BIOLOGICAL SCIENCES
COLLEGE OF ARTS AND SCIENCES

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: 03/01/2021

PROJECT TITLE: Establishing Conservation Priorities and Baselined for East African Grassland Amphibians

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Project Description

Tropical amphibians are of crucial conservation priority as we know that populations are declining globally and species are going extinct. However, in the tropics, biological diversity in amphibians is so high that scientists are still discovering species at a record rate and many crucial ecological and spatial pieces of information necessary for conserving these species are incomplete or completely missing. In addition, many rare species first identified decades ago have not been encountered since, and their conservation fate (extinct or simply rarely encountered) is difficult to assess. In this project, we will assess the current biodiversity and potential conservation-impacting changes in East African amphibians from an often-overlooked biome â€“ African montane grasslands. When conservation priorities are considered in Africa, much conservation effort is spent protecting forests and the species endemic to those habitats. In Tanzania and much of East Africa, those forests are largely only found on mountains. However, another biome, montane African grasslands, also have endemic species yet are rarely assessed because loss of grasses is harder to track than loss of forest cover.

In this project, we will focus on conservation implications of African habitat loss on amphibians endemic to the montane grasslands in Tanzania. We will incorporate spatial analyses (GIS), literature searches of biodiversity surveys over the past 40 years, and write a paper on the conservation implications of habitat loss in this ecosystem. This project is the result of a National Geographic funded expedition which focused on the loss of a once-extensive grassland with only a few refugia remaining and in critical need of focused analysis. Students interested in Conservation, Sustainability, Geography, Biodiversity, and African ecosystems would be particularly suited to this project.