

Species Action Plan

Common Lignum Vitae



Scientific name *Guaiacum officinale*
Common names Wayaká, Pokhout
Key values Keystone species, very drought tolerant, medicinal use and (historically) timber



Photo: [Gerard van Buurt](#)

Distribution Caribbean, northern coasts of Venezuela and Columbia

Population status Unknown

Habitats Tropical lowland woodland, thickets, hills and plains often near the coast

SPAW	IUCN Red List	CITES	CMS	Local legislation	Other
					Flagship: Bonaire, Curacao
ANNEX III	Endangered	Appendix II	NONE	Bonaire	

Threats

Overgrazing	Overgrazing by free roaming feral goats, and extensive livestock farming practices. Grazers target young plants, which prevents natural regeneration and reduces ground cover, leading to erosion. Overgrazing encourages the establishment of trees and plants not favored by grazers further hampering the ability of native dry forest trees, like Lignum vitae, to re-establish.
Residential / commercial development	Land conversion: tourism, second homes and population growth demand land for development which leads high development pressure on remaining areas of dry forest.
Historical wood harvesting	The wood of the Lignum vitae is the second heaviest in the world. Historically it was extensively harvested for use in construction and medicines . This has left remnant populations of scattered trees.

Generic management goals

<p>Overgrazing</p> <ul style="list-style-type: none"> Work with government and stakeholders to address overgrazing and to encourage sustainable animal husbandry practices Protect remaining trees through active dry forest management
<p>Development</p> <ul style="list-style-type: none"> Work with government to reduce development pressure on areas of dry forest Ensure strong legal protection for Lignum vitae and other vulnerable dry forest trees Make landowners / developers aware of the presence of protected trees in areas under development Map and visibly tag Lignum vitae and other protected dry forest trees species Enforce appropriate fines, compensation and mitigation measures to protect dry forest trees Increased awareness of the value of Lignum vitae and other dry forest trees
<p>Historical harvesting</p> <ul style="list-style-type: none"> Mitigate the consequences of historical over harvesting and degradation through reforestation, restoration and 'rewilding' Support nurseries and native gardening initiatives reintroducing dry forest trees Identify and fully protect ancient Lignum vitae and relic dry forest communities

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Recommendations

Management

- Advocate for the protection and active management of dry forests
- Work with government to reduce development pressure on dry forests
- Identify and fully protect relic dry forest communities
- Determine criteria for 'ancient tree' status to protect ancient *Lignum vitae*
- Prevent grazing within dry forests
- Support initiatives to encourage sustainable (enclosed) animal husbandry
- Support nurseries, and similar, cultivating native plants which can provide high value trees for rural and urban restoration projects
- Encourage reforestation, restoration and 'rewilding' initiatives
- Identify key locations for habitat restoration with *Lignum vitae*
- Increase the non-consumptive economic value of *Lignum vitae* through the development of sustainable tourism involving local communities (such as hiking and birding opportunities)

Legislation

- Ensure adequate legal protection for *Lignum vitae* and other protected tree species, especially very rare dry forest species (for Curaçao: *Myrcia*, *Eugenia*, *Monilicarpa*, *Maytenus*, *Krugiodendron*)
- Ensure full protection of ancient trees
- Ensure appropriate fines preferably with fines accruing to a 'tree fund', or similar, which can be used to support native gardening and/or reforestation initiatives
- Include compensation for removal of protected tree species, e.g. requirement to replant 10 protected trees in an adjacent area for every tree damaged or removed or reforestation of an equivalent area
- Ensure mitigation measures are included in building permits and development plans, with mandatory site inspection and binding requirements to avoid damage/removal of protected species

Enforcement

- Monitor and enforce sanctions for damage and removal of protected tree species, including *Lignum vitae*
- Locate and (geo)tag protected tree species throughout areas slated for development
- Make landowners and developers aware of protected species (value and sanctions)
- Enforce CITES regulations and restrictions
- Collect trade information to generate a greater understanding of current use (if any)

Science and monitoring

- Conduct population surveys to locate and monitor the status of *Lignum vitae*
- Identify ancient trees and establish their age and status
- cultivation of the species across the world is promising to ensure the safety of remaining wild populations from extraction or as potential sources of material for reintroduction.

Stakeholders

- Build community support for the conservation of *Lignum vitae* and other flora
- Work with farmers (kunukeros) to encourage 'rewilding' and planting of native trees and plants in farmlands
- Work with local communities to encourage 'rewilding' of urban areas and gardens
- Increase awareness amongst stakeholder of the impact of habitat degradation and other threats
- Build capacity in local government, police and customs to improve enforcement of existing legislation (training, outreach material).

Networking

- Work collaboratively with regional networks and other parks throughout the region

Information - education

- Develop communication campaign to build support for dry forest and native tree protection.
- Support education efforts to raise awareness of habitat degradation and its ecological impacts
- Develop a program to support local community interest in *Lignum vitae* and other species

Gaps

- Population size, distribution and trends
- Life history and ecology
- Direct and indirect effects of climate change
- Harvest, use and socio-economic value

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General information

Description

- Small, slow growing tree which is very drought tolerant
- Considered evergreen
- Compound leaves, 2.5 to 3 cm in length, and 2 cm wide.
- Flowers have 5 petals and are 2.5 cm across, bluish purple, fading to white.
- Bright yellow-orange heart-shaped fruit with red flesh and black seeds.
- Flowering: March-October.

- Before the advent of polymers and composites, the wood of *Guaiacum officinale*, was extremely important due to its combination of strength, toughness and density. The common name, *Lignum vitae* ('tree of life' or 'wood of life'), comes from the historic medicinal use of its resin as a remedy for conditions from arthritis to coughs and syphilis.