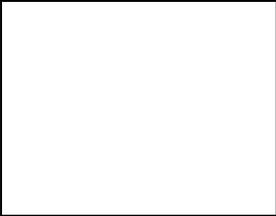




2021 Cooperative Summer Internship Program

USGS Project Scientist	Mike Duniway, Erika Geiger
Project start date	5/9/2021
Duration	7 pp
Location	Moab, UT
Type of Intern	ESA
Title of Project	Assessing impacts of aridification, drought, and land-use on drylands of the Colorado Plateau
Background	The incumbent will have the opportunity to work on a number of ecological research projects, working closely with USGS scientists, local resource management staff (primarily BLM), and experienced technicians. This approach will expose the student to a variety of research approaches, methods employed, and types of ecological investigations pursued by USGS research scientists. In addition, the intern will be exposed to the type of management-relevant research critical to the USGS mission. Primarily, the intern will have an opportunity to work on include evaluating the effects of rainfall reduction on dryland communities (funded by USGS), impacts of oil and gas development on plants and soils (funded by BLM & USGS), and evaluating the environmental consequences of cattle grazing on soils.
Objectives	The broad objectives of these research projects is to address the science needs of DOI land and resource managers on the Colorado Plateau. Specific objectives will be to assist with the collections of high quality data on plants and soils, organization of those data, and some simple data summaries and analysis.
Intern Tasks	Proposed intern tasks include assisting with field ecological and soil measurements in an assortment of existing studies. Data collection techniques the students will gain experience with include measuring vascular plant cover and composition, collecting soil samples for nutrient and physical characterization, collecting plant physiological data, and downloading data loggers. Students will also assist with data entry and management.
Expected Results and Benefits to the Intern	Interns will work closely with SBSC post-doctoral scientists, research ecologists, and skilled biological technicians in all aspects of their internship. We will provide an orientation session that includes background on the larger scientific questions being addressed by the research projects as well as opportunities to attend presentations given by visiting scientists and resource managers. We will also work closely with interns to assure they obtain desired work experience to the degree achievable within the confines of the research projects and their abilities.
Skills and Interests of Candidates	Successful candidates need an interest in field ecology, including measurements of plant and soils, and in doing applied ecological research in support of land management agencies. Candidate also needs to be willing to work in remote locations, with



extended campaigns that entail camping and harsh conditions, and repetitive measurements that require crouching and bending over. Preferred skills include: Knowledge of processes, methods & procedures of biological science; knowledge of routine field data collection procedures; skill in operation, maintenance, and servicing of biological recording and measuring instruments; knowledge of procedures utilized in a biological lab.

Project Type

Field Work;Office Work;

Project Discipline

Ecology;Climate Science;