

Environmental Specialist: ranchland water projects and environmental monitoring sensor network

The **Agroecology program** at Archbold Biological Station's Buck Island Ranch (BIR) (www.archbold-station.org) is seeking an Environmental Specialist focused on monitoring ranchland water projects and managing environmental sensor networks in south-central Florida. The Environmental Specialist will be co-supervised by Dr. Betsey (Elizabeth) Boughton and Dr. Amartya Saha.

Position highlights

The position is based at Buck Island Ranch, both an operational cattle ranch and an experimental field station, in the Agroecology lab directed by Dr. Betsey Boughton. We are thinking both locally and globally. The lab is involved in research and monitoring projects focused on environmentally and economically sustainable ranchlands in the Headwaters of the Everglades. The lab participates in long-term ecological science networks such as NutNet and LTAR (<https://ltar.ars.usda.gov>), a network of 18 agroecosystems across the United States that seek to address the grand challenge of maintaining multiple ecosystem services in food production systems.

This position is focused on our Dispersed Water Monitoring projects on ranchlands throughout the watershed and maintaining a large sensor network measuring water stage, rainfall, automated water samplers (e.g. ISCOs), and pumps (~45 sensors). The project is funded by the South Florida Water Management District (<https://www.sfwmd.gov/our-work/water-storage-strategies>), and Archbold has been conducting monitoring on this project since 2011. The position may also work on other environmental monitoring sensors at BIR, including groundwater stage sensors, eddy covariance, phenocams, soil moisture, and weather stations.

Duties will include a combination of the following:

- Install, maintain and operate field instrumentation for water level and quality monitoring including sample collection, maintenance of electronic equipment, troubleshooting, downloading data, storage and analysis and management of records and documentation related to sample data.
- Manage and analyze data on hydrologic conditions, water chemistry and other environmental variables.
- Ensure access and effective distribution of data via www and ftp site for all parties.
- Provide regular feedback to, and facilitate interactions among, ranch landowners and land managers, scientists from academia, local, State and Federal agencies.

- Provide technical assistance to participating landowners as needed and troubleshoot all aspects of project implementation and data collection.
- Help organize project outreach and education efforts, including 1-2 field days per year.
- Manage quarterly and annual reports (e.g. reports to funding agencies, individual ranch reports, and annual reports).

Qualifications

- Bachelor's or Master's degree (preferred) in environmental science or engineering, hydrology, agricultural engineering or related field.
- Preferred experience with water sampling and hydrologic instrumentation, including automatic water samplers, groundwater wells, and dataloggers.
- Practical experience with computer software and databases used in scientific applications for data management and analysis for large data sets.
- Knowledge of Campbell Scientific dataloggers, sensors, and coding language a plus
- Knowledge of agricultural practices and operations and maintenance of surface water management systems.
- Willingness to live in a rural location and be capable of strenuous fieldwork under hot, humid subtropical conditions.
- Excellent oral communication and technical writing skills.
- Ability to work and communicate with diverse constituents including ranchers, technical experts and the public.

Other Desired Qualifications

- Familiarity with south Florida environments and operations. Knowledge of cattle, citrus or sod production, preferably with experience related to the Okeechobee Basin.
- Familiarity with wetlands and habitat assessment methods.
- Experience with construction and operations of water management practices.
- Experience working with governmental agencies (SFWMD, CORPS, FDEP, Okeechobee County, FDACS, NRCS, etc.).
- Highly motivated and enthusiastic about living and working in a rural field-station setting. A valid driver's license and own transportation for personal activities is required.
- Respectful of others
- Ability to work in a collaborative, interdisciplinary team
- Good communication skills, written and verbal communication
- Detail-oriented with respect to following sampling protocols and managing data.
- Must have authorization for US employment.

Compensation

SALARY: \$38,000 - \$45,000 (depending on experience) per annum, benefits include:

- **Paid vacation, sick leave, and holidays**
- **Health, dental, vision, life and long-term disability insurance effective immediately**
- **Retirement plan effective immediately with matching employer contributions after one year**

How to apply?

- Applicants should submit a cover letter detailing their relevant background and experiences, a CV, and names and contact information for three professional references to eboughton@archbold-station.org. Review of applications will begin immediately and continue until the position is filled. Please contact Betsey Boughton (eboughton@archbold-station.org) with any questions.
- Deadline to apply is **Dec 1, 2023**, for a desired starting date in **January/Feb 2024**.

Questions about the program

Please refer to Archbold Biological Station website for more details on our program:

<https://www.archbold-station.org>. (see our two documentaries https://www.youtube.com/watch?v=y6_WhY3aZB0, https://www.youtube.com/watch?v=rGV_G6dnYHg).

If you have additional questions regarding the program, please contact Betsey Boughton (eboughton@archbold-station.org).

Archbold Expeditions is committed to integrating diversity, equity, and inclusion principles into our organization. Archbold does not discriminate on the basis of race, gender identity, sex, sexual orientation, marital status, age, ability, ethnicity, political ideology, religion, national origin, and all other classifications protected by federal, state, or local law.

Archbold Expeditions is an equal opportunity employer and encourages applications from members of underrepresented groups

Please fill out [this anonymous survey](#) to contribute to our applicant database. Your responses will *not* be associated with your application or shared with hiring managers

-
<https://docs.google.com/forms/d/e/1FAIpQLScFZE7lfwmFAqxVPujpC8HdeDH-5w2ZsUo2RBSawJ1J34G1pA/viewform>