## 4. ERYCIBE Roxburgh, Pl. Coromandel 2: 31, t. 159. 1798.

### 丁公藤属 ding gong teng shu

Stranglers, woody or scandent shrubs. Stems lenticellate, young parts glabrous or reddish tomentose, hairs 2-armed or stellate (or ?simple). Leaves petiolate, entire, leathery or papery. Inflorescences terminal or axillary, racemose or paniculate; bracts early deciduous, usually minute. Flowers small, fragrant. Sepals free, persistent, subequal, leathery, usually pubescent abaxially. Corolla white or yellow, deeply 5-lobed; tube short, glabrous outside; lobes of limb 2-lobulate apically, midpetaline bands densely appressed pubescent outside; lateral lobules rather thin, glabrous, with distinct or indistinct venation. Stamens included; filaments triangular or laterally concave; anthers obtuse or acuminate apically, cordate basally, sometimes truncate to retuse at both ends; pollen not spiny. Ovary globose or ellipsoid, 1-loculed, 4-ovuled. Stigma subsessile, ± conical, with 5–10 longitudinal, straight or spirally twisted ridges. Fruit a slightly fleshy berry. Seed 1.

Approximately 67 species: mainly in tropical Asia, Australia, Japan, and Malesia; ten species in China.

Two accounts of the genus established the taxonomic concepts adopted here: How (Sunyatsenia 6: 221–230. 1946) provided keys, descriptions, and lists of specimens examined; Hoogland (Blumea 7: 342–361. 1953) nomenclaturally revised the entire genus, including Chinese taxa described up to that time.

| 1a. Branchlets and abaxial surface of leaves $\pm$ densely rust colored or brownish pubescent.           |                     |
|--|---------------------|
| 2a. Corolla ca. 12 mm, lobules fimbriate; leaves 6.5–18 cm, with 5–9 pairs of lateral veins              |                     |
| (Hainan, Guangdong, Guangxi)   | 1. E. hainanensis   |
| 2b. Corolla 7.5–9.5 mm, lobules entire; leaves 2.5–9 cm, typically with 3 or 4 pairs of lateral veins    |                     |
| (Yunnan)   | 2. E. expansa       |
| 1b. Branchlets glabrous or pubescent; leaves glabrous or sparsely pubescent.                             | •                   |
| 3a. Panicles often terminal, rarely axillary; inflorescences often longer than leaves, 5–24 cm.          |                     |
| 4a. Corolla lobules erose-dentate; leaves oblong, lanceolate-oblong, or elliptic, 7–18 cm, abaxially     |                     |
| sparsely pubescent with 2-armed hairs or subglabrous, lateral veins 6 or 7 pairs                         | . 3. E. subspicata  |
| 4b. Corolla lobules ± entire or undulate; leaves oblong-lanceolate, 5–9 cm, glabrous, lateral veins      |                     |
| 3 or 4 pairs   | 4. E. myriantha     |
| 3b. Panicles or racemes terminal and axillary; axillary inflorescences usually much shorter than leaves, | •                   |
| 1.5–11 cm.   |                     |
| 5a. Inflorescences racemose, axillary, few flowered, 1.5–2 cm  | 5. E. oligantha     |
| 5b. Inflorescences paniculate or racemose, terminal or axillary, many flowered, 2–11 cm or longer.       |                     |
| 6a. Leaf blade papery or rigidly so.   |                     |
| 7a. Leaf blade elliptic or oblong-elliptic; corolla lobules oblong-ovate, margin crenulate; ovary        |                     |
| globose  | 9. E. sinii         |
| 7b. Leaf blade broadly elliptic; corolla lobules oblong-elliptic, margin entire or undulate; ovary       |                     |
| columnar   | 10. E. henryi       |
| 6b. Leaf blade leathery or thickly so.   |                     |
| 8a. Leaf blade elliptic or obovate, 6.9–9 cm, apex obtuse, acute, or short acuminate; corolla            |                     |
| lobules undulate   | . 8. E. obtusifolia |
| 8b. Leaf blade ovate-elliptic or oblong-elliptic, $7-15$ cm, apex $\pm$ abruptly acuminate; corolla      |                     |
| lobules erose.   |                     |
| 9a. Fruit ellipsoid; corolla lobules obovate to subcuneate; leaves usually with 5–7 pairs                |                     |
| of lateral veins   | 6. E. elliptilimba  |
| 9b. Fruit subglobose; corolla lobules obcordate; leaves usually with (7 or) 8(-10) pairs                 |                     |
| of lateral veins   | 7. E. schmidtii     |

# **1. Erycibe hainanensis** Merrill, Philipp. J. Sci. 21: 353. 1922.

毛叶丁公藤 mao ye ding gong teng

Erycibe bachmaense Gagnepain.

Shrubs scandent, 5–15 m tall; axial parts densely reddish or brownish tomentose, hairs simple or 2-armed. Branches terete, ca. 5 mm in diam. Petiole 5–10 mm; leaf blade elliptic to oblong-elliptic, 6.5–18 × 3.5–8 cm, abaxially densely pubescent especially along midvein, adaxially sparsely pubescent or glabrous, base obtuse to rounded, apex abruptly acuminate to acuminate; lateral veins 5–9 pairs.

Inflorescences axillary or terminal, paniculate, 4–12 cm, densely flowered. Pedicel robust, 2–3 mm. Sepals circular-reniform, 3–4 mm, densely reddish tomentose abaxially, margin ciliate. Corolla white or greenish yellow, ca. 1.2 cm; lobules broadly obovate, 3.5–4 mm, margin fimbriate. Filaments ca. 2 mm, base dilated; anthers deltoid, ca. 1 mm, apex cuspidate. Stigma capitate, 5-ridged. Fruit yellow, ellipsoid, 2–2.8 cm, apex with paler caplike scar. Fl. Apr-Aug, fr. Apr-Dec.

Forests, streamsides, steep hillsides, ravines, clay soil, sandy loam; 200–1100 m. Guangdong, S Guangxi, Hainan [Vietnam].

2. Erycibe expansa Wallich ex G. Don, Gen. Hist. 4: 392.

#### 锈毛丁公藤 xiu mao ding gong teng

Erycibe paniculata Roxburgh var. expansa (Wallich ex G. Don) Choisy; E. ferruginea C. Y. Wu; E. ferruginosa Griffith.

Climbers, to 5 m tall. Stems striate, rust-colored stellate pubescent, glabrescent. Petiole 3–7 mm; leaf blade elliptic-obovate,  $2.5-9 \times 1.5-5$  cm, abaxially  $\pm$  reddish hirsute, adaxially glabrous, glossy, base obtuse to cuneate, apex short acuminate or cuspidate; lateral veins 3(–5) pairs, slightly prominent abaxially. Inflorescences terminal, paniculate, 4–16(–30) cm. Pedicel 1–2 mm. Flowers fragrant. Sepals ovate, 2.5-3 mm, densely stellate hirsute abaxially, glabrescent in fruit. Corolla white, 7.5-9.5 mm, midpetaline bands densely appressed pubescent abaxially; lobules elliptic-oblong, rather thick, margin entire. Stamens 2.2-2.5 mm; anthers acuminate. Ovary ca.  $0.8 \times 1$  mm, glabrous. Stigma conical, 5-ridged. Fruit ellipsoid, ca.  $12 \times 6$  mm, glabrous. Fr. Nov.

Open thickets; 1000–1200 m. Yunnan (Marlipo Xian) [India, Malaysia, Myanmar, Thailand].

The type of *Erycibe ferruginea* (*Feng 13400*) is a very good match for *E. expansa*, a species not previously known to occur north of peninsular Myanmar. The former is here reduced to synonymy for the first time. Further collections of *E. expansa* are desirable, since it is apparently rare in China and very little is known about it.

# **3. Erycibe subspicata** Wallich ex G. Don, Gen. Hist. 4: 392. 1838.

### 锥序丁公藤 zhui xu ding gong teng

Shrubs scandent, 3–6(–10) m tall; axial parts rust-colored pubescent with 2-armed hairs, later glabrescent. Branchlets terete. Petiole 6–10 mm, rust-colored pubescent; leaf blade oblong, lanceolate-oblong, or elliptic, 7–18 × 2.5–5.5 cm, abaxially sparsely pubescent with 2-armed hairs, or subglabrous, adaxially glabrous and glossy, base cuneate or subrounded, apex cuspidate, rarely acuminate; lateral veins 6 or 7 pairs. Inflorescences mostly terminal, elongated, narrowly paniculate, 7–20 cm, densely rust-colored pubescent. Pedicel ca. 4 mm. Sepals broadly elliptic to nearly circular, subequal, 3–3.5 mm, densely rust-colored pubescent abaxially. Corolla white, red, or purple; lobules semicircular, ca. 9 mm, margin erose-dentate. Filaments flat, ca. 1 mm; anthers conical. Fruit black, ellipsoid-oblong, 2–2.3 × ca. 1 cm, ± apiculate. Fl. Oct-Nov.

Dense forests, thickets, steep rock faces in ravines; 300–1300 m. S Guangxi, S and SE Yunnan [Cambodia, NE India, Laos, Myanmar, Thailand, Vietnam].

### 4. Erycibe myriantha Merrill, Lingnan Sci. J. 13: 70. 1934.

### 多花丁公藤 duo hua ding gong teng

Shrubs scandent, 4–7 m tall; axial parts  $\pm$  densely rust-colored pubescent. Branches terete, subglabrous; branchlets indistinctly angulate, ca. 2 mm in diam. Petiole 3–9 mm; leaf blade oblong-lanceolate, 5–9  $\times$  2–4 cm, papery, glabrous, base cuneate, apex acuminate; lateral veins 3 or 4 pairs, prominent abaxially. Inflorescences terminal, paniculate, loose, 5–24 cm, many flowered. Sepals obovate or circular,

ca. 3 mm, densely yellow-orange velutinous abaxially. Corolla white, ca. 8 mm; lobules oblong-obovate, margin  $\pm$  entire or undulate, midpetaline bands rust-colored woolly. Stamens ca. 2.5 mm; filaments dilated basally; anthers ovoid, apex acuminate. Ovary ellipsoid. Stigma conical, with ridges. Fruit brown, ellipsoid,  $1.3-1.5 \times 1-1.2$  cm. Fl. Jul-Dec, fr. Mar-Apr.

Forests, thickets, stream banks, dry and sandy soils; 400–600 m. Guangdong, Hainan.

## 5. Erycibe oligantha Merrill & Chun, Sunyatsenia 5: 175. 1940

#### 疏花丁公藤 shu hua ding gong teng

Shrubs scandent; axial parts subglabrous. Branchlets striate, gray. Petiole 6–10 mm; leaf blade elliptic or narrowly ovate, 8–16 × 4–8 cm, thin leathery, abaxially glabrous, base broadly cuneate, apex rounded or abruptly acuminate; lateral veins 8 or 9 pairs. Inflorescences axillary, racemose, 1.5–2 cm, red-brown sericeous, few flowered; bracteoles ca. 1 mm. Pedicel ca. 3 mm. Sepals circular, concave, 2–3 mm in diam., appressed pubescent abaxially, ciliate. Corolla white to pale yellow, ca. 7 mm; lobules oblong-ovate, subentire, midpetaline bands appressed rust-colored pubescent. Anthers ovoid or oblong-ovoid, ca. 1.5 mm, apex acuminate. Ovary glabrous. Stigma capitate, 5-sulcate. Fruit ellipsoid, ca. 2.2 cm, glabrous, apex mucronulate. Fl. Apr-Jul, fr. Apr-Feb.

• Dense forests, shaded slopes of ravines; 400–500 m. Hainan.

# **6. Erycibe elliptilimba** Merrill & Chun, Sunyatsenia 2: 45. 1934.

### 九来龙 jiu lai long

Shrubs scandent, to 20 m tall. Branchlets rather densely hirsute, striate when mature, to 8 cm in diam. Petiole 2–2.5 cm; leaf blade broadly elliptic to oblong-elliptic, 9–15 × 4.5–7.5 cm, thick leathery, glabrous, base broadly cuneate, apex abruptly short acuminate; lateral veins 5–7 pairs, indistinct midvein slightly raised abaxially and ± sunken adaxially. Inflorescences 1–3 together, axillary, racemose or narrowly paniculate, 1.5–11 cm, many flowered, rust-colored pubescent with 2-armed hairs. Pedicel 2–4 mm. Sepals nearly circular, 3–4 mm, densely pubescent abaxially. Corolla white, ca. 1.3 cm; lobules obovate to subcuneate, 3.5–5 mm, margin slightly emarginate, Stamens ca. 3 mm; anthers lanceolate, base cordate, apex acute-acuminate. Ovary 1.3–1.6 mm, glabrous; stigma conical, 5-ridged. Fruit black, ellipsoid, ca. 2 cm, smooth, with a paler apical scar. Fl. Jul-Oct, fr. Oct-Apr.

Roadsides, dry slopes, forests, seashores, sandy soils, loam, clay; 0–600 m. Guangdong, Hainan [Cambodia, Laos, Thailand, Vietnam].

The stems and leaves are poisonous and not to be confused with those of *Erycibe obtusifolia* Bentham.

### 7. Erycibe schmidtii Craib, Bot. Tidsskr. 32: 352. 1916.

光叶丁公藤 guang ye ding gong teng

Erycibe semipilosa Gagnepain.

Shrubs scandent. Branchlets terete, ± angular, lenticellate, appressed puberulent, glabrescent. Petiole 1–3.5 cm, puberulent to glabrescent; leaf blade ovate-elliptic or oblong-elliptic, 7–12 × 2.5–6 cm, leathery, glabrous, base broadly cuneate to obtuse, apex ± acuminate; lateral veins (7 or) 8(–10) pairs, indistinct. Inflorescences terminal or axillary, racemose or paniculate, 2–7 cm, ± densely rust-colored puberulent with 2-armed hairs. Pedicel 2–5 mm. Outer 2 sepals nearly circular, 3–4 mm, almost glabrous; inner ones ± elliptic, ca. 5 mm, ± densely rust-colored velutinous abaxially, ciliolate. Corolla white, ca. 8 mm, midpetaline bands abaxially densely sericeous; lobules obcordate, margin erose. Filaments 1.5–2 mm, dilated basally; anthers conical, 2–2.5 mm, apex long acuminate. Ovary terete, ca. 2 mm. Stigma peltate. Fruit dark, subglobose, ca. 2 cm in diam., glabrous.

Dense forests; 300-1200~m. S Yunnan [NE India, Thailand, Vietnam].

Erycibe schmidtii has been misidentified as E. glaucescens Wallich ex Choisy (= E. laevigata Wallich ex Choisy), which is not known to occur in China.

The stem is used medicinally.

### 8. Erycibe obtusifolia Bentham, Fl. Hongk. 236. 1861.

丁公藤 ding gong teng

Erycibe versatilihirta C. Y. Ma.

Lianas woody, 4–20 m, glabrous except for inflorescences. Stems to 5 cm in diam.; branchlets distinctly striate-angular. Petiole 0.8–1.2 cm; leaf blade elliptic or obovate, 6.9–9 × 2.5–4 cm, leathery, base cuneate, apex obtuse, acute, or short acuminate; lateral veins 4–6 pairs, slightly raised abaxially. Inflorescences terminal or axillary, 4–15 cm. Pedicel 4–6 mm. Sepals circular, ca. 3 mm in diam., ± dull yellow pubescent abaxially with 2-armed hairs, glabrescent. Corolla white, 8–10 mm; lobules broadly elliptic, undulate. Stamens unequal, apex acuminate; filaments ca. as long as anthers. Ovary ellipsoid (drum-shaped), glabrous. Stigma conical, spirally ridged. Fruit red to yellow, ovoid-ellipsoid, 1.4–2 cm.

Dense forests, thickets, streamsides, steep slopes, hilltops, sandy soil, silt, rocky areas; 100–1200 m. C and SE Guangdong, Guangxi, Hainan [Vietnam].

As noted by Hoogland (see above), the specimens from Hong Kong have an obtuse to rounded leaf apex, while those from other parts of China are more variable.

The stem is used medicinally.

### 9. Erycibe sinii F. C. How, Sunyatsenia 6: 226. 1946.

瑶山丁公藤 yao shan ding gong teng

Shrubs scandent. Branchlets distinctly striate, appressed pilose, glabrescent. Petiole 1-1.2 cm; leaf blade elliptic or oblong-elliptic,  $6-9 \times 2.5-4.3$  cm, papery, abaxially sparsely strigillose and finely spotted, adaxially glabrous, base cuneate, apex abruptly acute; lateral veins 5-7 pairs, veinlets

indistinct. Inflorescences terminal or axillary, racemose or paniculate, 8–10 cm, densely appressed brownish pubescent. Pedicel ca. 2 mm. Sepals circular, 2–3 mm, densely appressed red-brown sericeous. Corolla ca. 7.5 mm, midpetaline bands red-brown sericeous outside; lobules oblong-ovate, ca. 3 mm, margin crenulate. Filaments very short, dilated basally; anthers ovate-oblong, apex abruptly acuminate. Ovary globose, glabrous. Stigma capitate, 5-ridged. Fruit not seen. Fl. Jun.

### • Guangxi.

Hoogland (see above, p. 358), who did not examine the type material of *Erycibe sinii*, suggested from the description that it might be conspecific with *E. schmidtii*.

**10. Erycibe henryi** Prain, J. Asiat. Soc. Bengal 73(2): 15. 1904

台湾丁公藤 tai wan ding gong teng

Erycibe acutifolia Hayata.

Shrubs climbing. Branchlets striate. Petiole 1.5–3 cm, puberulent; leaf blade broadly elliptic, 5–7 × 3–4.5 cm, rigidly papery, glabrous, base cuneate, apex abruptly acuminate or cuspidate; lateral veins 4–6 pairs. Inflorescences terminal or axillary, paniculate, ± conical, 2–15 cm, ± brownish appressed pubescent. Pedicel 4–13 mm. Sepals elliptic-circular, 2–3 mm, pubescent abaxially. Corolla white, 8–10 mm; lobules oblong-elliptic, margin entire or undulate, involute, midpetaline bands rust-colored appressed pubescent abaxially. Stamens ca. 2 mm; filaments ca. as long as anthers; anthers triangular, apex acuminate to caudate. Ovary columnar (drum-shaped), glabrous. Stigma depressed conical, wider than ovary, 5-ridged. Fruit black, ellipsoid, ca. 1.8 × 1 cm, glabrous. Fl Jun-Sep, fr. Mar-Apr.

Thickets, secondary forests, sandstone cliffs; 0–300 m. Taiwan [S Japan including Ryukyu Islands].