

Benjamin D. Morris

Ph.D. Student, Biology

Curriculum Vitae

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Education

- accepted* **Ph.D. Evolution, Ecology, and Organismal Biology**, UNC-Chapel Hill
Advisor: Allen Hurlbert
- 2012* **B.S. Computational Biology**, Utah State University
Advisor: Ethan White

Professional Experience

- 2012* **Informatics Software Developer**, National Ecological Observatory Network
- 2011-2012* **Climate Data Analyst**, Utah Climate Center
- 2011* **NSF REU Fellow**, Prof. Ethan White's lab, Utah State University
- 2010-2012* **Research Assistant**, Prof. Ethan White's lab, Utah State University
- 2009-2010* **Web Developer**, Utah Water Research Lab

Research

Interests

I'm interested in macroecology and climate change, using ecoinformatics and large, diverse datasets to make general, large-scale predictions about the effects of climate change on ecological systems.

Publications

Benjamin D. Morris and Ethan P. White. 2012. *The EcoData Retriever: improving access to existing ecological data*. PLoS ONE. (submitted)

Presentations

Benjamin D. Morris and Ethan P. White. March 2012. *Patterns of species richness in human infectious diseases*. National Conference on Undergraduate Research.

Ethan P. White, **Benjamin D. Morris**, S.K. Morgan Ernest, Katherine M. Thibault, Allen H. Hurlbert, Andrew J. Kerkhoff and Zachary T. Brym. August 2011. *EcologicalData.org: Tools for finding and using ecological data*. Ecological Society of America.

Benjamin D. Morris and Ethan P. White. December 2010. *The EcoData Retriever: improving access to ecological data*. USU Department of Biology Undergraduate Research Symposium.

In Progress

Jason Muelleck, Bryant Loosle, **Benjamin D. Morris** and Frank Messina. 2012. *Effects of inbreeding on fitness components in a seed beetle*. Evolutionary Biology.

Software

EcoData Retriever: lead developer. Tool for acquiring and managing ecological datasets. Developed in Python. <http://www.ecologicaldata.org/ecodata-retriever>

CUAHSI HydroServer: developer. Web-based software suite for visualizing and manipulating environmental databases, using ASP.NET and ArcGIS Server. Developed in C#. <http://hydroserver.codeplex.com/>, <http://icewater.usu.edu/>

Teaching Experience

- 2012 Software Carpentry scientific programming workshop, Utah State University
 WATS 3820 Climate and Climate Change, Utah State University
- 2011 BIOL 6750 Advanced Programming for Biologists, Utah State University

Awards

- 2011 NSF Research Experiences for Undergraduates
 Utah State University Presidential Scholarship

Skills

- Programming* Python, Haskell, Java, R, C#, Visual Basic, C, C++; HTML, XML, JavaScript, jQuery, AJAX; GrADS; SQL and database development; web and desktop software development; some GIS experience
- Language* English (native), Mandarin (fluent)

Coursework

Biology

Biology I/II	Ecology	Evolution
Communicable Disease Control	Epidemiology	Evolutionary Genomics
Host/Pathogen Coevolution	Macroecology	Teaching Internship
<i>Animal Community Ecology</i>	<i>Plant Community Ecology</i>	<i>Entropy Maximization in Ecology</i>

Math, Statistics, and Computer Science

Intro to Statistics	Calculus I/II	Multivariate Calculus
Linear Algebra	Differential Equations	Statistics for Scientists
<i>Linear Regression/Time Series</i>	<i>Computational Linear Algebra</i>	<i>Bioinformatics Algorithms I/II</i>

Physical Science

Human Nutrition	Chemistry I/II	Organic Chemistry
Biochemistry		

Graduate-level courses

Professional Societies

- Ecological Society of America
- International Biogeography Society
- International Society of Computational Ecology

References

- Prof. Ethan White (ethan.white@usu.edu)
Associate Professor
Department of Biology and the Ecology Center, Utah State University
- Prof. Morgan Ernest (morgan.ernest@usu.edu)
Associate Professor
Department of Biology and the Ecology Center, Utah State University
- Prof. Shih-Yu (Simon) Wang (simon.wang@usu.edu)
Assistant Professor
Department of Plants, Soils and Climate and Utah Climate Center, Utah State University