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Editors: P.S. Short and I.D. Cowie
Illustrations: M. Osterkamp
Typesetting: D. Bisa and M. Voukalis
Photographic Editor: B.M. Stuckey

Authors contributing to this publication:

D.E. Albrecht
Northern Territory Herbarium, Department of Natural Resources, Environment, the Arts and Sport, P.O. Box 1120, Alice Springs, N.T. 0871, Australia

R.M. Barker
State Herbarium of South Australia, Plant Biodiversity Centre, P.O. Box 2732, Kent Town, S.A. 5071, Australia

I.D. Cowie; B. Crase*; D.J. Dixon*; C.R. Dunlop*; R.K. Harwood*; R.A. Kerrigan*; G.J. Leach*; C. Mangion*; P.S. Short; G.M. Wightman*
Northern Territory Herbarium, Department of Natural Resources, Environment the Arts and Sport, P.O. Box 496, Palmerston, N.T. 0831, Australia

L.A. Craven
Australian National Herbarium, Centre for Plant, Biodiversity Research, G.P.O. Box 1600, Canberra, A.C.T. 2601, Australia

L.L. Forman† (deceased)
Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, UK

B. Jackes
James Cook University Herbarium, School of Marine and Tropical Biology, James Cook University, Townsville, Qld 4811, Australia

L. Jessup
Queensland Herbarium Mt Coot-tha Road, Toowong, Qld 4066, Australia

J. Palmer
Australian National Herbarium, G.P.O. Box 1600, Canberra, A.C.T. 2601, Australia

*Former employee NT Herbarium

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Northern Territory Herbarium
Department of Natural Resources, Environment, the Arts and Sport
P.O. Box 496
Palmerston, N.T. 0831, Australia

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CHRYSOBALANACEAE

R.A. Kerrigan & D.J. Dixon

Evergreen *trees* or shrubs. *Stipules* present, minute and caducous to large and persistent. *Leaves* simple, alternate, entire, and often coriaceous, glabrous or with an indumentum on the undersurface. *Inflorescences* terminal or axillary, cymose, racemose, spicate or paniculate. *Flowers* bisexual, distinctly perigynous, mostly small and inconspicuous, actinomorphic or zygomorphic. *Receptacle* campanulate to cylindrical or rarely flattened-cupuliform, often gibbous at base. *Sepals* 5, free, imbricate. *Petals* 5, free, imbricate, or sometimes wanting. *Stamens* few to numerous (2) 8–20 (300), inserted on margin of disc in a complete circle or unilateral, all fertile or some reduced to long or short staminodes; filaments free, or all connate or connate into groups for up to half their length; anthers tetrasporangiate and dithecal, opening by longitudinal slits. *Gynoecium* with a superior ovary of usually 1 or sometimes 3 carpels. *Style* filiform, with a simple or 3-lobed stigma. *Ovules* 1 or 2 per locule. *Fruit* a fleshy, or sometimes dry, 1-seeded drupe.

A pantropical family with perhaps 18 genera and *c.* 520 species and particularly diverse in tropical America. In Australia represented by only two taxa, *Maranthes corymbosa* and *Parinari nonda*, with only the former in the D.R.

Taxonomic references: Cronquist (1981); Prance (1989, 2004); Wheeler (1992); Hyland & Whiffin (1993).

1 Leaves always with conspicuous glands at junction of petiole with lamina, margins without glands, lower surface without sunken areoles ..... **Maranthes**

1: Leaves with glands sometimes present on petiole but not at junction of petiole with lamina, margins with glands, lower surface with sunken areoles .... **Parinari**

MARANTHES Blume

Trees. *Stipules* deltate, intrapetiolar, caducous. *Leaves* with a dense lanate indumentum when young, glabrous when mature; glands present at junction of lamina and petiole. *Inflorescence* axillary, many-flowered corymbose panicle. *Bracts* and bracteoles, caducous. *Receptacles* obconical, more or less filled with nectariferous tissue. *Sepals* with lobes suborbicular, concave, unequal. *Petals* 5 (in Australia). *Stamens* 25–40, inserted on margin of disc, unilateral, with tooth-like staminodes opposite to almost in a complete circle; filaments far exserted beyond calyx lobes in a tangled mass. *Ovary* inserted laterally at mouth of receptacle, bilocular. *Style* pubescent at base only, curved upwards, exserted. *Ovules* 1 per locule.

Pantropical genus with *c.* 12 species, of which only *M. corymbosa* occurs in Australia.

Taxonomic references: Prance (1989); Hyland & Whiffin (1993).

M. corymbosa Blume

Tree to 25 m. *Bark* rough to flaky, brown to grey-brown; blaze red. *Branches* often pendulous. *Indumentum* of appressed to ascending light brown simple hairs and lanate hairs on young shoots and branchlets or glabrescent. *Stipules* connate and intrapetiolar, appearing axillary, oblong to narrowly elliptic, 5–12 mm long, *c.* 1–2 mm wide, apex bifid, margin entire or dentate, with lanate and simple hairs on outer surface and margins. *Leaves* distichous. *Petiole* 4.5–7 mm long, with simple and lanate hairs. *Lamina* elliptic to narrowly elliptic or obovate to oblanceolate, 4.5–17.6 cm long, 1.6–6.5 cm wide, base cuneate to obtuse or oblique, margins entire, apex acuminate to caudate, discolorous, upper surface glabrous and glossy, lower surface glabrescent, with lanate hairs and appressed simple hairs particularly on the midrib. *Bracts* and bracteoles ovate *c.* 2–3 mm long, 1.5–2 mm wide, pubescent. *Receptacle* villous at base. *Sepals* ovate to obovate, 4–6 mm long, imbricate, with an indumentum of simple brown ascending hairs. *Petals* alternating with sepals, elliptic to obovate, *c.* 8–9 mm long, *c.* 5 mm wide, erect, glabrous, white to cream. *Stamens c.* 10–14 mm long, connate at base and arising from one side of disc near the ovary, occasionally with tooth-like staminodes opposite. *Ovary* excentric,

attached to receptacle on side nearest stamens, villous throughout. *Stigma* capitate to truncate. *Style c.* 7–9 mm, attached to base of ovary on side opposite stamens. *Fruit* obovoid to ellipsoid, 19–32 mm long, 11–16 mm wide, red-purple, glabrescent with lanate hairs, calyx persistent. *Flowering*: Apr.–Nov. *Fruiting*: May–Dec.

Fig. 1 (*Brennan*, D141339; *Clark 653*); Pl. 1–2 (unvouchered).

Southern Thailand, Malesia, Solomon and Caroline islands, and Australia (N.T., Qld). In the N.T. widely distributed in the Top End, ranging from Litchfield N.P. and Nitmiluk N.P. to Groote Eylandt; common in the D.R. Usually found in monsoon and coastal vine forest, riparian forest, open woodland and vegetation at the base of dissected sandstone. Grows in a variety of substrates, including granite, sand, laterite, humus and clay loam.

Commonly cultivated as an ornamental or shade plant in Darwin and an important timber of the Solomon Islands.

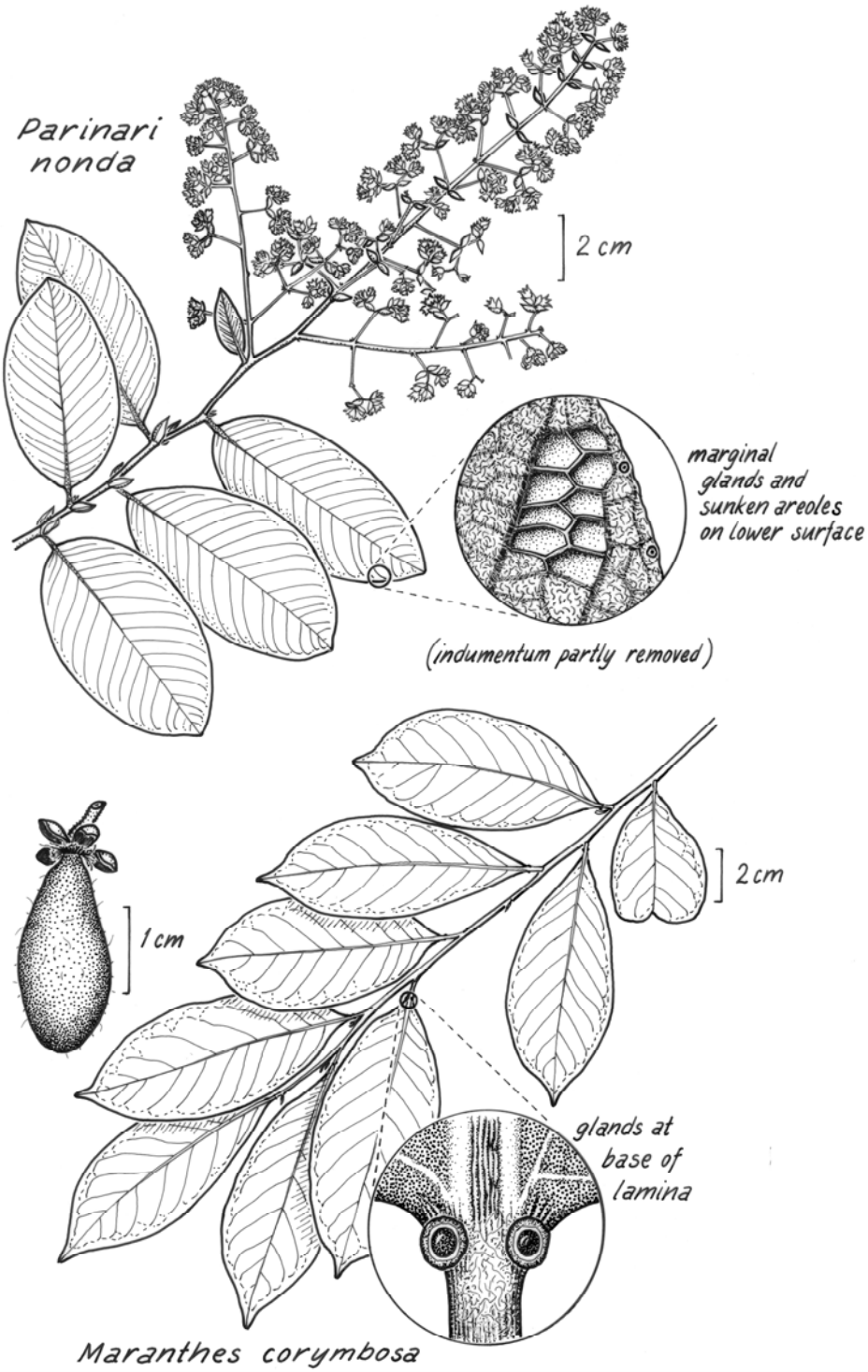

Fig. 1

PARINARI Aubl.

Trees or rarely shrubs. *Stipules* small to large, persistent or caducous. *Leaves* pubescent on lower surface or rarely glabrous, petioles usually with 2 circular glands near junction with lamina. *Inflorescence* a terminal or axillary, many-flowered cyme or cymose panicle. *Bracts* and bracteoles present. *Receptacles* subcampanulate to cupuliform, slightly swollen to one side. *Sepals* deltate, densely hairy on both surfaces. *Petals* as long as or shorter than sepals, caducous. *Stamens* 6–10, unilateral, included in calyx lobes; filaments glabrous; staminodes *c.* 6 and opposite stamens. *Ovary* inserted on upper half of receptacle tube below mouth, pilose on exterior; carpel bilocular. *Style* curved like a bow, included. *Seeds* with 2 basal obturators.

Pantropical genus of *c.* 44 species, with only *P. nonda* in Australia.

Taxonomic references: Prance (1989); Wheeler (1992); Hyland & Whiffin (1993).

P. nonda F. Muell. ex Benth.

Tree to 12 m, often a spreading suffruticose shrub resprouting after fire from perennial root stock. *Bark* tessellated or corky. *Indumentum* of light brown simple hairs on young shoots and branchlets rarely lanate or glabrescent. *Stipules* triangular or ovate, 4–8 mm long, 2–4 mm wide. *Petiole* 2–9 mm long, with a dense indumentum of short erect hairs, often with 2 glands along the adaxial surface but usually obscured by hairs. *Lamina* elliptic to widely elliptic or obovate, 2.5–10 cm long, 1.9–5.2 cm wide, base cordate or truncate to cuneate, margin entire with marginal glands on lower leaf surface, apex acute to obtuse, discolorous, upper surface with scattered short erect hairs but glabrescent and hairs usually most dense on the midrib, lower surface with lanate hairs throughout and with raised veins creating sunken areoles. *Inflorescence* terminal and axillary, flowers *c.* 4.4 mm long. *Bracts* and bracteoles paired, ovate, *c.* 2.5–4 mm long, 2–4 mm wide. *Receptacle* inner surface with a fringe of downward-facing hairs under the stamens and staminodes. *Sepals* ovate, 1.8–2.5 mm long, with an indumentum of simple hairs on outer surface and crisped hairs on inner surface. *Petals* alternating with sepals and adnate to receptacle, spathulate to obovate, 1.2–2 mm long, *c.* 2 mm wide, erect, glabrous, white. *Stamens* 7–9, *c.* 2 mm long, with 8 tooth-like staminodes opposite. *Ovary* excentric, attached to receptacle on side nearest stamens, basally glabrous, villous at apex. *Stigma* capitate. *Style* attached to base of ovary on side nearest staminodes. *Fruit* ovoid to ellipsoid, *c.* 37 mm long, *c.* 25 mm wide, brown. *Flowering*: *c.* July–Oct. *Fruiting*: not recorded in N.T.

Fig. 1 (*Harwood 151*); Pl. 3 (unvouchered).

Australia (W.A., N.T., Qld), New Guinea and the Solomon Islands. In the N.T. scattered from Fog Bay, Nitmiluk N.P., Tiwi Islands and eastern Arnhem Land, where it is found in open woodland and sometimes riparian forest. Grows mostly on sand, sandy loam or sandstone.

The fruit of *P. nonda*, sometimes referred to as Nonda Plum, is believed to have been eaten by early Australian explorers (Hyland & Whiffin 1993).

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Pl. 1 *Maranthes corymbosa* (Photos: J. Brock)

Pl. 2 *Maranthes corymbosa* (Photo: B.M. Stuckey)

Pl. 3 *Parinari nonda* (Photos: B.M. Stuckey)