

2019 Cooperative Summer Field Training Program

● Project Title:	Waterbird Research on a Restoration Island in the Chesapeake Bay, Maryland
● Project Scientists:	Diann Prosser
● USGS Center:	Patuxent Wildlife Research Center
● Location:	USGS PWRC, Laurel, MD

Project Description:

Background Information:

The restoration of Poplar Island relies on utilizing clean dredge materials to recreate the once plentiful remote island habitat that is now nearly non-existent within the Chesapeake Bay. One critical component of this restoration project is monitoring the size and health of the island's wildlife populations, a task currently performed by the U.S. Fish and Wildlife Service and the USGS Patuxent Wildlife Research Center and U.S. Fish and Wildlife Service. An intern joining this team would work on a wide variety of tasks necessary to ensure the success of this restoration project. Such tasks would include estimating number of breeding pairs and nest success for waterbird species that utilize the island (egrets, ibis, and terns), estimating reproductive success using marked tern chicks, and exploring the use of cutting-edge technology such as drones and thermal sensing to improve detection of waterbird species. The information gathered from these tasks is then used to inform the management activities on the island, in which the intern would also have the opportunity to participate. This provides a unique experience for a student to engage directly in a first of its kind ecological restoration project and serve a meaningful role in ensuring its success through wildlife monitoring and management.

Objectives:

The objective of this project is to improve our understanding of the reproductive success of various waterbird populations on Poplar Island. While we pay specific attention to the state listed tern species that use this site for nesting, we also seek monitor the broader waterbird community in coordination with personnel from the U.S. Fish and Wildlife Service so that the required data can be available to help inform habitat management. This project also seeks to investigate new technologies which can be used for the study of nesting waterbird species in order to reduce the disturbance impacts of colony monitoring and other associated scientific research.

Intern Tasks:

The intern selected to join this team would be actively involved in every aspect of this project. While the actual tasks are too numerous to provide an exhaustive list primary tasks would include: colony surveys to

locate active tern nests, documenting the status of each nest multiple times per week, capturing and banding tern chicks, erecting avian exclusion devices in ongoing construction zones, conducting departure arrival surveys of an egret colony, and locating egret nests and chicks. While the intern would play a large role in each of these tasks, appropriate guidance would be available to ensure proper education and training occurs. Additionally, when not in the field, the selected intern would assist with data entry and data management, along with other tasks such as literature searches as needed.

Expected Outcomes:

It is expected that the nesting populations on Poplar Island will continue to increase in the coming breeding season requiring an even greater time commitment to collect all necessary data required for establishing estimates of colony productivity. Fortunately, since this project is part of a long-term effort, we can speak with reasonable certainty about the benefits we expect a selected intern to receive. A primary benefit from working in this position is the proficiency they will gain with multiple field methods such as marking and re-sighting wild birds and conducting reproductive surveys. These skills can serve as a cornerstone of a career in wildlife ecology as they are pervasive across species and disciplines. Additionally, previous interns hosted through other collaborations have often had the opportunity to collaborate on opportunistic research, some of which has resulted in the publication of peer reviewed manuscripts allowing the interns an opportunity to experience professional writing and the peer review process. While there are no guarantees that such an occasion will present itself in a given year, this is a highly productive lab that works to constantly identify research opportunities. Finally, this project places interns in a collaborative environment where they can experience what it takes to work successfully as part of an inter-agency team on a complex suite of issues. Not only does this provide important opportunities for professional growth, but it also provides real world exposure to the complicated logistics involved in multi-faceted projects.

Details for Matching:

Type of Project: Field Work, Office Work

Project Discipline: Ecology, Field Mapping, Wildlife Biology, Waterbirds

Project Start Date: Mon May 20 2019 00:00:00 GMT-0400 (EDT)

Project Duration: 12 weeks

Level of Physical Demand: 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.

GIS Training: ESA

Special Skills and Interests: The ideal candidate for this position would be eager to gain hands-on experience with the fieldwork required to successfully complete a biological study. While not required to be successful in this position, an interest in ornithology would be beneficial, as would experience with handling wild birds, identifying birds through the use of binoculars and scopes, and experience with Microsoft Excel. Interested candidates must be motivated and willing to work long hours in hot conditions with potential exposure to biting insects. Additionally, ability to work as part of a team is critical.

