

3. LORANTHUS Jacquin, Enum. Stirp. Vindob. 55, 230. 1762, nom. cons., not Linnaeus (1753).

桑寄生属 sang ji sheng shu

Hyphear Danser.

Shrubs parasitic, glabrous. Leaves opposite or subopposite, pinnately veined. Inflorescences axillary or terminal, spikes of flowers sessile, inserted in slight hollows on the rachis; 1 bract subtending each flower. Flowers bisexual or unisexual (plants dioecious), 5- or 6-merous, actinomorphic. Calyx usually ovoid, limb annular, persistent. Mature flower bud clavate or obovoid, straight. Corolla greenish, yellowish, or white, petals free, small, under 10 mm in mature bud, patent and spreading. Stamens inserted on the petals; anthers 2-4-loculed, ovoid or biglobose, sometimes absent. Pollen grain semiangular in polar view. Ovary 1-loculed; placentation basal. Style subcylindric; stigma capitate or truncate. Berry ovoid or subglobose, smooth.

About ten species: temperate and subtropical regions of Asia and Europe; six species (three endemic) in China.

- 1a. Spikes terminal; branching often apparently dichotomous.
 - 2a. Leaf blade 5.5-7 × ca. 3 cm; flowers 5-merous; calyx 1.5-2 mm 3. *L. lambertianus*
 - 2b. Leaf blade 2.5-5 × 1-2.5 cm; flowers mostly (5- or)6-merous; calyx 1-1.5 mm.
 - 3a. Petals 1.5-2 mm; berry orange, globose, 7-8 mm 1. *L. tanakae*
 - 3b. Petals 3-4 mm; berry greenish, ovoid, 4-5 mm 2. *L. guizhouensis*
- 1b. Spikes axillary; branching not dichotomous.
 - 4a. Flowers unisexual; corolla of male flower 4-5 mm; corolla of female flower 2-3 mm; leaves with 5 or 6 pairs of lateral veins 6. *L. delavayi*
 - 4b. Flowers bisexual; corolla ca. 2.5 mm; leaves with 2-5 pairs of lateral veins.
 - 5a. Spikes 4-6(-10)-flowered; anthers 4-loculed; berry globose, ca. 4 mm; parasitic on species of Fagaceae 4. *L. pseudo-odoratus*
 - 5b. Spikes 10-20-flowered; anthers 2-loculed; berry ovoid, ca. 5 × 3 mm; epiparasitic on other species of Loranthaceae 5. *L. kaoi*

1. *Loranthus tanakae* Franchet & Savatier, Enum. Pl. Jap. 2: 482. 1876.

北桑寄生 bei sang ji sheng

Hyphear tanakae (Franchet & Savatier) Hosokawa.

Shrubs deciduous, ca. 1 m tall, all parts glabrous. Branches usually dichotomous, black, mostly glaucous, scattered lenticellate. Petiole 3-8 mm; leaf blade obovate or elliptic, 2.5-4 × 1-2 cm, papery, lateral veins 3 or 4 pairs, faint, base cuneate and slightly decurrent, apex obtuse or retuse. Spikes terminal, 10-20-flowered, 2.5-4 cm; bracts ovate, concave, ca. 1 mm. Flowers bisexual, subopposite, (5- or)6-merous. Calyx ellipsoid 1-1.5 mm. Mature bud ovoid. Corolla greenish, petals lanceolate, 1.5-2 mm. Filaments short; anthers 4-loculed, ca. 0.5 mm. Style ca. 1 mm, usually 6-angled; stigma slightly capitate. Berry orange, globose, 7-8 mm. Fl. May-Jun, fr. Sep-Nov.

Broad-leaved forests, plantations; 900-2000(-2600) m. Gansu, Hebei, SE Nei Mongol, Shaanxi, Shandong, Shanxi, N Sichuan [Japan, Korea].

Recorded hosts include *Prunus armeniaca*, *Pyrus bretschneideri*, and species of *Betula*, *Quercus*, and *Ulmus*.

The Chinese material named as *Loranthus europaeus* Jacquin belongs here.

2. *Loranthus guizhouensis* H. S. Kiu, Acta Phytotax. Sin. 21: 171. 1983.

南桑寄生 nan sang ji sheng

Shrubs deciduous, 0.5-1 m tall, all parts glabrous. Branches usually dichotomous, branchlets dull black and glau-

cous. Petiole 2-3 mm; leaf blade ovate or elliptic, 3.5-5 × 2-2.5 cm, papery or thinly leathery, base cuneate and slightly decurrent, apex obtuse or acute; lateral veins 3-5 pairs, faint. Spikes terminal, 8-16-flowered, 2.5-4 cm; bracts ovate, concave, ca. 1 mm. Flowers bisexual, opposite or subopposite, 6-merous. Calyx ovoid, ca. 1 mm. Mature bud obovoid. Corolla greenish, petals spreading, lanceolate, 3-4 mm. Filaments ca. 0.5 mm, free from middle of petals; anthers 4-loculed, ca. 1 mm. Style ca. 2.5 mm, slightly 6-angled; stigma obtuse. Berry greenish, ovoid, 4-5 × 2.5-3 mm. Fl. May-Jun, fr. Jul-Aug.

• Forests, mountain valleys; 100-1400 m. E and N Guangdong, Guangxi, S Guizhou, S Hunan, E Yunnan.

Recorded hosts include *Platycarya strobilacea* and *Quercus myrsinifolia*.

3. *Loranthus lambertianus* J. H. Schultes in Roemer & Schultes, Syst. Veg. 7: 118. 1829.

吉隆桑寄生 ji long sang ji sheng

Hyphear lambertianum (J. H. Schultes) Danser.

Shrubs deciduous, ca. 0.5 m tall. Branches usually dichotomous, brownish, scattered lenticellate. Petiole 4-10 mm; leaf blade oblong or oblong-ovate, 5.5-7 × ca. 3 cm, papery, lateral veins 4 or 5 pairs, faint, base broadly cuneate, apex acute or obtuse. Spikes terminal, 10-14-flowered, 2.5-3.5 cm; bracts ovate, concave, ca. 0.5 mm. Flowers bisexual, subopposite, 5-merous. Calyx ellipsoid, 1.5-2 mm. Mature bud ca. 3 mm. Corolla yellowish, petals lanceolate. Filaments short; anthers 4-loculed. Style ca. 2 mm; stigma subcapitate. Berry ovoid, ca. 6

× 5 mm. Fl. Apr–Jun.

Broad-leaved forests, mountain slopes, valleys; (1600–)2700–2800 m. S Xizang (Dinggyê, Gyirong, Mêdog) [Nepal].

The plants are usually parasitic on species of *Quercus*.

4. *Loranthus pseudo-odoratus* Lingelsheim, Repert. Spec. Nov. Regni Veg. Beih. 12: 357. 1922.

华中桑寄生 hua zhong sang ji sheng

Hyphear pseudo-odoratum (Lingelsheim) Danser.

Shrubs ca. 0.5 m tall, all parts glabrous. Branches not dichotomous, dull black, roughish, scattered lenticellate. Petiole 5–7 mm; leaf blade ovate to elliptic, 4–10 × 2–6 cm, papery, lateral veins 3–5 pairs, faint, base broadly cuneate and slightly decurrent, apex obtuse to rounded. Spikes solitary or 2- or 3-fascicled, axillary, 4–6(–10)-flowered, 1–2 cm; bracts ovate, concave, ca. 0.5 mm. Flowers bisexual, subopposite or opposite, 6-merous. Calyx ovoid, ca. 1 mm. Mature bud obovoid, ca. 2.5 mm. Corolla yellowish, petals lanceolate. Stamens inserted at bases of petals, filaments short; anthers 4-loculed, ca. 0.5 mm. Style ca. 2 mm, 6-angled; stigma obtuse. Berry yellowish, globose, ca. 4 mm. Fl. Feb–Mar, fr. Jul.

• Forests, mountain slopes; 1600–1900 m. Hubei, S Sichuan, SE Zhejiang.

The plants are parasitic on Fagaceae, including species of *Castanopsis* and *Quercus*.

5. *Loranthus kanoi* (J. M. Chao) H. S. Kiu, Acta Phytotax. Sin. 21: 171. 1983.

台中桑寄生 tai zhong sang ji sheng

Hyphear kanoi J. M. Chao, Taiwania 18: 169. 1973.

Shrubs ca. 0.3 m tall, all parts glabrous. Branches not dichotomous, scattered lenticellate. Petiole 6–7 mm; leaf blade ovate or oblong, 3–4 × 1–2 cm, leathery, lateral veins 2 or 3 pairs, obscure, base cuneate to obtuse, apex obtuse to rounded.

Spikes 3–5-fascicled, axillary, 10–20-flowered, 2–3 cm; bracts ovate-triangular, ca. 3 mm. Flowers bisexual, 6-merous. Calyx subglobose, ca. 1 mm; anthers 2-loculed, ca. 0.5 mm, connective broad. Style ca. 2.5 mm; stigma subcapitate. Berry yellowish, ovoid, ca. 5 × 3 mm. Fl. Feb–Jun, fr. Aug–Dec.

• Forests, mountain slopes; 800–2300 m. Taiwan.

The plants are epiparasitic on other members of the Loranthaceae, including *Taxillus liquidambaricola*, *T. nigrans*, and *T. sutchuenensis*.

6. *Loranthus delavayi* Tieghem, Bull. Soc. Bot. France 41: 535. 1894.

周树桑寄生 zhou shu sang ji sheng

Hyphear delavayi (Tieghem) Danser; *H. koumense* (Sasaki) Hosokawa; *Loranthus delavayi* var. *latifolius* Tieghem; *L. koumensis* Sasaki; *L. owatarii* Matsumura & Hayata.

Shrubs 0.5–1 m tall, all parts glabrous. Branches not dichotomous, blackish, scattered lenticellate. Petiole 5–10 mm; leaf blade ovate to elliptic, rarely oblong-lanceolate, (5–)6–10 × 2.5–3.5 cm, papery or leathery, lateral veins 5 or 6 pairs, base broadly cuneate, rarely cuneate and slightly decurrent, apex obtuse. Spikes solitary or 2- or 3-fascicled, axillary, 8–16-flowered, 1–4 cm; bracts ovate, concave, ca. 0.5 mm. Flowers unisexual (plants dioecious), 6-merous. Calyx ovoid, ca. 1 mm. Male flowers: mature bud clavate, 4–5 mm; corolla yellowish green, petals linear-spatulate; stamens inserted on middle of petals, filaments 1–2 mm; anthers 4-loculed, 1–1.5 mm; sterile style filiform or cylindric, 1.5–2 mm, apex acuminate or 2-lobed, rarely acute. Female flowers: mature bud cylindric; petals lanceolate, 2.5–3 mm; staminodes 1–1.5 mm; anthers filiform or absent; style ca. 2.5 mm, 6-angled; stigma capitate. Berry yellowish, ovoid, ca. 5 × 4 mm in diam. Fl. Jan–Mar, fr. Sep–Oct.

Forests, mountain slopes, valleys; (200–)500–3000 m. Fujian, S Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, S Shaanxi, Sichuan, Taiwan, S Xizang, Yunnan, Zhejiang [Myanmar, Vietnam].

Recorded hosts include *Alnus japonica*, *Pyrus pyrifolia*, species of Fagaceae, and rarely *Keteleeria evelyniana*.

Barlow (Fl. Malesiana, Ser. 1, Spermatoph. 13: 355. 1997) regarded this species as synonymous with *Loranthus odoratus* Wallich, but the illustration and description suggest that the plant he studied was not the same as the Chinese material, differing in particular by the long, solitary inflorescence.

