Purdue University
Full Time Environmental Science Lab Tech

Position summary:
Collaborate on the design of, and lead the construction and maintenance of infrastructure associated with, the Purdue rainout shelter experiments. Conduct and assist with ecological and plant science-related research; maintain a well-organized research environment; maintain and organize lab records, equipment, and supplies; analyze experimental data and present results; help coordinate activities of undergraduate researchers; ensure that safe research practices are followed in the lab and in the field; and perform other assigned duties. Work occasional odd hours and weekends as dictated by field or lab work schedules.

Essential functions:
Help build, design and maintain infrastructure of the Purdue rainout shelter experiments. This includes identifying problems with the infrastructure and anticipating future problems, and fixing, installing, and/or replacing rainout shelters and their parts, sprinklers, and trailer structures as necessary. Fabricate, fix and replace soil temperature and soil moisture sensors as necessary. Monitor data recorded in datalogger, troubleshoot problems with all sensors and infrastructure as necessary, and fix any problems. Monitor weather station and fix problems with sensors and datalogger as needed. Alter infrastructure and install or move sensors as necessary to meet needs of a changing experiment. Reprogram dataloggers as necessary to meet needs of a changing environment. Control outbreaks of problematic animals as necessary. Maintain security features at the site as necessary. Communicate needs to contractors and utility employees working at the site (e.g. electricians). Serve as go-between for Principal Investigator and on-site stakeholders for everyday matters. (40%)

Conduct measurements for the Purdue rainout shelter experiments, including measurements of leaf area index, soil moisture, plant growth, plant canopy temperatures, soil temperatures and climatic variables. Collect and prepare samples for chemical analysis as needed. Monitor animal activity at the site. Maintain and analyze data associated with preceding activities. (40%)

Supervise and coordinate personnel working on the Purdue rainout shelter experiment and related activities. (10%)

Assist other researchers working on the Purdue rainout shelter experiment. (10%)

If interested, contact Dr. Jeff Dukes (jsdukes@purdue.edu).