



Vernonia proctorii

Family: Asteraceae

Description: *Vernonia proctorii* is a small erect shrub, which can reach a height of 1.5 meters. The species belongs to the same family of the sunflower. *V. proctorii* has densely pubescent stems with silvery hairs arranged in single row or line and with a knobby appearance due to the persistent petiole bases. Its leaves are alternate, ovate to orbicular, subsessile or with the petioles appressed to the stem. The upper blade surface is green to olive-green and moderately set with stiff bristles of hair with scattered glistening globular trichomes (outgrowth as a hair from the epidermis of a plant). The lower surface is grayish-green, sometimes becoming rusty with age, and densely sericeous. The leaf margins are densely ciliate with silvery hairs. Flowers are born in terminal clusters of 2 to 5 heads and bright purple in color. Fruit is an achene with a tuft of silvery hairs (pappus) which assists its dispersal by the wind.

Distribution: The species is endemic to Sierra Bermeja, a range of hills located between the southwestern municipalities of Cabo Rojo and Lajas, Puerto Rico. These hills are the oldest geologic formation in Puerto Rico, and are recognized for their high plant endemism. The current range of *V. proctorii* is narrow, occupying less than 10 square kilometers centered on the upper slopes and summit areas at elevation above 200 meters in Sierra Bermeja. However, the species is more frequently found on the summit of Cerro Mariquita, on rocky outcrops and steep slopes.

Habitat: *V. proctorii* is found on the subtropical dry forest, the driest life zone in Puerto Rico. Through its range in Sierra Bermeja, *V. proctorii* co-exist in the same habitat with the endangered plants *Eugenia woodburyana*, *Lyonia truncata* var *proctorii*, *Aristida chaseae* and *A. portoricensis*.

Threats: *V. proctorii* is threatened by habitat destruction and modification. The species distribution also exacerbates its threats by landslides, agricultural practices and human-induced fires.

Conservation measures: *V. proctorii* was determined to be endangered on April 27, 1995, pursuant to the Endangered Species Act (ESA) of 1973, as amended. The ESA defines an endangered species as any species which is in danger of extinction throughout all or significant portion of its range. Such action requires agencies to consult with the U.S. Fish and Wildlife Service (Service) before carrying out any activity that may threaten the existence of this species or result in the modification or destruction of essential habitat.

The Service in collaboration with several partners has been successfully implementing recovery actions for *V. proctorii* aiming to control and reduce the current threats to the species. Some of these actions include habitat enhancement with native plant species on private lands, implementation of strategies to reduce current threats (e.g., firebreaks, removal of exotic grass, among others), assessments, and monitoring of natural populations. The Laguna Cartagena National Wildlife Refuge includes *V. proctorii* within its Comprehensive Conservation Plan where the objective is to restore and improve wildlife and plants within its terrain by reducing the occurrence of exotic species. The ultimate goal of such actions is prevent the further loss of individuals, conserve the habitat of the species so that it no longer needs the protection measures under the ESA.



Flower of *Vernonia proctorii*,
photo by Omar Monsegur/USFWS



Shrub of *Vernonia proctorii* at Sierra Bermeja in
southwest Puerto Rico, photo by Carlos Pacheco/
USFWS

References:

- Lange, J., J. Possley, and J. Maschinski. 2017. Developing propagation protocols and seed bank for Sierra Bermeja plants: *Aristida chaseae*, *Aristida portoricensis*, *Lyonia truncata* var. *proctorii* and *Vernonia proctorii*. Final Report under USFWS Cooperative Agreement #F14AC01201, to USFWS Field office and Puerto Rico Departamento de Recursos Naturales y Ambiente (DRNA Permit 2014-EPE-034).
- USFWS. 1993. Endangered and threatened wildlife and plants: Determination of endangered status for *Aristida chaseae*, *Lyonia truncata* var. *proctorii*, and *Vernonia proctorii*. Federal Register, 58(79):25755-25758.
- USFWS. 1995. *Aristida chaseae*, *Lyonia truncata* var. *proctorii*, and *Vernonia proctorii* Recovery Plan. U.S. Fish and Wildlife Service Atlanta, Georgia, 21 pp.
- USFWS. 2010. *Aristida chaseae*, *Aristida portoricensis*, *Lyonia truncata* var. *proctorii*, and *Vernonia proctorii*. 5 Year Review: Summary and Evaluation Recovery Plan. U.S. Fish and Wildlife Service, Atlanta, Georgia. 22 pp.
- USFWS. 2019. *Aristida chaseae*, *Aristida portoricensis*, *Lyonia truncata* var. *proctorii*, and *Vernonia proctorii*. 5 Year Review: Summary and Evaluation. 35pp.

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January 2021