

# Wild Bermuda Bean

*Phaseolus lignosus*

Bermuda Protected Species



GOVERNMENT OF BERMUDA

Department of Environment & Natural Resources



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## Current Status

**Endemic**

**BPSA:** Level 3

**CITES:** No

**Bda Red List:** CR

**CMS:** No

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## Ecology

### Identification

Wild Bermuda Bean is a rare endemic vine in the pea family. It is a perennial climbing vine whose stems reach about a quarter inch (0.6 cm) thick and can grow to 20 feet (6m) long. It has compound leaves made up of three leaflets which each reach up to 4 inches (10 cm) long. The leaflets have prominent veins, a pointed tip and rounded base. The two leaflets nearest the vine are held on short stalks and the two sides of the leaflet are not equal (i.e. if the leaflet was folded along the central vein, the two halves would appear different). The third leaflet, the one at the tip of the compound leaf, is held on a longer stalk and it is symmetrical on both sides of the central vein. The leaves are held away from the vine on fairly long petioles (1- 3.5 inches in length).

### Range

Unique to Bermuda.

### Habitat

In 1918 Britton described the habitat of Bermuda Bean as “*Rocky woodlands between Castle Harbour and Harrington Sound.*” Today, this species is confined to restored woodlands in the Walsingham Nature Reserve, sheltered parts of Nonsuch Island and the Sear’s Cave Nature Reserve.

## Reproduction and Life Cycle

Bermuda Bean produces pink or purple pea-like flowers in spring. Occasionally plants produce white flowers. The flowers occur as a loosely grouped elongated cluster which is 3-5 inches (7.5 – 13 cm) long and held on a long stalk with short hairs on it. Flowers are followed by a 2 inch long, 1/2 inch wide pod, which is flat with pointed tips. Each pod contains 2 to 5 beans. Pods are green when they first appear, then dry to brown with papery texture. Bermuda Bean vines can be readily propagated from seed.

## Why protect this species?

Wild Bermuda Bean is so rare it has been listed as Critically Endangered under both the Protected Species Act and the international IUCN Red List of Threatened Species. Bermuda Bean is only found at about 6 locations on the island, with only a few plants in each place. This fragmented distribution, low population density and the disruption of its habitat (by development and invasive species) mean that Bermuda Bean faces extinction without active conservation.

Threats faced by this species include:

- Habitat loss and fragmentation
- Competition from invasive plants
- Lack of awareness leading to accidental destruction



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## What is being done to conserve it?

**Protected Species Act Listing:** Level 3, 2012

**IUCN Red List:** Critically Endangered [C2a(i); D ] version 3.1.

**Recovery Plan:** Wild Bermuda Bean is included in the 2009 Recovery Plan for eight species of flowering plants.

**Research:** distribution mapping and population assessment for this species has been undertaken in support of IUCN Red Listing and genetic barcoding is also underway.

**Habitat Protection:** Key habitats for this species are protected in existing nature reserves, and introduction to new sites is planned.

**Propagation:** Wild Bermuda Bean is being propagated from seed for sale to the public, and planting of this species for ornamental use, as well as part of habitat restoration projects is being promoted. It has been propagated with some success, so through careful cultivation it may be possible to reduce the risk of extinction faced by this endemic plant.

## Protective legislation

Protected Species Act (2003)

## What you can do?

**Plant:** purchase this endemic plant for your home garden or woodland restoration project.

**Learn:** understand how destruction of habitat leads to loss of endangered and threatened species and Bermuda's plant and animal diversity. Tell others what you have learned.

**Join a conservation group:** such as the Bermuda National Trust, or the Bermuda Audubon Society to protect habitats.

**Control invasive plant species:** Invasive plants should be managed in places where specimens of this plant occur, so that they do not become overwhelmed by other vegetation.

## Information sources

To learn more please visit: [www.environment.bm](http://www.environment.bm)

Copeland, A., Malcolm, P. & Bárrios, S. 2014. *Phaseolus lignosus*. The IUCN Red List of Threatened Species 2014: <http://dx.doi.org/10.2305/IUCN.UK.2014.3.RLTS.T56960811A56960839.en>.

Britton, N.L. 1918. Flora of Bermuda. Charles Scribner's Sons, New York.

Sarkis, S. 2009. Recovery Plan for eight species of flowering plants, *Carex bermudiana*, *Peperomia septentrionalis*, *Phaseolus lignosus*, *Erigeron darrellianus*, *Galium bermudense*, *Chiococca alba*, *Hypericum hypericoides*, *Psychotria ligustrifolia*, in Bermuda. Dept. of Conservation Services, Government of Bermuda pp.28.



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## For Further Information

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[www.environment.bm](http://www.environment.bm)

Disclaimer: The information contained in this publication is based on the knowledge and understanding at the time of writing.