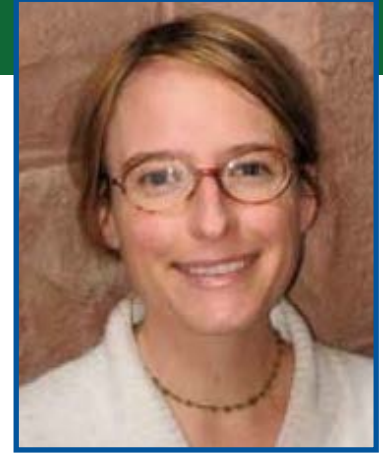


# Lucy Penn Kerhoulas



**Graduate Institution:** Northern Arizona University

**Graduate Discipline:** Biology

**Hometown:** San Rafael, CA

**Relevant SC Research:** Biological and Environmental Research

## Research Interest:

I am interested in studying forest systems as they relate to water use and carbon storage. I received my undergraduate degree in Botany from Humboldt State University in northern California. I stayed at HSU to pursue my Master's degree investigating the physiological consequences of transporting water to the tops of the tallest redwood trees on Earth. For this research I enjoyed working in the incredible redwood canopy habitat.

My doctoral work at Northern Arizona University investigates the dynamic relationships among tree size and density, dependent on land management decisions, seasonal water use, and carbon storage in southwestern ponderosa pine forests. My doctoral research also examines whole-tree growth patterns in old-growth ponderosa pines to create a more complete understanding of carbon sequestration rates than current estimates based exclusively on diameter at breast height measurements. Stable isotope ratio analyses and dendrochronology are the primary methods I use for this research.

## About Me:

My career goal is to be a university professor with equal emphases on research and teaching. Through my experience as a graduate teaching assistant for Botany and Human Anatomy and Physiology classes, I have realized that I love teaching and want it to be a substantial part of my career in addition to research. My

research interests are currently geared towards improving our understanding of the dynamics between forest stand density, tree size, water use, and carbon sink strength in the West. I am involved with the Biology and Forestry Departments at Northern Arizona University as well as the Institute for Redwood Ecology at Humboldt State University. I was awarded the Achievement Rewards for College Scientist scholarship in 2010, 2011, and 2012. I have also been awarded funding from the Watershed, Research, and Education Program, the Water Resources Research Center, and the Philanthropic Educational Organization.

My hobbies include yoga, backpacking, climbing trees, and knitting. I have taught yoga for ten years and enjoy the balance that this arena of teaching brings to my often-stressful academic life.



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science