

5. **CARALLIA** Roxburgh, Pl. Coromandel 3: 8. 1811, nom. cons.

竹节树属 zhu jie shu shu

*Barraldeia* Thouars; *Diatoma* Loureiro; *Karekandel* Wolf; *Petalotoma* Candolle.

Shrubs or trees. Stipules lanceolate. Leaf blade margin entire or serrate. Inflorescences dichasial cymes. Bracteoles present. Calyx lobes 5–8, deltoid. Petals 5–8, conspicuously clawed. Stamens twice as many as petals, free, persistent, of 2 lengths, shorter ones opposite petals. Disk annular, fleshy. Ovary inferior, 5–8-loculed; ovules 2 per locule; style filiform; stigma discoid, capitate, or obscurely lobed. Fruit pulpy, 1-loculed. Seeds 1(–5), arillate, not viviparous.

About ten species: S and SE Asia, N Australia, Madagascar, New Guinea, Pacific islands: four species (two endemic) in China.

- 1a. Leaf blade margin entire or denticulate to serrulate for 1/3–1/2 its length.
  - 2a. Leaf blade obovate, obovate-oblong, or rarely suborbicular, 5–15 × 2–10 cm; peduncle and branches of inflorescence slender ..... 1. *C. brachiata*
  - 2b. Leaf blade elliptic to broadly elliptic, 10–17 × 5–9 cm; peduncle and branches of inflorescence thick ..... 2. *C. garciniifolia*
- 1b. Leaf blade margin serrulate.
  - 3a. Petals rose red, twice as many as calyx lobes, in 2 whorls, outer petals larger than inner ones ..... 3. *C. diplopetala*
  - 3b. Petals white, as many as calyx lobes, in 1 whorl, equal in size ..... 4. *C. pectinifolia*

**1. *Carallia brachiata*** (Loureiro) Merrill, Philipp. J. Sci. 15: 249. 1920 [“1919”].

竹节树 zhu jie shu

*Diatoma brachiata* Loureiro, Fl. Cochinch. 1: 296. 1790; *Carallia integerrima* Candolle; *C. sinensis* Arnott; *Petalotoma brachiata* (Loureiro) Candolle.

Trees to 10 m tall. Branches brown, corky. Stipules 1–2.5 cm. Petiole ca. 1 cm; leaf blade elliptic, obovate, oblanceolate, or rarely suborbicular, 5–15 × 2–10 cm, papery to thinly leathery, base cuneate, margin entire, serrate, or denticulate, apex acute to shortly acuminate. Inflorescences 1–6 cm, often resinous, usually shining from secreted resin. Flowers shortly pedicellate or sessile; bracteoles 2 or 3, partially connate into a cup. Calyx lobes 6 or 7, deltoid, 3–4 mm. Petals white, suborbiculate, ca. 1.5 mm in diam., apically emarginate and unevenly lacerate. Stamens ca. 2 mm. Ovary bulbous, ca. 2 mm; style ca. 2 mm; stigma discoid, apically 4–8-lobed. Fruit pink to red globose, ca. 5 mm in diam., glossy. Seeds reniform. Fl. winter–spring, fr. spring–summer.

Evergreen forests, thickets, swamps; near sea level to 900 m. Fujian, Guangdong, S Guangxi, Hainan, Yunnan [S Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam; N Australia, Madagascar, E Nepal, New Guinea, Pacific islands].

**2. *Carallia garciniifolia*** F. C. How & C. N. Ho, Acta Phytotax. Sin. 2: 142. 1953 [“*garciniaefolia*”].

大叶竹节树 da ye zhu jie shu

Trees to 14 m tall, resinous. Branches and branchlets grayish black when dried, thick; lenticels fusiform, conspicuous. Stipules 1.8–2.6 cm, caducous. Petiole 1–1.5 cm; leaf blade broadly elliptic, 10–17 × 5–9.5 cm, leathery, base broadly cuneate, margin entire or denticulate apically from middle, apex acute to shortly acuminate. Inflorescences dichasial or trichasial cymes, 3–6 cm. Flowers usually 3 or 4, sessile, crowded at apex of branchlets. Calyx campanulate, 4–5 mm; lobes 6 or 7, trian-

gular, 1.2–1.5 × 1–1.2 mm. Petals white, orbiculate, 1.2–1.6 × 1.6–1.8 mm. Stamens 12–14, equal in length. Ovary 4- or 5-loculed; style longer than calyx, thick; stigma lobes shallow, 4 or 5. Fruit not seen. Fl. spring.

- Dense forests in valleys; 700–1900 m. Guangxi, Yunnan.

*Carallia garciniifolia* is almost certainly also present in Vietnam and should be sought there.

**3. *Carallia diplopetala*** Handel-Mazzetti, Sinensia 2: 5. 1931.

锯叶竹节树 ju ye zhu jie shu

Trees or shrubs 2–13 m tall. Bark gray; lenticels conspicuous on branches and branchlets. Petiole 3–4 mm; leaf blade oblong, 8.5–11 × 2.5–3 cm, base cuneate, margin finely denticulate, apex acute to shortly acuminate. Inflorescences dichasial cymes; peduncle ca. 5 mm, thick; bracts brown, obovate, small. Calyx lobes 7, triangular-ovate. Petals rose red, ovate, in 2 whorls, inner ones smaller than outer ones, adnate to calyx. Stamens 7 or 14, adnate to petals; anthers oblong, both ends obtuse. Style shorter than calyx; stigma platelike, shallowly 4-lobed. Fruit red, purplish red, or black, globose to ellipsoid, 8–13 × 8–9 mm. Fl. autumn–winter, fr. spring.

Forests, thickets; 300–1000 m. S Guangdong, S Guangxi, S Yunnan [Vietnam].

This species was listed as endangered in China by Liang (in Fu & Jin, China Pl. Red Data Book 1: 540–541. 1992).

**4. *Carallia pectinifolia*** W. C. Ko, Acta Phytotax. Sin. 16(4): 130. 1978.

旁杞树 pang qi shu

*Carallia longipes* Chun ex W. C. Ko, Acta Phytotax. Sin. 16(2): 109. 1978, not Ding Hou (1960).

Shrubs or small trees. Branches and branchlets purplish brown when dried; lenticels fusiform, conspicuous. Petiole 5–6 mm; leaf blade oblong to rarely oblanceolate, 5–13 × 2.5–5.5 cm, papery, base broadly cuneate, margin serrate, apex acuminate. Inflorescences dichasial cymes, 1.5–2 cm. Flowers shortly pedicellate, 2 or 3 crowded at apex of branchlets. Bracteoles minute, membranaceous. Calyx deeply lobed, lobes 6 or 7, triangular. Petals white, ca. 2 × 2 mm, claw ca. 1 mm, margin not entire, apically 2-lobed. Fruit red, globose, ca. 7 mm in diam.; persistent calyx red. Seeds reniform. Fl. and fr. spring–summer.

• Mixed forests in valleys, along rivers. Guangdong, Guangxi, Yunnan.

*Carallia pectinifolia* is almost certainly also present in Vietnam and should be sought there. It is also possible that the same species occurs in Vietnam but is known there under a different, earlier name.

Flora of China 13: 298–299. 2007.