

RHINE SINGLETON

College of Health and Natural Sciences
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EDUCATION

- Ph.D.** Ecology and Evolutionary Biology, Cornell University 1998
Dissertation: Recovery of the Forest Herb Community in Post-agricultural Forests in Central New York: Pattern and Process.
- M.S.** Biology, University of Oregon 1990
Thesis: Components of Habitat Selection in Three Insects.
- B.A.** Biology, University of Virginia 1987
Research: Tail Loss in the Dusky Salamander; Genetics of the Red Spotted Newt.

TEACHING EXPERIENCE

Professor of Biology and Environmental Science, Franklin Pierce University, 1998 to Present
Taught each of the following courses recently or for four or more semesters:
BI430 Forest Ecology, BI250 Plant Biology, BI241 Evolutionary Biology, BI218 Ecology,
BI211 Genetics, ES329 Special Topics–Climate Change, ES103 Intro to Ecosystem & Wildlife
Conservation, ES104 Intro to Natural Resource Conservation, IC110 & 111 Integrated Science

Graduate Teaching Assistant, Cornell University & University of Oregon
Involved in teaching each of the following courses:
Intro Biology, Field Ecology, Ecological Genetics, Intro to Marine Biology

OTHER AFFILIATIONS

Visiting Professor, Southern African Wildlife College, Hoedspruit, South Africa,
September-October 2018. Developed interactive "navigable" tree guide for campus; analyzed
data for Cape buffalo study; mentored students; gave presentations to graduate students and
campus community.

Visiting Scholar, University of Venda, Thohoyandou, South Africa, October 2018.
Presentations (through workshops & lectures) on sampling design, ecotourism in Costa Rica.

DIRECTOR OF THE 2100 PROJECT

From January 2016 to September 2018 directed and edited [The 2100 Project](#), an
interdisciplinary collaborative aimed at celebrating positive change and sharing diverse
perspectives for a sustainable future.

RESEARCH EXPERIENCE

Ongoing Research Collaboration Dr. Catherine Koning since 2000
Monitoring ecological change in the Franklin Pierce University Natural Areas

RESEARCH EXPERIENCE CONTINUED

- Research Collaboration with Debra Hamilton (The Monteverde Institute),** 2005-2018
The Role of Fruiting Phenology of Lauraceae in Determining Suitable Habitat for the Three-wattled Bellbird in Monteverde, Costa Rica.
- Research Collaboration with Dr. Doug Blank (Comet.ML)** 2015-2018
Using sonification as a means to communicate science.
- Research Collaboration with Dr. Catherine Koning (FPU),** 2000-2013
The potential impact of Glossy Buckthorn on Native Plant Communities in southern New Hampshire.
- Graduate Research Assistant, Cornell University** 1994-1996
Studied the effects of land-use history on native plant communities. Designed and conducted field studies to sample native plant diversity.
- Research Assistant, The Xerces Society, Portland, OR** winter 1990
Studied butterfly communities in tropical rainforest in Madagascar to assess the long-term impact of land-use practices on butterfly diversity.

SELECTED PUBLIC PRESENTATIONS

- How to collect meaningful data for rural development studies. October 2018
University of Venda, Thohoyandou, South Africa
- Biodiversity and Conservation in Costa Rica. September 2018
South African Wildlife College, Hoedspruit, South Africa
- A Model of Ecotourism in Monteverde, Costa Rica. September 2018
South African Wildlife College, Hoedspruit, South Africa
- Sonification – Turning data into sound. [Public presentation and performance](#) May 2017
by live musicians of [The Sound of Global Warming](#), FPU, Rindge, NH
- Soundfield. [Sound Installation](#). Academic Showcase, FPU, Rindge, NH April 2017
- Human Wildlife Conflict in India, Monteverde Institute, Costa Rica June 2016
- [Appearance on Science Friday](#) to discuss Statistical Samples May 2016
- Conservation Biology of the Three-wattled Bellbird, November 2015
Natural Sciences Research Roundtable, FPU, Rindge, NH
- When a Leopard Comes to Town, March 2015
Public Presentation at the Mariposa Museum, Peterborough, NH
- Human Wildlife Conflict in India, Presentation at February 2015
Antioch New England Graduate School, Keene, NH
- Guest Lecturer for High School Biology Class, Chaukori, India September 2013

SELECTED PEER REVIEWED PUBLICATIONS AND PRESENTATIONS

Koning, C. and R. Singleton. 2024. Textbook: [Saving Biodiversity as the Climate Changes](#). (Now ready for review to be included on an OER platform such as OpenStax)

Koning, C. and R. Singleton. 2024. Time to Change it Up: Increasing Undergraduate Accessibility and Engagement by Addressing the Species Extinction and Climate Crises through Ecosystem-focused OER Introductory Textbook. Poster presented at August 2024 Ecological Society of America Conference.

Oppelt, N. and R. Singleton. 2022. The Ongoing Effects of Buckthorn on Understory Plant Communities in a Southwest New Hampshire Pine Forest. [Poster Presented at the Monadnock Region Natural History Conference](#), Keene, NH, November 12, 2022.

Singleton, R. 2019. The Effect of Buckthorn on Forest Plant Communities in Southwest New Hampshire. [Poster Presented at the Monadnock Region Natural History Conference](#), Keene, NH, November 16, 2019.

Jaskolski, K. and R. Singleton. 2019. The Effect of Buckthorn on Understory Plant Communities in a Southwest New Hampshire Pine Forest. [Poster Presented at the Monadnock Region Natural History Conference](#), Keene, NH, November 16, 2019.

Hamilton, D., R. Singleton, and J. D. Joslin. 2018. Resource Tracking and its Conservation Implications for the Three-wattled Bellbird (*Procnias tricarunculatus*) in Costa Rica. [Biotropica 50\(1\): 146-156](#).

Petrycki, S., V. Williams, A. LaVoie, R. Singleton and C. Koning. 2017. The Effects of Land-Use History and Natural Disturbance on Changes in Tree Species Composition. [Poster Presented at the Northeast Natural History Conference](#), Cromwell, CT, April 23, 2017.

Singleton, R. and D. Blank. [Soundfield](#). Interactive sound and computer graphic experience based on historical and future projected global temperature. Installation at the Artists Respond to Global Challenges Show at the Crapo Gallery, UMass Dartmouth, Oct. 2016.

Singleton, R. 2016. Using smartphone apps to generate field guides for local regions. Poster Presented at the Northeast Natural History Conference, Springfield MA, April 23, 2016.

Singleton, R. 2015. FP Tree ID Smartphone App, Reviewed and Published by Google Play for Android and the Apple App Store for iOS.

Koning, C. and R. Singleton. 2013. Effects of Moderate Densities of Glossy Buckthorn on Forested Plant Communities in Southwest New Hampshire, USA. [Natural Areas Journal, 33, 256-263](#).

Singleton, R and C. Koning. 2005. The potential effects of glossy buckthorn on native plants. Presentation at Invasive Plant Association of New England Conference.

Singleton, R., S. Gardescu, P.L. Marks, and M.A. Geber. 2001. Forest herb colonization of post-agricultural forests in central New York, USA. [Journal of Ecology, 89, 325-338](#).

OTHER PUBLICATIONS

Singleton, R. 2019. Editorial in the Concord Monitor. *Nature in Decline*, May 9, 2019.

Singleton, R. 2017. Nudibranchs, Sinking Ships, and other Random Excerpts from an X-er. January, 2017 monthly feature at The 2100 Project Website. Available at: <http://www.ecologyandevolution.org/2100january2017.html>

Singleton, R. 2016. People in Soundfield – Video of Sound Installation. Available at: <https://www.youtube.com/watch?v=EP1J5rwNJ0g>

Singleton, R. 2016. The 2100 Project Website. Available at: <http://ecologyandevolution.org/2100home.html>

Singleton, R. 2015. The sound of global warming played fast. Available at: <https://www.youtube.com/watch?v=8P029W35E2Y>

Singleton, R. 2014. Fundamentals of Field Sampling: How to design a field study. Available at: <http://www.ecologyandevolution.org/PartIITOC.php>

RECENT GRANTS AWARDED

Principal Investigator for the Biology and Environmental Science Training (BEST) Program. 2018 – 2023. \$649,931. US National Science Foundation S-STEM Award.

PROFESSIONAL MEMBERSHIPS: Ecological Society of America, New England Wildflower Society

SELECTED COMMITTEES AND OTHER UNIVERSITY COMMUNITY CONTRIBUTIONS

Co-coordinator of the FPU Institute for Climate Action	2021 to present
Member of the FPU Institute for Climate Action	2018 to present
Co-leader of Standard 6 Team to write NEASC self-study	Jan 2017 to Aug 2018
Executive Committee, Monadnock Institute	1998 to 2015
Sustainability Council Member	2015 to 2018
Coordinator of ES Department	2013 to 2020; 2023 to present
Advisory Committee, Pathway to Master's Program at AUNE	2012 to present
Advisor to Envi. Science, Biology, and Health Science Majors	1998 to present
Major Advisor for Environmental Science Thesis Projects	1998 to present
Member of ES Program Review Team	2012-2013
Chair of Environmental Studies Faculty Search Committee	2012-2013
Member of Academic Dean Search Committee	2011-2012
Curriculum Committee Member	2000-2004 & 2008-2012
Chair of ES/Integrated Science Faculty Search Committee	2010-2011