

Seeking MS ecology student for up to 2 funded prescribed fire ecology research positions:

California and the west are in the midst of a wildfire crisis due to an increase in catastrophic fires and decrease in good fire. One solution to these dueling crises is prescribed fire, and there is broad political support to increase its use. As the number of prescribed fires and their acreage increase in California, understanding their goals and effects are important. This research may help California Central Coast managers conduct better prescribed fires with their limited burn windows and capacity.

The student will be part of a collaborative, interdisciplinary team who evaluates prescribed fire effects on existing research and monitoring projects, which could be a MS thesis and peer-reviewed publication. Potential prescribed fire partners include Cal Fire units, UC Cooperative Extension, Prescribed Burn Associations, non-profits, private landowners, state and federal parks, Tribes, and more. Students may have an opportunity to pursue a prescribed fire project outside of the current research scope.

MS students would work with Dr. Kate Wilkin in the Biological Sciences Department's Ecology and Evolution program. Students would participate in the new Wildfire Interdisciplinary Research Center, which was recently awarded a NSF Industry-University Cooperative Research Center (IUCRC). WIRC provides potential internal research funding and interdisciplinary collaborations between ecology and social scientists, climatologists, fire weather, fire behavior modeling, combustion engineer, fire behavior monitoring, and remote sensing.

Prescribed fire research includes:

- Evaluate efficacy of novel field-based and remote sensing-based monitoring methods
- Coastal prairie restoration
- Pyrodiversity in chaparral
- Other research may include:
 - Home Ignition Zone (HIZ)
 - Fuel breaks and evacuation route clearance
 - Plant ember production and combustion
 - Pyrodiversity
 - Youth fire education
 - Your research interest

Funding:

For a prescribed fire ecology team, 1st year salary available through grants and 2nd year funds available if goals are met. Students are expected to seek additional funding and tuition stipends may be available through competitive Biology Department teaching positions. Competitive internal research funding available through the new Wildfire Interdisciplinary Research Center, which is a NSF Industry-University Cooperative Research Center. Total funding is dependent on the project, and students will be trained in internal and external grant writing.

Start date: Start as technician April/May 2023, and as student in August 2023. Spring 2023 start-date may also be possible.

Application Process:

Applicants should also email Kate Wilkin (kate.wilkin@sjsu.edu) well in advance, and include some of the items needed for a formal application to SJSU. Please note, Wilkin will be on maternity leave during fall 2022 and will be slow to respond until late November.

Your research interests and long-term career goals in a cover letter

CV with software, lab and field methods and equipment, language (especially Spanish), and other skills, and publications and presentations listed

Scores: GRE, GPA

One writing sample (report, published paper, technical report, or class research project)

Funding needs: Do you have a grant in-hand? What are your needs?

Contact information for 3+ references

Interested applicants must apply to the graduate school at San Jose State University using their application.

Spring 2023 applicants must apply by October 1, 2022.

Fall 2023 applicants must apply by March 1, 2023.