



NATURAL RESOURCES AND
THE ENVIRONMENT

University of Connecticut

Position Description: The UConn NRE Ecohydrology lab (<http://www.jamesknightonhydrology.com/>) is recruiting one full time Master's student with an anticipated start date of **September 1, 2022**. The position is funded to carry out research on forest transpiration and soil responses to Emerald Ash Borer infestations in the UConn Forest.

Overview: The graduate student will work in the Ecohydrology Lab under the supervision of Assistant Professor James Knighton. You will be joining an ongoing research project in the UConn forest to understand how salvage cutting of Ash trees (as a means of controlling EAB) influences the local and regional hydrologic cycle. We will be tracing water through soils and tree xylem via stable isotopes in water and using these data to build and calibrate ecohydrological models.

The project will involve summer fieldwork including coring trees and soils, tree surveys, groundwater monitoring, and maintenance of a weather station. Project lab work includes cryogenic extraction of collected soil and plant samples and water isotopic analysis. These data will then be used to calibrate Ech2O-iso, a fully distributed ecohydrological model to simulate the hydrologic cycle and forest growth. The field/lab/modeling breakdown for the project is approximately 30/30/40.

Requirements:

- BA/BS degree in hydrology, environmental science, agricultural engineering, civil engineering, environmental engineering, geography, or a related field.

Preferred qualifications:

- Prior coursework on hydrology and environmental science
- Experience with R, Matlab, or Python.

To Apply: Please submit the following to james.knighton@uconn.edu. Applications will be reviewed as they are received. The last day to apply is **April 1, 2022**; however, a qualified applicant may be hired before this date.

- Statement of research interests (no more than 1 page)
- A complete Curriculum Vitae or Resume
- Contact information for two professional/academic references (name, phone, email)