



Assistant Professor in Geospatial Analysis of Forest and Rangeland Systems

Position: The [Department of Forest and Rangeland Stewardship](#) (FRS) in the [Warner College of Natural Resources](#) at Colorado State University is seeking applications and nominations for a nine-month, tenure track faculty position at the rank of Assistant Professor specializing in geospatial analysis of forest and rangeland ecosystems. Applications from those interested in developing a research program that integrates geospatial and ecological sciences to inform the management of forests, woodlands, shrublands, or grasslands are especially encouraged to apply. Individuals with interest and expertise in applying remote sensing, geographic information systems, data fusion, and spatiotemporal analysis/modeling to natural resource management questions would complement the existing faculty expertise and interests in our department and the Warner College of Natural Resources. We seek scholars who will develop an internationally recognized, extramurally funded research program involving graduate and undergraduate students. We expect the incumbent to exhibit leadership in, and passion for, undergraduate and graduate teaching, student mentoring, and curriculum development in the Forest and Rangeland Stewardship Department. Applicants should clearly demonstrate a commitment to diversity and inclusion in the department, college, and the university.

Setting: The Department of Forest and Rangeland Stewardship at Colorado State University is an interdisciplinary academic program uniquely poised to advance education, research, and outreach in applied geospatial analysis of forest and rangeland ecosystems. Existing programs of emphasis in the department include forest and rangeland ecology, natural resource management, fire science, vegetation measurement and biometry, policy and planning, and restoration ecology. The Department of Forest and Rangeland Stewardship is housed within the Warner College of Natural Resources, which is home to five academic departments and several centers and institutes such as the Colorado Forest Restoration Institute, the Colorado State Forest Service, Natural Resource Ecology Lab, the Center for Environmental Management of Military Lands, the Geospatial Centroid, and the Colorado Natural Heritage Program. These programs, institutes and centers provide a foundation for research, education, and outreach. Linkages across departments and colleges, and with federal and state land managers and research centers, form a broader interdisciplinary foundation for increased impact. Strong relationships and partnerships with local, state, and federal agencies foster significant applied research opportunities for the successful candidate. We expect the incumbent to foster opportunities for our students to become future leaders in the stewardship of forests and rangelands throughout the world.

Context: Sustainable natural resource management increasingly requires geospatial information and tools to directly inform decision-making across spatial and temporal scales. New geospatial technologies are rapidly emerging to understand broad-scale disturbances and ecological processes, and to provide applications and solutions to inform increasingly complex decision-making. Integration of data across scales from *in situ* plot and sensor networks, terrestrial and unmanned aerial remote sensing, to satellites are providing insights about the feedbacks and interactions of disturbance and management in plant communities. We seek a candidate with geospatial skills that may include GIS, terrestrial, unmanned aerial, satellite remote sensing, sensor development, 'big data' analysis, data integration, geospatial modeling, spatial statistics, and/or artificial intelligence/machine learning that may focus on one or more of the following areas of research:

- Advancing landscape ecology by mapping, analyzing, and/or forecasting land-use (*i.e.*, recreation, resource extraction, and human development) and landcover change (*i.e.*, natural and anthropogenic disturbance) over space and time
- Geospatial modeling of plant species distribution, structure and biodiversity or other population, community or landscape-scale ecological process that influence land management decision making in a changing world

- Integrating data across spatial scales to advance the theory and application of spatial ecology in the planning and management of natural resources, at landscape or regional scales
- Use geospatial technologies to evaluate and improve site-specific forest and/or rangeland management (*i.e.*, precision forest and rangeland management) at various spatial scales to address diverse management objectives (*i.e.*, optimal grazing, wildfire mitigation, forest health, carbon sequestration, landscape prioritization).

Major Duties and Responsibilities: The successful candidate will be expected to teach, conduct research, and contribute to the outreach and service of the institution and the professions we serve. In research, we expect the incumbent to develop an extramurally funded and innovative research program (50%) focused on developing new understandings of natural resource management through geospatial and *in situ* techniques. We also expect development of collaborative relationships with local, regional, and national clients. Teaching responsibilities (40%) include instruction of two undergraduate geographic information sciences courses that contribute to undergraduate majors in the Department. Teaching will also include a graduate course in the candidate's area of expertise. Service and outreach (10%) are components of the position and includes service to the department, college, university, academic peers, and profession.

Qualifications:

Required:

1. Earned Ph.D. with an emphasis in applied geospatial analysis in forest and rangeland ecosystems, by the time of appointment.
2. Demonstrated research expertise in geospatial information science, remote sensing, or geospatial modeling and analysis.

Preferred:

1. Evidence of potential to develop an externally funded research program advancing natural resource science and management through geospatial and *in situ* techniques.
2. Demonstrated potential to sustain an excellent publication record.
3. Evidence of effective teaching and mentoring of undergraduate or graduate students.
4. Ability to successfully engage in outreach to managers, landowners, and other relevant stakeholders.
5. Evidence of a commitment to enhancing diversity and inclusion.
6. Postdoctoral research experience.

Salary: Commensurate with experience and qualifications.

Position available: August 16, 2022

Application procedure: To apply, submit application material (cover letter, CV, statements of research and teaching philosophy, and list of four references) to <https://jobs.colostate.edu/postings/94525> by December 5, 2021, for full consideration. CSU is an EO/EA/AA employer and conducts background checks on all final candidates. The cover letter should explicitly describe the context of the applicant's research interests and expertise and address the preferred qualifications. Reflecting departmental and institutional values, candidates are expected to have the ability to advance the Department's commitment to diversity and inclusion.

After notifying semifinalist candidates, application materials of the semifinalists, including letters of reference, will be made available for review by the entire faculty of the Department of Forest and Rangeland Stewardship. References will not be contacted without prior notification to candidates.

For questions concerning the position, contact Chad Hoffman, Search Committee Chair:
chad.hoffman@colostate.edu

University and Local Community:

The Department of Forest and Rangeland Stewardship, Warner College of Natural Resources, and Colorado State University recognizes that a sustainable natural environment is essential to human well-being and our common good. The natural environment is essential in providing material, psychological, and physical health benefits to all. Thus, we strive toward providing voice for all those affected by natural resource policies to ensure that diverse perspectives are considered in decisions that affect the natural environment. This inclusionary philosophy is embedded in our instruction, research, service, outreach, and interactions as a community. Warner College members hold themselves accountable for fostering an atmosphere that is welcoming and accepting of diverse perspectives. Warner students, faculty, and staff uphold and embrace CSU's principles of community: respect, inclusion, integrity, social justice, and service. Everyone is welcomed. The Warner community recognizes the disparities that exist within field of natural resources and therefore call on individuals whose passions and work align with our college's effort to make change. Warner College supports an environment where identities, cultures, experiences, and ideas are recognized, valued, and appreciated.

Colorado State University, a prestigious Very High Research Activity Carnegie Doctoral University, was established in 1870 and remains inspired by its land-grant heritage and world-class faculty, staff, and students. Nationally, CSU is a Carnegie Engaged University (2008, 2014), is a member of the Engagement Scholarship Consortium, and is an APLU Innovation and Economic Prosperity University (2016). CSU enrolls approximately 33,000 undergraduate, graduate, and professional students, and is the largest employer in northern Colorado with more than 7,400 faculty and staff. Colorado State University is located 60 miles north of Denver in the beautiful city of Fort Collins situated on the Front Range of the Rocky Mountains with the foothills and 14,000-foot peaks visible to residents. Fort Collins is an active and progressive community. Easy access to hiking, skiing, rafting and other outdoor sports is a great advantage to CSU students, faculty, and staff. With an average of 280 days of sunshine per year and low humidity, Fort Collins residents enjoy pleasant weather year-round. Indoor and outdoor activities are enjoyable in every season. Colorado has earned a worldwide reputation as an area that offers an unparalleled lifestyle, and Fort Collins represents the very best of Colorado with top award rankings from Forbes for Best Place for Business/Careers, Gallup Well Being Index for Healthiest Mid-Size City in America, CBS Moneywatch List of Top 10 Best Places to Retire, Outside Magazine Best Towns in America, among other recognitions: <https://www.fcgov.com/visitor/fcfacts.php?ID=6>

Colorado State University is committed to providing an environment that is free from discrimination and harassment based on race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. Colorado State University is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce and complies with all Federal and Colorado State laws, regulations, and executive orders regarding non-discrimination and affirmative action. The Office of Equal Opportunity is located in 101 Student Services.

Colorado State University strives to provide a safe study, work, and living environment for its faculty, staff, volunteers, and students. To support this environment and comply with applicable laws and regulations, CSU conducts background checks. The type of background check conducted varies by position and can include, but is not limited to, criminal (felony and misdemeanor) history, sex offender registry, motor vehicle history, financial history, and/or education verification. Background checks will be conducted when required by law or contract and when, in the discretion of the university, it is reasonable and prudent to do so.