

Carbon storage and fluxes in wetlandscapes

Postdoctoral Associate, University of Florida. We are seeking scholars to explain the controls on carbon storage and fluxes in wetlands at landscape scales. You will lead data synthesis and modeling for a recently funded US Department of Energy project that seeks answers to foundational questions about the dynamic role of wetlands as hot spots for global carbon cycling. The project is a model-experiment synthesis coupling in-situ experiments with dense field observations and modeling. You will examine how landscape heterogeneity couples with time-varying wetland water levels to result in dynamic and heterogeneous carbon cycling.

You will work closely with two lab groups at UF (Landscape Hydrology and Ecohydrology) as well as the Virginia Tech Forest Ecohydrology Lab. You should have background and interest at the intersection of hydrology, ecology, statistics, and data science. Grow and expand your skills in a project that collaborates across disciplines of hydrology, biology, and ecology.

You will synthesize field measurements using probabilistic models of wetlandscape hydrologic and biogeochemical behaviors to predict landscape processes in response to time-varying patterns of inundation. A key outcome is to better represent dynamic biogeochemical functions and their spatial coupling in models of land-surface dynamics and hydrological processes in low-relief wetlandscapes.

Desired expertise of the successful candidate includes

- PhD degree in hydrology, aquatic ecology/environmental science, geoscience, or civil/environmental engineering
- expertise in aquatic ecosystems and/or carbon cycling
- experience curating, analyzing, and interpreting large datasets
- demonstrated ability to write and publish research results
- knowledge in scripting languages such as R, Python, or Matlab
- experience in spatial data analysis with geographic information systems (GIS) is beneficial
- excellent written and oral communication skills in English

The position will be located at the University of Florida in Gainesville, FL. The position is for one year, with renewal yearly for the 3-year project duration depending on performance and funding. The position is available to start as early as Spring 2024.

Applications will be accepted until 15 February 2024.

Direct inquiries to Professor James Jawitz, jawitz@ufl.edu.

Apply online at <http://www.landscapehydrology.org/apply>