



Tropical Dry Forest Native Plant Restoration Buck Island Reef National Monument

10/01/2018

Tropical dry forests are among the most diverse and endangered ecosystems in the world. Unfortunately, over the last few centuries, most land areas in the U.S. Virgin Islands have been degraded through anthropogenic land use practices. Buck Island Reef NM is no exception. During this project, the park will build upon previous island-wide restoration including control of non-native invasive animals and plants.

Project: September 2018 NPS begins the next phase in the restoration of the 176-acre tropical dry forest. Project goals are (1) to increase native plant community diversity, resilience, structure, and function, by planting native 250 trees in key locations. These plants will improve island vegetation resilience to drought and wind storm, control erosion, improve soil condition, promote forest succession, and improve habitat for native wildlife especially the endangered St. Croix Ground Lizard (*Pholidoscelis polops*). Trees planted on the island will improve the lizard's preferred habitat and provide for continued success for the expanding population.

1. **Methodology:** NPS commissioned a study to determine what plants grew on Buck Island before logging, farming, goat grazing, and rats changed it; all of these actions dramatically changed the forest community. Dr. Mark Bush of Florida Institute of Technology took sediment cores from the salt pond on Buck Island and identified pollen from the cores. Dr. Brian Daley, Geographic Consultants reviewed this list and selected species native to the Virgin Islands but which are rare or missing from Buck Island. Tree species that support wildlife with fruit or nectar were preferred. Geographic Consulting collected seeds in wild forests on St. Croix which were grown in their south shore greenhouse. All the saplings survived hurricane Maria and are ready to plant out.
2. **Native Trees being reintroduced:** Some plants are common in the Virgin Islands and important to forest ecology but are absent from Buck Island today.
 - Autograph tree (*Clusea rosea*)
 - Bird cherry (*Eugenia monticola*)
 - Black olive (*Bucida buceras*)
 - Rodwood (*Eugenia biflora*)
 - Strangler fig (*Ficus citrifolia*)
 - Tyre palm (*Coccothrinax alta*)

Other plants such as maubi (*Calubrina arborescence*), fiddlewood (*Citharexylum fruticosum*), pink poui (*Tababoui heterophylla*), pink sage (*Lantana involucrata*) and others are being planted because they are well suited to particular sites and provide excellent habitat for wildlife.

3. **Project Duration:** Sept to December 2018, Native Plant out on Buck Island Reef NM
4. **Project Information/Contact:** Clayton Pollock, Biologist, NPS, 340-773-1460 x 238