



Position title: Forest Program Science and Monitoring Manager

Job Category: Full-time exempt

Location: Reporting Office Durango, CO

Preferred Start Date: April 24, 2023

Salary and Benefits: \$50,000 - \$58,000 based upon experience and qualifications. Full benefit package including health, dental, vision, and life insurance; paid vacation, holidays, sick leave, and an opt in 403(b) retirement plan with employer match after one calendar year of employment.

Position Summary: Mountain Studies Institute (MSI) is hiring a full-time Science and Monitoring Manager to support the work of the Forest Team. The Science and Monitoring Manager will design and implement forest and landscape monitoring programs, recruit, hire, manage and mentor seasonal field crews, oversee the collection and storage of monitoring data, analyze and synthesize resulting data, interpret and communicate monitoring results to a wide variety of audiences, seek and manage resources to support monitoring programming, and engage in collaborative conversations about desired conditions and adaptive management practices. The Science and Monitoring Manager will supervise other staff.

To Apply: Please submit 1) Cover letter 2) Resume, and 3) Contact information for three references including emails, telephone numbers and your relationship to the reference as one PDF document to apply@mountainstudies.org with LastName_SciMonManager as the document title. Applications will be reviewed on a rolling basis beginning March 31, 2023.

For more details about the position, contact Dana Guinn at Dana@mountainstudies.org

Required Qualifications:

- Master's degree with experience and coursework in forestry, ecology, natural resource, geography, or a related field of study and 1+ years of professional experience
- Demonstrated experience collecting ecological monitoring data, including measuring trees, woody fuels, and herbaceous vegetation
- Competency in statistical design, analysis, and interpretation
- High level of computer competency and ability to work with diverse ecological data (spreadsheets, databases, raster and vector spatial data)
- Experience with digital data collection platforms and associated development and management
- Competency analyzing ecological monitoring data and producing data visualizations
- Experience with GIS tools for map development and spatial analysis
- Competency creating or contributing to technical or scientific reports



- Highly proficient with written and verbal communications of technical data across multiple audiences
- Ability to carry a 30+ pound pack while hiking in elevations ranging from 5,000 to 12,000 feet
- Experience managing or leading other employees in a field or office setting
- Must have a valid driver's license or the ability to obtain a driver's license and auto insurance per Colorado State requirements, by the employment start date

Desired Qualifications:

- 2+ years of applicable professional experience developing, implementing, and adaptively managing diverse ecological, forestry, and fuels field sampling methods, including demonstrated proficiency in plant identification and experience with Rocky Mountain flora, knowledge of sampling equipment, procedures and QA/QC protocols
- Experience hiring, training, and supervising crew members in ecological field data collection
- Experience generating code and analyzing data in R or other statistical programming language
- Experience with ArcGIS Pro, ESRI ArcOnline WebMap, and WebApp development
- Familiarity with the analysis and processing of remote sensed datasets
- Knowledge of southwestern US forest and fire ecology and management and interactions with climate change
- Demonstrated experience working with diverse range of forest and natural resource managers and stakeholders on collaborative planning, analysis, and adaptive management projects
- Skilled at communicating scientific information through oral presentations, posters, electronic media, or other activities with technical and non-technical audiences
- Demonstrated ability to communicate effectively across cultural boundaries and work with diverse groups of stakeholders, students, faculty, staff, and community members

Job Duty Categories:

Category (35%): Monitoring Program Development and Implementation

- Develop random or systematic sampling designs that include environmental and/or treatment-based stratification
- Random or systematic plot generation in GIS
- Participate in facilitated stakeholder conversations with managers and diverse partners to identify priority monitoring questions
- Recognize goals and objectives in environmental assessments and translate these into testable and measurable monitoring questions
- Develop and communicate field protocols
- Practice adaptive monitoring – Identify when protocols fail to capture desired metrics and be able to adjust and develop new protocols as needed
- Participate in designing and running landscape-scale analysis models



Category (40%): Monitoring Analysis, Data Management, and Reporting

- Analyze and synthesize monitoring data for pre and post forest treatment comparisons using:
 - Basic forest mensuration data analyses (stand structure, shrubs, fuels)
 - Fire behavior simulation (e.g. IFTDSS, LANDFIRE)
 - Forest Vegetation Simulator (FVS)
 - Other approaches as appropriate (e.g. R scripts, FSveg)
- Document analytical results both for technical and general stakeholder audiences
- Communicate monitoring results to land managers and collaborative groups in a variety of formats
- Engage the general public on topics of forest ecology, fire ecology, community protection/resilience
- Inform adaptive management strategies and future management actions based on lessons learned and previous monitoring data

Category (15%): Field Crew Management

- Recruit, hire, manage and mentor seasonal field staff
- Develop and implement monitoring schedules to coordinate and direct crews to the appropriate projects at the appropriate times
- Provide support and training to field crews to ensure methodologies are clear at each project, including field QA/QC
- Manage databases and data streams as crews complete work including post-field QA/QC
- Work with Program Director to ensure budgets are in line with expected work outcomes

Category (10%): Other Program Support, Organization, and Program Admin

- Work with Program Director to draft, manage, and maintain budgets for monitoring efforts
- Seek and manage programmatic resources including through partner relationship development and, grant writing/grant management
- Manage and support professional growth of other MSI staff
- Participate in MSI and Forest Team staff meeting and trainings
- MSI supported professional development
- Provide support to other programs at MSI as needed
- Other duties as assigned to support core organizational goals and functions

About Mountain Studies Institute: MSI is a 501 (c)(3) non-advocacy, mountain education and research center established in 2002 to develop the capacity of southwest Colorado mountain communities to thrive and live sustainably. To accomplish MSI's mission and vision, we engage scientists, citizens, and land managers in collaborative efforts to put science into action. As MSI is a growing research and education center, we are looking for candidates with the ambition and passion for mountain research to help grow the Institute, explore new ways to communicate and share information, and apply our research for the betterment of the region and the world.



Equal Opportunity Employer: All qualified applicants will receive consideration for employment without regard to race, national origin, age, sex, religion, disability, sexual orientation, marital status, veteran status, gender identity or expression, or any other basis protected by local, state, or federal law. This policy applies to all aspects of one's employment, including hiring, transfer, promotion, compensation, eligibility for benefits, and termination. MSI is a drug free workplace and complies with ADA regulations as applicable. MSI believes in a collaborative and supportive work environment that encourages and inspires professional growth.