

13. **RUELLIA** Linnaeus, Sp. Pl. 2: 634. 1753.

芦莉草属 lu li cao shu

Hu Jiaqi (胡嘉琪 Hu Chia-chi), Deng Yunfei (邓云飞); Thomas F. Daniel

Blechnum P. Browne; *Cryphiacanthus* Nees; *Dipteracanthus* Nees.

Herbs [or shrubs], perennial, prostrate to erect, with cystoliths. Leaves sessile or petiolate; leaf blade margin entire, crenulate, or dentate. Inflorescences axillary or terminal, reduced or expanded dichasia, sometimes forming dichasiate spikes, thyrses, or panicles, sometimes reduced to a solitary flower; bracts opposite, usually green, margin entire; bracteoles 2 [or absent]. Flowers [sessile or] subsessile to pedicellate. Calyx deeply 5-lobed; lobes equal or subequal. Corolla funnel-shaped; tube basally with a narrowly cylindrical portion, usually expanded apically into a distinct throat; limb 5-lobed; lobes usually ovate to orbicular, equal to unequal in size, contorted in bud. Stamens 4, didynamous, usually included in corolla tube; filaments sometimes connate in pairs at base; anthers 2-theous; thecae equal, parallel to subsagittate, mucous at base; staminode 1 or absent. Ovary with up to 10 ovules per locule; style usually included in corolla tube or slightly exerted; stigma 2-lobed, lobes equal or unequal. Capsule stipitate or not stipitate, [4–]12–26-seeded; retinacula present; septa with attached retinacula remaining attached (or separating in *Ruellia blechnum*) to inner wall of mature capsule. Seeds discoid, usually pubescent with hygroscopic trichomes.

About 250 species: tropical to temperate regions worldwide; four species (one endemic, two introduced) in China.

Blechnum and *Dipteracanthus* are included in *Ruellia* based on morphological and molecular data (C. Ezcurra, Ann. Missouri Bot. Gard. 80: 787–845. 1993; E. Tripp, Syst. Bot. 32: 628–649. 2007; E. Tripp et al., Taxon 58: 893–906. 2009).

- 1a. Flowers in terminal dense 4-sided spikes; septa with retinacula separating from inner wall of mature capsule 1. *R. blechnum*
- 1b. Flowers otherwise; septa with retinacula remaining attached to inner wall of mature capsule.
 - 2a. Creeping herbs; corolla white, 1.2–2 cm 2. *R. repens*
 - 2b. Erect herbs; corolla purplish, 2.2–5.5 cm.
 - 3a. Roots lacking tuberlike swellings; flowers sessile 3. *R. venusta*
 - 3b. Roots with tuberlike swellings; flowers pedicellate 4. *R. tuberosa*

1. **Ruellia blechnum** Linnaeus, Syst. Nat., ed. 10, 2: 1120. 1759.

赛山蓝 sai shan lan

Barleria pyramidata Lamarck; *Blechnum brownei* Jussieu; *B. pyramidatum* (Lamarck) Urban.

Herbs to 50 cm tall. Roots lacking tuberlike swellings. Stems slightly 4-angled, often prostrate and rooting at nodes, sparsely pubescent to subglabrous. Petiole 0.5–2.5 cm, strigose; leaf blade ovate, 3–6 × 2–4 cm, abaxially paler and subglabrous, adaxially green, sparsely strigose and densely pilose along veins, secondary veins 5–8 on each side of midvein, base obtuse to rounded and slightly decurrent onto petiole, margin entire, apex acute. Inflorescences terminal, dense spikes, 2–6 cm, subsessile to shortly pedunculate; rachis strigose; bracts subleaflike, ovate, ca. 1.5 × 1.3 cm, abaxially slightly pubescent, margin ciliate; bracteoles 2, lanceolate-ovate, 5–9 × 1.5–3 mm, margin ciliate. Calyx lobes linear to subulate, outside pilose. Corolla white to pale blue, ca. 1.5 cm (cleistogamous flowers sometimes present, these much smaller and budlike), outside puberulent on lobes; lobes ovate, ca. 3 × 2 mm. Stamens with longer pair ca. 4 mm and shorter pair ca. 3 mm; filaments glabrous; anther thecae ca. 1 mm. Ovary comose; style 6–10 mm, slightly hirsute; stigma usually with only 1 lobe evident. Capsule substipitate, ovoid to ellipsoid, ca. 6 mm, puberulent, 8–12-seeded; septa with attached retinacula separating from inner wall of mature capsule. Seeds ca. 1.5 mm in diam., margin with a conspicuous band of appressed hygroscopic trichomes. Fl. Nov, fr. Nov. 2n = 34.

Disturbed sites, drainage ditches; sea level to below 100 m. Nat-

uralized in Taiwan [native to tropical America].

Ruellia blechnum is widely naturalized in tropical and subtropical areas.

2. **Ruellia repens** Linnaeus, Syst. Nat., ed. 12, 2: 424; Mant. Pl. 1: 89. 1767.

楠草 nan cao

Dipteracanthus lanceolatus Nees; *D. repens* (Linnaeus) Hasskarl.

Herbs 15–50 cm tall, perennial, creeping. Roots lacking tuberlike swellings. Stems almost 4-angled, finely pubescent or glabrescent. Petiole 3–5 mm; leaf blade ovate to linear-lanceolate, 1.4–4 × 0.8–2 cm, thinly papery, both surfaces sparsely strigose, secondary veins 4 or 5 on each side of midvein, base broadly cuneate to rounded, margin subentire, apex acuminate to acute. Flowers axillary, solitary [or clustered]; bracteoles subleaflike, ovate to ovate-oblong, 8–10 mm. Pedicel to 1 mm. Calyx lobes lanceolate, ca. 5 mm, margin sparingly ciliate. Corolla white [or pink to light purple], 1.2–2 cm, outside pilose; tube basally ca. 2 mm wide for ca. 5 mm then ventricose and gradually widened to ca. 5 mm at mouth; lobes ovate, ca. 3 × 3 mm, apex obtuse. Stamens with longer pair ca. 5 mm and shorter pair ca. 2 mm; filaments glabrous; anther thecae ca. 1 mm. Ovary comose; style ca. 1 cm, hirsute; stigma lobes unequal. Capsule brownish yellow, stipitate, ca. 1.2 cm, slightly pilose, 12–16-seeded; septa with attached retinacula remaining attached to inner wall of mature capsule. Seeds discoid, ca. 3 mm in diam., margin with a conspicuous band of appressed hygroscopic trichomes. Fl. May–Aug, fr. Jul–Aug. 2n = 24.

Fl. China 19: 435–437. 2011.

Grasslands, roadsides; 100–900 m. Guangdong, Guangxi, Hainan, Taiwan, Yunnan [Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam].

3. *Ruellia venusta* Hance, J. Bot. 6: 92. 1868.

飞来蓝 fei lai lan

Leptosiphonium venustum (Hance) E. Hossain; *Ruellia seclusa* S. Moore.

Herbs to 70 cm tall, unbranched or rarely branched. Petiole 3–8 mm; leaf blade oblong-lanceolate, lanceolate, or oblanceolate, 4–14 × 1–3.5 cm, both surfaces glabrous, secondary veins 5–8 on each side of midvein, base cuneate to attenuate and decurrent onto petiole, margin slightly undulate to crenate, apex acute to acuminate. Flowers in axils of leaves or leaflike bracts, solitary or in dichasial clusters, sessile; bracteoles subleaflike, lanceolate to elliptic, 7–30 × 1.5–6.5 mm, abaxially glabrous. Calyx 7–8 mm; lobes lanceolate, outside sparsely pubescent with non-glandular trichomes, adaxially gland-tipped puberulent. Corolla purplish white, 4–5.5 cm; tube basally cylindrical and ca. 2 mm wide for 2.2–3.5 cm; lobes 7–17 × 4–6 mm, subequal, apically undulate. Stamens with longer pair ca. 7 mm and shorter pair ca. 4 mm; filaments glabrous; anther thecae ca. 2 mm. Ovary glabrous; style sparsely villous. Capsule ca. 1.3 cm. Fl. Aug–Sep.

• Forests, along streams; 100–800 m. Anhui, Fujian, Guangdong, Guangxi, Hubei, Hunan, Jiangxi.

Ruellia venusta was treated under *Leptosiphonium* F. Mueller by C. C. Hu (FRPS 70: 56–58. 2002). *Leptosiphonium* is often treated as a section of *Ruellia*. The generic distinctions between *Leptosiphonium* and most *Ruellia* are based on floral form and color (white or yellowish corollas that are hypocrateriform in *Leptosiphonium*) and likely reflect different pollinators. It is doubtful that the genera are distinct, but the Chinese plants (with their purplish and funnelliform corollas) more closely resemble those of *Ruellia* than *Leptosiphonium*.

4. *Ruellia tuberosa* Linnaeus, Sp. Pl. 2: 635. 1753.

芦莉草 lu li cao

Herbs to 45 cm tall, perennial, erect. Roots with elongate tuberlike swellings. Stems slightly swollen above nodes, almost 4-angled, strigulose on angles. Petiole to 8 mm, glabrous; leaf blade oblong-obovate, 4–8 × 1.5–4.2 cm, both surfaces glabrous, veins abaxially somewhat prominent, base cuneate and tapering onto petiole, margin undulate to subentire, apex acute. Inflorescences axillary, lax dichotomous cymes; peduncle to 2.3 cm; bracts oblong-lanceolate, to 3–9 × 1–3 mm; bracteoles linear-oblong, to 1.5 mm. Pedicel 6–10 mm, minutely pilose. Calyx tube to 6 mm, outside tomentose; lobes linear-lanceolate, 0.9–2 cm. Corolla pale blue, 2.2–5.5 cm, outside hirtellous; lobes suborbicular, ca. 1.6 × 1.5 cm. Stamens with longer pair ca. 8 mm and shorter pair ca. 4 mm; filaments glabrous; anther thecae white, hairy on dorsal side. Ovary glabrous except for a few gland-tipped trichomes at apex; style ca. 2.1 cm, sparsely hirsute; stigma 2-lamellate. Capsule not stipitate, linear-ellipsoid, 1.8–2.5 × 0.3–0.4 cm, glabrous except for a few gland-tipped trichomes at apex, 20–26-seeded; septa with attached retinacula remaining attached to inner wall of mature capsule.

Seeds discoid, ca. 2 × 2 mm, covered with appressed hygrosopic trichomes. Fl. Dec–Jan, fr. May–Jul. $2n = 32, 34$.

Disturbed sites such as roadsides; below 100 m. Naturalized in Taiwan and Yunnan (Hekou) [native to tropical America].

Ruellia tuberosa is widely naturalized in tropical areas.

Fl. China 19: 435–437. 2011.