

Species Action Plan



Mountain mahogany

Scientific name *Freziera undulata*

Key values Keystone species: unique to Elfin/cloud forest on Saba. Most northerly distribution and grows to greater height.

Distribution Native to Saba, Guadeloupe, Dominica, Martinique, St. Lucia, Grenada, Trinidad-Tobago.



Photo © Kai Wulf 2020

Mountain mahogany is considered vulnerable to local extinction. Hurricane Georges in 1998 ended the climax stage of the cloud forest. The mortality rate among *Freziera* trees was high and less than a dozen old trees survived. Hurricanes Irma and Maria in 2017 left few trees intact in pockets around the summit. Volcanic activity around vents may also have a detrimental effect on the population

Population status

Habitats Cloud forest

SPAW	IUCN Red List	CITES	CMS	Local legislation	Other
					Flagship: Saba
NONE	NONE	NONE	NONE	Saba	

Threats

Storms: Hurricanes	In 2017 Hurricanes Irma and Maria severely damaged the terrestrial environment on Saba. At higher elevations, 90% of sites surveyed were damaged. Some areas were hit by associated tornados. Remaining Mountain Mahogany trees were found in pockets on the summit of Mt. Scenery.
Climate change	Extreme weather events are predicted to increase in frequency and intensity. In 2017 Hurricane Irma had peak winds of 180 mph (285 km/h), maintaining peak intensity for 37 consecutive hours. Cloud cover is thought to be a key to the presence of cloud forest on the summit of Mt Scenery and is in large part what maintains the forest as a unique habitat. Global warming can be expected to have an impact on the frequency of cloud cover.
Volcanic activity	Saba's volcano is considered active and infrequent gas venting can be observed in the cloud forest with incidents as recent as March 2020. These events destroy vegetation in the immediate vicinity.

Management goals

<p>Storms: hurricanes</p> <ul style="list-style-type: none"> Work with the National government, island government and stakeholders on hurricane response and recovery including a focus on Mountain mahogany and 'First Aid' measures Mitigate the consequences of historical habitat loss and degradation through reforestation and restoration to improve habitat structure and plant diversity supporting Mountain Mahogany Maximally protect trees to decrease vulnerability and enhance reproduction
<p>Climate change</p> <ul style="list-style-type: none"> Actively manage Mount Scenery National Park and build capacity to evaluate status and change Increase awareness on the value of Mountain Mahogany and the cloud forest. Research biology, ecology and genetics and monitoring remaining population closely Build a clear picture of changing weather parameters

Species Action Plan



Recommendations

Management

- Actively manage Mount Scenery National Park with a focus on the cloud forest
- Minimize spread of invasive species within the cloud forest habitat
- Initiate restoration and reforestation activities focusing on Mountain mahogany and the cloud forest
- Support nurseries and similar to cultivating native plants for restoration, reforestation and rewilding
- Identify key locations for habitat restoration with Mountain Mahogany

Legislation

- Advocate for strict legal protection of Mountain Mahogany
- Support implementation of global zoning plans that are effective for Mountain Mahogany conservation

Science and monitoring

- *DCNA working group developing standardized monitoring protocols*
- Conduct population surveys of all Mountain mahogany trees (mature – sapling)
- Identify sites for potential restoration of Mountain mahogany
- Investigate propagation methods for optimal cultivation
- Investigate biology, ecology and genetics of Mountain mahogany
- Set up monitoring programme and actively monitor for change
- Monitor weather parameters (including cloud cover, light intensity, temp, rainfall and humidity)

Stakeholders

- Build community support for Mountain Mahogany conservation
- Increase awareness amongst stakeholder of the impact of threats

Networking

- Work collaboratively with NGOs on other islands [St Lucia](#), Guadeloupe, Dominica, Martinique, Grenada, Trinidad-Tobago.

Information - education

- Educate staff, volunteers and everyone involved in trail cleaning and maintenance to recognize and protect Mountain mahogany trees (all stages)
- Train 'first responders' to recognize and minimize damage to Mountain mahogany (all stages)
- Develop communication campaign to build support for Mountain Mahogany and native tree protection.
- Support education efforts to raise awareness of damage by hurricanes and the impacts of climate change that effect Mountain Mahogany.
- Develop a program to support local community members with interest in Mountain Mahogany

Gaps

- Population size, distribution and trends
- Life history and ecology
- Morphology data of remaining individuals

Species Action Plan

General information

<u>Description</u>	<ul style="list-style-type: none">• Mountain mahogany is a slow growing shrub like evergreen tree• Grows to a height of 15 metres (~50 feet), (canopy height in other cloud forests rarely exceeds 6 metres (~20 feet))• Diameter typically up to 30cm. Note: on Saba up to 1m diameter• Bark light brown• Glossy green leaves, simple, serrated• Small flowers are white to light pink (February – August; October – December)• Small fruit is dark with dark red seeds (February-March)• The branches of the trees are usually covered with mosses, liverworts, ferns, bromeliads and orchids.
--------------------	---