Spatial Informatics Group - Natural Assets Laboratory
Employment Opportunity Announcement
January 2024

Ecosystem Scientist

Spatial Informatics Group - Natural Assets Laboratory (SIG-NAL) is a 501(c)(3) non-profit organization that leads ecosystem management and conservation projects linking environmental, public safety and economic goals. Our projects address diverse challenges for climate change adaptation and natural resource conservation. SIG-NAL's expertise includes a breadth of ecosystem science and geospatial science fields: landscape and fire ecology, forestry, geosciences, biogeochemistry, hydrology, remote sensing and GIS, ecosystem services valuation and natural climate solutions. We work collaboratively to advance scientific frontiers of resilience and regenerative ecosystems.

Job Description: The Ecosystem Scientist will support the ongoing operations of the Santa Barbara Regional Wildfire Mitigation Program (RWMP)'s Landscape Domain. The Ecosystem Scientist will report to the Senior Ecosystem Scientist at SIG-NAL. This position is a multidisciplinary role: it will include ecological restoration project planning and management, maintenance and monitoring, field data collection and analysis, and managing public communication and outreach. Successful candidates will have a background in ecosystem sciences, experience with independent fieldwork, and a desire to carry out hands-on, applied science for climate change adaptation under the direction of experienced researchers.

Application Deadline: Application review and interviews will be scheduled after Wednesday February 7, 2024. However, applications will be accepted until a suitable candidate is found.

Responsibilities:

- Assist with management of RWMP Landscape Domain projects supervised by the SIG-NAL Senior Ecosystem Scientist. These are landscaping projects emphasizing wildfire hazard mitigation, but designed with multiple ecosystem conservation co-benefits in mind. Project types include: shaded fuel break tree plantings (often California oak species), native vegetation restoration, orchard rehabilitation, prescribed herbivory and other forest vegetation management. Project management responsibilities will include:
    - New project development and planning: Conduct outreach to communities about RWMP Landscape Project funding opportunities. Tasks may include (but are not limited to): email communications, initial site visits, in-person or virtual community

presentations, developing project applications and documentation with community members, and facilitating analyses for environmental permitting compliance with RWMP partners. RWMP partners include fire agencies, planners, land managers, biologists, and other natural resource professionals.

    - Project execution: Coordinate on-site work among landscape contractors, natural resource professionals, community groups and other participating scientists. Manage baseline environmental data collection before project execution (see below).

    - Pre- and post-project ecosystem monitoring: Collect field data to ensure robust baseline site characterization at the start of projects, and at seasonally/biological appropriate intervals over the duration of the position. The goals are not only to collect the data short term, but to enable future environmental monitoring to track project outcomes. Field data of interest includes GPS points/polygons, vegetation survey data (e.g., tree seedling survival, heights, conditions), soil data, and meteorological data (either from on-site or nearby weather stations with publicly available data).

- Collaborating with the Landscape Domain Lead, develop data management organizational strategies and systems, within and across individual Landscape projects, to organize multi-scale field-collected ecological data (e.g., point-line intercept vegetation cover and community composition data) and geospatial data (e.g., field-delineated features, 2D/3D remote sensing imagery).

- Lead and support collaborations and training in field data collection and monitoring with diverse, locally-based project partners in Santa Barbara. Key goals of the RWMP Landscape Domain are to enable continuity of data collection, long-term monitoring of project outcomes, and inclusive opportunities for ongoing ecosystem science at our project sites.

- Lead and support ecosystem science projects in-house at SIG-NAL, as part of monitoring/evaluation of RWMP Landscape project outcomes, collaborating with diverse project partners. Ecosystem science projects can have some flexibility in scope depending on applicant research and professional interests.

Minimum qualifications:

- Bachelors'-level degree in an environmental science or engineering-related field.
- Ability to conduct independent fieldwork to collect forest inventory and/or vegetation survey data. This may require walking on uneven and sloped terrain up to a mile, and carrying supplies up to 40 pounds.
- Experience managing datasets and conducting statistical analyses common in Ecology and Geoscience fields.

- Experience working on multi-disciplinary, cross-professional and/or cross-cultural teams to plan or carry out ecosystem restoration or conservation plantings, or other community-oriented environmental projects; your participation may have been in an academic, professional or volunteer context.
- Valid US Driver's License with clean driving record.

Desired Qualifications:

- Masters'-level degree in an environmental science or engineering field, with a research-oriented final project or thesis yielding peer-reviewed publications.
- Experience conducting independent environmental research or monitoring pertaining to native ecosystem conservation and/or restoration.
- Desire to lead a scientific or technical publication related to Landscape Project monitoring.
- Familiarity with predominant ecosystem types (e.g., grasslands, coastal sage scrub, chaparral, oak woodlands), local native vegetation species and common problematic invasive species in the Santa Ynez front-country region of Santa Barbara County, California.
- Experience integrating field data into geographic information systems (GIS).
- Experience with GIS data management and analyses.
- Experience with statistical analyses and data visualization in R and Python.
- Teaching experience in academic and/or professional settings.
- Ability to speak and write in Spanish at a practical level for easy understanding in the context of landscaping and environmental project work.

Terms of employment: The position is located in Santa Barbara, CA. Funding is available through September 31, 2024 on a part time basis: 3-5 full days/month in the field and hourly remote work for data management, totaling 50-60 hours/month. The salary for this position is advertised at $35/hour. Further employment is contingent upon additional funding.

Applications: Applicants should send (1) a cover letter describing their interest and preparation for the position (limit 2 pages); (2) A curriculum vitae or resume (limit 5 pages), and (3) Names and contact information for at least 2 references. All correspondence should be emailed and addressed to Graham Wesolowski, SIG-NAL Executive Director, at careers@sig-nal.org, and Dr. Marc Mayes, Senior Scientist at SIG-NAL (mmayes@sig-nal.org). Please include your name and "Ecosystem Scientist" in the subject line.

SIG-NAL is an Equal Opportunity Employer. We encourage applicants to apply from all cultures, religions, sexes or gender identities, national or regional origins, ages and military backgrounds.