

## Research Support Specialist in Spatial Ecology

The Rocky Mountain Biological Laboratory (RMBL) is seeking a full-time Research Support Specialist to facilitate field data collection, data processing and management, and logistics for scientific research projects investigating the drivers and consequences of environmental change. The Specialist would work closely with RMBL staff and affiliated scientists to 1) collect and process remote-sensing data collected with drones and satellites into scientific imagery datasets, 2) manage a large network of climate and other environmental sensors, and 3) work closely with research teams to support the curation and archiving of scientific data. Suitable candidates combine enthusiasm for science, proficiency with spatial data analysis, strong communication / collaboration skills, and the ability to tackle complex problems in both field and laboratory environments. We encourage candidates from backgrounds underrepresented in environmental science to apply.

RMBL is an environmental research institution and field station located in the Southern Rockies near Crested Butte, on Colorado's Western Slope. Founded in 1928 as an independent nonprofit organization, RMBL's primary mission is to advance the scientific understanding of nature that promotes informed stewardship of the Earth. RMBL provides scientists and students access to diverse habitats, research and education infrastructure, a collaborative and internationally recognized scientific community, and a broad base of knowledge about the ecology of mountain environments. A deeply understood place and supportive research community make it ideal for training the next generation of field scientists. You can learn more at <https://www.rmbll.org>.

RMBL is transforming field research by integrating long-term environmental observations with new data streams from sensor networks, drones, and satellites. The Research Support Specialist would work in a growing Spatial Ecology Team overseen by a staff research scientist (Ian Breckheimer, PhD). This short video provides an example of the types of projects supported by this work: <https://vimeo.com/694040699>.

### Duties

#### *Field Research and Logistics (Approximately 40% time)*

- Maintain and collect data from a large network of climate and other environmental sensors installed in (sometimes remote) environments in the Upper Gunnison Basin.
- Collect imagery data using Uncrewed Aircraft Systems (drones).
- Collect precision GPS data and other geospatial data in the field to support research and research administration.

#### *Data Management and Processing (Approximately 40% time)*

- Process raw sensor and imagery datasets into scientific data products and maps.
- Implement quality-assurance and quality-control procedures for sensor and imagery datasets.
- Assist RMBL-affiliated scientists with extracting, reshaping, and summarizing geospatial data.

#### *Data Curation and Archiving (Approximately 10% time)*

- Collaborate with RMBL researchers to understand their needs with respect to data archiving.
- Document scientific datasets with detailed metadata.
- Curate and QA/QC datasets, ensuring data consistency and quality.
- Archive datasets in public repositories for scientific data.

### General (Approximately 10% time)

- Participate in field station opening and closing campaigns in the spring and fall, including deep cleaning and organization.
- Participate in other research support activities as needed.

## Qualifications

### Minimum qualifications

- *Bachelor's degree in science, engineering, or another quantitative field.* Coursework in science and math will prepare the candidate to understand the context and importance of the work and provide relevant skills training.
- *Strong communication skills.* These are critical to work effectively in scientific teams composed of people with different expertise and level of experience, including RMBL scientists in different disciplines as well as undergraduate and graduate students. *Basic computer skills (experience with office and spreadsheet programs) and the ability to learn and operate new computer programs.* The position requires using several different types of specialized scientific software, and candidates must have good basic computer skills in order to learn workflows using new software.
- *Some experience with manipulating and displaying geospatial data using Geographic Information Systems (GIS) software.* Core skills for manipulating and displaying spatial data will allow candidates to explore, clean, and curate datasets effectively.
- *Meticulousness with field and lab protocols for collecting and processing scientific data.* Collecting high-quality data is an elemental component of scientific research.
- *The ability to physically negotiate remote high-elevation field sites and a rustic worksite.* Challenges can include uneven terrain, steep hills, gravel trails, deep snow, and other hazards, including in bad weather.
- The ability to lift and move up to 50lbs.
- A clean driving record and the ability to safely operate vehicles.

### Preferred qualifications

- A graduate degree in Biology, Environmental Science, Geography or a related field.
- Coursework or experience in remote sensing and / or raster data analysis.
- Experience with data analysis and programming / scripting using R and/or Python.
- Experience managing datasets in complex projects.
- Experience with Uncrewed Aircraft System (drone) operations.
- Existing FAA Remote Pilot Certification, or the ability to become an FAA certified UAS pilot. This involves passing a multiple-choice knowledge test and an FAA background check (more details here: [https://www.faa.gov/uas/commercial\\_operators/become\\_a\\_drone\\_pilot/](https://www.faa.gov/uas/commercial_operators/become_a_drone_pilot/))
- Experience operating 4WD / offroad vehicles.
- Experience working in remote locations.

## Compensation and schedule

- Year-round, salaried position with benefits. Starting salary at \$50,000 – 64,000 per year depending on experience.

- A mix of field and office work from May – September, with mainly office work from October – April.
- Winter partial remote-work arrangements may be possible for experienced candidates.
- Limited meals for employee when the RMBL dining hall is open (June – September).
- Housing is not included.
- Pets are not allowed at the field station, nor at field sites.

**Diversity at RMBL**

RMBL is dedicated to the principles of equal employment opportunity in any term, condition or privilege of employment. We do not discriminate against applicants or employees on the basis of age, race, sex, color, religion, national origin, disability, sexual orientation, political affiliation, or any other status which may be protected by law.

**Hiring timeframe**

Applications will open September 25<sup>th</sup> and are accepted until the position is filled. We will begin reviewing applications in early October, with an ideal start date in fall 2022.

**To apply**

Please email a letter of interest, resume, and contact information for two professional references to [katie@rmbll.org](mailto:katie@rmbll.org) with the subject “Research Support Specialist Application”. For questions about the position, please contact Ian Breckheimer, [ikb@rmbll.org](mailto:ikb@rmbll.org).