RESEARCH OPPORTUNITY PROGRAM
299Y/399Y PROJECT DESCRIPTIONS 2019-2020
FALL/WINTER

Name and Title: Shelby Riskin, Assistant Professor, Teaching Stream
Department: Ecology and Evolutionary Biology

TITLE OF RESEARCH PROJECT: Citizen Science and Conservation: Data Quality and Learning Outcomes

Number of 299Y Spots: 2 Number of 399Y Spots: 1

OBJECTIVES AND METHODOLOGY:
The Riskin lab investigates the effects of global change on ecosystems and the way scientists teach and communicate these and related issues like climate change and conservation of threatened species and ecosystems. As part of this work we are establishing and evaluating citizen science projects, evaluating citizen science data quality, and investigating the effectiveness of various forms of conservation content on learners in the public and in University classrooms. Students will be involved in one of three aspects of this work: (1) Using a large citizen science database and field data collected by trained scientists to compare data quality and evaluate results for the effects of global change on migrating birds; (2) Developing the details of a new citizen science program on bats and designing and conducting surveys to assess learning outcomes for participants, and (3) Developing and evaluating classroom surveys to assess how effective different presentations of conservation biology content are both for engaging students and for learning retention.

DESCRIPTION OF STUDENT PARTICIPATION:
Each student will be able to choose an area of focus among the three projects described above. Students will collaborate with the PI and others to develop their specific project plan. With PI supervision, students will be involved in designing and executing their own analyses. Students will be expected to attend weekly lab meetings, which will include reading primary literature and presenting work to the group. Students will be expected to present a poster at the ROP poster fair and submit a final report of their work.

MARKING SCHEME (assignments with weight and due date):
Project Proposal, October 4th 2019, 15%
Participation in weekly lab meetings, Ongoing, 15%
Full completion of the work, Ongoing, 25%
Poster for the ROP poster forum, March 2020, 15%
Final Report, April 3rd 2020, 30%