

Natural Resource Research & Management

Position Title Geospatial Analyst or Post-doctoral Research Associate

Area of Specialization Forest Landscape Ecology and Conservation

# Background

The Jones Center at Ichauway is recruiting a full-time Geospatial Analyst or Post-doctoral Research Associate to work towards research and development to improve conservation efforts in the region. The incumbent will integrate remote sensing technologies, data science techniques, and field experiments, and work closely with conservation agencies and research partners to improve conservation outcomes. The incumbent will work collaboratively with <u>Dr. Jeffery Cannon</u>, staff of the <u>Landscape Ecology Lab</u>, other research partners, and conservation agencies. The position is funded for two years, with additional support possible for a third year based on performance and funding availability.

Longleaf pine forests are considered a critically endangered ecosystem that have been reduced to a fraction of their historic range. Conservation efforts are planned for <u>over 4 million acres</u> of southeastern land to restore this important ecosystem that is considered a biodiversity hotspot. Spatial technologies such as GIS, satellite imagery, and <u>LiDAR</u> offer ways to increase the pace, scale, and quality of restoration by supporting broad-scale planning, monitoring, and analysis, and improving restoration practices.

## Essential duties and responsibilities

The incumbent will conduct research and analysis to support improved research outcomes in the region. Specifically, the selected candidate will:

- (1) Lead research efforts on ecological forestry research using forest stand mapping and tree marking using terrestrial LiDAR;
- (2) Develop GIS and remote sensing workflows to be used by partnering agencies that process existing spatial data to inform selection of conservation easements, using R Shiny, Google Earth Engine, Python, or similar tools; and
- (3) Assist with coordination of research personnel and contribute to other research and outreach activities of the lab.

### **Minimum qualifications**

M.S. degree in forestry, geography, ecology, computer science, environmental engineering, or related field with significant experience in spatial data science related to conservation will be considered at the level of Geospatial Analyst. For consideration at the level of Postdoctoral Research Associate, A PhD is required. PhD candidates with all but dissertation (ABD) completed will be considered. Candidate should be highly motivated and able to work collaboratively and independently. The successful candidate should have demonstratable quantitative skills in two or more of the following: statistical analyses, vegetation surveys, silviculture, conservation easements, remote sensing, geospatial analysis, and scientific writing and communication. Valid state driver's license required.

### **Preferred qualifications**

Experience processing large remote sensing, inventory, and geospatial datasets using R, Google Earth Engine, C++, and/or Python is preferred. The candidate should have experience designing and

implementing field and laboratory experiments, as evidenced by publications in peer-reviewed outlets and have familiarity with conventions for analyses and methodologies in remote sensing. Highly qualified candidates will also possess a strong understanding of forest ecology of southeastern ecosystems, conservation easements and policy.

Salary \$50,000 — \$60,000 commensurate with experience

Work Location The Jones Center at Ichauway, 3988 Jones Center Dr., Newton, GA, 39870

## Working Conditions and Physical Effort

Work will be primarily analytical and include routine office work, but some outdoor fieldwork will be required. Ability to complete occasional fieldwork in inclement weather under strenuous conditions in a southern climate, including occasional long hours for field campaigns may be necessary. Occasional travel to regional or national conferences for up to one week may be required.

- **Instructions** Applications should include a letter of interest including education and experience and a current CV. Applications should be emailed directly to jobs@jonesctr.org AND Dr. Jeffery Cannon (jeffery.cannon@jonesctr.org) subject "Landscape Ecology Geospatial Analyst/Post-doctoral Application".
- Contact Jeffery B Cannon Landscape Ecologist Jeffery.cannon@jonesctr.org 292-734-4706

**Deadline** September 15, 2023. Applications will be reviewed upon receipt until the position is filled.

Position Start date January 2024 (negotiable)

### About the Jones Center at Ichauway and Landscape Ecology Lab

The Jones Center at Ichauway is a 29,000 acre research center located in Newton, Georgia. Our research, education, and conservation programs focus on ecology and management of southeastern ecosystems, and our premises include 16,000 acres of longleaf pine forests, 1000 acres of wetlands, and 26 miles of stream and river ecosystems. The research program is home to long-term studies in forest, wildlife, and stream ecology. Much of the site has been managed continuously with prescribed fire since the 1920s offering an ideal setting for ecological and conservation research. The Center employes nearly 100 full-time staff, houses eight research labs, hosts over 35 graduate students and post-doctoral fellows from top regional universities. Further information can be found on the web site at <a href="http://www.jonesctr.org/">http://www.jonesctr.org/</a>

The Landscape Ecology Lab, led by Dr. Jeffery Cannon works to advance the science and practice of landscape ecology to inform the conservation and management of ecosystems in the Southeastern U.S. and beyond. We (1) conduct innovative, interdisciplinary research that addresses pressing conservation challenges; (2) design practical, evidence-based solutions that integrate ecology, community, and policy; and (3) foster the development of skilled experts and leaders who drive positive change in conservation.

The Jones Center at Ichauway aspires to fully embrace equity, diversity, and inclusion. We reject all forms of racism including overt and systemic, prejudice, discrimination or hate toward any race, ethnicity, culture, age, gender, sexual orientation, gender identity, ability, national origin, veteran status, socioeconomic class, religion, or professional status. The Jones Center at Ichauway is an equal opportunity/affirmative action e-verify employer.