



# Flora of South Australia

5th Edition | Edited by Jürgen Kellermann

## LORANTHACEAE<sup>1</sup>

P.J. Lang<sup>2</sup> & B.A. Barlow<sup>3</sup>

Aerial hemi-parasitic shrubs on branches of woody plants attached by haustoria; leaves mostly opposite, entire. **Inflorescence** terminal or lateral; flowers bisexual; calyx reduced to an entire, lobed or toothed limb at the apex of the ovary, without vascular bundles; corolla free or fused, regular or slightly zygomorphic, 4–6-merous, valvate; stamens as many as and opposite the petals, epipetalous, anthers 2- or 4-locular, mostly basifixed, immobile, introrse and continuous with the filament but sometimes dorsifixed and then usually versatile, opening by longitudinal slits; pollen trilobate; ovary inferior, without differentiated locules or ovules. **Fruit** berry-like; seed single, surrounded by a copious viscous layer. **Mistletoes**.

73 genera and around 950 species widely distributed in the tropics and south temperate regions with a few species in temperate Asia and Europe. Australia has 12 genera (6 endemic) and 75 species.

Reference: Barlow (1966, 1984, 1996), Nickrent *et al.* (2010), Watson (2011).

1. Petals free
  2. Anthers basifixed, immobile, introrse; inflorescence axillary
    3. Inflorescence not subtended by enlarged bracts more than 20 mm long ..... 1. **Amyema**
    - 3: Inflorescence subtended by enlarged bracts more than 20 mm long which enclose the buds prior to anthesis ..... 2. **Diplatia**
    - 2: Anthers dorsifixed, versatile; inflorescence terminal ..... 4. **Muellerina**
  - 1: Petals united into a curved tube, more deeply divided on the concave side ..... 3. **Lysiana**

### 1. **AMYEMA** Tiegh.

*Bull. Soc. Bot. France* 41: 499 (1894).

(Greek *a-*, negative; *myeo*, I instruct, initiate; referring to the genus being not previously recognised; cf. the Greek *amyema*, those not initiated.)

Glabrous or tomentose; haustorial attachments with or without epicortical (i.e. on the bark of the host) runners; leaves flat or terete, when flat usually curvined. **Inflorescence** axillary, primarily a pedunculate many-rayed umbel of triads but variously reduced, especially to a head or simple umbel; bracts single under each flower; petals free (in Australia), mostly 4–6; anthers basifixed, immobile, introrse, 2- or 4-locular; style usually articulate at the base. **Fruit** globular to ellipsoid. **Mistletoes**.

The genus has about 94 species ranging from Malesia and the Philippines to Australia and the western Pacific; 41 species in Australia.

Reference: Barlow (1992).

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of South Australia

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Water and Natural Resources

1. Leaves terete
  2. Flowers in dyads; corolla usually 4-merous; anthers almost sessile; host *Grevillea* or *Hakea*..... 2. **A. gibberula** var. **gibberula**
  - 2: Flowers in triads; corolla usually 5-merous; anthers on filaments equal to or longer than the anther
    3. Inflorescence and flowers tomentose; host Casuarinaceae..... 4. **A. linophylla** subsp. **orientalis**
    - 3: Inflorescence and flowers glabrous; host usually *Acacia* ..... 10. **A. preissii**
- 1: Leaves flat
  4. Inflorescence a pedunculate simple umbel of 3–6 flowers; buds strongly ridged apically along corolla lobe sutures; haustorial attachments produced from epicortical runners; hosts *Corymbia* or *Eucalyptus* ..... 12. **A. sanguinea** var. **sanguinea**
  - 4: Inflorescence a pedunculate umbel of triads or tetrads, or contracted to a head; buds smooth or lightly ridged; haustorial attachment without epicortical runners; hosts various
    5. Inflorescence a pedunculate head of 3–6 closely sessile flowers; host *Acacia*
      6. Flowers in a single group of 3–5; central flower ebracteate ..... 1. **A. fitzgeraldii**
      - 6: Flowers in 2 opposite triads; all flowers bracteate ..... 5. **A. maidenii** subsp. **maidenii**
    - 5: Inflorescence an umbel of 2 or more triads or tetrads
      7. Rays of umbel 2
        8. Corolla glabrous; host various
          9. Corolla in mature bud longitudinally ridged at the apex, not inflated at the base; leaves mostly more than 10 mm wide; host usually *Santalum*, *Myoporum*, *Eremophila* or *Geijera* ..... 8. **A. miraculosa** subsp. **boormanii**
          - 9: Corolla in mature bud not longitudinally ridged, inflated at the base; leaves mostly less than 6 mm wide; host *Melaleuca*..... 6. **A. melaleuca**
        - 8: Corolla sparsely to densely tomentose; host *Acacia*
          10. Central bracts of the triads more than 3 mm long; ovary uniformly cylindrical..... 3. **A. hilliana**
          - 10: Central bracts of the triads less than 3 mm long; ovary abruptly expanded then contracted just below the calyx..... 11. **A. quandang** var. **quandang**
      - 7: Rays of umbel usually more than 2
        11. Triads with all flowers pedicellate; host mostly *Eucalyptus*..... 7. **A. miquelii**
        - 11: Triads or tetrads with the central flower sessile; host various
          12. Corolla glabrous; leaves 4–10 cm long; host usually *Santalum*, *Myoporum*, *Eremophila* or *Geijera*..... 8. **A. miraculosa** subsp. **boormanii**
          - 12: Corolla rusty-tomentose; leaves 10–40 cm long; host mostly *Eucalyptus*, rarely *Acacia* ..... 9. **A. pendula** subsp. **pendula**

1. **Amyema fitzgeraldii** (Blakely) Danser, *Bull. Jard. Bot. Buitenzorg* 10: 295 (1929). — *Loranthus fitzgeraldii* Blakely, *Proc. Linn. Soc. New South Wales* 47: 393 (1922) & 49: 89 (1924), as *L. fitzgeraldi*. — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 49: 96, pl. xxii (1924), as *Loranthus fitzgeraldi*; R.Erickson et al., *Fl. Pl. W. Austral.*, fig. 462 (1973); *Fl. Austral.* 22: 116, fig. 26e–f (1984).

Plant erect or spreading, more or less shortly and densely white-tomentose; epicortical runners absent; leaf lamina oblong to elliptic, 20–40 × 6–20 mm, attenuate at base into petiole 4–8 mm long, rounded at apex. **Inflorescence** a pedunculate head of 3–5 sessile flowers; peduncle 5–15 mm long; bracts nearly orbicular, 2–2.5 mm long, subtending each flower except central ebracteate one; calyx entire, c. 0.5 mm long; mature buds with corolla 18–26 mm long; flowers whitish-green outside, inside of corolla green, filaments and style red; anthers c. 2 mm long, about half the length of free part of filament. **Fruit** nearly globular, c. 6 mm long. **Pincushion mistletoe.** **Fig. 10–S.**

S.A.: NW; W.A. Flowers: May.–Oct., and probably other times in response to rains.

Exclusively parasitic on *Acacia* and only recorded in S.A. on mulgas (*A. aneura* complex and allied species). Closely resembles the more common and widespread *Amyema maidenii*, but is distinguished by its reduced inflorescence; it

also tends to have finer and narrower leaves.

2. **Amyema gibberula** (Tate) Danser var. **gibberula**, *Bull. Jard. Bot. Buitenzorg* 10: 295 (1929). — *Loranthus gibberulus* Tate, *Trans. & Proc. Roy. Soc. South Australia* 8: 71 (1886); *L. gibberulosus* orth. var. Tiegh. & *A. gibberulosa*, orth. var.: Tiegh., *Bull. Soc. Bot. France* 42: 82, 84 (1895); *A. gibberulum* var. *gibberulum*, orth. var.: Barlow, *Austral. J. Bot.* 14(3): 465 (1966). — **Illustr.:** *Fl. Austral.* 22: 107, fig. 25d–f (1984); D.M.Watson, *Mistletoes of Southern Australia* viii (2011), as *Hakea mistletoe*.

Plant erect or spreading, densely white-tomentose; epicortical runners absent; leaves terete, 50–100 mm long, 1.5–2.5 mm diam. **Inflorescence** a pedunculate umbel of 1–3 dyads (reduced to 1, when the ‘peduncle’ appears jointed); peduncles 1–5 mm long; umbel rays 2–5 mm long; pedicels 1–3 mm long; central bract (at apex of each ray) 1–1.5 mm long; lateral bracts subtending flowers orbicular, 3–4 mm long, concave; calyx entire, c. 1 mm long; mature buds with corolla 25–45 mm long; flowers 4-merous, corolla segments remaining aligned as a tube and only spreading after flowering, tube pink and terminated by ovate lobes, which are whitish outside and green inside; anthers 2–5 mm long, almost sessile. **Fruit** almost globular, c. 8 mm long. **Hakea mistletoe. Fig. 3A–D, Pl. 1A–B.**

S.A.: NW, LE, NU, GT; W.A.; N.T. Flowers: mainly May–Oct.

Almost exclusively parasitic on the larger *Grevillea* and *Hakea* species (*G. nematophylla*, *G. stenobotrya*, *G. striata*, and the Corkwoods *H. divaricata* and *H. lorea*).

3. **Amyema hilliana** (Blakely) Danser, *Bull. Jard. Bot. Buitenzorg ser. III* 10: 296 (1929). — *Loranthus hillianus* Blakely, *Proc. Linn. Soc. New South Wales* 47: 393 (1922) & 49: 80 (1924); *A. hillianum*, orth. var.: Barlow, *Austral. J. Bot.* 14(3): 468 (1966). — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 49: 96, pl. xvii (1924), as *Loranthus hillianus*; D.M.Watson, *Mistletoes of Southern Australia* 40 & 41 (2011).

Plant spreading to pendulous, shortly and densely white-tomentose, especially the inflorescence; epicortical runners absent; leaf lamina lanceolate to oblong, 40–70 × 10–25 mm, attenuate at base into a petiole c. 10 mm long, obtuse or rounded at apex. **Inflorescence** a pedunculate umbel of 2 triads, each with the central flower sessile; peduncle 10–18 mm long; umbel rays 8–10 mm long; pedicels of lateral flowers 1–2 mm long; central bracts erect, 3–5 mm long; lateral bracts concave, c. 3 mm long; ovary uniformly cylindrical calyx truncate or toothed, 1–2 mm long; mature buds with corolla 20–25 mm long; flowers 5- or 6-merous, green; anthers 2 mm long, half the length of free part of filament. **Fruit** ellipsoidal, constricted at apex, c. 10 mm long. **Ironwood mistletoe. Fig. 1T–W.**

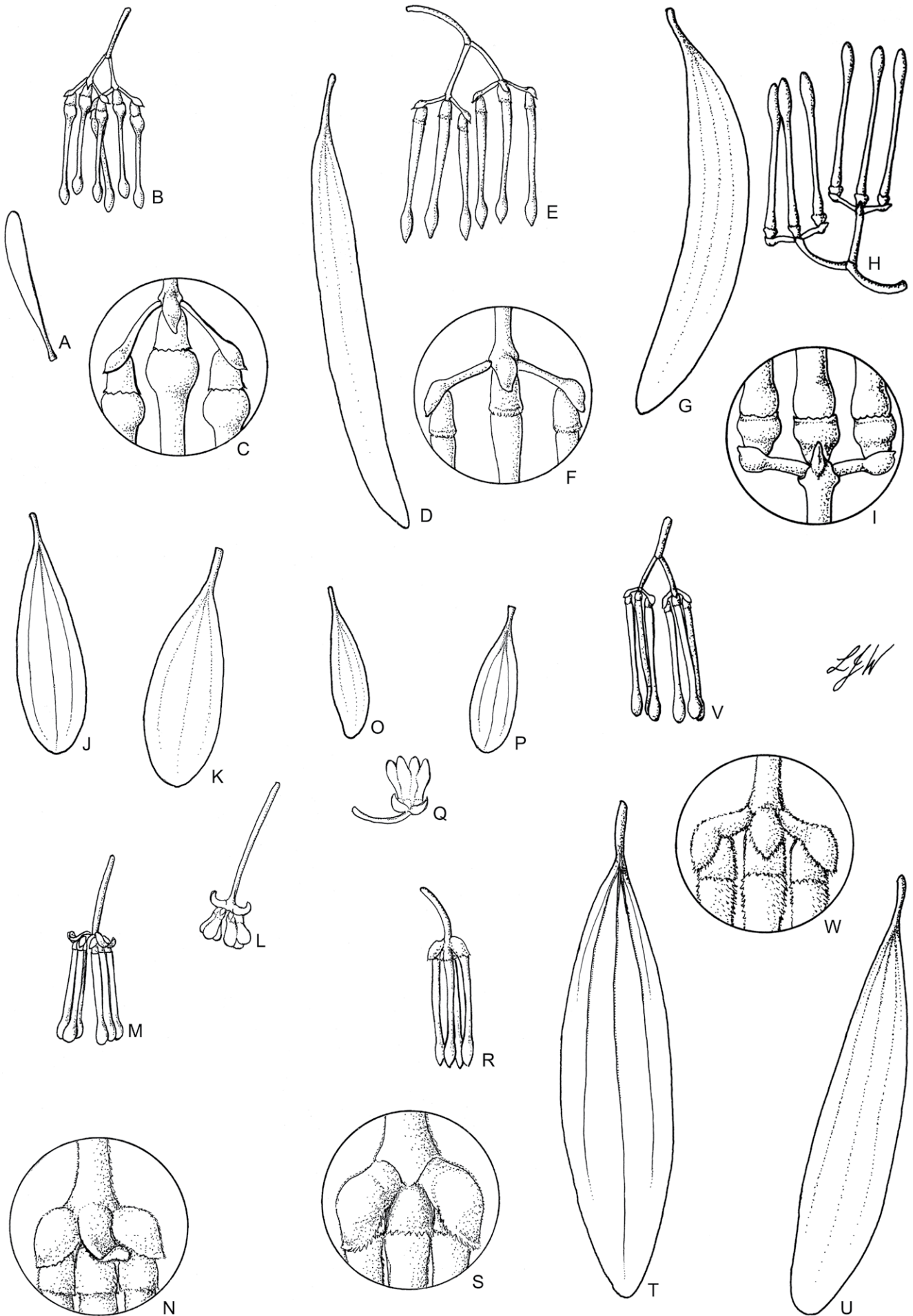
S.A.: NW; W.A.; N.T. Rarely collected and confined to the far north of the State. Flowers: mainly Apr.–Aug.

To date only recorded in S.A. on *Acacia estrophiolata*; elsewhere it is usually found on this species and *A. victoriae* or occasionally other *Acacia* spp. Resembles *Amyema quandang* but coarser in appearance.

4. **Amyema linophylla** (Fenzl) Tiegh., *Bull. Soc. Bot. France* 41: 507 (1894), subsp. **orientalis** Barlow, *Austral. J. Bot.* 14: 470 (1966), as *A. linophyllum* subsp. *orientale*. — *Loranthus linophyllus* Fenzl in Endl. *et al.*, *Enum. Pl. Hügel* 56 (1837), partly; *A. linophylla* (Fenzl) Tiegh., partly; *Amyema linophylla* subsp. *orientale* Barlow, orth. var.: SA Census online (2004). *Loranthus gibberulus* auct. non Tate: J.M.Black, *Fl. S. Austral.* 2: 278 (1924), partly. — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 48: 151, pl. xi (1923), as *Loranthus linophyllus*; *Pl. W. N.S.W.* 219 (1982); I.R.McCann *The Mallee in Flower* 71 (1989); D.M.Watson, *Mistletoes of Southern Australia* 43 & 134 (2011).

Plant spreading or pendulous, densely white-tomentose, especially the flowers; epicortical runners absent; leaves terete, 60–120 mm long, 1–2.5 mm diam. **Inflorescence** a pedunculate umbel of (usually) 3 triads, each with the central flower sessile; peduncle thickly tomentose, 5–8 mm long; umbel rays 2–4 mm long; pedicels of lateral flowers 1–2 mm long; bracts 2–3 mm long, acute; calyx entire, 0.7–1 mm long; mature buds with corolla mostly 16–22 mm long, clavate; flowers (4) 5-merous, white tomentose and pinkish outside, deep pink to red inside; anthers 2.5–3 mm long, about half the length of free part of filament. **Fruit** globular, 5–6 mm long. **Buloke mistletoe. Fig. 3E–G, Pl. 1C.**

S.A.: FR, EA, EP (W margin of Flinders Ranges), MU (northern), SE; Qld; N.S.W.; Vic. The type subspecies occurs in WA. Recorded infrequently in S.A. and probably often overlooked due to its cryptic foliage and limited flowering time. Flowers: (Dec–) Jan.–Feb. (–Apr.).



**Fig. 1.** A–C. *Amyema melaleucae*: A, leaf; B, inflorescence in bud; C, close-up of triad. D–F. *A. miraculosa* subsp. *boormanii*: D, leaf; E, inflorescence; F, close-up. G–I. *A. quandang* var. *quandang*: G, leaf; H, inflorescence; I, close-up. J–N. *A. maidenii*: J–K, leaves; L, young inflorescence; M, inflorescence; N, close-up. O–S. *A. fitzgeraldii*: O–P, leaves; Q, young inflorescence; R, inflorescence; S, close-up. T–W. *A. hilliana*: T–U, leaves; V, inflorescence; W, close-up. Illustration by L.J. Waters.

Exclusively parasitic on Casuarinaceae. Only recorded in S.A. on *Allocasuarina luehmannii* (SE region) and *Casuarina pauper* (northern regions), and absent over much of the latter species' range in the west of the State. An 1890 collection purportedly from Kangaroo Island cited by Barlow (1966) has been discounted due to the absence of suitable host species there.

5. **Amyema maidenii** (Blakely) Barlow subsp. **maidenii**, *Proc. Linn. Soc. New South Wales* 87: 57 (1962). — *Loranthus maidenii* Blakely, *Proc. Linn. Soc. New South Wales* 47: 393 (1922) & 49: 87 (1924); *Diplatia maidenii* (Blakely) Danser, *Bull. Jard. Bot. Buitenzorg* 10: 312 (1929). *L. quandang* auct. non Lindl.: Tate, *Handb. Fl. Extratrop. S. Austral.* 106 (1890), partly. — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 49: 96, pl. xxi (1924) as *Loranthus maidenii*; *Pl. W. N.S.W.* 220 (1982).

Plant erect or spreading, densely white-tomentose, especially the inflorescence; epicortical runners absent; leaf lamina elliptic to ovate, usually 30–40 × usually 10–18 mm, attenuate or contracted at base into petiole 5–10 mm long, rounded at apex. **Inflorescence** a pedunculate head of 2 opposite sessile triads, each with all flowers sessile; peduncle 10–30 mm long, dilated upwards, sometimes angular at apex; central bracts spreading or reflexed, triangular to elliptic, 2–5 mm long; lateral bracts nearly orbicular, 2–3 mm long, concave; calyx entire, 1 mm long; mature buds with corolla mostly 18–24 mm long, clavate; flowers 5-merous, greenish-white outside, with inside of corolla, filaments and style green; anthers 1.5–3 mm long, about one-third the length of free part of filament. **Fruit** ellipsoid, c. 8 mm long, constricted near apex. **Pale-leaved mistletoe. Fig. 1J–N.**

S.A.: NW, LE, NU, GT, FR, EA, EP (northern part); W.A.; N.T.; Qld; N.S.W. Flowers: throughout the year in response to rains, particularly May–Sep.

Almost exclusively parasitic on *Acacia*. In S.A. it is most often found on mulgas (*A. aneura* complex and allied species), but is also commonly encountered on a range of other species, particularly *A. kempeana*, *A. olgana*, *A. papyrocarpa* (mainly in NU region), *A. sibirica* and *A. tetragonophylla*.

6. **Amyema melaleucaae** (Lehm. ex Miq.) Tiegh., *Bull. Soc. Bot. France* 42: 82, 84 (1895). — *Loranthus melaleucaae* Lehm. ex Miq. in Lehm., *Pl. Preiss.* 1: 281 (1845); *L. pendulus* var. *melaleucaae* (Lehm. ex Miq.) Tate, *Trans. & Proc. Rep. Roy. Soc. South Australia* 3: 68 (1880); *L. miraculosus* var. *melaleucaae* (Miq.) Blakely, *Proc. Linn. Soc. New South Wales* 47: 392 (1922) & 48: 135 (1923). *L. pendulus* var. *parviflorus* Benth., *Fl. Austral.* 3: 394 (1867), partly; *A. leschenaultii* Tiegh., *Bull. Soc. Bot. France* 42: 84 (1895). — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 48: 151, pl. vi (1923), as *L. miraculosus* var. *melaleucaae*; D.M.Watson, *Mistletoes of Southern Australia* 48 & 49 (2011).

Plant erect, compact, glabrous; epicortical runners absent; leaf lamina lanceolate to narrow-spathulate, 20–35 × 2–4 mm, gradually attenuate at base without distinct petiole, rounded at apex. **Inflorescence** a pedunculate umbel of (usually) 2 triads, each with the central flower sessile; peduncle usually 6–14 mm long; umbel rays usually 4–9 mm long, not strongly divergent; pedicels of lateral flowers angular or winged, (1.5–) 3–4.5 mm long; bracts 1–1.5 mm long, concave, acute; calyx minutely lobed, almost entire, 0.3 mm long; mature buds with corolla inflated at base, slender medially and markedly clavate, 14–22 mm long; flowers (4) 5-merous, bright red; anthers 1–2 mm long, about half the length of free part of filament. **Fruit** nearly globular, 6–8 mm long, red. **Melaleuca mistletoe. Fig. 1A–C, Pl. 1D–G.**

S.A.: NU, FR (near Spencer Gulf), EP, NL (near St Vincent Gulf), MU (south-eastern), YP, SL, KI (White Lagoon and Rush Lagoon), SE; W.A. In coastal situations. Flowers: (Nov.–) Dec.–Feb. (–Apr.).

Exclusively parasitic on *Melaleuca*, principally *M. lanceolata*, *M. balmaturorum* and *M. pauperiflora* in S.A.

7. **Amyema miquelii** (Lehm. ex Miq.) Tiegh., *Bull. Soc. Bot. France* 41: 507 (1894). — *Loranthus miquelii* Lehm. ex Miq. in Lehm., *Pl. Preiss.* 1: 280 (1845). *L. aurantiacus* A.Cunn. ex Hook. in T.Mitch., *J. Exped. Trop. Austral.* 101 (1848); *A. aurantiaca* (A.Cunn. ex Hook.) Tiegh., *Bull. Soc. Bot. France* 41: 507 (1894). — **Illustr.:** *Pl. W. N.S.W.* 220 (1982); *Fl. Austral.* 22: 107, fig. 25g (1984); I.R.McCann, *The Mallee in Flower* 71 (1989).

Plant pendulous, glabrous except for young shoots, ovary (and sometimes the inflorescence and corolla) sparsely brown-tomentose; epicortical runners absent; leaf lamina linear to elliptic or nearly ovate, often falcate, 30–250 (–350) × 5–30 mm, attenuate at base into petiole 10–50 mm long, acute to rounded at apex, often with brownish-yellow to reddish-green pigmentation. **Inflorescence** a pedunculate umbel of 3–7 triads, each with flowers (usually) all pedicellate; peduncle 10–50 mm long; umbel rays 3–15 mm long; bract at apex of ray and those beneath

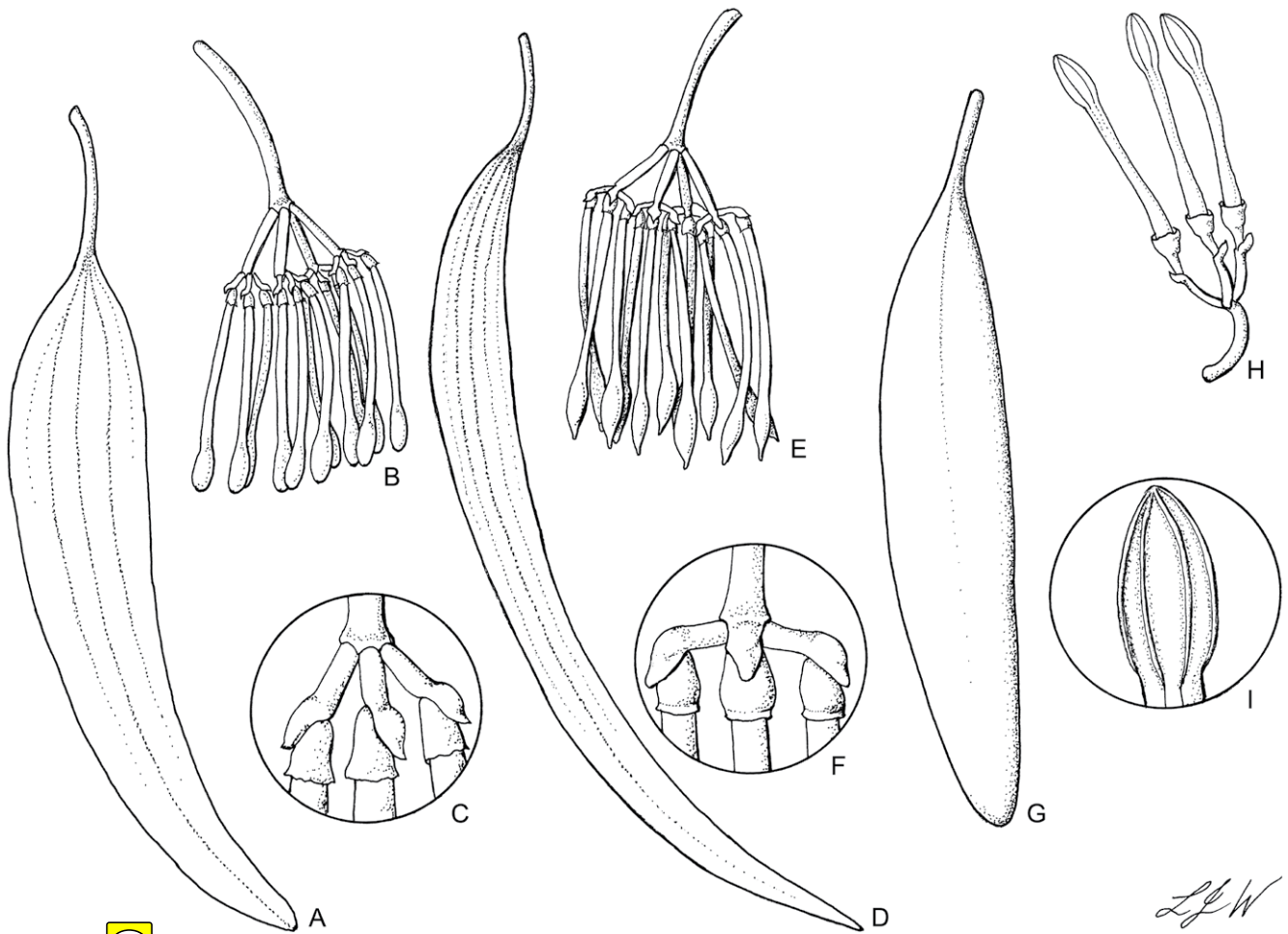


Fig. 2. A–C, *Amyema miguelii*: A, leaf; B, inflorescence in bud; C, close-up of triad. D–F, *A. pendula* subsp. *pendula*: D, leaf; E, inflorescence; F, close-up. G–I, *A. quandang* var. *quandang*: G, leaf; H, inflorescence; I, close-up of bud apex showing ribs. Illustration by L.J. Waters.

each flower 1–1.5 mm long, acute; pedicels usually 3–6 mm long; calyx entire or weakly lobed, 0.2–1.5 mm long; mature buds with corolla 15–28 mm long, clavate; flowers 5–7-merous, usually red inside and yellow-green to red outside; anthers 1.5–4 mm long, about half the length of free part of filament. **Fruit** ellipsoidal to pear-shaped, 8–12 mm long. **Box mistletoe.** Fig. 2A–C, Pl. 1H–J, 2A–C.

S.A.: NW, LE, NU, GT, FR, EA, EP, NL, MU, YP, SL, SE; W.A.; N.T.; Qld; N.S.W.; Vic. Notably absent from Kangaroo Island. Flowers: in southern areas mainly late Jan.–Apr., in northern arid areas more widely throughout the year but rarely in spring. Fruits: in southern areas May–Dec., in northern arid areas throughout the year.

Usually parasitic on eucalypts (*Corymbia* & *Eucalyptus*) and only occasionally found on other genera. The preferred eucalypt hosts are: box-barked species, mainly *Eucalyptus largiflorens*, *E. microcarpa*, *E. odorata* and *E. porosa*; smooth-barked gums allied to the boxes, mainly *E. fasciculosa* and *E. leucoxylon*; and red mallees, mainly *E. gillii*, *E. oleosa* and *E. socialis*. It occurs less commonly on a variety of other eucalypts including bloodwood (*Corymbia eremaea*), red gum (*E. camaldulensis*), and mallees such as *E. concinna*, *E. gamophylla*, *E. gracilis* and *E. oxymitra*.

8. ***Amyema miraculosa*** (Miq.) Tiegh., *Bull. Soc. Bot. France* 42: 84 (1895), subsp. ***boormanii*** (Blakely) Barlow, *Austral. J. Bot.* 14: 477 (1966), as *A. miraculosum* subsp. *boormanii*. — *Loranthus miraculosus* var. *boormanii* Blakely, *Proc. Linn. Soc. New South Wales* 47: 392 (1922) & 48: 137 (1923), as subsp. *boormanii*; *A. miraculosa* var. *boormanii* (Blakely) H.Eichler, *Suppl. Black's Fl. S. Austral.* 102 (1965). *L. miraculosus* Miq. in Lehm., *Pl. Preiss.* 1: 281 (1845), partly; *L. pendulus* Sieber ex Spreng. var. *parviflorus* Benth., *Fl. Austral.* 3: 394 (1867), partly; *A. miraculosa* (Miq.) Tiegh., partly; *L. bifurcatus* Benth. var. *queenslandicus* Domin, *Biblioth. Bot.* 89: 608 (1921); *L. miraculosus* Miq. var. *pubiger* Blakely, *Proc. Linn. Soc. New South Wales* 47: 392 (1922) & 48: 138 (1923), as var. *pubigera*. — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 48: 151, pl. vii (1923), as *L. miraculosus* var. *boormanii*; *Pl. W. N.S.W.* 221 (1982); I.R. McCann, *The Mallee in Flower* 71 (1989).

Plant erect, spreading or pendulous, glabrous except for the calyx sometimes sparsely tomentose; epicortical runners absent; leaf lamina lanceolate to narrow-oblong, 40–100 × 5–25 mm, gradually attenuate at base into an

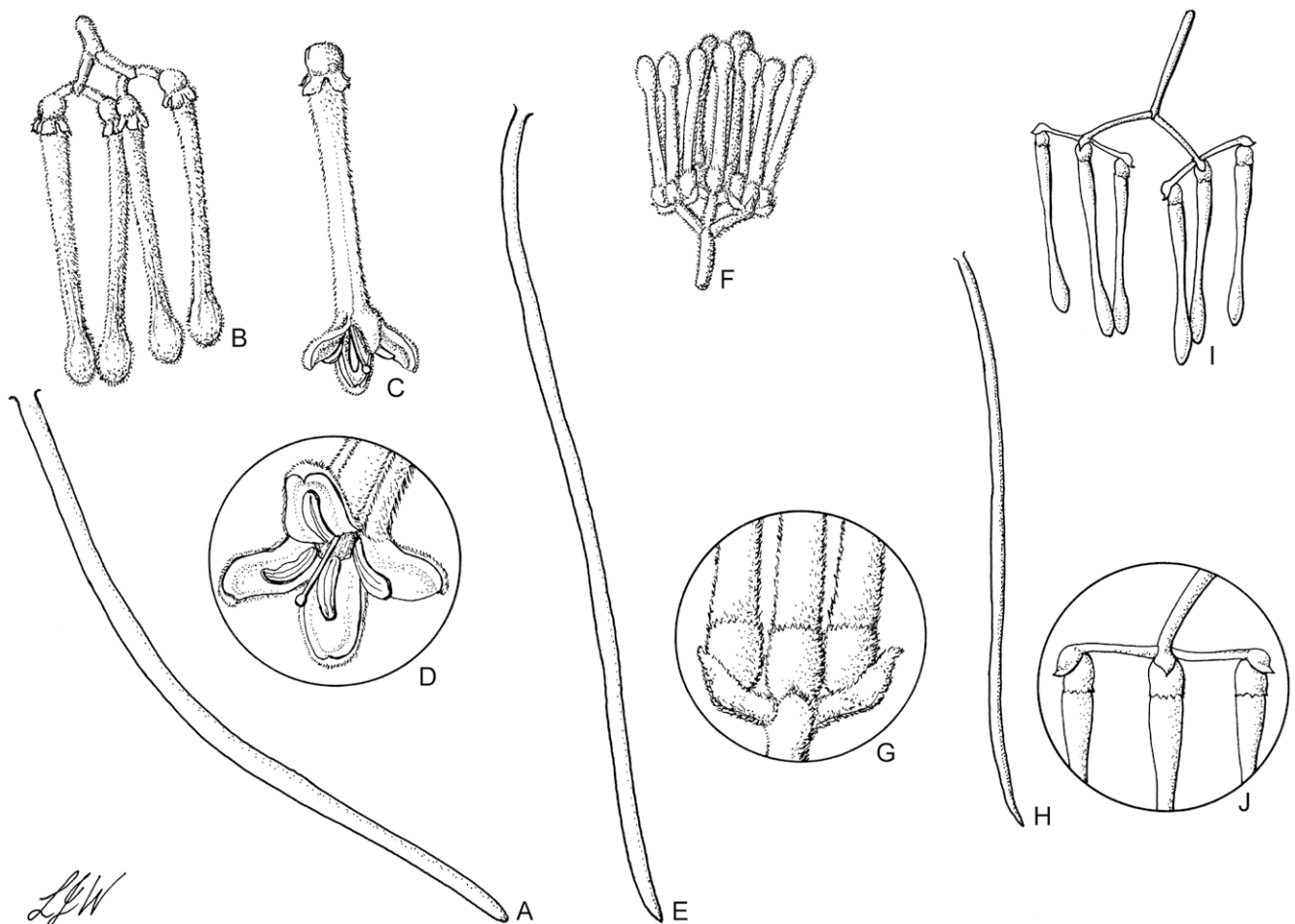


Fig. 3. A–D, *Amyema gibberula* var. *gibberula*: A, leaf; B, inflorescence in bud; C, flower; D, close-up of flower apex. E–G, *A. linophylla* subsp. *orientale*: E, leaf; F, inflorescence; G, close-up of triad. H–J, *A. preissii*: H, leaf; I, inflorescence; J, close-up. Illustration by L.J. Waters.

obscure petiole 2–10 mm long, acute to rounded at apex. **Inflorescence** a pedunculate umbel of 2–3 (4) triads, each with the central flower sessile, peduncle 6–30 mm long; umbel rays 3–10 mm long; pedicels of lateral flowers usually 1.5–7 (–10) mm long; bracts 0.7–1.5 mm long acute or truncate; calyx entire, c. 0.5 mm long; mature buds with corolla 15–25 mm long, clavate, longitudinally ridged or winged; flowers (4) 5-merous (lateral flowers sometimes 4-merous), bright red often grading to dark red at base; anthers 1–2 mm long, one-quarter to half the length of free part of filament. **Fruit** narrow-ellipsoid, c. 10 mm long, yellow to orange. **Fleshy mistletoe. Fig. 1D–F, Pl. 2D–H.**

S.A.: NW, LE, NU, GT, FR, EA, EP, NL (Clements Gap), MU, YP (near Pt Broughton; Pt Julia, extinct), SE (Talapar CP); W.A.; N.T.; Qld; N.S.W.; Vic. Flowers: mainly Dec.–Mar. and occasionally at other times throughout the year; often in response to rains.

Parasitic on a limited range of hosts; in S.A. it occurs mainly on *Santalum*, *Myoporum platycarpum*, several *Eremophila* spp. and *Geijera linearifolia*.

9. ***Amyema pendula*** (Sieber ex Spreng.) Tiegh. subsp. ***pendula***, *Bull. Soc. Bot. France* 41: 507 (1894). — *Loranthus pendulus* Sieber ex Spreng., *Syst. Veg. Suppl.* 139 (1827); *Dendrophthoe pendula* (Sieber ex Spreng.) Mart., *Flora* 13: 110 (1830); *A. pendulum* subsp. *pendulum*, orth. var.: Barlow, *Austral. J. Bot.* 14(3): 479 (1966). — **Illustr.:** G.R.Cochrane *et al.*, *Fl. Pl. Victoria*, fig. 366 (1968); I.R.McCann, *The Mallee in Flower* 71 (1989); *Fl. Victoria* 4: 41, fig. 5j (1999).

Plant pendulous, glabrous except young shoots, inflorescences and flowers shortly (rusty-) brown-tomentose; epicortical runners absent; leaf lamina lanceolate, often slightly falcate, 100–300 × 7–15 mm, gradually attenuate at base into petiole 10–20 (–40) mm long, acute at apex. **Inflorescence** a pedunculate umbel of 3 or 4 (5) triads or tetrads, each with the central flower sessile; umbel rays 5–11 mm long, spreading; peduncle usually 10–22 mm long; pedicels of lateral flowers 2–4 mm long; bracts 2–3 mm long; calyx almost entire, 1–1.5 mm long; mature buds with corolla 22–40 mm long; flowers 5-merous, brown to salmon pink outside, corolla lobes usually greenish-yellow inside with filaments and style pink to red; anthers 2–4 mm long, about one-third the length of

free part of filament. **Fruit** ellipsoid, c. 10 mm long. **Drooping mistletoe. Fig. 2D–F, Pl. 2I–J.**

S.A.: MU (Barossa Range; Baan Hill), SL, SE; Qld; N.S.W.; Vic. Flowers: throughout the year, but perhaps more commonly in Aug.–Dec.

Parasitic on *Eucalyptus* and less frequently on *Acacia*. In S.A. it mainly occurs on stringybarks (*Eucalyptus arenacea*, *E. baxteri*, *E. obliqua*), smooth-barked gums (*E. viminalis*, *E. camaldulensis*, *E. ovata*) and *Acacia melanoxylon*.

10. **Amyema preissii** (Miq.) Tiegh., *Bull. Soc. Bot. France* 42: 84 (1895). — *Loranthus preissii* Miq. in Lehm., *Pl. Preiss.* 1: 280 (1845); *L. linophyllus* var. *preissii* (Miq.) Ostenf., *Biol. Meddel. Kongel. Danske Vidensk. Selsk.* 3(2): 54 (1921). *L. scoparius* Miq. in Lehm., *Pl. Preiss.* 1: 280 (1845); *A. scoparia* (Miq.) Tiegh., *Bull. Soc. Bot. France* 42: 84 (1895). — **Illustr.:** Blakely, *Proc. Linn. Soc. New South Wales* 48: 151, pl. ix (1923), as *L. preissii*; *Pl. W. N.S.W.* 221 (1982); *Fl. Austral.* 22: 116, fig. 26a–b (1984).

Plant erect or spreading, glabrous; epicortical runners absent; leaves terete, 20–80 mm long, 0.5–2.3 mm diam. **Inflorescence** a pedunculate umbel of 2 (rarely 3) triads, each with the central flower sessile; peduncle 6–26 mm long; rays 3–13 mm long; pedicels of lateral flowers 4–10 mm long; bracts 1.5–2 mm long; calyx entire, 0.2 mm long; mature buds with corolla inflated at base, slender medially and distinctly clavate, 18–26 mm long; flowers 4- or 5-merous, predominantly orange-red to pink, with corolla lobes greenish-yellow apically; anthers (2–) 3.5–5.5 mm long, equal to free part of filament. **Fruit** globular, 8–10 mm long, pink or white. **Wire-leaved mistletoe. Fig. 3H–J, Pl. 3A–C.**

S.A.: NW, LE, NU, GT, FR, EA, EP (northern), NL, MU, YP (northern), SL, SE (Millicent area; S of Jip Jip Rocks); W.A.; N.T.; Qld; N.S.W.; Vic. Mostly found in arid and semi-arid areas but also extends into the wetter southern Mt Lofty Ranges; absent from most of Yorke and Eyre Peninsulas and rare in the South-eastern Region. Flowers: mainly Dec.–Mar.

Parasitic on a wide variety of *Acacia* spp., but also often recorded on *Senna* and *Alectryon*, and occasionally other species.

11. **Amyema quandang** (Lindl.) Tiegh. var. **quandang**, *Bull. Soc. Bot. France* 41: 507 (1894). — *Loranthus quandang* Lindl. in T.L.Mitch., *Three Exped. Austral.* 2: 69 (1838). *L. nutans* A.Cunn. ex Hook., in T.L.Mitch. *J. Exped. Trop. Austral.* 158 (1848), *nom. illeg. non Spreng.* (1825); *L. cunninghamii* A.Gray, *U.S. Expl. Exped., Phan.* 15: 741 (1854); *L. canus* F.Muell., *Hooker's J. Bot. Kew Gard. Misc.* 8: 145 (1856); *L. pruinosa* A.Cunn. ex Ettingsh., *Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr.* 32: 65 (1872); *Dendrophthoe pruinosa* (A.Cunn. ex Ettingsh.) Ettingsh., *Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr.* 32: 65 (1872); *L. pendulus* Sieber ex Spreng. var. *canescens* F.Muell. & Tate, *Trans. & Proc. Rep. Roy. Soc. South Australia* 16: 360 (1896); *A. cana* (F.Muell.) Tiegh., *A. nutans* (A.Cunn. ex Hook.) Tiegh. & *A. pruinosa* (A.Cunn. ex Ettingsh.) Tiegh., *Bull. Soc. Bot. France* 42: 84 (1895). — **Illustr.:** W.F.Blakely, *Proc. Linn. Soc. New South Wales* 49: 96, pl. xix, 1–9 (1924), as *L. quandang*; *Pl. W. N.S.W.* 222 (1982); F.Kutsche & B.Lay, *Fieldguide. Pl. Outback S. Austral.* 275 (2003).

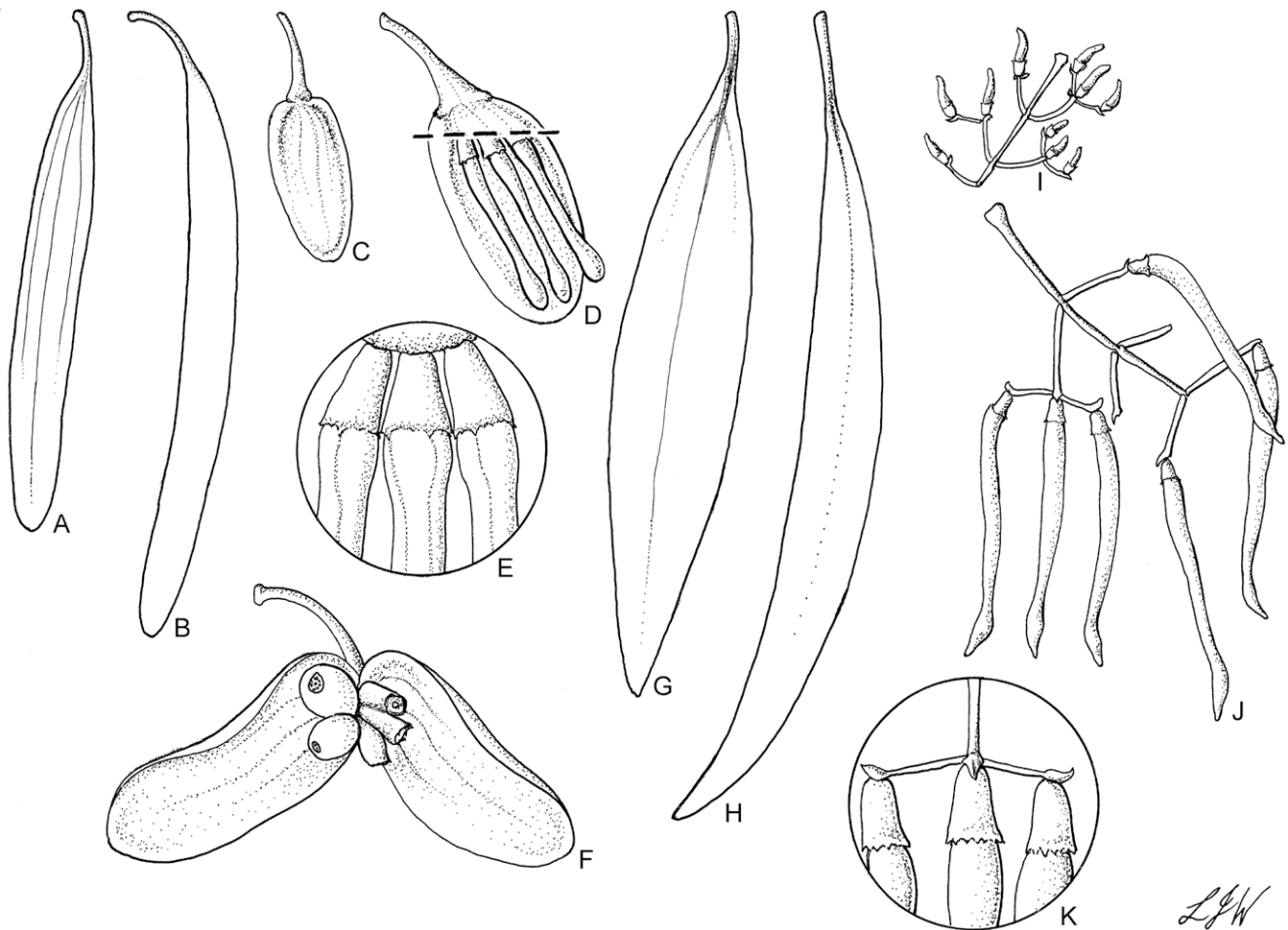
Plant pendulous or sometimes spreading, shortly and densely white-tomentose, becoming glabrous and glaucous on the older parts; epicortical runners absent; leaf lamina lanceolate to elliptic, usually falcate, 40–100 × 8–20 mm, attenuate at base into distinct petiole 4–12 mm long, acute to rounded at apex. **Inflorescence** a pedunculate umbel of 2 triads, each with the central flower sessile; peduncle usually 5–8 mm long, rays 2–8 mm long; pedicels of lateral flowers 1–3 mm long; bracts 1 mm long; ovary abruptly expanded then contracted just below calyx; calyx entire, 0.5–1 mm long; mature buds with corolla 16–30 mm long; flowers 5-merous, whitish green outside at base grading to pale pink, inside of corolla red medially and green to yellow apically, with filaments and style red; anthers 2–4 mm long, about half as long as free part of filament. **Fruit** ellipsoidal, pear-shaped or nearly globular, 6–10 mm long. **Grey mistletoe. Fig. 1G–I, Pl. 3D–E.**

S.A.: LE, NU, GT, EP; W.A.; N.T.; Qld; N.S.W.; Vic. Flowers: mainly Apr.–Oct.

Principally found on *Acacia papyrocarpa* and *A. cambagei*, occasionally on mulgas (*A. aneura* complex and allied species), and rarely on other *Acacia* species or unrelated genera.

12. **Amyema sanguinea** (F.Muell.) Danser var. **sanguinea**, *Bull. Jard. Bot. Buitenzorg* 10: 298 (1929). — *Loranthus sanguineus* F.Muell., *Fragm.* 1: 177 (1859); *Pilostigma sanguineum* (F.Muell.) Tiegh., *Bull. Soc. Bot. France* 41: 489 (1894); *A. sanguinea* (F.Muell.) Danser *Bull. Jard. Bot. Buitenzorg ser. III* 10: 298 (1929); *A. sanguineum* (F.Muell.) Danser:





**Fig. 4. A–F, *Diplatia grandibractea*:** A–B, leaves; C, young inflorescence; D, inflorescence with bract removed; E, close-up of triad; F, fruits with enlarged bracts. **G–K, *Muellerina eucalyptoides*:** G–H, leaves; I, buds; J, inflorescence; K, close-up of inflorescence. Illustration by L.J. Waters.

Barlow, orth. var., *Austral. J. Bot.* 14(3): 483 (1966). *L. spathulatus* O.Schwarz, *Repert. Spec. Nov. Regni Veg.* 24: 81 (1928); *A. spathulata* (O.Schwarz) Danser, *Verh. Kon. Ned. Akad. Wetensch., Afd. Naturk., Tweede Sect.* 29: 34 (1933). — **Illustr.:** K.A.W.Williams, *Native Pl. Queensl.* 2: 43 (1984); *Fl. Austral.* 22: 120, fig. 27c (1984); D.M.Watson *Mistletoes of Southern Australia* 66 & 67 (2011).

Plant pendulous, glabrous; epicortical runners present; leaf lamina narrowly to broadly lanceolate, 60–250 × 10–25 mm, gradually attenuate or contracted at base into petiole 5–20 mm long, obtuse or rounded at apex. **Inflorescence** a pedunculate simple umbel of 3–6 flowers; peduncle robust 4–12 mm long; rays of umbel 3–7 mm long; bracts 1.5–3.5 mm long, acute; calyx entire, 0.5 mm long; mature buds robust, with corolla 35–60 mm long, strongly 6-ribbed or 6-angular, clavate; flowers deep red; anthers 4–7 mm long, equal to free part of filament, stigma strongly capitate. **Fruit** funnel-shaped, 8–14 mm long. **Bloodwood mistletoe. Fig. 2G–I.**

S.A.: NW; W.A.; N.T.; Qld. Flowers: mainly Nov.–Feb.

Mainly found on the bloodwood *Corymbia eremaea*, with single records from *Eucalyptus gillenii* and an unidentified *Eucalyptus*. This species and *Muellerina eucalyptoides* are the only mistletoes in S.A. that have epicortical runners.

## 2. **DIPLATIA** Tiegh.

*Bull. Soc. Bot. France* 41: 501 (1894).

(Greek *di*, two; *plateia*, flat object; referring to the pair of leafy floral bracts which surround the flowers.)

Plant erect to pendulous, glabrous or the bracts and calyx tomentose; haustorial attachments without epicortical runners; leaves flat, curvinerved. **Inflorescence** axillary, a pedunculate head of 2 opposite sessile triads; central bracts of triads enlarged, foliaceous, and connate at margins during development of buds and enclosing them; lateral bracts small, narrow, caducous; corolla 5-merous with free petals, regular; anthers basifixed, immobile, 4-locular; style articulate at base. **Fruit** ellipsoidal.

3 species, endemic to northern tropical Australia, with one species extending into the arid zone.

Closely related to *Amyema* (Barlow, 1996) and differing mainly by the conspicuous leafy bracts of the inflorescence.

1. **Diplatia grandibractea** (F.Muell.) Tiegh., *Bull. Soc. Bot. Fr.* 41: 501 (1894). — *Loranthus grandibracteus* F.Muell., *Essay. Burdek. Exped.* 14 (1860). — **Illustr.:** W.F.Blakely, *Proc. Linn. Soc. New South Wales* 49: 96, 168<sup>+</sup>, pl. xxiii (1924) as *Loranthus grandibracteus*; *Pl. W. N.S.W.* 222 (1982); *Fl. N.S.W.* 3: 53–54 (1992).

Plant pendulous, glabrous; leaf lamina lanceolate to oblong, 60–120 × 5–20 mm, gradually attenuate at base into petiole 5–18 mm long, rounded at the apex. **Inflorescence** a pedunculate head of 2 opposite sessile triads, head surrounded by the 2 enlarged central bracts of triads; peduncle 17–35 mm long, terete at base, dilated and flattened in plane of bracts to 6–8 mm wide at apex; bracts leafy, oblong to ovate, (28)35–45 × 15–22 mm, completely enclosing buds and covering flower bases but later spreading to expose fruit; lateral bracts usually slightly longer than ovary; calyx entire or minutely irregular, 0.7 mm long; mature buds with corolla 25–32 mm long; flowers green; anthers 2.5–3 mm long, slightly shorter than free part of filament. **Fruit** ellipsoidal, 8 mm long. **Coolibah mistletoe. Fig. 4A–F, Pl. 3F–G.**

S.A.: LE; W.A.; N.T.; Qld; N.S.W. Flowers: mainly Jan.–Mar.

Appears to be exclusively parasitic on *Eucalyptus coolabah* in S.A.

### 3. LYSIANA Tiegh.

*Bull. Soc. Bot. France* 41: 599 (1894).

(Greek *lyo*, I set free; alluding to its separation from the genus *Loranthus*.)

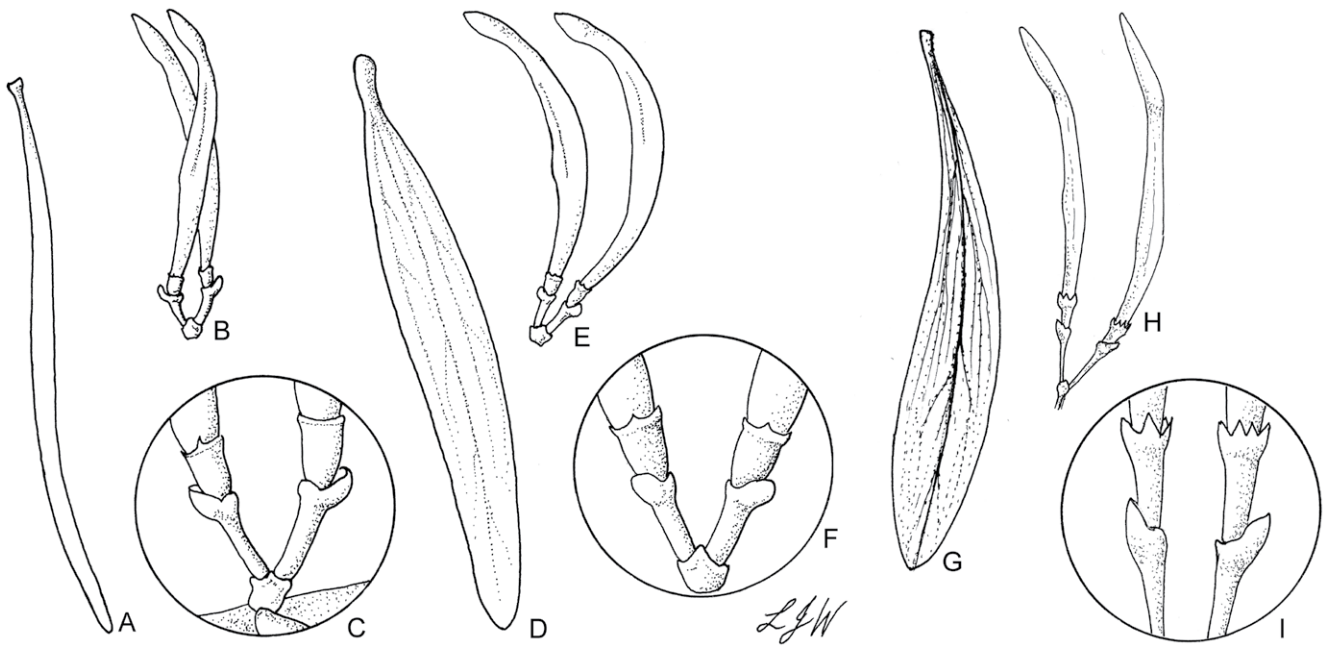
Plant erect to pendulous, glabrous; haustorial attachments without epicortical runners; leaves opposite, flat with pinnate venation or compressed or terete. **Inflorescence** axillary, a pedunculate or sessile 2-flowered simple umbel or reduced to a single flower; bracts single under each flower; corolla 6-merous, comprising a curved tube, inflated in the middle, unequally divided with free segments on the concave side extending deeper and more strongly reflexed; stamens equal; anthers basifixed, immobile, introrse, 4-locular, sometimes transversely septate (but not in S.A. species), acute, about as long as free part of filament. **Mistletoes.**

8 species endemic to Australia.

1. Flowers single or in pairs without a common peduncle; pedicel distinctly winged..... 2. **L. murrayi**
- 1: Flowers usually in pairs on a common peduncle (sometimes very short); pedicel not distinctly winged
2. Leaves oblanceolate to spatulate, widest at 2/3 to 3/4 of length, tapering into a petiole, venation prominent; calyx usually lobed or toothed; fruit ellipsoidal to pear-shaped, 8–14 mm long, usually pale and translucent when mature ..... 3. **L. subfalcata**
- 2: Leaves narrowly oblong or narrowly elliptic, widest at or below mid-length, subsessile, surface sometimes wrinkled but venation mostly obscure; calyx entire or weakly and irregularly lobed; fruit globular or ellipsoidal to ovoid, 6–10 mm long, opaque and deeply coloured red or black when mature..... 1. **L. exocarpi** subsp. **exocarpi**

1. **Lysiana exocarpi** (Behr) Tiegh. subsp. **exocarpi**, *Bull. Soc. Bot. France* 41: 603 (1894). — *Loranthus exocarpi* Behr in Schldl., *Linnaea* 20: 624 (1847). *Loranthus exocarpi* (Behr) Tiegh. var. *flavescens* F.Muell. ex Miq., *Ned. Kruidk. Archiv.* 4: 105 (1856); *Loranthus angustifolius* R.Br. ex Benth., *Fl. Austral.* 3: 390 (1867); *Dendrophthoe angustifolia* (R.Br. ex Benth.) Tiegh., *Bull. Soc. Bot. France* 42: 83 (1895); *Elytranthe exocarpi* (Behr) Engl., *Nat. Pflanzfam. Nachtr.* 126 (1897); *Loranthus diamantinensis* J.M.Black, *Trans. Roy. Soc. South Australia* 69: 309 (1945); *Lysiana exocarpi* (Behr) Tiegh. subsp. *diamantinensis* (J.M.Black) Barlow, *Proc. Linn. Soc. New South Wales* 88: 145 (1963). *Lysiana subfalcata* auct. non (Hook.) Barlow: W.R.Barker et. al., *J. Adelaide Bot. Gard. Suppl.* 1: 28 (2005), partly, as to NW region. — **Illustr.:** *Pl. W. N.S.W.* 223 (1982); I.R.McCann *The Mallee in Flower* 72 (1989); F.Kutsche & B.Lay, *Fieldguide. Pl. Outback S. Austral.* 276 (2003).

Plant spreading to pendulous; leaves linear to narrowly oblong or narrowly elliptic, 30–150 × 1–10 (18) mm, sometimes falcate, widest in the middle, attenuate at base or contracted to an obscure petiole, usually rounded at apex, often thick or leathery when mature and wrinkled when dry; venation obscure. **Inflorescence** a pedunculate



**Fig. 5.** A–C, *Lysiana exocarpi* (typical form): A, leaf; B, inflorescence in bud; C, close-up of calyx. D–F, *L. exocarpi* (northern broad-leaved form): D, leaf; E, inflorescence; F, close-up. G–I, *L. subfalcata*: G, leaf; H, inflorescence; I, close-up. Illustrations: A–F, L.J. Waters; G–I, G.R.M. Dashorst.

usually 2-flowered umbel; peduncle short, 0.5–2 mm long; pedicels 2–5 mm long; bracts 1–1.5 mm long, rounded at apex; calyx entire or weakly and irregularly lobed, 0.3–0.7 mm long; mature buds with corolla 25–50 mm long; flowers with corolla tube red, or less often yellow; perianth lobes pale green to yellow; stamens dark green; style articulate at base. **Fruit** globular or ellipsoidal to ovoid, 6–10 mm long, opaque and deeply coloured red or black when mature. **Harlequin mistletoe.** **Fig. 5A–F, Pl. 3H–J, 4A–B.**

S.A.: NW, LE, NU, GT, FR, EA, EP, NL, MU, YP, SL, .SE; W.A.; N.T.; Qld; N.S.W.; Vic. Flowers: in southern areas mainly Jan.–Mar., in northern arid areas Mar.–Jul., occasionally other months but rarely in spring. Fruits: in southern areas mainly Apr–Jul., in northern arid areas Jul.–Sep.

Able to parasitize a very wide range of native and introduced trees and shrubs, but notably not eucalypts except indirectly as an epiparasite on an intermediate host such as *Amyema*. The most common hosts are *Acacia* spp., *Alectryon*, *Allocasuarina verticillata*, *Amyema miquelii*, *Eremophila longifolia*, *E. sturtii*, *Exocarpos* spp., *Myoporum platycarpum*, *Pitosporum*, and *Santalum* spp. It is also often recorded on lignum (*Duma florulenta*), *Senna* spp., and a range of introduced plants including *Citrus* spp., *Lagunaria patersonii*, *Nerium oleander* and even deciduous trees. Red-flowered forms predominate, but yellow-flowered forms occur across the species range. Forms of this species from northern arid areas with particularly wide and thick leaves have often been misidentified as *Lysiana subfalcata*. They are consistent with the previously recognised *L. exocarpi* subsp. *diamantinensis* (J.M.Black) Barlow which was later sunk under subsp. *exocarpi* by Barlow (1984). They do not form a distinct entity but co-occur and intergrade completely with more typical narrow-leaved forms. An 1890 collection purportedly from Kangaroo Island has been discounted as a probably erroneous location.

2. ***Lysiana murrayi*** (F.Muell. & Tate) Tiegh., *Bull. Soc. Bot. France* 41: 603 (1894). — *Loranthus murrayi* F.Muell. & Tate, *Trans. & Proc. Rep. Roy. Soc. South Australia* 6: 109 (1883); *Elytranthe murrayi* (F.Muell. & Tate) Engl., *Nat. Pflanzenfam. Nachtr. I* 126 (1897). *Loranthus miniatus* S.Moore, *J. Bot.* 35: 170 (1897); *Loranthus murrayi* var. *parviflora* S.Moore, *J. Linn. Soc., Bot.* 34: 225 (1899). — **Illustr.:** *Pl. W. N.S.W.* 224 (1982); *Fl. Austral.* 22: 85, fig. 22c (1984).

Plant erect or spreading; leaves scattered or clustered, flat and linear to narrowly lanceolate or oblanceolate, or semi-terete and channelled above, 25–60 × 1–3.5 mm, acute at apex; venation not visible. **Inflorescence** a solitary axillary flower, or pair of flowers without a common peduncle; pedicels 8–20 mm long, dilated and strongly winged towards apex; bracts 2–3 mm long, spreading, membranous, rounded at apex; calyx entire or irregularly toothed, c. 1 mm long; mature buds with corolla mostly (15) 18–28 mm long; flowers white, yellow or pink; style articulate almost at base. **Fruit** globular, 7–12 mm long, pink or red. **Mulga mistletoe.** **Fig. 6A–C, Pl. 4C.**

S.A.: NW, LE, NU, GT, ?FR (north-western corner), EP (northern); W.A.; N.T.; Qld; N.S.W. Flowers: throughout the year but more commonly in winter; often in response to rain.

Mainly parasitic on *Acacia* spp., and mostly mulgas (*A. aneura* complex and allied species). Recorded less frequently on *Acacia kempeana*, *A. olgana*, other *Acacia* spp. and a range of other genera.

3. **Lysiana subfalcata** (Hook.) Barlow, *Proc. Linn. Soc. New South Wales* 88: 141 (1963). — *Loranthus subfalcatus* Hook. in T.L. Mitchell J. *Exped. Trop. Austral.* 224 (1848); *Loranthus exocarpi* var. *subfalcatus* Domin, *Biblioth. Bot.* 89: 607 (1921). *Loranthus exocarpi* Behr var. *venulosa* Blakely, *Proc. Linn. Soc. New South Wales* 50: 9 (1925). — **Illustr.:** *Fl. Austral.* 22: 85, fig. 22a & b (1984).

Plant spreading to pendulous; leaf lamina flat, oblanceolate to (narrowly) spathulate, (20) 40–110 × 4–20 mm, widest at two-thirds the length, attenuate at base into petiole 5–10 mm long, acute to rounded at apex; venation distinct with with 2–4 lateral veins nearly as prominent as midrib. **Inflorescence** a pedunculate 2-flowered umbel; peduncle 1–3 mm long; pedicels 3–8 mm long; bracts 1–1.5 mm long, acute to rounded; calyx variable, usually 6-lobed and c. 1 mm long; mature buds with corolla 25–50 mm long; flowers with corolla tube red, or orange with a yellow band distally, lobes green; style articulate 0–0.5 mm above base. **Fruit** ellipsoidal to pear-shaped, 8–14 mm long, usually pale and somewhat translucent. **Northern mistletoe.** **Fig. 5G–I, Pl. 4D–G.**

S.A.: LE; W.A.; N.T.; Qld; N.S.W. Flowers: mainly May.–Aug.

In S.A. predominantly recorded on *Atalaya*, and to lesser extent on *Bauhinia* and *Owenia*, with occasional records on *Acacia* and other genera. In S.A. this name has been partly misapplied to inland forms of *L. exocarpi* subsp. *exocarpi* with particularly broad and thick leaves which had previously been treated as a separate subspecies (*L. exocarpi* subsp. *diamantinensis*). *Lysiana subfalcata* is restricted to the north-eastern corner of S.A. and is no longer recognised as occurring in the NW or FR regions. Morphologically and geographically *L. subfalcata* appears to be an intermediate taxon between *L. exocarpi* and the northern Australian species *L. spathulata* (Blakeley) Barlow. Apart from a few apparent intergrades, *L. subfalcata* seems to be a separate but rather variable entity that overlaps in range with both those species. Some South Australian forms of *L. subfalcata* with broadly spathulate leaves and tricoloured flowers closely resemble *L. spathulata*, but lack the discontinuous septate anther cells and distinctive fruit apex of that species. These distinct forms of *L. subfalcata* occur in tree canopies along watercourses whereas the broad-leaved *L. exocarpi* that was previously often confused with *L. subfalcata* may be found nearby in more open habitats such as on sand dunes.

#### 4. MUELLERINA Tiegh.

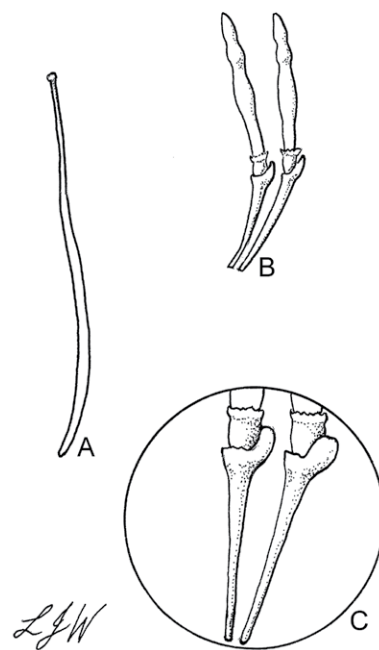
*Bull. Soc. Bot. France* 42: 25 (1895).

(After eminent Australian botanist, Ferdinand von Mueller, 1825–1896.)

Plant erect to pendulous, glabrous or nearly so; haustorial attachments produced from epicortical runners; leaves flat, curvinerved or penninerved. **Inflorescence** terminal, a raceme of 1–6 decussate pairs of pedunculate triads or single flowers, each triad with central flower sessile and the lateral flowers pedicellate; bract single, under each flower; corolla 5-merous, curved in bud, petals free; stamens unequal; anthers dorsifixed, versatile; style articulate at the base. **Fruit** pear-shaped.

5 species endemic to eastern Australia.

1. **Muellerina eucalyptoides** (DC.) Barlow, *Proc. Linn. Soc. New South Wales* 87: 55 (1962). — *Loranthus eucalyptoides* DC., *Prodr.* 4: 318 (1830); *Dendrophthoe eucalyptoides* (DC.) Ettingsh., *Denks. Akad. Wiss. Math.-Nat.* 32: 67 (1872); *Phrygilanthus eucalyptoides* (DC.) Danser, *Bull. Jard. Bot. Buitenzorg ser. 3* 10: 348 (1929). *Loranthus eucalyptifolius* Sieber ex Schult. & Schult.f., *Syst. Veg.* 7(1): 163 (1829), non Kunth (1820), *nom. illeg.*; *P. eucalyptifolius* (Sieber ex Schult. & Schult.f.) Engler, in Engler & Prantl, *Nat. Pflanzenfam. Nachtr. I* 134 (1897), *nom. illeg.*; *M. eucalyptifolia* (Sieber ex Schult. & Schult.f.) Tiegh., *Bull. Soc. Bot. France* 42: 25 (1895), *nom. illeg.*; *L. celastroides* Sieber ex Schult. & Schult.f. var. *eucalyptifolius* (Sieber ex Schult. & Schult.f.) Domin, *Biblioth. Bot.* 89: 606 (1921). *Loranthus celastroides auct. non* Sieber ex Schult. & Schult.f.: Benth., *Fl. Austral.* 3: 389 (1867); Tate, *Fl. Extratrop. S. Austral.* 106 (1890). — **Illustr.:**



**Fig. 6. *Lysiana murrayi*:** A, leaf; B, young flowers; C, close-up of calyx. Illustration by L.J. Waters.

G.R.Cochrane *et al.*, *Fl. Pl. of Victoria*, fig. 365 (1968); *Fl. Austral.* 22: 89, fig. 23a (1984); *Fl. Victoria* 4: 41, fig. 5d (1999).

Plant spreading to pendulous; epicortical runners present; leaf lamina linear to lanceolate or oblong, 80–200 × 7–20 mm, gradually attenuate at base into slender petiole 10–30 mm long, usually acute at apex. **Inflorescence** a raceme of usually 4 or 5 pairs of triads or single flowers (sometimes forming a simple raceme or umbel); axis 12–35 mm long; peduncles of triads 5–9 mm long; pedicels of lateral flowers (when present) 4–6 mm long; bracts narrowly triangular 1 mm long; calyx entire, 0.7 mm long; mature buds with corolla 30–45 mm long, curved, weakly sigmoidal in profile, slightly clavate; flowers green to yellow outside, inside of corolla lobes and filaments red, style green; anthers 2–2.5 mm long; free part of filament 8–12 mm long. **Fruit** 12–15 mm long, yellow at maturity. **Creeping mistletoe. Fig. 4G–K, Pl. 4H.**

S.A.: SE; Qld (southern section); N.S.W.; Vic. Moderately common on Red Gums in SE Region, but often overlooked because of its cryptic foliage. Flowers: Dec.–Mar.

Principally found on *Eucalyptus camaldulensis* and *E. obliqua*, with infrequent records from, *E. leucoxydon* subsp. *megalocarpa*, *E. ovata* and *Acacia mearnsii*. Interstate it is also recorded from a number of introduced trees. This species and *Amyema sanguinea* are the only mistletoes in S.A. with epicortical runners.

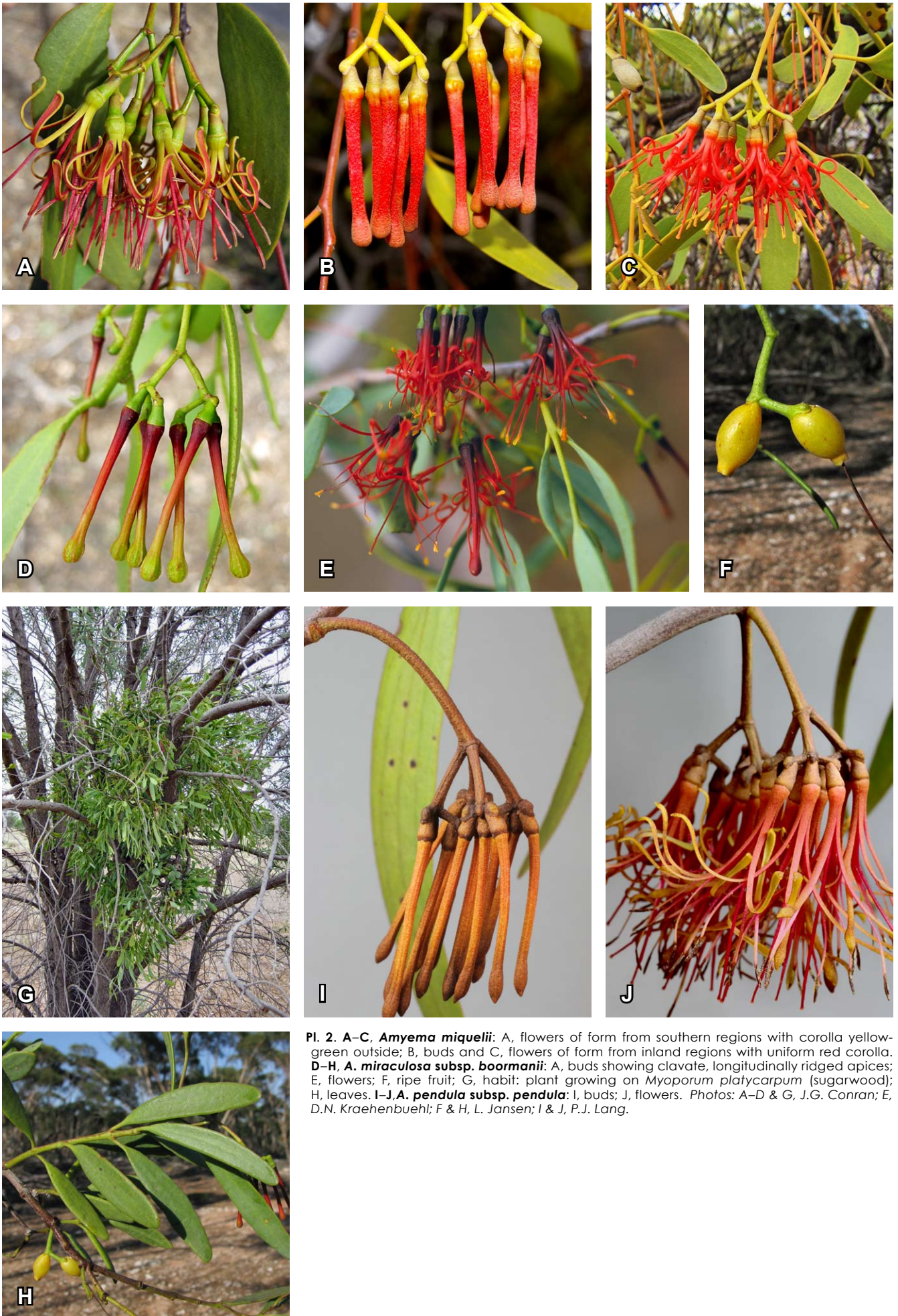
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Pl. 1. **A–B**, *Amyema gibberula* var. *gibberula*: A, flowers and foliage; B, habit: young plant on branches of *Grevillea nematophylla* (water bush). **C**, *A. linophylla* subsp. *orientalis*, habit: flowering plant on branch of *Allocasuarina luehmannii* (buloke). **D–G**, *A. melaleuca*: D, young buds; E, flowers; F, habit: flowering plants in dense canopy of *Melaleuca lanceolata* (dryland tea-tree); G, branchlet with leaves, mature buds and flowers. **H–J**, *A. miquelii*, from Adelaide hills-face: H, leaves, buds and flowers; I, habit, large plant with characteristic yellow-ochre tones to foliage, growing on smooth-barked eucalypt; J, fruit. Photos: A–B, A.C. Robinson, DEWNR; C, S.A. Seed Conservation Centre, DEWNR; D, T.M. Jaques; E–G & I, J.G. Conran; H, P.J. Lang; J, A.C. Robinson.



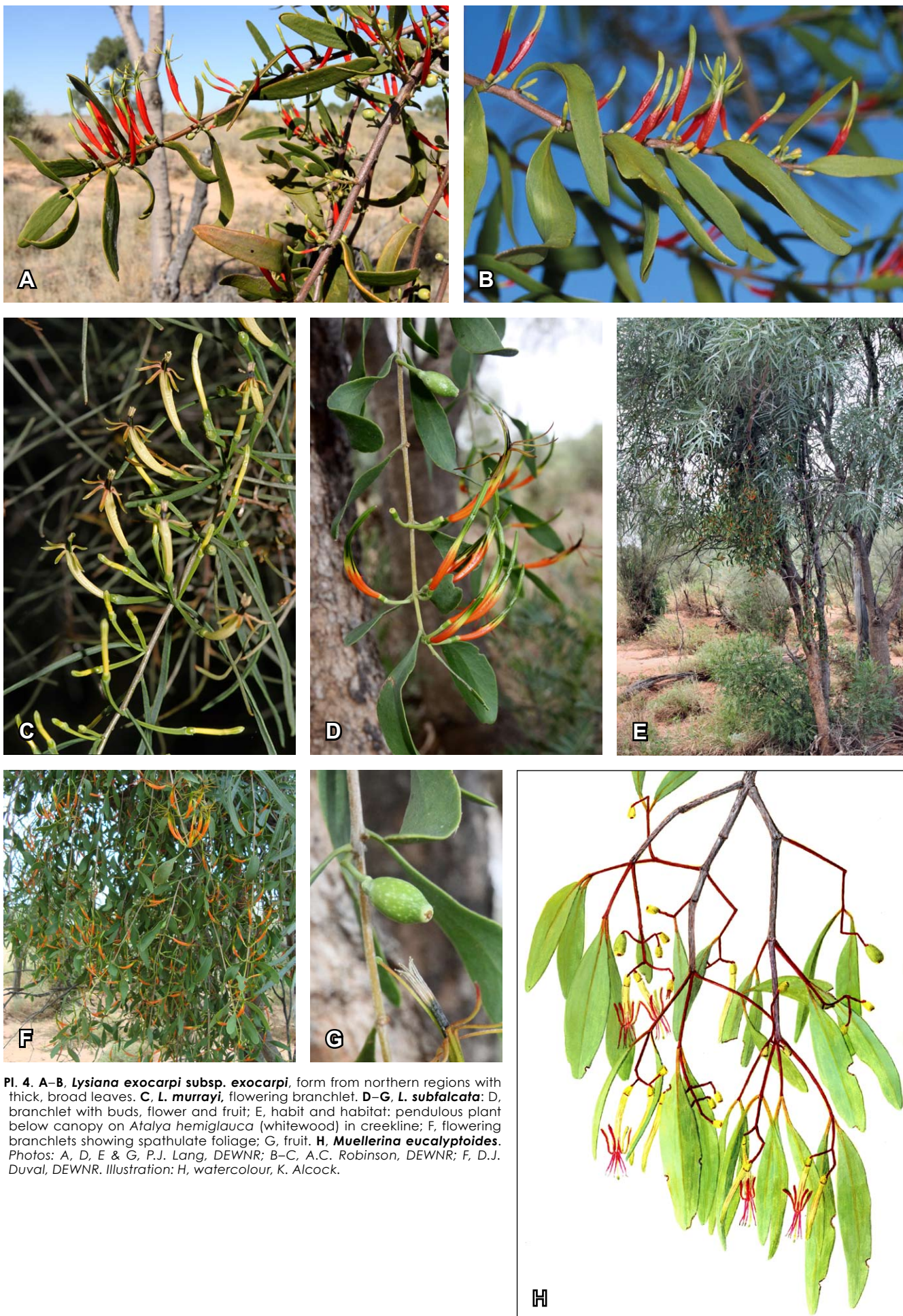


Pl. 2. A–C. *Amyema miquelii*: A, flowers of form from southern regions with corolla yellow-green outside; B, buds and C, flowers of form from inland regions with uniform red corolla. D–H. *A. miraculosa* subsp. *boormanii*: A, buds showing clavate, longitudinally ridged apices; E, flowers; F, ripe fruit; G, habit: plant growing on *Myoporum platycarpum* (sugarwood); H, leaves. I–J. *A. pendula* subsp. *pendula*: I, buds; J, flowers. Photos: A–D & G, J.G. Conran; E, D.N. Kraehenbuehl; F & H, L. Jansen; I & J, P.J. Lang.



Pl. 3. A–C, *Amyema preissii*: A, flowers; B, ripe fruit; C, habit: flowering plant on *Senna artemisioides* subsp. *×coriacea*. D–E, *A. quandang* var. *quandang*, flowers. F–G, *Diplatia grandibractea*: F, two bracteate inflorescences with protruding flowers; G, branchlet showing leaves, flowers and fruit. H–J, *Lysiana exocarpi* subsp. *exocarpi*: H, flowers and foliage of red form; I, flower of yellow form; J, ripening fruit. Photos: A, D & H, J.G. Conran; B, D.E. Murfet, C, L. Jansen, E–G, P.J. Lang, DEWNR, I & J, P.J. Lang.





Pl. 4. A–B, *Lysiana exocarpi* subsp. *exocarpi*, form from northern regions with thick, broad leaves. C, *L. murrayi*, flowering branchlet. D–G, *L. subfalcata*: D, branchlet with buds, flower and fruit; E, habit and habitat: pendulous plant below canopy on *Atalya hemiglauca* (whitewood) in creekline; F, flowering branchlets showing spatulate foliage; G, fruit. H, *Muellerina eucalyptoides*. Photos: A, D, E & G, P.J. Lang, DEWNR; B–C, A.C. Robinson, DEWNR; F, D.J. Duval, DEWNR. Illustration: H, watercolour, K. Alcock.