# F26.04 Importance of Wetlands to Biodiversity on the Colorado Plateau

#### Overview

Our lab has two potential projects working on wetlands. One is investigating the impact of fire and fire-retardants on invertebrate diversity in local wetlands; the other project is to reintroduce a critically endangered amphibian to wetlands in the Chuska Mountains on the Navajo Nation. Both will involve assessing biodiversity in the regions of study and determining water quality parameters that influence diversity.

### What the student will DO and LEARN

Undergraduates will learn about the importance of water resources and quality to support wildlife. They will work specifically in the field with the PI and Graduate students to learn field collection and survey techniques including water quality analysis, aquatic invertebrate and vertebrate identification through multiple laboratory and field processes. The specific techniques include aquatic invertebrate sampling and laboratory-based identification, field visual and auditory encounter surveys, and identifying auditory information using state-of-the-art programs to identify species. Students will participate in data entry and analysis, graphic representation of results and presentation of a poster at the annual Undergraduate Research Day in 2026.

### **Additional benefits**

Undergraduates will learn about the importance of water resources and quality to support wildlife. They will work specifically in the field with the PI and Graduate students to learn field collection and survey techniques including water quality analysis, aquatic invertebrate and vertebrate identification through multiple laboratory and field processes. The specific techniques include aquatic invertebrate sampling and laboratory-based identification, field visual and auditory encounter surveys, and identifying auditory information using state-of-the-art programs to identify species. Students will participate in data entry and analysis, graphic representation of results and presentation of a poster at the annual Undergraduate Research Day in 2026.

# **Additional qualifications**

Strong observational skills/attention to detail.

# Time commitment

6 hrs/week for 30 weeks