

## 1. EUCALYPTUS L'Héritier, Sert. Angl. 18. 1789.

桉屬 an shu

*Corymbia* K. D. Hill & L. A. S. Johnson.

Trees or shrubs. Bark smooth, fibrous, stringy, or tessellated. Leaves usually polymorphic with different juvenile and mature forms and sometimes with intermediate forms. Juvenile leaves opposite, 3 to several pairs, shortly petiolate or sessile; leaf blade often glaucous or with glandular trichomes; juvenile foliage sometimes persisting throughout life of plant. Mature leaves alternate, petiolate; leaf blade usually leathery, secondary veins numerous, with intramarginal veins. Inflorescences axillary or clustered into terminal or axillary panicles, consisting of umbelliform condensed dichasia. Flowers bisexual. Hypanthium campanulate, obconic, or semiglobose, stipitate or not, apex usually truncate. Sepals rarely distinct. Petals connate, either adnate to sepals into a 1-layered calyptra or not adnate and then with connate sepals forming a 2-layered calyptra; calyptra deciduous at anthesis. Stamens numerous, usually distinct, in several whorls with outer whorl usually sterile; anthers 2-celled, parallel or oblique, elliptic, ovate, cordate, or bifurcate, dehiscing longitudinally or occasionally poricidally. Ovary adnate to hypanthium, 2–7-loculed; ovules numerous. Style persistent. Whole or most of capsule included in expanded hypanthium; disk often well developed; valves exerted from hypanthium, equaling hypanthium rim, or included in hypanthium. Seeds numerous, many sterile and undeveloped, developed seeds ovate or angular; testa rigid, sometimes developed into wings.

About 700 species: mainly in Australia, with a minor representation in Indonesia, Papua New Guinea, and the Philippines; about 110 species cultivated in China with only 25 major ones treated here.

The genus is treated here in the broad sense, i.e., the segregate *Corymbia* is not recognized.

In addition to the *Eucalyptus* species treated here, the following additional taxa have been recorded as being cultivated in China (see Wang & Brooker, A key to eucalypts in China, China Science and Technology Press, Beijing, 1991):

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|---|---|
| <i>E. acaciiformis</i> H. Deane & Maiden  | <i>E. fibrosa</i> F. Mueller                            |
| <i>E. agglomerata</i> Maiden  | <i>E. ficifolia</i> F. Mueller                          |
| <i>E. aggregata</i> H. Deane & Maiden   | <i>E. fraxinoides</i> H. Deane & Maiden                 |
| <i>E. albens</i> Benth  | <i>E. glaucescens</i> Maiden & Blakely                  |
| <i>E. amygdalina</i> Labillardière ( <i>E. salicifolia</i> (Solander) Cavanilles) | <i>E. globoidea</i> Blakely                             |
| <i>E. badjensis</i> Beuzeville & Welch  | <i>E. gomphocephala</i> Candolle                        |
| <i>E. bakeri</i> Maiden   | <i>E. goniocalyx</i> F. Mueller ex Miquel               |
| <i>E. benthamii</i> Maiden & Cabbage  | <i>E. gummifera</i> (Solander ex Gaertner) Hochreutiner |
| <i>E. bosistoana</i> F. Mueller   | <i>E. gunnii</i> J. D. Hooker                           |
| <i>E. brassiana</i> S. T. Blake   | <i>E. horistes</i> L. A. S. Johnson & K. D. Hill        |
| <i>E. bridgesiana</i> R. Baker  | <i>E. intermedia</i> R. Baker                           |
| <i>E. camphora</i> R. Baker   | <i>E. ×kirtoniana</i> F. Mueller                        |
| <i>E. cinerea</i> F. Mueller ex Benth   | <i>E. kochii</i> Maiden & Blakely                       |
| <i>E. cladocalyx</i> F. Mueller   | <i>E. laevopinea</i> R. Baker                           |
| <i>E. cloeziana</i> F. Mueller  | <i>E. leucoxydon</i> F. Mueller                         |
| <i>E. coccifera</i> J. D. Hooker  | <i>E. longifolia</i> Link                               |
| <i>E. coolabah</i> Blakely & Jacobs   | <i>E. macarthurii</i> H. Deane & Maiden                 |
| <i>E. cordata</i> Labillardière   | <i>E. mannifera</i> Mudie                               |
| <i>E. cornuta</i> Labillardière   | <i>E. marginata</i> Donn ex Smith                       |
| <i>E. crawfordii</i> Maiden & Blakely   | <i>E. melanoxylon</i> Maiden                            |
| <i>E. crenulata</i> Blakely & Beuzeville  | <i>E. microtheca</i> F. Mueller                         |
| <i>E. cypellocarpa</i> L. A. S. Johnson   | <i>E. miniata</i> Cunningham ex Schauer                 |
| <i>E. dalrympleana</i> Maiden   | <i>E. neglecta</i> Maiden                               |
| <i>E. dealbata</i> A. Cunningham ex Schauer                                       | <i>E. nitens</i> (H. Deane & Maiden) Maiden             |
| <i>E. deanei</i> Maiden   | <i>E. nova-anglica</i> H. Deane & Maiden                |
| <i>E. deglupta</i> Blume  | <i>E. occidentalis</i> Endlicher                        |
| <i>E. delegatensis</i> R. Baker   | <i>E. ovata</i> Labillardière                           |
| <i>E. dendromorpha</i> (Blakely) L. A. S. Johnson & Blaxell                       | <i>E. paliformis</i> L. A. S. Johnson & Blaxell         |
| <i>E. diversicolor</i> F. Mueller   | <i>E. papuana</i> F. Mueller                            |
| <i>E. dives</i> Schauer   | <i>E. parramattensis</i> C. Hall                        |
| <i>E. drepanophylla</i> F. Mueller ex Benth                                       | <i>E. parvifolia</i> Cabbage                            |
| <i>E. dundasii</i> Maiden   | <i>E. pauciflora</i> Sieber ex Sprengel                 |
| <i>E. dunnii</i> Maiden   | <i>E. peltata</i> Benth                                 |
| <i>E. elata</i> Dehnhardt   | <i>E. perriniana</i> F. Mueller ex Rodway               |
| <i>E. eugenioides</i> Sieber ex Sprengel  | <i>E. pilularis</i> Smith                               |
| <i>E. fastigiata</i> H. Deane & Maiden  | <i>E. polybractea</i> R. Baker                          |
|   | <i>E. propinqua</i> H. Deane & Maiden                   |

MYRTACEAE

<i>E. pulverulenta</i> Sims	<i>E. smithii</i> R. Baker
<i>E. pyrocarpa</i> L. A. S. Johnson & Blaxell	<i>E. stellulata</i> Sieber ex Candolle
<i>E. quadrangulata</i> H. Deane & Maiden	<i>E. stricta</i> Sieber ex Sprengel
<i>E. radiata</i> Sieber ex Candolle	<i>E. tessellaris</i> F. Mueller
<i>E. regnans</i> F. Mueller	<i>E. triantha</i> Link
<i>E. resinifera</i> Smith	<i>E. triflora</i> (Maiden) Blakely
<i>E. rubida</i> H. Deane & Maiden	<i>E. urophylla</i> S. T. Blake
<i>E. scoparia</i> Maiden	<i>E. viminalis</i> Labillardière
<i>E. seeana</i> Maiden	

- 1a. Bark smooth essentially throughout, exfoliating.
- 2a. Valves of capsule included in hypanthium rim; inflorescences terminal, paniculate.
- 3a. Capsule 4–5 mm in diam. .... 23. *E. polyanthemus*
- 3b. Capsule 8–13 mm in diam.
- 4a. Mature leaf blade ovate, pubescent; capsule globose ..... 1. *E. torelliana*
- 4b. Mature leaf blade lanceolate to narrowly lanceolate, glabrous; capsule pot-shaped to ovoid.
- 5a. Leaves with strong lemon smell; bark grayish blue ..... 2. *E. citriodora*
- 5b. Leaves only with weak odor; bark with grayish yellow maculae ..... 3. *E. maculata*
- 2b. Valves of capsule exerted or equaling hypanthium rim; inflorescences axillary, simple.
- 6a. Hypanthium in flower and fruit 4-ridged ..... 18. *E. globula*
- 6b. Hypanthium not ridged or 2-ridged.
- 7a. Leaf blade of mature trees rounded to broadly ovate ..... 14. *E. platyphylla*
- 7b. Leaf blade of mature trees lanceolate or narrowly lanceolate.
- 8a. Calyptra awl-shaped.
- 9a. Peduncle terete ..... 13. *E. blakelyi*
- 9b. Peduncle compressed, flattened, or ridged.
- 10a. Hypanthium campanulate, 5–6 mm ..... 4. *E. punctata*
- 10b. Hypanthium semiglobose, ca. 3 mm ..... 11. *E. amplifolia*
- 8b. Calyptra conic, rostrate, or semiglobose.
- 11a. Peduncle terete.
- 12a. Calyptra acutely conic ..... 10. *E. tereticornis*
- 12b. Calyptra rostrate or obtusely conic ..... 12. *E. camaldulensis*
- 11b. Peduncle compressed.
- 13a. Capsule pyriform to awl-shaped ..... 5. *E. grandis*
- 13b. Capsule semiglobose to bowl-shaped ..... 15. *E. alba*
- 1b. Bark on trunk and branches rough or fibrous, persistent, sometimes only on basal part of trunk and then apically smooth and exfoliating.
- 14a. Inflorescence paniculate, terminal or sometimes axillary and then reduced in complexity.
- 15a. Disk of fruiting hypanthium narrow or obscure.
- 16a. Hypanthium 6–8 mm excluding stipe; leaf blade 2–3 cm wide ..... 24. *E. paniculata*
- 16b. Hypanthium 2–3 mm excluding stipe; leaf blade 1–1.8 cm wide.
- 17a. Capsule truncately capitate-ovoid ..... 21. *E. largiflorens*
- 17b. Capsule campanulate ..... 22. *E. crebra*
- 15b. Disk of fruiting hypanthium broad or moderately broad.
- 18a. Calyptra semiglobose ..... 19. *E. microcorys*
- 18b. Calyptra awl-shaped.
- 19a. Flower buds spindle-shaped ..... 20. *E. leptophleba*
- 19b. Flower buds obovoid ..... 23. *E. polyanthemus*
- 14b. Inflorescence simple, axillary.
- 20a. Valves of capsule included or equaling hypanthium rim.
- 21a. Disk of fruiting hypanthium narrow ..... 25. *E. melliodora*
- 21b. Disk of fruiting hypanthium broad or moderately broad.
- 22a. Capsule pot-shaped, sometimes ± constricted in middle, 1–1.5 cm ..... 8. *E. robusta*
- 22b. Capsule campanulate to obconic, 6–8 mm ..... 9. *E. botryoides*
- 20b. Valves of capsule exerted from hypanthium rim.
- 23a. Capsule 1.2–1.5 cm in diam. .... 7. *E. pellita*
- 23b. Capsule 0.5–0.9 cm in diam.
- 24a. Peduncle compressed.
- 25a. Calyptra semiglobose or conic ..... 5. *E. grandis*
- 25b. Calyptra shortly pyramidally awl-shaped ..... 6. *E. saligna*
- 24b. Peduncle terete.

- 26a. Leaf blade secondary veins at an angle of 35°–45° from midvein; hypanthium semiglobose ..... 16. *E. exserta*  
 26b. Leaf blade secondary veins at an angle of 55°–60° from midvein; hypanthium obconic ..... 17. *E. rudis*

**1. *Eucalyptus torelliana*** F. Mueller, *Fragm.* 10: 106. 1877.

毛叶桉 mao ye an

Trees, large. Bark at base of trunk gray to black, fibrous and subtessellated, and persistent, apically grayish green, smooth, and exfoliating. Branchlets terete, with rough pubescence. Young leaves opposite, 4 or 5 pairs, peltate, shortly petiolate; leaf blade ovate, 7–15 × 4–9 cm, abaxially pubescent. Mature leaves with a 1–2 cm petiole with rough pubescence; leaf blade ovate, 10–14 × 1–7 cm, thinly leathery, abaxially gray and pubescent, secondary veins few and 4–10 mm apart, intramarginal veins 2–3 mm from margin, base rounded, apex acute. Inflorescences terminal or axillary, paniculate, 8–11 cm, umbels 3- or 7-flowered; peduncle pubescent, secondary peduncle 0.8–1.5 cm, terete. Flower buds obovoid, ca. 10 × 6–7 mm. Hypanthium semiglobose, ca. 6 mm; stipe 0–3 mm; calyptra 4–4.5 mm, apex rounded. Stamens 8–10 mm; anthers obovoid-oblong, dorsifixed, dehiscing longitudinally. Style 5–7 mm. Capsule globose, 1–1.3 cm in diam., apical part constricted; aperture 5–6 mm in diam.; disk broad; valves 3, included in hypanthium. Fl. Oct–Nov.

Cultivated in Fujian, Guangdong, Guangxi, Jiangxi, and Taiwan [native to NE Australia].

**2. *Eucalyptus citriodora*** Hooker in T. L. Mitchell, *J. Exped. Trop. Australia* 235. 1848.

柠檬桉 ning meng an

*Eucalyptus maculata* Hooker var. *citriodora* (Hooker) Bailey.

Trees, to 28 m tall. Bark grayish white, smooth, exfoliating. Young leaves peltate, petiolate; leaf blade lanceolate, with glandular trichomes, base rounded. Leaf blade of intermediate leaves broadly lanceolate, 15–18 × 3–4 cm. Mature leaves strongly smelling of lemon; petiole 1.5–2 cm; leaf blade narrowly lanceolate, 10–15 × ca. 1 cm, slightly twisted, both surfaces with black glands. Inflorescences terminal or axillary, paniculate, umbels 3-flowered; peduncle 3–4 mm, 2-ridged. Flower buds long obovate, 6–7 mm. Hypanthium ca. 5 × 4 mm; stipe 1–6 mm; calyptra ca. 1.5 mm, slightly wider than hypanthium, apex rounded, apiculate. Stamens 6–7 mm, in 2 whorls; anthers elliptic, dorsifixed, cells parallel. Capsule pot-shaped to ovoid, 1–1.2 × 0.8–1 cm; disk broad; valves 3 or 4, included in hypanthium. Fl. Apr–Dec.

Cultivated in Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Yunnan, and Zhejiang [native to NE Australia].

**3. *Eucalyptus maculata*** Hooker, *Icon. Pl.* 7: t. 619. 1844.

斑皮桉 ban pi an

Trees, 25–30 m tall. Bark whitish, pinkish gray, or bluish gray, usually mottled, smooth, exfoliating irregularly leaving underbark regions initially grayish yellow. Branchlets slightly ridged. Young leaves opposite, peltate, shortly petiolate; leaf blade broadly lanceolate, 4–6 cm wide, bristled. Mature leaves

alternate, slightly fragrant; petiole 1.5–2 cm; leaf blade lanceolate, 10–30 × 2–4 cm, leathery, secondary veins at an angle of ca. 50° from midvein, intramarginal veins near margin. Inflorescences terminal or axillary, paniculate, umbels 2–4-flowered; peduncle ca. 1 cm, terete. Flower buds obovoid, ca. 9 mm. Hypanthium ca. 6 mm; stipe 4–5 mm; calyptra semiglobose or slightly acute, shorter than hypanthium. Stamens 8–10 mm; anthers ovoid, dehiscing longitudinally. Capsule pot-shaped to ovoid, 1.2–1.5 × ca. 1 cm; disk broad; valves 3 or 4, included in hypanthium. Fl. spring–summer.

Cultivated in Guangdong, Guangxi, Jiangxi, Sichuan, and Taiwan [native to E Australia].

**4. *Eucalyptus punctata*** Candolle, *Prodr.* 3: 217. 1828.

斑叶桉 ban ye an

Trees, to 20 m tall. Bark grayish, smooth, exfoliating. Branchlets terete. Leaf blade of young leaves ovate-lanceolate, ca. 11 × 6 cm, thinly leathery. Mature leaves with a flattened 1.5–2 cm petiole; leaf blade narrowly lanceolate, 10–16 × 2–3 cm, falcate, leathery, both surfaces with black glands, abaxially gray, secondary veins at an angle of ca. 50° from midvein, intramarginal veins ca. 1 mm from margin. Inflorescences axillary, simple, umbels with (4–)7(–10) flowers; peduncle compressed or ridged, 1.5–2 cm. Flower buds long ovate to spindle-shaped, 1–1.3 cm. Hypanthium campanulate, 5–6 × 4–5 mm; stipe 3–5 mm, 2-ridged; calyptra awl-shaped, 6–7 mm, apex acuminate to acute. Stamens 7–9 mm; anthers obovoid, dehiscing longitudinally. Capsule semiglobose to campanulate, 7–10 × 6–8 mm; disk broad; valves (3 or)4(or 5), exserted from hypanthium. Fl. Aug–Oct.

Cultivated in Fujian, Guangdong, Guangxi, Jiangxi, and Sichuan [native to SE Australia].

**5. *Eucalyptus grandis*** W. Hill ex Maiden, *Cat. Timbers Queensland* (London Exhib.) 25. 1862.

大桉 da an

Trees, large. Bark at base of trunk rough and flaky, apically silvery white, smooth, and gradually exfoliating. Branchlets grayish white, ridged. Young leaves shortly petiolate; leaf blade broadly lanceolate to ovate, thinly leathery. Mature leaves with a ca. 2 cm petiole; leaf blade lanceolate, 13–20 × 2–2.5 cm, both surfaces with small glands, adaxially dark green and slightly glossy, secondary veins at an angle of 60°–70° from midvein. Inflorescences axillary, simple, umbels 3–10-flowered; peduncle 1–1.5 cm, compressed. Flower buds narrowly obovate, 8–10 × ca. 5 mm. Hypanthium obconic to campanulate; stipe 0–3 mm; calyptra semiglobose to conic, as long or slightly shorter than hypanthium, apex acute to apiculate. Stamens 8–10 mm; anthers oblong, nearly basifixed, dehiscing longitudinally, glands abaxial. Style shorter than stamens. Capsule gray, pyriform to awl-shaped, 7–8 × 6–8 mm; disk narrow; valves 4 or 5(or 6), exserted from hypanthium. Fl. winter–

spring.

Cultivated in Guangdong, Guangxi, and Taiwan [native to E and NE Australia].

**6. *Eucalyptus saligna*** Smith, Trans. Linn. Soc. London 3: 285. 1797.

柳叶桉 liu ye an

Trees, large. Bark at base of trunk brown-gray, slightly rough, persistent but apically grayish blue, smooth, and exfoliating. Branchlets ± ridged. Young leaves opposite; petiole short; leaf blade lanceolate to ovate, thinly leathery. Mature leaves with a 2–2.5 cm petiole; leaf blade lanceolate, 10–20 × 1.5–3 cm, secondary veins at an angle of 50°–65° from midvein, intramarginal veins very near margin. Inflorescences axillary, simple, umbels 3–9-flowered; peduncle ridged, 0.8–1.2 cm, compressed. Flowers buds obovoid, 8–9 × 4–5 mm. Hypanthium hemispheric, cylindrical, or campanulate, 2–3 mm; stipe 0–3 mm; calyptra shortly pyramidal awl-shaped, shorter than or as long as hypanthium, apex acuminate. Stamens slightly longer than flower buds; anthers oblong-elliptic, dehiscing longitudinally, glands abaxial. Capsule cylindrical, campanulate, or subpyriform, 5–6 × 5–6 mm; disk narrow; valves 3 or 4, exserted from hypanthium. Fl. Apr–May.

Cultivated in Fujian, Guangdong, Guangxi, Jiangxi, and Taiwan [native to E Australia].

**7. *Eucalyptus pellita*** F. Mueller, Fragm. 4: 159. 1864.

粗皮桉 cu pi an

Trees, to 15 m tall or more. Bark dark brown, fibrous, persistent. Branchlets ridged. Young leaves opposite; leaf blade broadly lanceolate to ovate, 3–9 × 3–5 cm, leathery. Mature leaves with a 1.5–2.5 cm petiole; leaf blade lanceolate, 10–14 × 2–3 cm, slightly twisted, oblique, glands inconspicuous, secondary veins very dense and at an angle of ca. 70° from midvein, intramarginal veins near margin. Inflorescences axillary, simple, umbels 3–8-flowered; peduncle stout, 1.5–2 cm, compressed. Flower buds obovoid, ca. 2 × 1 cm or sometimes bigger. Hypanthium obconic, ca. 1 cm, ridged; stipe 3–5 mm; calyptra pyramidal awl-shaped, ± as long as hypanthium, apex acute and sometimes beak-shaped. Stamens 1–1.2 cm; anthers ovoid, cells parallel. Capsule semiglobose, 1.2–1.5 cm in diam.; disk prominent; valves 3 or 4, exserted from hypanthium. Fl. Oct–Nov.

Cultivated in Guangdong, Guangxi, and Yunnan [native to E and NE Australia].

**8. *Eucalyptus robusta*** Smith, Spec. Bot. New Holland, 39. 1795.

桉 an

Trees, to 20 m tall. Bark dark brown, rough and subfibrous, persistent. Branchlets ridged. Young leaves opposite, petiolate; leaf blade thickly ovate, ca. 11 × 7 cm, leathery. Mature leaves with a 1.5–2.5 cm petiole; leaf blade ovate-lanceolate, 8–17 × 3–7 cm, oblique, thickly leathery, both surfaces glandular, secondary veins numerous, conspicuous, and at an angle of ca. 80° from midvein, intramarginal veins 1–1.5 mm

from margin. Inflorescences axillary, simple, umbels 4–8-flowered; peduncle less than 2.5 cm, compressed. Flower buds 1.4–2 × 0.7–1 cm. Hypanthium semiglobose to obconic, 7–9 × 6–8 mm; stipe 0–9 mm, angular; calyptra ± as long as hypanthium, apex constricted into a beak. Stamens 1–1.2 cm; anthers elliptic, dehiscing longitudinally. Capsule pot-shaped, sometimes somewhat constricted in middle, 1–1.5 cm; disk broad; valves 3 or 4, included in hypanthium. Fl. almost year-round.

Cultivated in Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, and Zhejiang [native to E Australia].

**9. *Eucalyptus botryoides*** Smith, Trans. Linn. Soc. London 3: 286. 1797.

葡萄桉 pu tao an

Trees, 16–18 m tall. Bark on trunk and larger branches brown to grayish brown, fibrous or flaky fibrous, persistent; bark on smaller branches white or grayish white, smooth, exfoliating. Branchlets ridged. Young leaves opposite, petiolate; leaf blade ovate, apex rounded. Mature leaves with a ca. 1.5 cm petiole; leaf blade ovate to long ovate, 8–12 × 4–6 cm, thinly leathery, secondary veins 3–6 mm apart and at an angle of ca. 60° from midvein, intramarginal veins ca. 1 mm from margin, base rounded, apex sharp. Inflorescences axillary, simple, umbels 6–10-flowered; peduncle 6–10 mm, compressed. Flower buds long obovate, ca. 7 mm. Hypanthium narrowly obconic, ca. 5 mm, 2-ridged; stipe usually absent but sometimes to 3 mm; calyptra obtusely pyramidal, 2–2.5 mm, apex obtuse. Stamens 4–5 mm; anthers long elliptic, dehiscing longitudinally. Capsule campanulate to obconic, 6–8 × 5–6 mm; disk moderately broad; valves 4 or 5, equaling hypanthium rim or included. Fl. Aug–Oct.

Cultivated in Guangdong, Guangxi, Jiangxi, Sichuan, and Taiwan [native to SE Australia].

**10. *Eucalyptus tereticornis*** Smith, Spec. Bot. New Holland, 41. 1795.

细叶桉 xi ye an

*Eucalyptus umbellata* (Gaertner) Domin; *Leptospermum umbellatum* Gaertner.

Trees, to 25 m tall. Bark grayish white, smooth, exfoliating in long strips. Branchlets terete, slender, pendulous. Leaf blade of young leaves ovate to broadly lanceolate, to 10 cm wide. Leaf blade of intermediate leaves broadly lanceolate. Mature leaves with a 1.5–2.5 cm petiole; leaf blade narrowly lanceolate, 10–25 × 1.5–2 cm, slightly twisted, both surfaces with small glands, secondary veins at an angle of ca. 45° from midvein, intramarginal veins ca. 0.7 mm from margin. Inflorescences axillary, simple, umbels 5–8-flowered; peduncle 1–1.5 cm, stout, terete. Flowers buds long ovate, 1–1.3 mm or longer. Hypanthium hemispheric, 2.5–3 × 4–5 mm; stipe 3–6 mm; calyptra conic, 7–10 mm, apex acuminate. Stamens 6–9 mm; anthers long obovate, dehiscing longitudinally. Capsule subglobose to ovoid, 6–8 mm in diam.; disk broad; valves 4 or 5, much exserted from hypanthium. Fl. Feb–Apr, Jun–Aug.

Cultivated in Anhui, Fujian, Guangdong, Guangxi, Guizhou, Jiangxi, Sichuan, Yunnan, and Zhejiang [native to E and SE Australia].

**11. *Eucalyptus amplifolia*** Naudin, Descr. Emploi. Eucalypt. 28. 1891.

广叶桉 *guang ye an*

Trees. Bark whitish or grayish, smooth, maculate, exfoliating. Branchlets terete. Young leaves opposite; leaf blade ovate to orbicular, 7–14 × 6–12 cm. Leaf blade of intermediate leaves broadly lanceolate, 4–5 cm wide. Mature leaves with a 1.5–2.5 cm petiole; leaf blade lanceolate, 10–25 × 2.5–3.5 cm, slightly twisted, both surfaces with small glands, secondary veins at an angle of ca. 45° from midvein, intramarginal veins ca. 0.7 mm from margin. Inflorescences axillary, simple, umbels 7–20-flowered; peduncle 1–2 cm, flattened or ridged. Flower buds long ovate, 10–15 × 4–5 mm. Hypanthium semiglobose, ca. 3 mm; stipe 3–4 mm; calyptra long awl-shaped, 3 to 4 times as long as hypanthium, apex acuminate. Stamens ca. 1 cm; anthers obovoid, dehiscing longitudinally, large glands abaxially. Capsule semiglobose to truncate capitate globose, 4–6 × 5–7 mm; disk broad; valves 3–5, strongly exserted from hypanthium. Fl. Aug–Sep.

Cultivated in Fujian, Guangdong, Guangxi, Hubei, Hunan, Jiangxi, and Sichuan [native to SE Australia].

**12. *Eucalyptus camaldulensis*** Dehnhardt, Cat. Pl. Hort. Camald., ed. 2, 6, 20. 1832.

赤桉 *chi an*

Trees, to 25 m tall. Bark dark gray, white, brown, or red, smooth, exfoliating. Branches sometimes pendulous, terete, youngest parts ridged. Young leaves opposite; leaf blade broadly lanceolate, 6–9 × 2.5–4 cm. Mature leaves with a slender 1.5–2.5 cm petiole; leaf blade narrowly lanceolate to lanceolate, 6–30 × 1–2 cm, slightly twisted, thinly leathery, both surfaces with small black glands, secondary veins at an angle of ca. 45° from midvein, intramarginal veins ca. 0.7 mm from margin. Inflorescences axillary, simple, umbels 5–11-flowered; peduncle 1–1.5 cm, slender, terete. Flower buds ovoid, 5–8 mm. Hypanthium semiglobose, ca. 3 mm; stipe 3–12 mm; calyptra hemispheric, rostrate to obtusely conic, 5–7 mm, apically constricted, apex obtuse, acute, or acuminate and beaked or not. Stamens 5–7 mm; anthers elliptic, dehiscing longitudinally. Capsule subglobose, 5–6 mm in diam.; disk broad; valves (3 or)4(or 5), exserted from hypanthium. Fl. Dec–Aug.

Cultivated in Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, and Zhejiang [native to Australia, where widespread].

The varieties *Eucalyptus camaldulensis* var. *camaldulensis*, *E. camaldulensis* var. *acuminata* (Hooker) Blakely, *E. camaldulensis* var. *brevirostris* (F. Mueller ex Miquel) Blakely, *E. camaldulensis* var. *obtusata* Blakely, and *E. camaldulensis* var. *pendula* Blakely & Jacobs are all cultivated in China.

**13. *Eucalyptus blakelyi*** Maiden, Crit. Revis. Eucalyptus 4: 43. 1917.

布氏桉 *bu shi an*

Trees, to 21 m tall. Bark white or gray with grayish blue, pink, or cream colored patches, smooth, exfoliating. Branchlets slender, ridged. Young leaves opposite, shortly petiolate; leaf blade ovate to rounded, 7–10 × 5–7 cm, leathery, glaucous. Mature leaves with a slender 1.5–2.5 cm petiole; leaf blade lanceolate, 9–18 × 1.5–3 cm, falcate, leathery, secondary veins at an angle of ca. 45° from midvein, intramarginal veins near to margin. Inflorescences axillary, simple, umbels 4–8-flowered; peduncle 1–1.5 cm, slender, terete. Flower buds spindle-shaped, 7–10 × 4–5 mm. Hypanthium semiglobose, 2–3 mm; stipe ca. 3 mm; calyptra long awl-shaped, 5–7 mm. Capsule semiglobose, 5–6 × ca. 5 mm; disk broad; valves 3 or 4, exserted from hypanthium. Fl. Nov–Dec.

Cultivated in Jiangxi and Yunnan [native to SE Australia].

**14. *Eucalyptus platyphylla*** F. Mueller, J. Proc. Linn. Soc., Bot. 3: 93. 1859.

阔叶桉 *kuo ye an*

Trees, medium sized. Bark whitish to brownish, smooth, exfoliating. Branchlets terete. Young leaves opposite; leaf blade rounded, cordate, or broadly lanceolate, ca. 30 × 28 cm, leathery. Mature leaves with a slightly flattened 2–3 cm petiole; leaf blade rounded to broadly ovate, 7–13 × 6–11 cm, secondary veins few and 10–15 apart, intramarginal veins 1–1.5 mm from margin, base broad but abruptly decurrent, apex obtuse. Inflorescences axillary, simple, umbels 3–7-flowered; peduncle 5–6 mm, terete or compressed. Flower buds obovoid, 6–8 × ca. 5 mm. Hypanthium obconic, 4–5 mm, 2-ridged; stipe 0–3 mm; calyptra semiglobose, shorter than or as long as hypanthium, apex rounded. Capsule semiglobose to awl-shaped, 5–6 × 7–9 mm; disk moderately broad; valves 3 or 4, exserted from hypanthium. Fl. Oct–Nov.

Cultivated in Guangdong (Guangzhou) [native to NE Australia].

**15. *Eucalyptus alba*** Reinwardt ex Blume, Bijdr. 1101. 1826–1827.

白桉 *bai an*

Trees, medium sized. Bark grayish white, smooth, exfoliating. Young leaves 3 or 4 pairs, opposite, petiolate; leaf blade ovate-lanceolate. Intermediate leaves alternate; leaf blade ovate to triangular, ca. 7.5 cm. Mature leaves; with a slightly weak 2–3 cm petiole; leaf blade broadly lanceolate to lanceolate, 10–13 × 2–4 cm, secondary veins at an angle of ca. 45° from midvein and inconspicuous on both surfaces, apex long and acutely pointed. Inflorescences axillary, simple, umbels 3–7-flowered; peduncle 1.5–2 cm, compressed. Flower buds elliptic, 8–9 mm. Hypanthium 4–5 mm; stipe 0–3 mm; calyptra slightly obtuse conic to slightly acute, shorter than hypanthium. Stamens 5–6 mm; anthers dorsifixed, dehiscing longitudinally. Capsule semiglobose to bowl-shaped, ca. 6 mm; disk broad or narrow; valves 3–5, exserted from hypanthium.

Cultivated in Guangxi [native to N Australia, East Timor, Indonesia, and Papua New Guinea].

**16. *Eucalyptus exserta*** F. Mueller, J. Proc. Linn. Soc., Bot. 3: 85. 1859.

**窿缘桉** long yuan an

Trees, 15–18 m tall. Bark on trunk and larger branches grayish brown, rough, persistent but gray; bark smaller branches smooth. Branchlets obtusely ridged, slender, usually pendulous. Young leaves opposite, shortly petiolate; leaf blade narrowly lanceolate, less than 1 cm wide. Mature with a slender ca. 1.5 cm petiole; leaf blade narrowly lanceolate, 8–15 × 1–1.5 cm, slightly twisted, both surfaces with numerous minute black glands, secondary veins at an abrupt angle of 35°–40° from midvein, intramarginal veins very near margin. Inflorescences axillary, simple, umbels 3–8-flowered; peduncle 4–20 mm, terete. Flower buds long ovate, 8–10 mm. Hypanthium semiglobose, 2.5–3 × ca. 4 mm; stipe 0–4 mm; calyptra long conic, 5–7 mm, apex acuminate. Stamens 6–7 mm; anthers parallel, dehiscing longitudinally. Capsule subglobose, 6–7 mm in diam.; disk broad; valves 4, strongly exserted from hypanthium. Fl. May–Sep.

Cultivated in Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, and Zhejiang [native to NE Australia].

**17. Eucalyptus rudis** Endlicher, Enum. Pl. Huegel 49. 1837.**野桉** ye an

Trees, 9–15 m tall. Bark on trunk and larger branches blackish, rough, persistent but gray; bark on smaller branches smooth, exfoliating. Branchlets glossy. Young leaves 4 pairs, opposite; leaf blade broadly lanceolate to ovate. Mature leaves alternate; petiole 1.5–3 cm; leaf blade narrowly lanceolate to broadly lanceolate, 10–15 × 1–2 cm or wider, secondary veins conspicuous and at an angle of 55°–60° from midvein, intramarginal veins 1–1.5 mm from margin. Inflorescences axillary, simple, umbels 4–10-flowered; peduncle 1–2.5 cm, terete. Flower buds ovoid, 9–11 mm. Hypanthium obconic, 3–4 mm; stipe 3–5 mm; calyptra 5–7 mm, slightly longer than hypanthium, apex acute. Stamens 5–8 mm; filaments slender; anthers ovoid, dorsifixed, dehiscing longitudinally, glands small. Capsule bowl-shaped to obconic, 4–6 × 6–9 mm; disk broad; valves 4, exserted from hypanthium. Fl. winter.

Cultivated in Fujian, Guangdong, Guangxi, Jiangxi, and Zhejiang [native to SW Australia].

**18. Eucalyptus globula** Labillardière, Voy. Rech. Pérouse 1: 153. 1800.**蓝桉** lan an

Trees, large. Bark grayish blue, smooth, exfoliating. Branchlets slightly ridged. Young leaves opposite, sessile; leaf blade ovate, glaucous, base cordate. Mature leaves with a slightly flattened 1.5–3 cm petiole; leaf blade lanceolate, 15–30 × 1–2 cm, falcate, leathery, both surfaces glandular, secondary veins at an angle of 35°–40° from midvein and inconspicuous, intramarginal veins ca. 1 mm from margin. Inflorescences axillary, simple, umbels 1- or 7-flowered; peduncles flattened or terete. Hypanthium obconic, ca. 1 × 1.3 cm, surface with 4 ridges and rugose protuberances, glaucous; stipe 0–5 mm; calyptra slightly flattened, with a conic tubercle in middle, shorter than calyx tube, in 2 layers with outer layer glossy and caducous. Stamens 0.8–1.3 cm, in several whorls; filaments slender; an-

thers elliptic. Style 7–8 mm, stout. Capsule semiglobose, 0.6–2.4 cm in diam., 4-ridged; disk broad; valves 3–5, equaling hypanthium rim or exserted. Fl. Dec–May, fr. winter.

Cultivated in Fujian, Guangxi, Guizhou, Jiangxi, Sichuan, Taiwan, Yunnan, and Zhejiang [native to SE Australia and Tasmania].

- 1a. Umbels 1-flowered; capsule 1.4–2.4 cm in diam. .... 18a. subsp. *globula*  
 1b. Umbels 7-flowered; capsule 0.6–1 cm in diam. .... 18b. subsp. *maidenii*

**18a. Eucalyptus globula** subsp. **globula****蓝桉(原亚种)** lan an (yuan ya zhong)

Umbels 1-flowered. Capsule 1.4–2.4 cm in diam.

Cultivated in Fujian, Guangxi, Guizhou, Jiangxi, Sichuan, Taiwan, Yunnan, and Zhejiang [native to extreme SE Australia and Tasmania].

**18b. Eucalyptus globula** subsp. **maidenii** (F. Mueller) Kirkpatrick, Bot. J. Linn. Soc. 69: 101. 1974.**直杆蓝桉** zhi gan lan an

*Eucalyptus maidenii* F. Mueller, Proc. Linn. Soc. New South Wales, ser. 2, 4: 1020. 1890.

Umbels 7-flowered. Capsule 0.6–1 cm in diam.

Cultivated in Guangxi, Jiangxi, Sichuan, and Yunnan [native to SE Australia].

**19. Eucalyptus microcorys** F. Mueller, Fragm. 2: 50. 1860.**小帽桉** xiao mao an

Trees, large. Bark dark brown, fibrous, persistent. Branchlets terete or obtusely ridged, slender, pendulous. Young leaves opposite, sessile or shortly petiolate; leaf blade elliptic to broadly lanceolate, ca. 7 × 3 cm, thin. Mature leaves with a 1–1.5 cm petiole; leaf blade ovate-lanceolate, 8–10 × 2.5–4 cm, thinly leathery, both surfaces with numerous black glands, secondary veins few, 5–8 apart, and at an angle of ca. 70° from midvein, base rounded, apex sharp. Inflorescences terminal panicles or 5–8-flowered axillary umbels near branchlet apex; peduncle 1–1.5 cm, ridged. Flower buds obovoid, ca. 5 mm. Hypanthium shortly clavate, 3–4 mm in diam.; stipe 4–5 mm; calyptra semiglobose, ca. 1.5 mm. Stamens ca. 5 mm; anthers cordate. Capsule obovate, ca. 6 × 4 mm, base narrow, margins narrow, aperture of fruiting hypanthium slightly constricted; disk moderately broad; valves 3 or 4, included to slightly exserted from hypanthium. Fl. Dec–Jan.

Cultivated in Guangdong, Guangxi, and Taiwan [native to E Australia].

**20. Eucalyptus leptophleba** F. Mueller, J. Proc. Linn. Soc., Bot. 3: 86. 1859.**纤脉桉** xian mai an

Trees, to 15 m tall. Bark dark gray, rough, fibrous, persistent. Branchlets basally terete, apically ridged. Young leaves shortly petiolate; leaf blade broadly lanceolate, 8–10 × 2.5–3.5 cm. Mature leaves with a 1–2 cm petiole; leaf blade lanceolate,

10–17 × 2–3 cm, slightly twisted, leathery, both surfaces with numerous small glands, secondary veins 1.5–2 mm apart and at an angle of ca. 45° from midvein, intramarginal veins very near margin. Inflorescences terminal or sometimes axillary, paniculate, umbels 3–6-flowered; peduncle 6–9 mm, terete. Flower buds spindle-shaped, ca. 10 × 5 mm. Hypanthium obconic to campanulate, 4–6 mm; stipe 2–8 mm; calyptra awl-shaped, as long as hypanthium, apex slightly acute. Stamens distinct, ca. 5 mm; anthers globose reniform, poricidal near apex. Capsule cup-shaped, 8–10 mm; disk broad; valves 3 or 4, included or slightly exserted from hypanthium. Fl. Dec.

Cultivated in Guangdong, Guangxi, and Jiangxi [native to NE Australia].

**21. *Eucalyptus largiflorens*** F. Mueller, Trans. & Proc. Victorian Inst. Advancem. Sci. 1: 34. 1855.

二色桉 *er se an*

Trees, 12–18 m tall. Bark on trunk and larger branches dark brown, rough, fibrous, persistent; bark on smaller branches white, smooth. Branchlets slender, rounded, pendulous. Young leaves grayish white, shortly petiolate; leaf blade narrowly lanceolate to oblong, 3–4 cm. Mature leaves with a slender ca. 1 cm petiole; leaf blade narrowly lanceolate, 8–13 × ca. 1 cm, slightly twisted, thinly leathery, glands inconspicuous, secondary veins dense and at an angle of ca. 40° from midvein, intramarginal veins very close to margin. Inflorescences usually terminal, paniculate, umbels 3–8-flowered; peduncle 5–8 mm, slender, ridged. Flower buds spindle-shaped, 5–7 mm, acute at both ends. Hypanthium ovoid to obconic, 2–3 mm; stipe 2–3 mm; calyptra shorter than or as long as hypanthium. Stamens ca. 3 mm; anthers small, laterally poricidal or dehiscing by short longitudinal slits. Capsule truncately capitate ovate, 3–4 mm in diam.; disk narrow; valves 3 or 4, equaling hypanthium rim or included. Fl. Sep.

Cultivated in Guangdong and Guangxi [native to SE Australia].

The name *Eucalyptus bicolor* A. Cunningham ex Mitchell (J. Exped. Trop. Australia 390. 1848) has been applied to this species, but that is a nomen dubium; see Chippendale (Fl. Australia 19: 496. 1988).

**22. *Eucalyptus crebra*** F. Mueller, J. Proc. Linn. Soc., Bot. 3: 87. 1859.

常桉 *chang an*

Trees, to 25 m tall. Bark dark brown, rough, persistent. Branchlets slender, slightly ridged. Young leaves opposite, shortly petiolate; leaf blade narrowly lanceolate, glaucescent. Mature leaves alternate; petiole 1–2 cm, slender; leaf blade narrowly lanceolate, 8–15 × 1–1.8 cm, twisted, glaucescent, same color on both surfaces, glands inconspicuous, intramarginal veins very near margin. Inflorescences terminal, paniculate, umbels 2–6-flowered; peduncle 7–10 mm, obtusely ridged or terete. Flower buds narrowly spindle-shaped, ca. 6 × 3 mm. Hypanthium hemispheric to obovoid, 2–3 mm; stipe 2–3 mm; calyptra nearly as long as hypanthium, apex slightly acute. Stamens ca. 3 mm, all developed; anthers globular, dehiscing longitudinally. Capsule campanulate, 4–6 × ca. 3 mm; disk narrow; valves 3 or 4, subequaling hypanthium rim to included. Fl. Aug–Sep.

Cultivated in Guangdong [native to E and NE Australia].

**23. *Eucalyptus polyanthemus*** Schauer in Walpers, Repert. Bot. Syst. 2: 924. 1843.

多花桉 *duo hua an*

Trees, to 22 m tall, d.b.h. to 70 cm. Bark grayish or cream colored, ± smooth, exfoliating throughout or on trunk and larger branches blackish brown, fibrous, and persistent. Branchlets terete. Young leaves opposite; leaf blade rounded, 4–8 × 4–11 cm, glaucescent. Mature leaves with a slender 2–3 cm petiole; leaf blade grayish, ovate-lanceolate to long ovate, 5–14 × 1.5–4.5 cm, with numerous minute glands, secondary veins at an angle of ca. 55° from midvein, intramarginal veins ca. 0.5 mm from margin. Inflorescences terminal or axillary, paniculate, umbels 3–6-flowered; secondary peduncle ca. 7 mm, terete. Flower

buds obovoid, ca.  $5 \times 3$  mm. Hypanthium campanulate, ca. 3 mm; stipe 1–2 mm; calyptra shortly awl-shaped, ca. 2 mm, apex slightly acute. Stamens 3–4 mm; anthers truncate capitate, poricidal. Capsule hemispheric, ovoid, or pyriform,  $5\text{--}6 \times 4\text{--}5$  mm; disk broad; valves 3 or 4, included in hypanthium. Fl. Nov–Dec.

Cultivated in Jiangxi and Yunnan [native to SE Australia].

**24. *Eucalyptus paniculata*** Smith, Trans. Linn. Soc. London 3: 287. 1797.

圆锥花桉 yuan zhui hua an

Trees, large. Bark grayish, rough, persistent. Branchlets terete. Young leaves opposite, shortly petiolate; leaf blade broadly lanceolate to ovate, ca.  $6 \times 2\text{--}4$  cm. Leaf blade of intermediate leaves broadly lanceolate,  $8\text{--}10 \times$  ca. 3.5 cm. Mature leaves with a 1–1.5 cm petiole; leaf blade lanceolate,  $9\text{--}13 \times 2\text{--}3$  cm, slightly oblique, secondary veins at an angle of  $40^\circ\text{--}50^\circ$  from midvein and conspicuous, intramarginal veins ca. 0.5 mm from margin. Inflorescences terminal, paniculate, umbels 3–9-flowered; peduncle ca. 1 cm, slightly ridged. Flower buds 7–9 mm. Hypanthium obovoid to obconic, 6–8 mm; stipe 2–10 mm; calyptra pyramidal awl-shaped, shorter than hypanthium, apex slightly acute. Capsule truncately capitate pyriform,  $7\text{--}9 \times$  ca. 5 mm; disk obscure; valves usually 4, equaling hypanthium rim or included. Fl. Aug–Oct.

Cultivated in Guangdong, Guangxi, and Jiangxi [native to SE Australia].

**25. *Eucalyptus melliodora*** A. Cunningham ex Schauer in Walpers, Repert. Bot. Syst. 2: 924. 1843.

蜜味桉 mi wei an

Trees, medium sized. Bark on lower part of trunk or sometimes extending to larger branches, grayish brown, fibrous, persistent; bark on smaller branches whitish yellow, smooth, exfoliating. Branchlets terete. Young leaves slightly grayish, oblong, ca.  $5 \times 2.5$  cm. Mature leaves with a 1–1.5 cm petiole; leaf blade narrowly lanceolate to lanceolate,  $7\text{--}13 \times 1\text{--}1.5$  cm, slightly twisted, leathery, both surfaces with numerous black glands, secondary veins at an angle of ca.  $30^\circ$  from midvein but ternate at base, intramarginal veins ca. 2 mm from margin. Inflorescences axillary, umbels 3- or 7-flowered; peduncle 4–9 mm. Flower buds ovoid, ca. 5 mm. Hypanthium campanulate, 3–4 mm; stipe 2–9 mm; calyptra coniform-semiglobose, as long or slightly shorter than hypanthium, sometimes apiculate. Stamens 4–6 mm, peripheral stamens sterile; anthers small, truncate-capitate, poricidal. Capsule semiglobose, ca. 5 mm in diam.; disk narrow; valves 5 or 6, equaling hypanthium rim or included. Fl. Aug–Sep.

Cultivated in Guangdong, Guangxi, and Yunnan [native to E and SE Australia].



MYRTACEAE