

ENDEMIC TREES

Bermuda Cedar

Bermuda Olivewood

Bermuda Palmetto

Bermuda's National Tree



Mark Outerbridge

SPECIES PROFILE

Scientific name:
Juniperus bermudiana

Local name: Cedar tree

Global status: Threatened (IUCN Red List of Threatened Species)

Global distribution: Only found in Bermuda.

Status in Bermuda: Endemic

Distribution in Bermuda: Patchy distribution island wide.



Mark Outerbridge and Martin Thomas

SPECIES PROFILE

Scientific name:
Elaeodendron lananum

Local names: Olivewood, Olivebark

Global status: Threatened (IUCN Red List of Threatened Species)

Global distribution: Only found in Bermuda.

Status in Bermuda: Endemic

Distribution in Bermuda: Patchy distribution island wide. Remaining natural range mainly in the Walsingham Nature Reserve, however this species is increasingly planted as a garden ornamental.



Mark Outerbridge

SPECIES PROFILE

Scientific name:
Sabal bermudiana

Local name: Palmetto

Global status: Threatened (IUCN Red List of Threatened Species)

Global distribution: Only found in Bermuda.

Status in Bermuda: Endemic

Distribution in Bermuda: Patchy distribution island wide. Locally common in undisturbed peat marsh habitat.

Conservation importance of endemic trees: Provide nesting sites and food for birds, as well as having an aesthetic, historical and cultural importance for Bermudians.

Habitat: Predominantly upland hillsides and upland valleys, however these species can grow almost anywhere. Groves of very old palmettos have been found growing in peat marshes.

Threats: Loss of suitable habitat to development and competition from invasive species.

NATIVE TREES

Forestiera

Southern Hackberry

Yellow Wood



SPECIES PROFILE

Scientific name:
Forestiera segregata

Local name: Forestiera

Global status: Uncommon but not rare.

Global distribution: Florida, Georgia South Carolina, northern West Indies.

Status in Bermuda: Native and endangered.

Distribution in Bermuda: Isolated stands on upland hillsides and offshore islands.

SPECIES PROFILE

Scientific name:
Celtis laevigata

Local name: Hackberry

Global status: Threatened (IUCN Red List of Threatened Species)

Global distribution: Native to Southeastern US.

Status in Bermuda: Native and critically endangered.

Distribution in Bermuda: Isolated stands on upland hillsides. This species is now being used in native reforestation projects.

SPECIES PROFILE

Scientific name:
Zanthoxylum flavum

Local name: Yellow wood

Global status: Threatened (IUCN Red List of Threatened Species)

Global distribution: Native and critically endangered in Florida; scattered throughout the Caribbean, especially the Bahamas.

Status in Bermuda: Native and critically endangered.

Distribution in Bermuda: Two isolated stands on Paynters Hill and in the Walsingham area.

Conservation importance of native trees: Provide nesting sites and food for birds, as well as having an aesthetic, historical and cultural importance for Bermudians.

Habitat: Predominantly upland hillsides and upland valleys, however these species can grow almost anywhere where there is shelter from the wind.

Threats: Loss of suitable habitat to development and competition from invasive species.

OVERALL TARGETS

Short term (5 years): Increase propagation efforts, both publicly and privately, so that greater numbers of endemics and natives are available for planting.

Long term (30 years): Select key sites and implement a woodland management scheme for each species that will ultimately restore these trees so that they are distributed island wide and become the dominant tree species.

BACKGROUND INFORMATION ON SPECIES & LIFE HISTORIES

The endemic and native trees are sturdy and therefore naturally resistant to storm damage. However, they are slow growing which makes them vulnerable to displacement by faster growing invasive species.

Bermuda cedar was the Island's most common tree until the cedar scale insect was accidentally introduced in the 1940s and destroyed approximately 95% of the Bermuda cedars. Fortunately, some trees were resistant to the insect and were subsequently propagated enabling the Bermuda cedar to persist today. Cedars are important to many birds, in particular the eastern bluebird, as nesting sites while the berries are a food source. Historically, cedar berries were used to make alcoholic beverages and the trees were an important source of timber for houses, furniture and ship building. At present mature cedar trees have a very patchy distribution in Bermuda, however young trees continue to be planted island wide. Cedars can grow to approximately forty feet in height, are either male or female, and flower in March and April. The female trees produce small berries which ripen to a deep blue-purple between October and December.

Bermuda olivewoods were once uncommon and localized in the Walsingham and Paynter's Vale area, but now are planted in gardens throughout Bermuda. Traditionally, olivewood bark was used during the tanning process when curing leather. This bushy, broadleaf species can grow to twenty five feet. They have small green flowers in the spring and produce a yellow fruit.

Bermuda palmettos are wide spread across the Island but common only in certain locations. It is easy to confuse the Bermuda palmetto with the introduced and invasive, Chinese fan palm which grows in the same habitat. Palmettos can be distinguished by the lack of spines along the leaf stalk, round, black berries (versus green oval shaped berries) and the obvious 'V' shape where the leaf blade meets the stalk. Historically, palmettos have been used for making woven and thatched products such as roof tops, baskets, ropes and hats. Mature trees flower during summer months and the round fruit turn black and ripen in the autumn.

Forestiera formed part of the understorey of the old cedar and palmetto forests. This species only grows to ten to fifteen feet in height, has small greenish-yellow flowers during the autumn and winter months, and bears fruit throughout the spring and early summer. It typically has quite dense foliage which it loses during the cooler winter months.

Southern hackberry and **yellow wood** were historically scattered across Bermuda, growing in clumps among the cedars and palmettos on sheltered slopes and valleys. Hackberry can grow to forty feet in height and has small green flowers in the spring and small orange-red fruit that ripen to dark purple in the autumn. It is now found growing in patchy clumps in Southampton, Smith's and Hamilton parishes only, but seedlings are increasingly being planted in parks and nature reserves. Yellow woods grow to thirty feet in sheltered areas and were almost eradicated by the early settlers because the wood was valued for furniture making. They have scented yellow blossoms in the autumn and produce green berries, which split to reveal shiny black seeds, from May to June. Replanting efforts in nature reserves and private gardens is limited due to the difficulty in propagating this species and their extremely slow growth.

Existing Measures for Conservation

Nursery propagation and planting, by public and private landowners, is ongoing. Planning laws protect trees occurring in areas zoned as woodland reserve and via Tree Preservation Orders. Parks regulations also protect trees in national parks and nature reserves.

Recommended Actions

Legislation and Policy: If necessary introduce policies to ensure that these species are protected.

Activity	Priority	Action Taken
Examine and review the Development and Planning Act (1974) to consider its effectiveness at protecting trees and to widen the scope of protection.	A	
Examine the potential for tracking cedar at mill yards to ensure that the lumber has been harvested legitimately.	B	

Habitat Protection: Promote the protection of key habitats.

Ensure there are sufficient resources and funding to effectively enforce environmental laws.	A	
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Direct Species Intervention: Implement additional measures to aid in the conservation of endemic and native trees.

Increase the participation of agencies involved with the cultivation and propagation of native and endemic trees.	A	✓
Identify new sites that are suitable for planting endemic and native trees.	A	✓
Implement an eradication programme for invasive trees where they have been identified as encroaching upon endemics.	A	
Create two new full time positions within the Parks Department to focus exclusively on the propagation of native and endemic trees.	A	
Encourage the private sector to establish nurseries to provide mature trees for large development projects.	B	

Research and Monitoring: Promote research and monitoring programmes for endemic and native trees.

Assess the impact of invasive species on endemics.	A	
Increase the numbers of conservation crews thus enabling them to effectively manage and/or restore key habitats and nature reserves to pre-colonial states.	A	
Ensure there are sufficient resources available to monitor existing planting schemes and their success rates.	B	

Communications and Publicity: Promote ongoing public awareness of the threats to and conservation of endemic and native trees.

Maintain existing publicity and levels of public awareness regarding endemic trees.	B	
Increase publicity and levels of public awareness regarding native trees.	B	

Plan Monitoring: Develop and implement a monitoring plan to assess the success of the species action plan.

Provide an annual report to the Department of Conservation Services on the progress of the species action plan.	A	
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Principle contact: Terrestrial Conservation Officer (Department of Conservation Services)