
MANGROVES OF THE NORTHERN TERRITORY, AUSTRALIA:

IDENTIFICATION and TRADITIONAL USE

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EXTRACT: *Thespesia* (pp. 145–148)

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DARWIN 2006

Thespesia

MALVACEAE

DERIVATION: The Greek 'thespesios' means divine and refers to *Thespesia populneoides*, a sacred plant in Tahiti where it is grown around places of worship.

A pantropical genus of approximately 15 species, two occur in Australia, including the Northern Territory. *Thespesia populneoides* is commonly found in tidal situations in the NT.

Thespesia populneoides (Roxb.) Kostel.

Pacific Rosewood

DERIVATION: The name *populneoides* is possibly due to the similarity of this species to *Thespesia populnea*, the Portia or Bhendi Tree.

DESCRIPTION: Shrub or tree to 8 m; bark grey, smooth with shallow depressions; young growth, leaves and twigs closely lepidote. Leaves spirally arranged; lamina broadly deltoid, 7–15 x 7.5–13.5 cm, apex acuminate, base caudate, domatia conspicuous on underside of leaf in axils of main veins; petiole 5.0–14.5 cm long; stipules lanceolate, 5–10 mm long caducous. Flowers axillary, solitary; pedicel 5–12 cm long, drooping; involucre bracts 3, ovate, very early caducous. Calyx coriaceous, cupular, 10–14 mm long, entire or with 5 minute teeth, exterior densely lepidote. Corolla large, yellow with purple centre, campanulate; petals 5, obovate, 6.0–7.0 x 4.5–6.0 cm, apex rounded, base fleshy. Staminal column shorter than petals, anthiferous throughout; filaments 4 mm long; anthers 1.5 mm long. Ovary globose to ovoid, superior, 5-locular, ovules 4 per locule; styles connate, 4 cm long; stigmas united into a clavate, 5 sulcate body, 5 x 3 mm. Fruit woody, sparsely lepidote, subglobose 3 x 2 cm, apex slightly depressed, tardily dehiscent. Seeds 4 per cell, obovoid, angular, 8–15 x 6–9 mm; pubescence short, dense.

HABITAT: *Thespesia populneoides* occurs at the rear of mangal environments, in areas that are not regularly inundated by tide. Sandy soils are preferred, though fine muds are occasionally colonised. Associates include *Avicennia marina*, *Lumnitzera racemosa*, *Hibiscus tiliaceus* and *Sporobolus virginicus*. This species is also found above the high tide limit on stabilised sand dunes.

DISTRIBUTION: *Thespesia populneoides* is widespread and common around the entire NT coast, and also occurs in Western Australia and Queensland. Extra-Australian records are from the coasts of the Indian Ocean.

DISTINCTIVE FEATURES: Tree with deltoid (triangular) leaves, young growth covered in scales, large yellow flowers.

ETHNOBOTANY: Anindilyakwa people use the timber from straight stems to make light spears suitable for hunting fish, and the leaves may be used as plates

(Levitt 1981). The timber is heavier than that of *Hibiscus tiliaceus*, but may be used for the same purposes when it is well dried.

Rirratjingu people also use the timber to make fish spears, the shafts of these spears have special names, which relate to the cultural importance of these spears. It is also recognised as a good shade tree (Yunupingu et al. 1995).

The Djambarrpuyngu people, Nunggubuyu people and Iwaidja speakers use the stems and branches to make spear shafts (Wightman & Smith 1989, Heath 1980, Blake et al. 1998).

Tiwi people strip the inner white bark off straight branches and trunks and make it into rope. This rope is very strong and is used to tie onto harpoons used for hunting turtles and dugong. The dry wood is used to make fire-sticks for lighting fires using the traditional drilling or friction method (Puruntatameri et al. 2001).

Recorded Aboriginal language names

Jindijindi (Nunggubuyu)	Mawurrmala (Anindilyakwa)
Malwad (Nunggubuyu)	Marra (Anindilyakwa)
Jirndijirndi (Nunggubuyu)	Merrumurra (Anindilyakwa)
Meli (Rirratjingu)	Dulubun (Iwaidja)
Meli (Djambarrpuyngu)	Alabanjar (Tiwi)
Meli (Yolngu matha)	

Other Australian uses include the timber as axe handles (Smith & Kalotas 1985), as a fish poison (Cribb & Cribb 1981) and as a treatment for scabies and other cutaneous disorders (Lassak & McCarthy 1983).

In India, this species has furnished fibre from the bark, yellow dye from the fruit, claret-coloured dye from the heartwood and timber for boats and gun-stocks (Maiden 1889). In Sri Lanka *T. populnea* and *T. populneoides* hybrids are propagated vegetatively as ornamentals and living fence posts (Fosberg & Sachet 1972). In Fiji the timber is used to make the ribs of boats, the fruit are used as toys and it is also used medicinally (Pillai 1987). The inner bark is used to make rope and the leaves are used to ease childbirth in Sumba, Indonesia (Astuti et al. 2001).

NOTES: The correct name for this species has been subject to confusion in the past, Fosberg and Sachet (1972) appear to have clarified the situation between *Thespesia populnea* and *T. populneoides*. All Northern Territory material is of the latter species.

The large, showy flowers of *T. populneoides* are bird pollinated; the woody capsule and buoyant seeds are well adapted to water dispersal. Guppy (1906) notes seeds of the closely related *T. populnea* are capable of floating for 12 months and then germinating. *Thespesia populneoides* produces flowers from February to July; fruits occur from May to October. The flowers and fruits produce a yellow exudate when they are cut.

Reference: Fosberg & Sachet 1972.

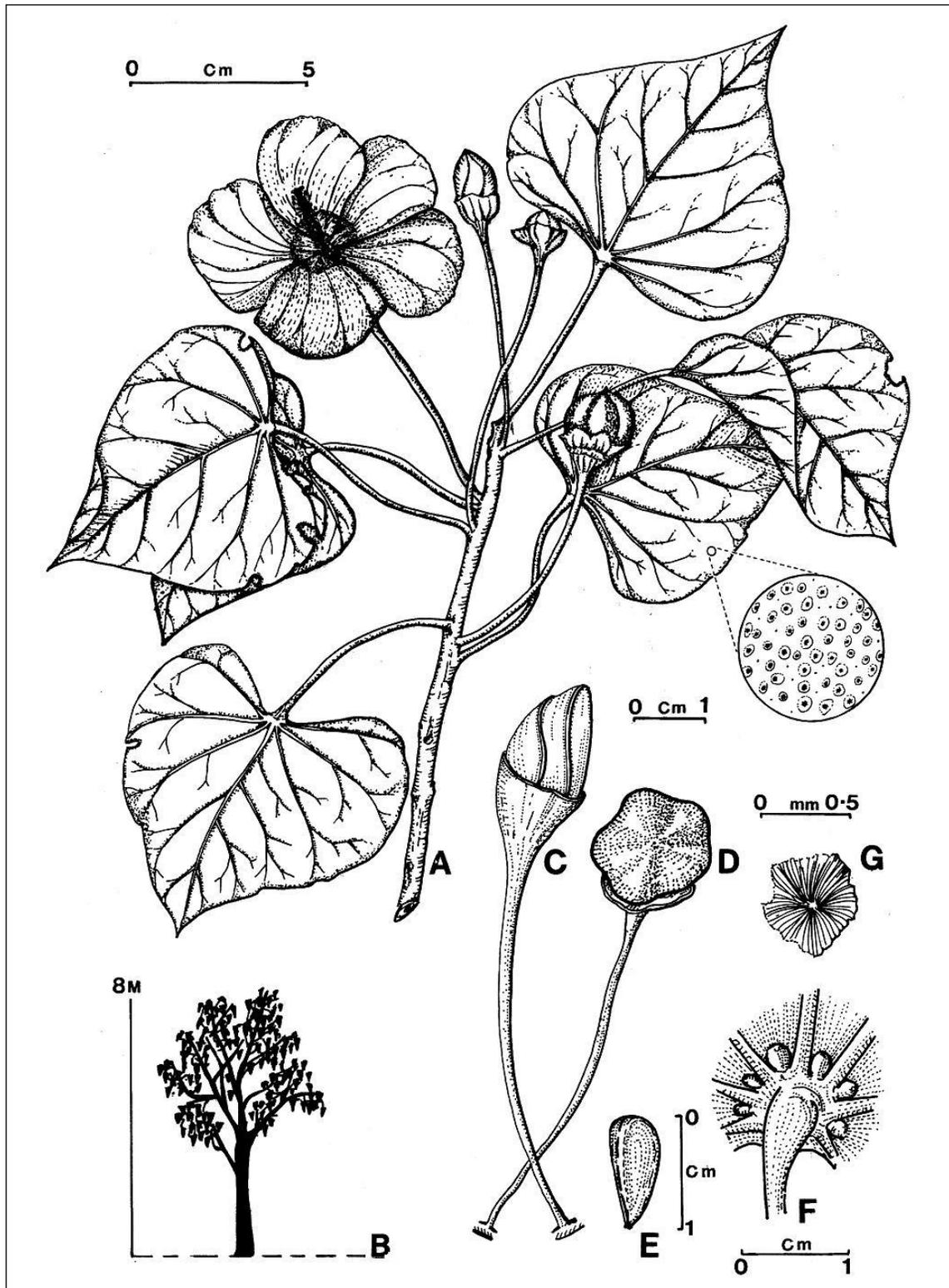


Figure 41. *Thespesia populneoides*. A, flowering and fruiting branch with leaf scales magnified; B, habit; C, bud; D, fruit; E, seed; F, domatia; G, scale (A, C, N. Byrnes 207, DNA; D–G, G. Wightman 104 & C. Dunlop, DNA).