

## Data Manager Position for the Bosque Ecosystem Monitoring Program (BEMP)

Employee of Bosque School, position based at  
the University of New Mexico

Please email cover letter and resume as an attachment to:

**[bemp.job@bosqueschool.org](mailto:bemp.job@bosqueschool.org) by 5 pm Friday 9 March, 2018**

### About the Organization

The Bosque Ecosystem Monitoring Program (BEMP) combines long-term ecological research with community outreach by involving K-12 teachers and their students in monitoring key indicators of structural and functional change in the Middle Rio Grande riparian forest, or “bosque.” BEMP has 33 active monitoring sites along 230 miles of the Rio Grande. BEMP monitors abiotic factors including depth to groundwater, water level in the ditches, precipitation, temperature, and water quality of the river, ditches, and groundwater. BEMP monitors biotic factors including litterfall of native and exotic trees, vegetation cover (includes species richness, abundance, and diversity), cottonwood monitoring (size and sex), woody debris/fuel load, surface-active arthropods, and the tamarisk leaf beetle. BEMP tracks the impacts of restoration projects (mechanical clearing, wood chipping, mastication, bank-lowering), flooding, and fire on the biotic and abiotic variables mentioned above. BEMP findings derived from K-12 student-gathered citizen science data are used by government agencies to inform multi-million dollar river and riparian management decisions. BEMP is a partnership of Bosque School and the University of New Mexico Department of Biology.

BEMP’s mission: Science, education, and stewardship of the Rio Grande and its watershed through long-term, hands-on student research of ecosystem response and function to inform public policy.

### About the position:

- Position is based in Albuquerque, NM with the majority of work conducted at the University of New Mexico Department of Biology with occasional work taking place at Bosque School or in the field.
- The full or near full-time position (salary dependent upon experience) with standard Bosque School employee health, retirement, and other benefits.
- The position is supervised by BEMP’s Science Coordinator. However, much of the research coordination and daily work scheduling is determined by BEMP’s Co-Director who is a Department of Biology at UNM Associate Research Professor. Both that particular BEMP Co-Director and Science Coordinator are based at the UNM office.
- On a regular basis the employee will be outdoors, in and along the Rio Grande and its riverside forest on and off uneven trails in a variety of weather conditions. Employee needs to be able to lift 25 pounds. Employee must be a team player. Employee must be able to work in all field conditions and able to work with vegetation, arthropods, and other environmental samples and collections.

### **Key Responsibilities:**

- Manage all BEMP data files
  - Daily communication with BEMP Co-Director and Science Coordinator to make sure that BEMP's data management supports BEMP's mission and success.
  - Data entry
  - Data checking (double-check data entry)
  - Quality Assurance/Quality Control review data for inconsistencies or anomalies and determine if they are mistakes or outliers – document all data decisions
  - Ensure protocols for data entry are followed, and that protocols are updated when necessary
  - Update data available online, including both datasets and critical threshold monitoring
- Data analysis
  - Graph data
  - Basic statistical analyses
  - Provide and create other forms of data visualization
  - GIS analyses and modeling (variable)
- Make recommendations for updating statistical software and/or data storage
- Update metadata and schedule uploads for updating BEMP data on the UNM digital repository
- Assist in report writing and the writing of peer-review publications.

### **Supporting Responsibilities:**

- Field work (assisting in monthly monitoring, pitfall trapping, water quality monitoring or other field work as needed) (10-20% of job), can involve leading students in the field
- Supervision of university students with data entry, lab data sorting, etc.
- Work on peer-review publications (10+% of job) (as data QA/QC procedures are finalized and metadata are uploaded, this will increase to 20-30% of the job)
- Presentations of data (if desired)
- Lab work (arthropod, litterfall sorting) (if desired)
- Attend, organize, or assist in meetings, conferences, or other activities to promote BEMP and strengthen collaborations with BEMP's partners

### **Qualifications and Education Requirements:**

- Bachelor's degree in science and at least 3 years of relevant work experience (data management, QA/QC, and analysis; especially with long-term datasets)
- Demonstrated ability to use SAS, R, Python, or similar statistical program (R preferred)
- Demonstrated ability to use Excel, Sigma Plot, or other graphing program
- Excellent organizational skills
- Ability to interpret analyzed data
- GIS mapping and analyzing experience

### **Desired Qualifications:**

- Spanish speaker
- Computer modeling experience (predictive models for ecosystem response)

**About Bosque School:**

Bosque School is an independent, co-educational, college preparatory school for students in grades 6-12. Located on 42 acres along the Rio Grande bosque (riparian forest) in Albuquerque, New Mexico, the school places a strong emphasis on the arts, service learning, and environmental science in the bosque. Bosque School takes pride in offering a progressive and inventive approach to learning. Founded in 1994, Bosque School is governed by a Board of Trustees and is affiliated with the National Association of Independent Schools (NAIS) and the Independent School Association of the Southwest (ISAS). Currently, there are 500 students in grades 6 - 12. There are over 65 faculty members, more than half of whom hold advanced degrees, and a support staff of 25.

**Application Materials:**

Applicants should email a cover letter and resume to [bemp.job@bosqueschool.org](mailto:bemp.job@bosqueschool.org). Deadline for submission of applications is **Friday, 9 March, 2018**. Position is open until filled. Finalists will be asked to provide a professional writing sample(s) and references.

**Starting Date:** to be negotiated

Applicants must have a valid social security number (not needed on your application) to be considered and previous BEMP experience is a plus, but not required. A background check will be conducted.

**Non-Discrimination and Disability Policy** Bosque School is an equal opportunity employer and makes all employment decisions, including those related to recruitment, hiring, training, promotion, and recognition of individuals on the basis of their ability and job related qualifications and without regard to race, gender, gender identity, religion, national origin, sexual orientation, disability, or any other classification proscribed under applicable federal, state, or local law.

We actively seek diversity among staff and students. The school complies with the law regarding reasonable accommodations for employees with disabilities. Applicants requiring reasonable accommodation in order to participate in the application/interview process are requested to contact the School in order to arrange such accommodation (505) 898-6388.

[www.bemp.org](http://www.bemp.org)