

Tabebuia heterophylla  [简体中文](#) [正體中文](#)

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Scrophulariales	Bignoniaceae

Common name pink manjack (English), roble (Spanish), pink tecoma (English), whitewood (English), calice du paperpape (English), pink trumpet-tree (English), roble blanco (Spanish), white cedar (English), white-cedar (English)

Synonym *Bignonia pallida*, Lindl.
Tabebuia heterophylla, ssp. *pallida* auct. non (Miers) Stehlé
Tabebuia lucida, Britt.
Tabebuia pallida sensu, Liogier & Martorell
Tabebuia pentaphylla, (DC.) Hemsl.
Tabebuia triphylla, DC.

Similar species

Summary *Tabebuia heterophylla* is a small to medium sized deciduous tree attaining a height of 18m. In its native range it is widespread in abandoned pastures and secondary forests. It has become a problem in Pacific regions and is particularly common in dry, coastal woodlands and in secondary forests. It grows on any soil type and will adapt to poor or degraded soils. *T. heterophylla* regenerates and forms pure monotypic stands. It is an extremely fast growing species and can easily outcompete native and other exotic trees. It bears leaves and branches almost to the base and casts a deep shade under which virtually no other species can grow. Its thick litter layer may also prevent the growth of native seedlings.



[view this species on IUCN Red List](#)

Species Description

T. heterophylla is a small- to medium-size tree attaining a height of 18m and a diameter of 60cm. It has a furrowed bark, and a narrow, columnar crown, with opposite, palmately compound leaves. There are 3-5 leaflets, with blades elliptic to oblanceolate or obovate, 6-16cm long, leathery, acute to blunt at the tip, acute to rounded or oblique at the base; surfaces glabrous; margins entire; petiole 3-12cm long. The flowers are large white to light purple perfect flowers that are borne few to several in terminal and lateral clusters, or occasionally as individuals. The mature fruits are dark brown cigar-like pods, about 8 to 20cm long and 6.5mm in diameter and contain many winged seeds each about 2cm long (Weaver, 1990; PIER, 2004)..

Lifecycle Stages

In Puerto Rico, flowering is chiefly in the spring, or dry season, and is accompanied by complete leaf drop. Sporadic flowering occurs at other times. Fruits are borne in May and June with fruit fall varying from July through September., and may be found on the tree during most of the year (Weaver, 1990). Weaver (1990) states that "*T. heterophylla*'s seed capsule splits along two lines and seeds are dispersed varying distances from the parent tree, ranging up to 100m or more, depending upon weather conditions. The seeds germinate in open areas and form dense stands of seedlings." The author states that, "Several seed experiments were conducted at the Institute of Tropical Forestry during the mid-1940's. About 70,000 air-dried seeds were counted per kilogram (31,750/lb), and these had mean moisture content of 31 percent, based on the dry weight of the seeds. Seeds sown directly in seedbeds after collection in the field showed germination rates of 90 percent within 2 weeks. A 3-week delay in sowing seeds reduced viability to about 55 percent and after 5 weeks, no seeds germinated. Attempts were made to store seeds for long periods using seed moisture contents of 100, 75, 50, and 25 percent at room temperature and at 4° C (40° F). The best germination after 25 months, nearly 55 percent, was attained with the lowest moisture content and temperature combination."

Uses

Weaver (1990) states that, "In Puerto Rico, *T. heterophylla* is planted on poor sites to provide cover and to improve the soil. It is recommended for planting on uniform and convex slopes and ridges, where trials have shown it to be a promising species for reforestation. It has also done well on humid, waterlogged sites." Weaver (1990) states that, "*T. heterophylla*'s appearance and technical properties resemble both oak and ash. The wood is widely used for flooring, furniture, cabinetwork, interior trim, tool handles, decorative veneers, boatbuilding, ox yokes, millwork, and sporting goods. Less valuable grades are suitable for boxes, crates, concrete forms and similar items, and occasionally for posts and poles. *T. heterophylla*'s large flowers and narrow, columnar crown have made it a favourite ornamental in yards and along roadsides throughout Puerto Rico. Flowering in many instances has been observed a few years after planting." Showler *et al.* (2002) discovered that Rodrigues Warblers (*Acrocephalus rodericanus*) were also found in plantations dominated by *T. heterophylla* but at much lower densities than is typical for the species.

Habitat Description

Weaver (1990) describes the habitat in which *T. heterophylla* occurs in Puerto Rico and elsewhere in the Caribbean. The author states that, in Puerto Rico, *T. heterophylla* is widespread in abandoned pastures and secondary forests and found in dry or wet natural forests, except for the highest elevations in the Luquillo Mountains and the Cordillera Central. *T. heterophylla* appears to be tolerant of degraded sites and abandoned farm lands where it tends to form nearly pure stands. It is found growing well on a wide range of soil types but seems to prefer deep clays. In Puerto Rico, *T. heterophylla* is found on sand, limestone, and heavy clay soils, acid or alkaline in reaction, and residual, alluvial, or colluvial in origin. It is most common on slopes and ridges but is also found on flats adjacent to riverbeds. Elsewhere in the Caribbean, *T. heterophylla* is particularly common in dry, coastal woodlands and in secondary forests. It grows on any soil type and will adapt to poor or degraded soils if moisture is available.

Reproduction

Zimmerman *et al.* (2000) report that *T. heterophylla* is a wind-dispersed species.

General Impacts

On the island Mauritius, Parnell *et al.* (1989) found that, "*T. heterophylla* was spreading rapidly on the island, with small numbers of mature trees present but abundant young plants and seedlings. It appears to grow faster than any native or exotic tree on the island. Most *T. heterophylla* bear leaves and branches almost to the base and cast a deep shade under which virtually no other species grow. *T. heterophylla* is deciduous and its thick litter layer may also prevent the growth of native seedlings.

PIER (2004) states that, "*T. heterophylla* is invasive in Hawai'i. It is also reported invasive on Diego Garcia and naturalizing on Kwajalein (Whistler and Steele, 1999). *T. heterophylla* is also naturalized in some locations on Nimitz Hill, Guam (Bart Lawrence, personal communication)."

Zimmerman *et al.* (2000) state that, "*T. heterophylla* readily invades pasture *via* seed." In their study, Zimmerman *et al.* (2000) state that, "*T. heterophylla* appears to facilitate the colonization of many common forest species that are unable to establish in recently abandoned pasture."

Weaver (1990) states that, "*T. heterophylla* regenerates and forms pure stands on grasslands and degraded soils, in particular on exposed upper slopes and ridges, where competition from faster growing, larger, and more tolerant trees is lacking." In the seedling and sapling stages, *T. heterophylla* is an aggressive pioneer (Weaver, 1990), and it can maintain viable populations in both dry and moist forest habitats (Cordero and Molano, 1996).

Principal source: [Weaver, 1990](#) *Tabebuia heterophylla* (DC.) Britton, Roble Blanco, White-Cedar. [PIER \(Pacific Island Ecosystems at Risk\). 2004.](#) *Tabebuia heterophylla* (DC.) Britton, Bignoniaceae.

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

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ALIEN RANGE

[1] AMERICAN SAMOA

[1] BERMUDA

[2] CAYMAN ISLANDS

[1] FIJI

[2] GUAM

[1] MAURITIUS

[1] MONTSERRAT

[4] PALAU

[1] SEYCHELLES

[1] VIRGIN ISLANDS, BRITISH

[1] ANGUILLA

[1] BRITISH INDIAN OCEAN TERRITORY

[1] COOK ISLANDS

[1] FRENCH POLYNESIA

[2] MARSHALL ISLANDS

[2] MICRONESIA, FEDERATED STATES OF

[1] NORTHERN MARIANA ISLANDS

[1] REUNION

[1] UNITED STATES

BIBLIOGRAPHY

16 references found for *Tabebuia heterophylla*

Management information

Aide, T. M., J. K. Zimmerman, J. B. Pascarella, L. Rivera, and H. M. Vega. 2000. Forest Regeneration in a Chronosequence of Tropical Abandoned Pastures: Implications for Restoration Ecology. *Restoration Ecology* 8(4): 328-338

Summary: A study surveying exotic species in Puerto Rico. White Cedar was studied and the implications of ecological restoration were mentioned and discussed.

Fleischmann, K. 1997. Invasion of alien woody plants on the islands of Mahe and Silhouette, Seychelles. *Journal of Vegetation Science* 8(1): 5-12

Summary: Research documenting and describing exotic invasives on Indian Ocean islands.

Parnell, J. A. N., Q. Cronk, P. W. Jackson, and W. Strahm. 1989. A Study of the Ecological History, Vegetation and Conservation Management of Ile aux Aigrettes, Mauritius. *Journal of Tropical Ecology* 5(4): 355-374

Summary: Research conducted on the island of Mauritius documenting the spread and impacts of species on native habitats.



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Tabebuia heterophylla*

[PIER \(Pacific Island Ecosystems at Risk\). 2004. *Tabebuia heterophylla* \(DC.\) Britton, Bignoniaceae.](#)

Summary: Information on description, economic importance, distribution, habitat, history, growth, and impacts and management of species.

Available from: http://www.hear.org/pier/species/tabebuia_heterophylla.htm [Accessed 17 September 2004]

[Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.](#)

Summary: This database compiles information on alien species from British Overseas Territories.

Available from: <http://www.jncc.gov.uk/page-3660> [Accessed 10 November 2009]

[Weaver, P. L. 1990. *Tabebuia heterophylla* \(DC.\) Britton, Roble Blanco, White-Cedar. Silvics of North America: 1. Conifers; 2. Hardwoods. Agriculture Handbook 654. U.S. Department of Agriculture, Forest Service, Washington, DC. vol.2, 877 p.](#)

Summary: Information on description, economic importance, distribution, habitat, history, growth, and impacts and management of species.

Available from: http://www.na.fs.fed.us/spfo/pubs/silvics_manual/volume_2/tabebuia/heterophylla.htm [Accessed 17 September 2004]

[Zimmerman, J. K., J. B. Pascarella, and T. M. Aide. 2000. Barriers to Forest Regeneration in an Abandoned Pasture in Puerto Rico. Restoration Ecology 8\(4\): 350-360.](#)

Summary: An account of species and its impact on pasture land in Puerto Rico

General information

[Centre des ressources biologiques. Plantes tropicales. INRA-CIRAD. 2007.](#)

Summary: Available from: <http://collections.antilles.inra.fr/> [Accessed 31 March 2008]

[Conservatoire Botanique National De Mascarin \(BOULLET V. coord.\) 2007. - *Tabebuia heterophylla* Index de la flore vasculaire de la Réunion \(Trachophytes\) : statuts, menaces et protections. - Version 2007.1](#)

Summary: Base de données sur la flore de La Réunion. De nombreuses informations très utiles.

Available from: <http://flore.cbnm.org/index2.php?page=taxon&num=aa78c3db4fc4a1a343183d6113ec46ba> [Accessed 9 April 2008]

[Cordero, R. A., and B. M. Flores. 1997. Germination of *Tabebuia heterophylla* seeds \(Bignoniaceae\) from a wet and dry forest of Puerto Rico. Revista de Biología Tropical 44-45\(3-1\): 79-86.](#)

Summary: A scientific study documenting the reproductive habits and requirements of species.

[Fournet, J. 2002. Flore illustrée des phanérogames de guadeloupe et de Martinique. CIRAD-Gondwana editions.](#)

[ITIS \(Integrated Taxonomic Information System\). 2005. Online Database *Tabebuia heterophylla*](#)

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=34345 [Accessed March 2005]

[Loranger, G., J. F. Ponge, and P. Lavelle. 2003. Humus forms in two secondary semi-evergreen tropical forests. European Journal of Soil Science 54:17-24](#)

Summary: Research paper that gives a distribution location and background information on species.

[Showler, D. A., I. M. Cote, and C. G. Jones. 2002. Population census and habitat use of Rodrigues Warbler *Acrocephalus rodericanus*. Bird Conservation International 12:211-230.](#)

Summary: An account of an avian species, Rodrigues Warbler, in species habitat.

[USDA-GRIN \(Germplasm Resources Information Network\). 2004. *Tabebuia heterophylla*. National Genetic Resources Program \[Online Database\] National Germplasm Resources Laboratory, Beltsville, Maryland.](#)

Summary: Information on common names, synonyms, and the distributional range of species.

Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl?Tabebuia+heterophylla [Accessed 17 September 2004]

[USDA-NRCS \(Natural Resource Conservation Service\). 2004. *Tabebuia heterophylla*. The PLANTS Database Version 3.5 \[Online Database\] National Plant Data Center, Baton Rouge, LA.](#)

Summary: Available from:

<http://plants.usda.gov/java/nameSearch?mode=Scientific+Name&keywordquery=Tabebuia+heterophylla&go.x=11&go.y=10> [Accessed 17 September 2005]