Didymopanax morototoni (Aubl.) Decne. et Planch.

Araliaceae

LOCAL NAMES
English (mountain trumpet,match-wood); French (bois de mai,bois de Saint Jean,cordovan); Portuguese (bois de mai,mandiocí,marupauba-flasco,morototó,mucututú,pará -pará,pau-caixeta,paxixica,sambacuim); Spanish (yagrumo macho,Mucututú,anonillo,Marupá,Pixixica,Sambaculim,sanch-uva,Morototó)

BOTANIC DESCRIPTION
Didymopanax morototoni is a medium-sized tree 8-30 m in height, with a cylinder-shaped bole that is straight and may reach up to 80 cm in diameter at the base; crown small with ramification only at the apex; branches not numerous; has scars on the leaf peduncles. Bark whitish and has a smooth surface.

Leaves large, compound, digitate, 15-40 cm long, alternate; petiole long, 30-60 cm, with well-developed stipules, inserted obliquely on the stem; 10-11 folioles, with elliptical lance-shaped limb, acuminate, undulate, sinuate on the margin, semi-coriaceous, dark-green on the upper surface, brown-red and heavily pilose underneath.

Flower clusters (panicled umbels) lateral, about 20-60 cm long and broad, with branches grey and finely hairy. Flowers very numerous in numerous small, rounded clusters (umbels) less than 1.3 cm across, on spreading flower stalks 1.6-4.7 mm long. The pentamerous, finely brownish and grey hairy flower about 4.7 mm across has a minute basal tube (hypanthium) less than 1.6 mm long enclosing the inferior ovary and bearing the minute 5-toothed calyx; petals 5, white, pointed, more than 1.6 mm long; stamens 5 and styles 2.

Fruit a fleshy berry, grey and covered with a bloom, about 4-9 mm long and 6-12 mm broad; slightly flattened, with 2 styles at apex. It contains 2 oblong, flat brown seeds 4.7 mm long.

BIOLOGY
Flowering and fruiting nearly throughout the year. Its regeneration is due to birds dispersing the seeds.

Provenance trial at four years, near Belterra, Santarem, Brazil (Anthony Simons)

Close-up of flowers, Brazil (Anthony Simons)

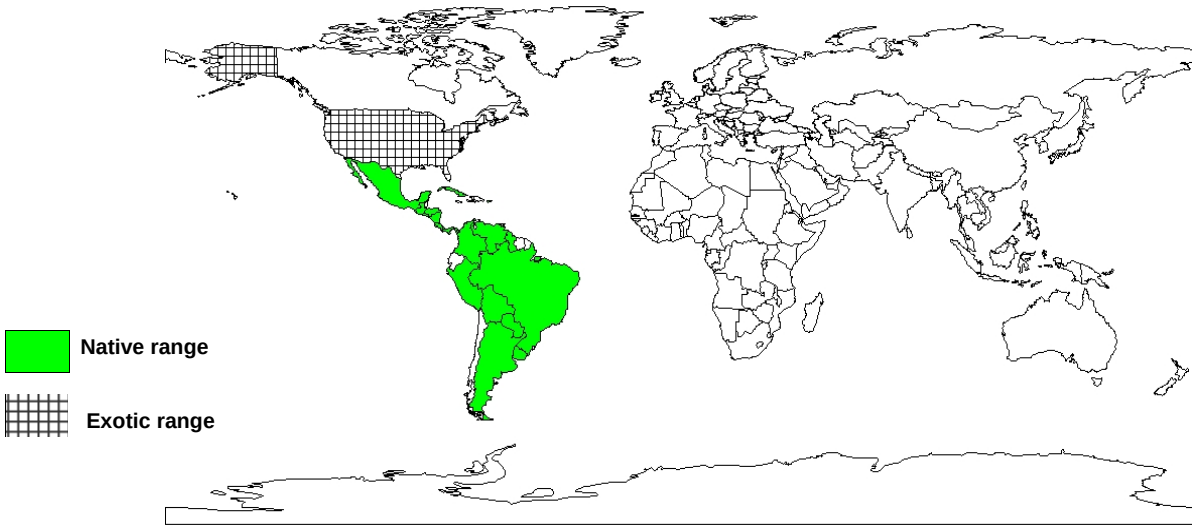
ECOLOGY
Frequently found in the upland forests and in old open woodlands. In Peru, it is common on the savannah margins. It prefers open forests with abundant light. Widespread in the wet forests of tropical America.

BIOPHYSICAL LIMITS
Soil type: The species is not exacting to soil requirements but frequently occurs in clayey, acid soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, French Guiana, Guadeloupe, Guatemala, Guyana, Honduras, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Surinam, Trinidad and Tobago, Uruguay, Venezuela

Exotic: US



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Fibre: The use of D. morototoni in the pulp and paper industry is increasing.

Timber: Its moderately heavy wood is coloured light cream with some grey, with regular grain; medium texture, shiny and smooth surface and is easily worked with a fine finish. In Puerto Rico, the wood is little used, although it is especially suitable for boxes and crates. Where the trees are more abundant and larger in size, uses include for general carpentry, interior construction and boxes. In Trinidad and British Guyana, the wood is made into matchsticks and matchboxes. Other possible uses are utility grade plywood, toys, and as a substitute for heavier grades of balsa.

Medicine: The leaves have been known to serve as home remedies.

SERVICES
Ornamental: D. morototoni is a tree with ornamental possibilities due to its rapid growth and handsome aspects.

TREE MANAGEMENT
At 3 years of age, better growth in height has been obtained at a 3 x 2 m spacing and the larger diameter at a 4 x 4 m spacing. Production of 15-18 cubic m/ha per year in uniform stands can be expected.

D. morototoni demands strong light and is abundant in openings, secondary forests and on roadsides. These locations are susceptible to fire in dry periods, and the species is favoured essentially due to its fire-resistant seeds.

GERMPLASM MANAGEMENT
Seed storage behaviour is orthodox; no loss in viability following 11 months of storage at 12 deg. C with seeds in equilibrium with 30% r.h. There are approximately 45 400 seeds/kg.

PESTS AND DISEASES
The wood is very susceptible to attack by dry-wood termites and other insects and to decay.

FURTHER READNG

CABI. 2000. Global Forestry Compendium. CD-ROM. CABI

FAO. 1986. Databook on endangered tree and shrub species and provenances. FAO Forestry Paper 77. FAO, Rome.

Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.

Little EL, Wadsworth FH. 1964. Common trees of Puerto Rico and the Virgin Islands. Agricultural Handbook. No. 249. US Department of Agriculture. Washington DC.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/af/treedb/)