

2. BRANDISIA J. D. Hooker & Thomson, J. Linn. Soc., Bot. 8: 11. 1864.

来江藤属 lai jiang teng shu

Shrubs, erect or scandent, occasionally parasitic, usually stellate tomentose. Leaves opposite, rarely subopposite; petiole short; leaf blade margin entire or denticulate. Flowers axillary, solitary, paired, or in racemes. Bracteoles 2, inserted on pedicels. Calyx campanulate, rarely cylindric-ovate, outside stellate hairy, regular or somewhat 2-lipped; lobes 2 or 5. Corolla tube somewhat incurved; limb 2-lipped; lower lip as long as or shorter than upper lip, 3-lobed, patent; upper lip 2-lobed, concave. Stamens 4, didynamous, somewhat exerted or included, inserted at base of corolla tube; filaments glabrous; anther locules 2, orbicular, pilose; staminode absent. Ovary ovoid, hairy, 2-loculed; ovules numerous, linear-oblong. Style elongated; stigma simple. Capsule ovoid to ovoid-globose, loculicidal. Seeds linear; seed coat reticulate, membranous winged.

About 11 species: mountainous areas of subtropical E Asia; eight species in China.

- 1a. Stellate hairs early glabrescent; corolla lower lip ca. 1/2 as long as upper lip, inside pubescent; inflorescences distinctly racemose.
 - 2a. Racemes mostly borne on lateral branches, to 20 cm or longer; bracts large; leaf blade ovate-orbicular to ovate-lanceolate, margin serrulate, apex acute 7. *B. racemosa*
 - 2b. Racemes borne on main stem, 5–6 cm; bracts small; leaf blade narrowly lanceolate, margin entire, apex narrowly acuminate 8. *B. cauliflora*
- 1b. Stellate hairs persisting (late glabrescent in *B. glabrescens* var. *glabrescens*); corolla lower lip as long as or slightly shorter than upper lip; inflorescences solitary or paired flowers, rarely subracemose.
 - 3a. Calyx obscurely veined; corolla more than 3 × as long as calyx 6. *B. rosea*
 - 3b. Calyx conspicuously veined; corolla less than 3 × as long as calyx.
 - 4a. Calyx lobes irregular, 2-lipped 5. *B. kwangsiensis*
 - 4b. Calyx lobes regular, not 2-lipped.
 - 5a. Calyx tubular-ovoid, length greater than width, apex not gaping 4. *B. glabrescens*
 - 5b. Calyx broadly campanulate, length and width ± equal, apex gaping.
 - 6a. Calyx tube 5-veined 3. *B. discolor*
 - 6b. Calyx tube 10-veined.
 - 7a. Tomentum dull yellow; leaf blade ovate-lanceolate; calyx lobe length equal or less than width; corolla orange-red 1. *B. hancei*
 - 7b. Tomentum gray-brown; leaf blade ovate, rarely ovate-oblong; calyx lobe length more than width; corolla yellow 2. *B. swinglei*

1. Brandisia hancei J. D. Hooker, Fl. Brit. India 4: 257. 1884.

来江藤 lai jiang teng

Brandisia laetevirens Rehder.

Shrubs, 2–3 m tall, dull yellow stellate tomentose. Branches glabrescent. Petiole to 5 mm; leaf blade ovate-lanceolate, 3–10 × 2–3.5 cm, dull yellow stellate tomentose, adaxially glabrescent, base subcordate, margin entire or rarely serrate, apex acute and apiculate. Flowers axillary, solitary. Pedicel to 1 cm. Bracteoles lanceolate, inserted above middle of pedicel. Calyx broadly campanulate, ca. 1 × 1 cm, outside dull yellow stellate tomentose, inside densely sericeous, 10-veined; lobes 5, ca. 1/3 of calyx length, broadly ovate to triangular-ovate, apex acute. Corolla orange-red, ca. 2 cm, outside stellate tomentose; lower lip lobes ligulate; upper lip lobes triangular. Stamens ± as long as upper lip. Ovary and style stellate pilose. Capsule ovoid-globose, stellate pilose, apex beaked. Fl. Nov–Feb, fr. Mar–Apr.

• Forests or forest edges; 500–2600 m. Guangdong, Guangxi, Guizhou, Hubei, Shaanxi, Sichuan, Yunnan.

2. Brandisia swinglei Merrill, Philipp. J. Sci. 13: 157. 1918.

岭南来江藤 ling nan lai jiang teng

Shrubs, erect to somewhat scandent, to 2 m tall, densely gray-brown stellate tomentose. Branches glabrescent. Petiole to 8 mm; leaf blade ovate, rarely ovate-oblong, 3–11 × 1–5.5 cm, densely gray-brown stellate tomentose, adaxially glabrescent, becoming black when dry, base broadly cuneate to subcordate, margin entire or irregularly sparsely serrate, apex acute to caudate-acute. Flowers solitary or sometimes paired. Pedicel to 8 mm. Bracteoles gray stellate tomentose, inserted at pedicel apex. Calyx campanulate, to 1.5 cm, gray stellate tomentose, inside sericeous, outside 10-veined; lobes 5, ca. 1/2 of calyx length, narrowly triangular-ovate, apex acuminate and apiculate. Corolla yellow, ca. 2.5 cm, gray-brown stellate tomentose except for tube base; lateral lobes of lower lip oblong-ovate, smaller than middle lobe; upper lobes obliquely ovate. Stamens included. Ovary base and style stellate tomentose. Capsule shorter than calyx. Seeds ca. 4.5 mm. Fl. Jun–Nov, fr. Dec–Jun.

• Mountain slopes; 500–1000 m. Guangdong, Guangxi, Hunan.

3. Brandisia discolor J. D. Hooker & Thomson, J. Linn. Soc., Bot. 8: 11. 1864.

异色来江藤 yi se lai jiang teng

Shrubs, ± scandent, densely tawny stellate tomentose. Branches glabrescent. Petiole ca. 6 mm; leaf blade ovate-lanceolate to narrowly lanceolate, to 9 × 2 cm, dark dirty brown when dry, abaxially glabrescent, base cuneate to subrounded, margin entire, apex acute. Flowers solitary. Pedicel 1–1.4 cm. Bracteoles linear, inserted at middle of pedicel. Calyx campanulate, 6–8 mm, purple-brown sericeous-villous within, 5-veined; lobes 5, ca. 3 mm, apex acute. Corolla dirty yellow to pale purple-brown, ca. 2 cm, outside densely yellow-brown stellate pubescent; lower lip lobes ovate-orbicular, middle lobe larger than lateral lobes; upper lip to 8 mm, apex retuse. Ovary and style densely stellate tomentose. Capsule ovoid-globose, ca. 1.2 cm, stellate tomentose, apex acute. Fl. Nov–Feb.

Forests or along trails; ca. 1500 m. S Yunnan [India, Laos, Myanmar, Thailand, Vietnam].

4. *Brandisia glabrescens* Rehder in Sargent, Pl. Wilson. 1: 574. 1913.

退毛来江藤 *tui mao lai jiang teng*

Shrubs, semi-scandent, to 2 m tall, densely yellow-brown tomentose hairy, glabrescent. Petiole to 9 mm; leaf blade ovate-oblong to lanceolate, 3–14 × 1–5.5 cm, papery, adaxially dark brown when dry, base cuneate to subrounded, margin entire or serrulate, apex acute. Flowers solitary or paired. Pedicel ca. 1 cm. Bracteoles inserted at pedicel apex. Calyx tubular-ovoid, 1–2 cm, longer than wide, outside finely stellate hairy, inside pilose, veins 10; lobes 5, ca. 1/4 of calyx length, broadly ovate, apex acute. Corolla yellow, 2–3 cm, outside densely stellate tomentose, inside glabrous; upper lip apex truncate. Stamens and style ± as long as corolla. Ovary densely stellate tomentose. Capsule stellate tomentose. Fl. Jul–Aug.

Forests, rice fields. S Yunnan [Vietnam].

1a. Leaves abaxially glabrous or sparsely stellate along veins 4a. var. *glabrescens*

1b. Leaves abaxially persistent stellate 4b. var. *hypochrysa*

4a. *Brandisia glabrescens* var. *glabrescens*

退毛来江藤(原变种) *tui mao lai jiang teng* (*yuan bian zhong*)

Leaves abaxially glabrous or sparsely stellate along veins. Fl. Jul–Aug.

Forests, rice fields; 1400–2300 m. S Yunnan [Vietnam].

4b. *Brandisia glabrescens* var. *hypochrysa* P. C. Tsoong, Fl. Reipubl. Popularis Sin. 67(2): 394. 1979.

退毛来江藤黄背变种 *tui mao lai jiang teng huang bei bian zhong*

Leaves abaxially with persistent yellowish brown stellate tomentum.

• Yunnan (Mengzi Xian).

5. *Brandisia kwangsiensis* H. L. Li, J. Arnold Arbor. 28: 133. 1947.

广西来江藤 *guang xi lai jiang teng*

Shrubs, scandent, ca. 1 m tall, whole plant tawny stellate, branches and leaves adaxially glabrescent. Petiole 3–9 mm, tomentose; leaf blade ovate-oblong, 3–11 × 1–4 cm, leathery, base cuneate to rounded, margin entire, apex acute and apiculate. Flowers solitary or paired. Pedicel to 9 mm. Bracteoles long petiolate, lanceolate, tawny stellate tomentose. Calyx campanulate, ca. 1 cm, 2-lipped, parted to 1/3–1/2 of length, outside tawny stellate tomentose, inside sericeous-villous, outside 10-veined; lower and upper lips 2- or 3-lobed or rarely entire. Corolla purple-red, to 2.8 cm, outside densely stellate tomentose except base of tube, somewhat bow-curved; lower lip lobes subequal; upper lip deeply parted into broadly ovate lobes. Stamens ± didynamous. Ovary densely stellate tomentose. Capsule ovoid-globose, ca. 1 cm, included in calyx, densely stellate tomentose. Fl. Jul–Nov.

• Thickets, forests; 900–2700 m. Guangxi, Guizhou, Yunnan.

6. *Brandisia rosea* W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 10: 10. 1918.

红花来江藤 *hong hua lai jiang teng*

Shrubs, ca. 1 m tall, brownish gray stellate tomentose, branches and leaves adaxially glabrescent. Petiole ca. 6 mm; leaf blade ovate-orbicular to oblong-lanceolate, to 14 × 4.5 cm, ca. 2 × 1–2.5 cm on branchlets, abaxially sparsely brown-gray tomentose, adaxially black when dry, base cuneate, margin entire, apex acute. Flowers solitary or subracemose at apex of branchlets. Pedicels, bracteoles, and calyces brown-gray stellate tomentose. Pedicel ca. 1 cm. Bracteoles linear, caducous, near pedicel base. Calyx campanulate, 5–7 mm, inside hairy, veins inconspicuous; lobes 2, ca. 1/2 of calyx length, apex 2-lobed or entire. Corolla rose, yellow-red, or yellow; tube cylindrical, to 2 cm or more, outside stellate tomentose; lower lip lobes ovate-orbicular; upper lip deeply lobed. Stamens and style slightly shorter than upper lip. Capsule ± compressed, ovoid-globose, ca. 1.5 cm, apex acute. Fl. Jul–Nov.

Forests on mountain slopes, thickets; 2000–3000 m. SW Sichuan, Xizang, NW Yunnan [Bhutan, India].

1a. Corolla rose to yellowish red 6a. var. *rosea*

1b. Corolla yellow 6b. var. *flava*

6a. *Brandisia rosea* var. *rosea*

红花来江藤(原变种) *hong hua lai jiang teng* (*yuan bian zhong*)

Corolla rose to yellowish red. Fl. Jul–Nov.

Forests on mountain slopes, thickets; 2000–3000 m. SW Sichuan, NW Yunnan [Bhutan].

6b. *Brandisia rosea* var. *flava* C. E. C. Fischer, Bull. Misc. Inform. Kew 1934: 93. 1934.

红花来江藤黄花变种 *hong hua lai jiang teng huang hua bian zhong*

Corolla yellow. Fl. Jul–Oct.

Forests; ca. 2500 m. Xizang, Yunnan [India].

7. *Brandisia racemosa* Hemsley, Bull. Misc. Inform. Kew 1895: 114. 1895.

总花来江藤 zong hua lai jiang teng

Shrubs, scandent. Young branches brown stellate tomentose, glabrescent. Petiole ca. 5 mm, glabrous or sparsely hairy; leaf blade ovate-orbicular to ovate-lanceolate, 2–6 × 1–2.5 cm, glabrous or abaxially sparsely hairy on veins, black when dry, base rounded to broadly cuneate, margin serrulate, apex acute. Racemes terminal, rarely lateral, to 20 cm or longer, brown stellate hairy when young, glabrescent. Flowers paired at nodes. Bracteoles caducous. Calyx campanulate, 5–7 mm, outside glabrous, inside pilose; lobes 5, semiorbicular-triangular. Corolla scarlet, ca. 2.5 cm, outside pubescent, inside densely pilose; lower lip 3-lobed, lateral 2 lobes obliquely ovate, margin ciliate, part of upper margin adnate to upper lip, middle lobe triangular ovate and margin not ciliate; upper lip longer than lower lip, margin brown pilose, apex slightly concave and retuse. Stamens and style slightly shorter than upper lip. Ovary sparsely pilose. Capsule ovoid, glabrous. Fl. Aug–Nov.

• Thickets; below 2800 m. Guizhou, Yunnan.

8. *Brandisia cauliflora* P. C. Tsoong & L. T. Lu, Fl. Reipubl. Popularis Sin. 67(2): 394. 1979.

茎花来江藤 jing hua lai jiang teng

Shrubs, scandent. Branches light to dark brown. Petiole 5–8 mm, glabrous; leaf blade narrowly lanceolate, 5–10 × 1–2.5 cm, glabrescent, adaxially black when dry, base cuneate, margin entire, apex narrowly acuminate. Racemes borne on main stem, 5–6 cm; bracts petiolate, small, herbaceous, deciduous after flowering. Pedicels and calyces glabrous. Flowers paired at nodes. Pedicel 5–8 mm. Bracteoles petiolate, lanceolate, inserted at pedicel apex. Calyx campanulate, 5–6 mm; lobes 5, triangular, apex acute. Corolla bright red. Capsule ovoid, glabrous, apex acute. Fl. Jun–Jul, fr. autumn.

• Forests in low mountains. SW Guangxi.

