natural Resources 1: 21-26.
Smith, G. K., F. Guichard, F. Petrovic, & C. W. McKindsey. 2009. Using spatial statistics to infer scales of demographic connectivity between populations of the blue mussel, *Mytilus* spp. Limnology & Oceanography. 54: 970-977.
Smith, G. K., C. Stamm, & F. Petrovic. 2003. Haliotis cracherodii. In: IUCN 2009. IUCN Red List of Threatened Species. Version 2009.1.

SELECTED TALKS & PRESENTATIONS

The Coexistence of Ecologically Similar Species. Dissertation defense, UT Austin 2013.
Building Networks of Neural Cognition Using BIG fMRI Data. Okinawa Institute for Science & Technology – Big Data in Biology Workshop, Okinawa 2013.
Conflict Avoidance: How not competing can be the ticket to success. Science Under The Stars, Austin 2012.
Competition for resources in an evolving metacommunity. Canadian Society for Ecology & Evolution – American Society of Naturalists, Ottawa 2012.
Coexistence of cryptic species: Is within-lake habitat partitioning responsible in the case of Hyalella amphipods? Ecological Society of America, Albuquerque 2009.
From open to metapopulations: scales of demographic coupling in the St. Lawrence Estuary. Benthic Ecology Meeting, Quebec City 2006.