Ethan P. White

Department of Biology and the Ecology Center, Utah State University, Logan, UT 84322
Senior Scientist, Sevilleta Long-Term Ecological Research Station
http://ethanwhite.org, ethan.white@usu.edu, 435-760-1909

Professional preparation

2005 PhD Biology (with distinction), University of New Mexico
1998 BA Biology (*magna cum laude*), Colorado College

Appointments

2012-Associate Professor, Dept. of Biology and Ecology Center, Utah State University
2012- Senior Scientist, Sevilleta Long-Term Ecological Research Station
2007-2012 Assistant Professor, Dept. of Biology and Ecology Center, Utah State University
2005-2007 NSF Postdoctoral Fellow in Biological Informatics, Univ. of AZ & U.C. Merced

Awards and Fellowships

NSF CAREER 'Young Investigators' Award 2010-2015
NSF Postdoctoral Fellowship in Biological Informatics 2005-2007
NSF Graduate Research Fellowship 2000-2005

Five Most Relevant Publications and Products

Wilson, G., D.A. Aruliah, C.T. Brown, N.P. Chue Hong, M. Davis, R.T. Guy, S.H.D. Haddock, K. Huff, I. Mitchell, M. Plumbley, B. Waugh, E.P. White, and P. Wilson. 2014. Best Practices for Scientific Computing. PLOS Biology. 12:e1001745. http://doi.org/10.1371/journal.pbio.1001745

Morris, B.D. and E.P. White. 2013. The EcoData Retriever: improving access to existing ecological data. PLOS ONE 8:e65848. https://github.com/weecology/retriever

White, E.P., K.M. Thibault, and X. Xiao. 2012. Characterizing species-abundance distributions across taxa and ecosystems using a simple maximum entropy model. Ecology 93:1772-1778.

White, E.P. and A.H. Hurlbert. 2010. The combined influence of the local environment and regional enrichment on bird species richness. American Naturalist 172:E35-E43.

White, E.P., S.K.M. Ernest, P.B. Adler, A.H. Hurlbert, and S.K. Lyons. 2010. Integrating spatial and temporal approaches to understanding species richness. Philosophical Transactions of the Royal Society B 365:3633-3643.

Five Other Publications and Products

Xiao, X., White, E.P., M.B. Hooten, and S.L. Durham. 2011. On the use of log-transformation vs. nonlinear regression for analyzing biological power-laws. Ecology 92: 1887-1894.

Supp, S.R., X. Xiao, S.K.M. Ernest, and E.P. White. 2012. Experimental evidence suggests that macroecological patterns are determined primarily by species richness and total abundance. Ecology 93:2505-2511.

Price, C.A., K. Ogle, E.P. White, and J.S. Weitz. 2009. Evaluating scaling models in biology using hierarchical Bayesian approaches. Ecology Letters 12:641-651.

Thibault, K.M., S. Supp, M. Giffen, E.P. White, S.K.M. Ernest. 2011. Species composition and abundance of mammalian communities. Ecology 92:2316.

White, E.P., B.J. Enquist, and J.L. Green. 2008. On estimating the exponent of power-law frequency distributions. Ecology 89:905-912.

Synergistic Activities

Ecoinformatics: 1. Founder of EcologicalData.org – a website designed to use social media tools to allow ecologists to collaborate on the discovery and utilization of available ecological datasets. 2. EcoData Retriever – Leader of open source software development to automate the process of designing and configuring database structures for ecological databases as well as downloading, cleaning up and installing the data for the end user (http://ecodataretriever.org).

Computational science education: 1. Teacher of two Utah State University courses on introductory and advanced computer programming and database management for biologists. 2. Developer of a website for providing information about computational approaches in biology (http://programmingforbiologists.org). 3. Software Carpentry Advisory Board member, instructor, and lead developer of new intermediate level material (http://software-carpentry.org), helping lead a group dedicated to providing online and in-person training to improve the use of advanced computational tools by scientists.

Database development and education: 1. data paper. 2.

Database development and provision: 1. Team leader for the development of the Mammalian Community Database – an effort to assemble and publish global scale information on the composition of mammalian communities. This database is published in Ecological Archives (Thibault et al. 2011). 2. Lead database expert on the team that manages the databases for the Portal Project, an important time-series in ecology. The project includes four major datasets (mammals, plants, ants, and weather) that differ substantially in form and complexity. This team transitioned the databases from Microsoft Excel flat files to a relational database running in Microsoft Access in 2004 and transitioned them again in 2010 to a more stable and secure MySQL database that is available to all participants in the project via a secure Linux server.

Open science: 1. Social media 2. Preprint paper 3. Open proposals 4. Open software development. 5. Mozilla Science Lab

Collaborators and Other Affiliations

Collaborators: P. Adler (Utah State), D.A. Aruliah (U. Ontario), C.T. Brown (Michigan St.), J. Coyle (U. North Carolina), M. Davis (Data Pad), S. Durham (Utah State), B. Enquist (U. Arizona), M. Giffin (Utah State), J. Gittleman (U. Georgia), J. Goheen (U. Wyoming), J. Green (U. Oregon), R.T. Guy(U. Toronto), S.H.D. Haddock (Monterey Bay Aquarium), N.P. Chue Hong (Software Sustainability Institute), M. Hooten (Colorado State), K. Huff (UC Berkeley), A. Hurlbert (U. North Carolina), N. Isaac (Centre for Ecology and Hydrology, UK), S. Lyons (Smithsonian Institute), I. Mitchell (U. British Columbia), H. Morlon (Ecole Polytechnique), B. Morris (U. North Carolina), K. Ogle (Arizona State), M. Plumbley (Queen Mary Univ.),

C. Price (U. Western Australia), R. Sibly (U. Reading, UK), F. Smith (U. New Mexico), J. Stegen (Pacific Northwest National Lab), S. Supp (Utah State), B. Waugh (University College London), J. Weitz (Georgia Tech), G. Wilson (Mozilla), P. Wilson (U. Wisconsin).

Advisors: J.H. Brown (U. New Mexico; PhD); J.L. Green (U. of Oregon; postdoc), B.J. Enquist (U. of Arizona; postdoc)

Advisees: E. Baldridge (Utah State; PhD), K.J. Locey (Indiana Univ; PhD), D.J. McGlinn (Utah State; postdoc), K. Riemer (Utah State; PhD), K. M. Thibault (National Ecological Observatory Network; Postdoc), X. Xiao (Utah State; PhD)