PROJECT TITLE: BAT FORAGING ECOLOGY IN THE SAN JUAN RIVER

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Discipline: Ecology; Wildlife Biology;

PROJECT DESCRIPTION

BACKGROUND

The San Juan River is a large tributary to the Colorado River. Its headwaters are in the San Juan Mountains of Colorado and it terminates in Lake Powell, which is formed by Glen Canyon Dam. The San Juan River is in a remote part of the southwest and provides critical habitat for desert wildlife. Bats are common throughout the river corridor, but are poorly documented. Since 2014, USGS has collaborated with NPS and Grand Canyon Youth to record bats along the lower San Juan River in Utah. This sampling has been paired with collection of emergent aquatic insects, an important prey item for river foraging bats. Bat sampling efforts are described here: https://www.nps.gov/articles/000/citizen-based-acoustic-bat-monitoring-along-the-colorado-and-san-juan-rivers.htm

INTERN TASKS

The primary task that this intern will complete is processing and managing acoustic call data collected on the San Juan River between 2014-2020. The intern may also assist in sorting samples of aquatic insects collected on the San Juan River. This work will require excellent attention to detail. With interest, there will most likely be an opportunity to visit the field site and descend the San Juan River on one or two rafting expeditions. However, the majority of this internship will be lab/computer based.

BENEFITS TO INTERN

Through this internship, the student will be trained and mentored in the processing of acoustic bat call data and the identification of adult aquatic insects. With interest, the student will also have opportunities to learn data analysis skills and learn/expand on programming skills using R. There will also be opportunities for 3-14 days of field work on the San Juan River and possibly in Glen Canyon. Our lab is in need of people who are skilled at processing samples of aquatic insects and interested in occasional field work, so there is potential to expand this summer internship into a 4 year term.

MENTORING PLAN

The intern will meet with their supervisor weekly to discuss progress in data/sample processing and analysis and set incremental internship work goals as well as personal career goals. The intern will be working in a laboratory with co-workers and a lab supervisor available at all times. Some of this work may be completed remotely, in which case supervisory meetings will be conducted online.
ADDITIONAL DETAILS

STUDENT SKILLS AND INTERESTS

The ideal candidate is open to spending a lot of time processing data at a computer or samples at a microscope, but is also interested in helping with field data collection on an as-needed basis. Experience, and even interest, in data analysis and using R would be beneficial.

LOCATION: Flagstaff, AZ

ACTIVITY LEVEL:

Level 8-2: The work requires some physical exertion such as long periods of standing, walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; or recurring lifting of moderately heavy items. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

FIELD WORK remotely 0-25% VIRTUAL? Some of this work may be completed
LAB WORK 25-50%
OFFICE WORK 50-75%
OTHER 0-25%

PROJECTED START DATE 6/1/2022
EXPECTED DURATION 2 months