The objectives of the research are to provide a framework for understanding how forest management influences forest resistance and resilience to drought and carbon storage across diverse forest ecosystems from the redwood coast through the Klamath region. Using a combination of existing information and new field data we will assess: 1) How tree growth rate varies across a steep climatic gradient in the Klamath region; 2) the variation in growth responses to several major drought episodes in this region; and 3) how forest management, specifically prescribed fire and forest thinning, influences these growth patterns as an indicator of both forest resiliency and changes in carbon storage. The selected student will help to determine how differences in stand conditions and management history confer (or don't confer) increased resistance and resilience to drought-induced moisture stress in terms of tree growth and carbon accumulation.

We seek applications from highly-motivated individuals interested in pursuing graduate studies in the Master of Science Natural Resources Program with a degree in Forest, Watershed, and Wildland Sciences (<u>http://humboldt.edu/fwr/program/graduate_degrees</u>). A graduate stipend includes 2 years of funding for an MS student to work with Dr. Rosemary Sherriff (<u>http://humboldt.edu/fwr/faculty</u>) and collaborators. We have a strong interdisciplinary team involved in the project that includes faculty and graduate students from Humboldt State University, and U.S.G.S. and National Park Service partners. There is potential to begin fieldwork in the summer of 2015 before entering the graduate program in August 2015.

ELIGIBILITY

Strong candidates for admission to the Forest, Watershed and Wildland Sciences graduate program at Humboldt State University will have a minimum of:

- Grade point average of 3.2 or greater on a 4.0 scale in all college and university work
- GRE scores in the top 40th%

• Demonstrated research interest and experience in forest ecology, disturbance ecology, dendrochronology, or related field

HOW TO APPLY TO BEGIN THE GRADUATE PROGRAM FOR FALL 2015 To apply, please first send (as a PDF or Word Document): 1) a resume/CV (including GPA); 2) a letter of interest (clearly stated research interests and background); and 3) the names and contact information of references to: sherriff@humboldt.edu.

Second, a formal application need to be submitted through CSUMentor

(<u>http://www.csumentor.edu/AdmissionApp/</u>) by February 1, 2015. More information about applying for graduate programs at HSU is available at <u>http://www2.humboldt.edu/gradprograms/future-students</u>. Women and applicants from diverse cultural and ethnic backgrounds are especially encouraged to apply. Applicants who do not have a previous degree in forestry are eligible for admission to the Forest, Watershed and Wildland Sciences graduate program. However, students who are admitted may be required to take prerequisite undergraduate forestry courses (e.g. forest ecology, fire ecology).