



Citizen Science Monitoring Projects

10-20 Hour Service-Learning Opportunity

Project Description

Citizen science is a new form of civic engagement linking professional researchers with the local community. Students will be assisting with data input of several projects monitoring ecosystem health. The two project sites alternate between the Deering Estate and Virginia Key North Point. No formal scientific background required!

Deering Estate, 16701 SW 72nd Ave, Miami, FL 33157

The Deering Estate has four main ongoing projects. All collected data will be input into an internal database to establish long-term monitoring and help propose maintenance actions.

Bird Monitoring – The site is an Important Birding Area (IBA) home to numerous native and migratory species. Students accompany a guide as they observe and record bird species.

Trail Monitoring – Students assess trail conditions, and inventory location and surrounding vegetation to measure wear and tear of the trails, ensure they are compliant with county PROS standards, and help establish mitigation protocols for trails with heavy use.

Butterfly Monitoring – The Estate is home to many native and endemic butterfly species. Students accompany a guide throughout the grounds to observe and record butterfly species and their locations.

Soil and Water Testing – Deering is the only publicly accessible site of the Comprehensive Everglades Restoration Plan (CERP). Water Testing measures the salinity and pH of water at various points at the site. Soil Testing involves documenting the pH of the soil in the various types of ecosystems within the park to better understand the soil composition.

Citizen science workdays will be scheduled two weeks in advance, and occur once a month, depending on the students' hour requirements and availability.

VK North Point, Arthur Lamb Jr Rd, Miami, FL 33149

Every Second Saturday of the month, the Frost Science MUVE program has an ongoing restoration project in Virginia Key. The site has no official address, but is directly next to the Virginia Key Mountain Bike Trails at the end of Arthur Lamb Jr Road.

Naturalist Walk – Students walk the restoration site, looking for birds, butterflies, and other wildlife using the area as habitat; and then log these observations with iNaturalist, a smartphone app.

Tree Phenology – Students observe newly planted trees at the site, specifically measuring the diameter of the trunk (to assess growth) and whether the tree is losing leaves, has budding leaves, fruits, or flowers. The data then gets submitted to Project BudBurst, a national database of tree phenology.

Beach Cleanup & Debris Tracking – Students collect trash from the beach and log each item using Marine Debris Tracker, a free smartphone/tablet app. Back home, they can view the data from their collection in an Excel file and as a graphical map.

The event will involve picking up trash along the shoreline, and logging their findings into the app. After, participants will record phenological data using charts provided. They are also encouraged to upload pictures of wildlife they encounter onto iNaturalist.

<u>Date:</u>	<u>Location:</u>	<u>Activity:</u>	<u>Hours:</u>
January 14 th	Virginia Key NP	VKNP Saturday Workday	10:00AM-12:00PM (2 hrs)
Jan or Feb, TBA	Deering Estate	Butterfly/Bird Monitoring	2-3 hours
February 11 th	Virginia Key NP	VKNP Saturday Workday	10:00AM-12:00PM (2 hrs)
February, TBA	Deering Estate	Trail Monitoring	2-3 hours
March 11 th	Virginia Key NP	VKNP Saturday Workday	10:00AM-12:00PM (2 hrs)
March 17 th	Kendall Campus	Trash Cleanup on Campus	2-3 hours
April 8 th	Virginia Key NP	VKNP Saturday Workday	10:00AM-12:00PM (2 hrs)
April TBA	Deering Estate	Soil & Water Testing	2-3 hours

**All dates, times, and locations are subject to unforeseen changes.*