

Ian Breckheimer

Curriculum Vitae

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Education

- 2012 - **Biology PhD program**, *University of Washington*.
2008–2011 **Masters of Science in Ecology**, *University of North Carolina at Chapel Hill*.
2002–2006 **Bachelors of Science in Biology**, *Guilford College*, Greensboro, NC.

PhD Dissertation

- Title *Climate-mediated range evolution in monkeyflowers*
Supervisor Janneke Hille Ris Lambers
Description Combined climate data from landscape genetics, microclimate sensors, and field experiments to measure evolutionary constraints on climate adaptation at range boundaries.

Professional Experience

- August 2011 - May 2012 **High School Support Teacher - Science and Math**, *The Howard School*, Atlanta, GA.
Developed and led classroom and field activities in mathematics and science for 9th-12th grade students. Supervised after-school tutoring. Developed hands-on research projects with students on the influence of climate change on the timing of leafing and flowering in plants.
- August 2008 – January 2011 **Teaching / Research Assistant**, *UNC Chapel Hill*, Chapel Hill, NC.
Developed new conservation GIS tools in collaboration with the NC Sandhills Conservation Partnership. Teaching Assistant - Ecology and Evolution, Field Skills in Physical Geography, Water Resources Planning. Committee Chair - Ecology and Environment Seminar Series. 2011 Student representative - Curriculum for the Environment and Ecology faculty search committee.
- January – August 2008 **Land Steward / Land Manager**, *Sandhills Area Land Trust*, Southern Pines, NC.
Conducted annual monitoring on conservation easements. Prepared biological surveys and baseline documentation for new projects. Collaborated with landowners to design conservation projects.
- January – December 2007 **Rainforest Ecology Intern**, *School for Field Studies*, Queensland, Australia.
Conservation biology teaching/research assistant position for American undergraduate students in NE Queensland, Australia. Performed field surveys for birds, bats, and herps. Developed curriculum, led field exercises, and supported student research projects.
- May – December 2006 **GIS Watershed Planner**, *Piedmont Land Conservancy*, Greensboro, NC.
Coordinated multiple stakeholders in the development of a Dan River Watershed Protection Plan to direct conservation funding in a 3-county region. Performed GIS land-use analysis using remote-sensing data. Developed skills with GIS, ArcHydro, Technical Writing, analysis of water quality monitoring data.

May – October 2006 **Outdoor Education Instructor**, *Haw River Program*, Greensboro, NC.
Taught Wetlands Ecology, Forest Ecology, Orienteering, and Team Building Classes for school groups (4th-10th grade).

Publications

Breckheimer, I, N. Haddad, W. Morris, A. Trainor, W. Fields, R. T. Jobe, B. Hudgens, A. Moody, J. Walters. In review. Defining and evaluating the umbrella species concept for conserving and restoring landscape connectivity. *Conservation Biology*

Ford, K., **I. Breckheimer**, J. F. Franklin, J. Freund, S. Kroiss, A. Larson, E. J. Theobald, J. HilleRisLambers. In Review. Growth patterns across tree species elevational ranges suggest complex impacts of climate change. *Ecology*

Miller, BW **I Breckheimer**, AL McCleary, L Guzmán-Ramirez, SC Caplow, JC Jones-Smith, and SJ Walsh. 2010. Using stylized agent-based models for population–environment research: a case study from the Galápagos Islands. *Population and Environment* 31, no. 6, pp 401-426

Conference Presentations

Breckheimer, I., M. Krosby, P.H. Singleton, J. Pierce, B. McRae, R. Long, B. Cosentino, S. Hall, K. Halupka, B. Gaines, J. Schuett-Hames. Do connectivity models based on “naturalness” capture important habitat linkages for focal species? A case-study from the Pacific Northwest. Oral Presentation, 26th International Conference for Conservation Biology

Breckheimer, I and A Milt. Connect: new GIS tools to support modeling and management of landscape connectivity for wildlife. Poster Presentation. Ecological Society of America Annual Meeting, Austin, TX, August 2011.

Breckheimer, I, M Simon, JR Costanza, A Milt, DJ Bruggeman, A Moody. Modeling Red-Cockaded Woodpecker (*Picoides borealis*) habitat quality in fragmented landscapes: an application of low density discrete-return LiDAR. Oral Presentation. International Association for Landscape Ecology Annual Meeting, University of Georgia, April 2010.

Breckheimer, I and BW Brendley 2006 Habitat requirements of the invasive Chocolate Vine (*Akebia quinata*) at Guilford College: Implications for threat assessment and control. Oral Presentation, Tri-Beta Biological Society National Conference, Florida Institute of Technology, June 2006.

Academic Honors / Awards

Guilford: High Honors, Departmental Honors, Clyde A. Milner Award

Tri-Beta: National Brooks Award, 2006

UNC: Graduate Merit Fellowship

UW: BEACON Award, Giles Award

Computer Skills

Programming: R, Python, JavaScript, NetLogo

Scientific: ENVI, SciPy, ArcGIS, GRASS