

## Funded Master's Opportunity – School of Environment and Natural Resources, The Ohio State University

SUPERVISOR: Dr. G. Matt Davies  
LOCATION: The Ohio State University, Columbus  
DEADLINE: March 25<sup>th</sup> 2016  
START DATE: September 1<sup>st</sup> 2016

### ***Summary of Position:***



Phlox blooming on The Arid Lands Ecology Reserve in Eastern Washington – one of our study sites

I am accepting applications for a Master's student to participate in a project evaluating vegetation dynamics within the sagebrush steppe in eastern Washington. The position is fully funded for two years, includes an annual stipend plus tuition and fees and involves collaboration with researchers at the University of Washington. The successful student will also work with managers from the U.S. Fish and Wildlife Service, and the Bureau of Land Management. Our research aims to synthesize new and historical data to increase our understanding of how these communities respond to repeated wildfires and post-fire rehabilitation actions. The

position will involve several months fieldwork in eastern Washington as well as the opportunity to develop analytical skills relevant to urgent conservation problems. The student will be expected to work closely with research collaborators to produce solid analyses and clear reports with succinct recommendations for land managers. In addition, they contribute to scientific articles for publication in peer-reviewed journals. Though there are some specific tasks central to the project's objectives the student will have freedom to develop their own, relevant research questions. We particularly encourage applications from students interested in:

1. Using plant traits to model long-term ecosystem dynamics
2. Modeling changes in the landscape-scale distribution of species and communities in response to disturbance

We seek a highly motivated individual with strong interests in plant community or fire ecology and strong quantitative skills. The successful applicant will be a member of The Ohio State University's Forest Ecosystem Restoration and Ecology Lab (<http://oardc.osu.edu/ferel>) and the Soil and Plant Community Restoration research program (<http://www.fireregimes.org.uk>). Field work is planned for Spring 2017 in south-central Washington state. The climate of central Washington is semi-arid and can be extremely hot; accessing the field sites will require walking several miles a day in such conditions over rugged terrain.

### ***Specific Duties***

- Analyze long-term vegetation dynamics, including the relative importance of biotic (e.g. invasion), abiotic (e.g. precipitation) and anthropogenic (e.g. fire, restoration) factors in driving change.
- Assist in compiling plant functional trait data to develop models of long-term changes in dominant traits
- Participate in a field crew collecting vegetation cover data using established methodologies.
- Relocate permanent vegetation monitoring plots and rephotograph photopoints.
- Present research results to interested parties via field tours, scientific presentations, written reports, and publications in peer-reviewed journals.
- Contribute to project website and social media.

### ***Requirements:***

- Standard requirements for entry in the School of Environment and Natural Resources MS Program include:
  - Cumulative undergraduate GPA - 3.0 or higher on a 4.0 scale.
  - Strong performance on the GRE exam - Verbal score of 156 (66.1 percentile) / 554 (69 percentile), Quantitative score of 158 (69.9 percentile) / 682 (64.7 percentile) with a preferred Analytical score of 4.
- Undergraduate degree in ecology, natural resources management, forestry, biology, or related field.
- Knowledge of and training in the use of statistics to analyze ecological data
- Familiarity with concepts of non-equilibrium dynamics and state-and-transition models.
- Experience monitoring vegetation
- Good botanical skills
- Competent computer skills, with demonstrated capability in the use of word processing, spreadsheet, statistical, database management, and GIS software.
- Excellent organizational, communication, and presentation skills.
- Ability and willingness to conduct field work in a variety of conditions, including frequent travel, often for extended periods of time, and sometimes in primitive conditions.
- Ability to drive a vehicle on and off road.

Further information on post-graduate study in SENR can be found here:

<http://senr.osu.edu/graduate/prospective-graduate-students>

### ***CONTACT:***

Interested individuals should send a CV, brief statement of qualifications, and contact information for three references to:

#### **Dr. G. Matt Davies**

School of Environment and Natural Resources, The Ohio State University, 412B Kottman Hall, 2021 Coffey Road, Columbus, OH, 43210

**Phone:** (001) 614 292 3567

**Email:** [davies.411@osu.edu](mailto:davies.411@osu.edu)

**Twitter:** @fireregimes

**Web:** <http://www.fireregimes.org.uk>