



U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

Conservation Measures for Listed Plants in Puerto Rico and U.S. Virgin Islands

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect federally listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

As a pre-consultation requirement, use the Service's IPaC site <https://ipac.ecosphere.fws.gov/> to determine if listed plants are within the action area. Before initiating any work within the range of listed plant species and in areas with suitable habitat, applicants should conduct plant surveys to determine if species are present, before submitting the project for evaluation or consultation.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to all endangered and threatened listed plant species. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented in this document.

Conservation Measures *For all endangered and threatened plants*:

1. Where threatened and endangered plants are identified, flag individuals and avoid removal or cutting to the extent feasible. If the plants cannot be avoided, they should be salvaged and replanted as close to the impact area as possible. Before any replanting occurs, please coordinate with the USFWS Field Office at Office Direct Line: 786-244-0081 or via email at caribbean_es@fws.gov.
2. If space allows, leave a 5-foot buffer around individuals and/or clusters of plants.
3. For trees and palm trees, if space allows, leave a 15-foot buffer around the individual tree or groups.

4. When pruning, prune dead branches. If pruning live branches do not prune more than 10%. Please contact the USFWS Field Office if additional pruning is necessary for a listed plant species: Office Direct Line: 786-244-0081. Email: caribbean_es@fws.gov

Species specific conservation measures:

Harrisia portoricensis: This species is currently known from Mona, Monito, Caja de Muertos Islands, and from the Desecheo National Wildlife Refuge.

1. Please flag and avoid direct impact (destruction of the cactus).
2. Leave a 5-foot buffer around the plant.
3. Please maintain bio-security measures when entering any of these Islands.

Leptocereus grantianus: Natural populations for this species are restricted to the coastal forest of the Island of Culebra (including the Culebra National Wildlife Refuge).

1. Please flag and avoid direct impact (destruction of the cactus).
2. Leave a 5-foot buffer around the plant.
3. Please maintain bio-security measures when entering and leaving this Culebra National Wildlife Refuge areas.

Stahlia monosperma (Cobana negra): This tree occurs associated to coastal areas and river valleys/wetlands. Natural populations in Puerto Rico are extremely rare and considered as relics of a formerly widely distributed species.

1. Please flag and avoid direct impact (destruction of the tree).
2. Leave a 15-foot buffer around the plant if disturbing the ground.
3. Pruning should be limited to dead branches. If cutting or pruning live branches please coordinate with the Field Office (POC Jose G. Martinez Jose_martinez@fws.gov; 786-647-8694).

Chamaecrista glandulosa var. mirabilis: This small shrub is endemic to the north coast of Puerto Rico from the Tortuguero Lagoon east to the town of Dorado and occurs on silica sand soils.

1. Please flag and avoid direct impact (destruction).
2. Leave a 5-foot buffer around the scrub.