

Teaching Ecology with Extended, Student-Led Research Studies Using Publicly Available Camera Trap Data Collected in Tanzania, Africa

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This multi-week lab was designed to increase student engagement and understanding of ecological principles by using actual data collected in the Serengeti National Park. In addition, it connects them with real research being done in the department. It begins with students classifying camera trap images. They are then given selected data sets and are asked to answer manageable research questions (about biodiversity, habitat use, and animal behavior) and share their results with the class. Groups are let loose to query the full database and develop their own research questions. They also have access to the metadata (weather, habitat, distance from water, etc.) from the 200+ sites where the traps are located. They continue to work, sharing and collaborating with the class continually, during the next 2 weeks. Their final product is presented to the class in a symposium-style meeting. Projects included studies which examined biodiversity, predator-prey relationships, the effects of human interactions on wildlife, habitat use, and other species interactions. The students not only became enthusiastic experts on their own topic, they shared this knowledge with others in the classroom. This workshop will review the curriculum and database used, discuss the class outcomes, and brainstorm other possible ideas for the lab.

Keywords: camera trap data, biodiversity, habitats, animal behavior, Serengeti National Park

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