Ian Breckheimer

Curriculum Vitae

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Education

2012 - **PhD Candidate, Department of Biology**, *University of Washington.*

2008–2011 **Masters of Science in Ecology**, *UNC Chapel Hill.*

2002–2006 **Bachelors of Science in Biology**, *Guilford College*, Greensboro, NC.

PhD Dissertation

Title *Microclimates and Range Dynamics of Plants Under Climate Change*

Supervisor Janneke Hille Ris Lambers

Description Combined data from microclimate sensors, repeat survey data, and field experiments to measure ecological and evolutionary constraints on 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 **Environmental Education Instructor**, *Haw River Program*, Greensboro, NC.
Taught Wetlands Ecology, Forest Ecology, Orienteering, and Team Building Classes for school groups (4th-10th grade).

Publications

Krosby, M., **I. Breckheimer**, D. John Pierce, B.L. Cosentino, J. Schuett-Hames, P.H. Singleton, S.A. Hall, K.C. Halupka, W.L. Gaines, R.A. Long B. H.. McRae. In review. Focal species and landscape "naturalness" corridor models offer complementary approaches for connectivity conservation planning. *Landscape Ecology 30 no. 10, 2121-2132*

HilleRisLambers, J. L.D.L. Anderegg, **I. Breckheimer**, K.M. Burns, A.K. Ettinger, J.F. Franklin, J.A. Freund, K.R. Ford, S.J. Kroiss. In press. Implications of Climate change for Turnover in Forest Composition. *Northwest Science 89 no. 3, 201 - 218*

Breckheimer, I., N. Haddad, W. Morris, A. Trainor, W. Fields, R.T. Jobe, B. Hudgens, A. Moody, J. Walters. 2014. Defining and evaluating the umbrella species concept for conserving and restoring landscape connectivity. *Conservation Biology* 28 no. 6, 1584-1593

Miller, BW **I Breckheimer**, A.L. McCleary, L. Guzmán-Ramirez, S.C. Caplow, J.C. Jones-Smith, and S.J. 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.

Academic Honors / Awards

Guilford: High Honors, Departmental Honors, Clyde A. Milner Award, Tri-Beta National Brooks Award. **UNC:** Graduate Merit Fellowship **UW:** BEACON Award, Giles Award, NW Climate Science Center Fellowship, NSF Doctoral Dissertation Improvement Grant

Extracurricular Activities

Guilford: President, Outdoor Club, Forevergreen Environmental Club. **UNC:** Sandhills Conservation Partnership Participant, Habitat for Humanity Volunteer **UW:** DeltaC curriculum development project, Botany Greenhouse Docent, MeadoWatch data analyst.