

28. ITEA Linnaeus, Sp. Pl. 1: 199. 1753.

鼠刺属 shu ci shu

Jin Shuying (靳淑英); Hideaki Ohba

Shrubs or trees. Leaves alternate, petiolate; stipules deciduous or evergreen, small, pinnately veined; leaf blade simple, elliptic to lanceolate, secondary veins spreading or curved, margin glandular dentate or spinose dentate, rarely crenate or entire. Inflorescence terminal or axillary, a raceme or racemose panicle, many flowered. Flowers bisexual or also unisexual, small. Calyx tube adnate to base of ovary; lobes 5, persistent. Petals 5, perigynous, erect or reflexed at anthesis, white or yellowish green, valvate. Stamens 5, inserted at margin of disc; filaments filiform-subulate; anthers ovoid to oblong. Disc ringlike. Ovary superior or semi-inferior, attached to disc, 2-carpellate, long ellipsoid; placentation central; ovules numerous, 2-seriate. Style simple or sometimes divided to middle, striate; stigma capitate. Fruit a capsule, conical to linear-oblong, apex cleft, with persistent calyx lobes and petals. Seeds numerous and narrowly fusiform or few and flattened oblong; seed coat glossy; embryo cylindric, large.

About 27 species: mainly in SE Asia and the Himalayas to China and Japan, one species in North America; 15 species (ten endemic) in China.

- 1a. Inflorescences terminal, erect or slightly curved to pendulous; ovary semi-inferior; stamens usually shorter than petals.
 - 2a. Petals reflexed at anthesis; inflorescences erect; leaf blade narrowly lanceolate, distal margin 4–8-glandular dentate on both sides, secondary veins in 6–8 pairs 4. *I. amoena*
 - 2b. Petals erect at anthesis; inflorescences erect or slightly curved to pendulous; leaf blade usually elliptic to broadly so, ovate, obovate, or rarely lanceolate or oblanceolate, margin serrate or dentate with more than 10 teeth on both sides, secondary veins in 4–6 pairs.
 - 3a. Leaves often crowded at apex of branchlets, subclustered, leaf blade margin glandular dentate; inflorescences erect; petals triangular-lanceolate 1. *I. riparia*
 - 3b. Leaves remotely alternate on branchlets, leaf blade margin rather curved spinose serrate or crenate-dentate; inflorescences nodding to pendulous; petals linear-lanceolate.
 - 4a. Leaf blade elliptic or ovate, thinly leathery, margin spinose serrate; calyx and pedicels puberulous 2. *I. yunnanensis*
 - 4b. Leaf blade elliptic-oblong or broadly elliptic to orbicular, thickly leathery, margin laxly spinose dentate; calyx and pedicels glabrous 3. *I. ilicifolia*
- 1b. Inflorescences axillary, rarely terminal, erect; ovary superior or semi-inferior; stamens usually longer than petals, sometimes shorter.
 - 5a. Ovary semi-inferior; stamens shorter than or subequaling petals.
 - 6a. Petals reflexed at anthesis; filaments and ovary glabrous; leaf blade broadly ovate to broadly elliptic, glabrous on both surfaces 5. *I. macrophylla*
 - 6b. Petals erect at anthesis; filaments and ovary puberulous; leaf blade oblong or oblong-elliptic, barbellate at vein axils abaxially 6. *I. kiukiangensis*
 - 5b. Ovary superior; stamens longer than petals.
 - 7a. Leaf blade thickly leathery.
 - 8a. Leaf blade glabrous on both surfaces, margin remotely coarsely dentate or subentire ... 10. *I. oldhamii*
 - 8b. Leaf blade sparsely glandular or sparsely or densely glandular punctate on both surfaces, margin moderately to densely serrate or crenate.
 - 9a. Branchlets, inflorescence rachis, pedicels, and calyx glandular; leaf blade sparsely glandular abaxially 7. *I. glutinosa*
 - 9b. Branchlets glabrous; inflorescence rachis, pedicels, and calyx puberulous; leaf blade glandular punctate on both surfaces.
 - 10a. Leaf blade elliptic or oblong-obovate, ca. 13 × 3–5 cm, apex acute or shortly so; petiole stout, 1.5–2.5 cm 8. *I. coriacea*
 - 10b. Leaf blade oblong or oblong-elliptic, 5.5–7 × 1.7–2.5 cm, apex rounded or obtuse; petiole slender, to 0.7 cm 9. *I. yangchunensis*
 - 7b. Leaf blade thinly leathery, papery, or membranous.

- 11a. Leaf blade papery or membranous, hairy on both surfaces or at least barbellate at vein axils.
 12a. Branchlets usually glabrous; inflorescence rachis and pedicels glabrous; leaf blade lanceolate or oblong-lanceolate, membranous or thinly papery, base cuneate or rarely obtuse, margin \pm crenulate-serrate or repand, rarely entire 15. *I. parviflora*
 12b. Branchlets densely pubescent; inflorescence rachis and pedicels villous; leaf blade elliptic to oblong-elliptic, papery, base rounded to obtuse, margin serrulate to subentire 14. *I. indochinensis*
 11b. Leaf blade thinly leathery, glabrous on both surfaces.
 13a. Leaf blade narrowly lanceolate, secondary veins in ca. 9 pairs, margin entire proximally, remotely glandular mucronulate in distal 1/3–1/2, apex acuminate, glandular mucronulate; filaments glabrous 11. *I. kwangsiensis*
 13b. Leaf blade oblong to ovate-elliptic or obovate, secondary veins in 5–7 pairs, margin proximally shallowly crenate or conspicuously and densely serrulate, distally obscurely crenate-dentate, rarely repand or subentire, apex acute, not mucronulate; filaments pilose.
 14a. Leaf blade obovate or ovate-elliptic, secondary veins in 4 or 5 pairs, base cuneate, margin shallowly crenate, rarely subentire; bracts linear-subulate, shorter than pedicels 12. *I. chinensis*
 14b. Leaf blade oblong, rarely elliptic, secondary veins in 5–7 pairs, base rounded or obtuse-rounded, margin conspicuously densely serrulate; bracts leaflike, much longer than pedicels 13. *I. omeiensis*

1. *Itea riparia* Collett & Hemsley, J. Linn. Soc., Bot. 28: 57. 1890.

河岸鼠刺 he an shu ci

Itea thorelii Gagnepain.

Shrubs 1–6 m tall. Branchlets yellow-green, striate, glabrous. Leaves usually crowded at apex of branchlets, subclustered; petiole 5–8 mm, glabrous; leaf blade abaxially gray-green, adaxially green, elliptic to lanceolate or obovate-elliptic, 5–10 \times 1.5–3 cm, thinly leathery, both surfaces glabrous, secondary veins in 4 or 5 pairs, arcuate, confluent near margin, slightly raised abaxially, obscure adaxially, base cuneate, margin curved cartilaginous glandular dentate, apex acute or acuminate. Racemes terminal, pendulous, usually longer than leaves, 10–18 cm; rachis puberulous; bracts linear-lanceolate, ca. 3–5 mm. Flowers numerous, rather crowded, often 3-clustered; pedicel 3–5 mm, puberulous. Calyx shallowly cupular; lobes erect at anthesis, triangular-lanceolate, ca. 4 mm. Stamens ca. 3 mm; filaments glabrous; anthers dorsifixed, ovoid. Ovary semi-inferior, glabrous. Style simple. Capsule ovoid-conical, ca. 5 mm, glabrous. Fl. and fr. May–Feb. $2n = 22$.

Wet places on stream banks; 400–900 m. S Yunnan [Myanmar, Thailand].

2. *Itea yunnanensis* Franchet, J. Bot. (Morot) 10: 268. 1896.

滇鼠刺 dian shu ci

Itea bodinieri H. Léveillé; *I. esquirolii* H. Léveillé; *I. forrestii* Y. C. Wu; *I. mengtzeana* Engler.

Shrubs or small trees, 1–10 m tall. Young branchlets yellow-green, striate; old branchlets dark brown, glabrous. Petiole 0.5–1.5 cm, sulcate adaxially, glabrous; leaf blade abaxially pale green, adaxially dark

green or glossy, ovate or elliptic, 5–10 \times 2.5–5 cm, thinly leathery, both surfaces glabrous, midvein distinctly raised abaxially, impressed adaxially, secondary veins in 4 or 5 pairs, arcuate, reticulate veins prominent, base obtuse or rounded, margin slightly curved spinose serrate, apex acute or shortly acuminate. Racemes terminal, nodding to pendulous, to 20 cm; rachis puberulous; bracts subulate, ca. 1 mm. Flowers numerous, often 3-clustered; pedicel spreading at anthesis, pendulous in fruit, ca. 2 mm, puberulous. Calyx shallowly cupular; lobes triangular-lanceolate, 1–1.5 mm, puberulous, rarely subglabrous. Petals erect at anthesis, slightly curved apically, pale green, linear-lanceolate, ca. 2.5 mm. Stamens usually shorter than petals; filaments ca. 2 mm, glabrous; anthers oblong. Ovary semi-inferior, glabrous. Style simple; stigma capitate. Capsule conical, 5–6 mm, glabrous. Fl. and fr. May–Dec. $2n = 22^*$.

• Coniferous, broad-leaved, or mixed forests, streamsides, rocks; 1100–3000 m. Guangxi, Guizhou, SW Sichuan, SE Xizang, Yunnan. In habit, this species is similar to, and is often confused with, *Itea ilicifolia*. However, *I. yunnanensis* differs in having narrower leaf blades, usually more than 2 \times as long as wide, with a more densely spinose serrate margin.

3. *Itea ilicifolia* Oliver, Hooker's Icon. Pl. 16: t. 1538. 1886.

冬青叶鼠刺 dong qin shu ci

Shrubs 2–4 m tall. Branchlets glabrous. Petiole 5–10 mm, glabrous; leaf blade abaxially pale green, adaxially dark green and glossy, elliptic-oblong to broadly elliptic, rarely suborbicular, 5–9.5 \times 3–6 cm, thickly leathery, both surfaces glabrous or barbellate only at vein axils, midvein and secondary veins prominently raised abaxially, secondary veins in 5 or 6 pairs, ascending,

reticulate veins obscure, base obtuse or rounded, margin often revolute when dry, laxly spinose serrate, apex acute or spinose. Racemes terminal, pendulous, 25–30 cm; rachis puberulous; bracts subulate, ca. 1 mm. Flowers numerous, usually 3-clustered; pedicel ca. 1.5 mm, glabrous. Calyx shallowly cupular; lobes erect at anthesis, slightly incurved apically, triangular-lanceolate, ca. 2.5 mm, apex mucronulate. Stamens ca. 1/2 as long as petals; filaments ca. 1.5 mm, glabrous; anthers oblong. Ovary semi-inferior. Style simple; stigma capitate. Capsule pendulous, ovoid-lanceolate, ca. 5 mm, glabrous. Fl. May–Jun, fr. Jul–Nov. $2n = 22^*$.

• Forests on mountain slopes, thickets, streamsides and roadsides in valleys; 1500–1700 m. Guizhou, W Hubei, SW Shaanxi, E Sichuan.

4. *Itea amoena* Chun, Sunyatsenia 1: 238. 1934.

秀丽鼠刺 *xiu li shu ci*

Shrubs evergreen, small, 1.5–2 m tall, glabrous or sometimes slightly puberulent on inflorescences. Flowering branchlets yellow-green, striate, elongate, slender; fruiting branchlets dark brown. Petiole slender, 1–1.5 cm, narrowly sulcate adaxially; leaf blade narrowly lanceolate, 5–11 × 1.2–2 cm; thinly leathery, both surfaces glabrous, midvein impressed adaxially, secondary veins in 6–8 pairs, arcuate ascending, reticulate veins prominent, dense, base subacute or cuneate, margin revolute when dry, 4–8-crenate-dentate on both sides proximally, entire distally, apex acuminate or long acuminate. Racemes terminal or axillary, solitary or 2- or 3-clustered, erect, 7–18 cm or more; rachis striate, puberulous; bracts subulate, ca. 1 mm, deciduous. Flowers numerous; pedicel erect or erect-spreading, 4–5 mm, puberulous. Calyx shallowly cupular; lobes narrowly lanceolate, ca. 2 mm, puberulous. Petals reflexed at anthesis, white, oblong-lanceolate, ca. 4–5 × ca. 2 mm, puberulous. Stamens shorter than petals, ca. 4 mm; filaments glabrous; anthers oblong. Ovary semi-inferior, glabrous. Stigma capitate. Capsule suboblong-conical, 8–10 mm, glabrous. Fl. Jun, fr. Jul–Nov.

• Streamsides on mountain slopes, shaded places in valleys; 100–800 m. ?Guangdong, S Guangxi.

This species is easily distinguished from other native species in having leaf blades narrowly lanceolate, sparsely glandular dentate distally, acuminate apically, and petals reflexed at anthesis.

5. *Itea macrophylla* Wallich in Roxburgh, Fl. Ind. 2: 419. 1824.

大叶鼠刺 *da ye shu ci*

Itea maesifolia Elmer; *I. luzonensis* Elmer; *I. puberula* Craib; *Kurrimia macrophylla* (Wallich) Wallich ex Meisner.

Trees 8–10 m tall. Branchlets striate, glabrous. Petiole stout, 1–2.5 cm, glabrous; leaf blade elliptic or broadly ovate, 10–20 × 5–12 cm, thinly leathery, both surfaces glabrous, midvein and secondary veins distinctly raised abaxially, midvein impressed adaxially, secondary

veins in 7–10 pairs, tertiary veins parallel, fine, reticulate veins slightly prominent abaxially, base rounded-obtuse, margin glandular serrate, apex acute or acuminate. Racemes axillary, usually 2- or 3-clustered, rarely solitary, erect, 10–15(–20) cm; bracts subulate. Calyx cupular; lobes triangular-lanceolate, ca. 1.5 mm, puberulous. Petals reflexed at anthesis, white, narrowly lanceolate, 3–4 mm, apex subacute. Stamens ca. 1/2 as long as petals; filaments glabrous; anthers dorsifixed, oblong. Ovary semi-inferior, glabrous. Stigma capitate. Capsule spreading or pendulous, striate, narrowly conical, 7–8 mm, glabrous. Fl. and fr. Apr–Jun. $2n = 22$.

Dense or sparse forests, roadsides on mountain slopes; 500–1500 m. Guangxi, Hainan, S Yunnan [Bhutan, India, Indonesia, Myanmar, Philippines, Sikkim, Thailand, Vietnam].

The fibers of the stems and bark are used for making ropes.

6. *Itea kiukiangensis* C. C. Huang & S. C. Huang, Fl. Yunnan. 1: 105. 1977.

球江鼠刺 *qiu jiang shu ci*

Trees to 10 m tall. Young branchlets yellow-green; old branchlets yellow-brown, striate, glabrous, with sparse lenticels. Petiole stout, 1–1.7 cm, sulcate adaxially, glabrous or sparsely puberulous; leaf blade oblong or oblong-elliptic, 1–13 × 2.8–6.8 cm, thinly leathery, both surfaces glabrous except barbellate at axils of reticulate veins, midvein and secondary veins prominently raised abaxially, impressed adaxially, secondary veins in 5–8(–10) pairs, arcuate ascending, tertiary veins subparallel, reticulate veins prominent, base rounded-obtuse, margin slightly sharply serrulate, apex acute or acuminate. Racemes rarely axillary, often 1 or 2, 9–17 cm; rachis yellow puberulous; bracts ca. 1 mm. Pedicel 2–3 mm, yellow puberulous. Calyx cupular; lobes triangular, ca. 1 mm, puberulous. Petals erect at anthesis, white, linear-lanceolate. Stamens shorter than or subequaling petals; filaments hairy; anthers subglobose. Ovary semi-inferior, sparsely puberulous. Stigma capitate. Capsule pendulous, 4–6 mm. Fl. and fr. Jul–Aug.

• Mixed forests; 1500–2300 m. SE Xizang, NW Yunnan.

7. *Itea glutinosa* Handel-Mazzetti, Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 58: 91. 1921.

腺鼠刺 *xian shu ci*

Shrubs or small trees, 3–6 m tall. Branchlets robust, olive green or chestnut brown; bark densely glandular. Petiole stout, 1.2–2 cm, sulcate adaxially, glabrous; leaf blade abaxially pale green, adaxially distinctly green, oblong-elliptic, 8–16 × 4–7 cm, thickly leathery, both surfaces glabrous, abaxially sparsely glandular, midvein slightly impressed adaxially, broad, secondary veins in 6 or 7 pairs, arcuate ascending, reticulate veins prominent on both surfaces, base rounded-obtuse, margin irregularly spinose serrate except near base,

apex acute or shortly acuminate. Racemes axillary, solitary, erect, shorter than leaves, 7–13 cm; rachis, bracts, pedicels, and calyces sparsely puberulous and sessile or substipitate reddish glandular; bracts leaflike, sometimes conspicuously elongate, to 1 cm. Flowers numerous; pedicel spreading to pendulous, 2–3 mm. Calyx shallowly cupular; lobes linear-lanceolate, shorter than or subequaling petals, 3–3.5 mm. Petals erect at anthesis, slightly curved apically, white, lanceolate, 3–4 mm, margin puberulous, sometimes sparsely glandular. Stamens conspicuously longer than petals and ovary, ca. 5 mm; filaments puberulous; anthers ovoid. Ovary superior, glabrous. Capsule ca. 7 mm. Fl. and fr. Jun–Nov.

• Forests and thickets on mountain slopes, roadsides. Fujian, Guangxi, Guizhou, Hunan.

This species is distinguished by having leaf blades thickly leathery, branchlets, raceme rachis, pedicels, bracts, and calyces with sessile or substipitate, reddish glands, and stamens conspicuously longer than the petals.

8. *Itea coriacea* Y. C. Wu, Bot. Jahrb. Syst. 71: 177. 1940.

厚叶鼠刺 *hou ye shu ci*

Itea chinensis Hooker & Arnott var. *coriacea* (Y. C. Wu) Z. P. Jien.

Shrubs or rarely small trees, to 10 m tall. Branchlets yellow-green when dry, purple-brown when old, conspicuously striate, terete, glabrous. Petiole stout, 1.5–2.5 cm, sulcate adaxially, glabrous; leaf blade abaxially pale green, adaxially yellow-green, elliptic or obovate-oblong, 6–13 × 3–5 cm, thickly leathery, midvein distinctly raised abaxially, slightly impressed adaxially, to 1 mm wide, secondary veins in 5 or 6 pairs, arcuate ascending, reticulate veins prominent, base obtuse or broadly cuneate, margin crenate-dentate except near base where sparsely glandular mucronulate, apex acute or shortly so. Racemes axillary, rarely also terminal; rachis puberulous; bracts linear-subulate, ca. 1 mm. Flowers numerous, 2(or 3)-clustered, rarely solitary; pedicel spreading or pendulous by anthesis, 2.5–4 mm, puberulous. Calyx yellow-green, shallowly cupular, puberulous; lobes triangular-lanceolate, ca. 2 mm. Petals erect, white, adaxially and marginally sparsely puberulous, apex acuminate. Stamens conspicuously longer than petals, ca. 4 mm; filaments slender, 3.5–4 mm, puberulous at base; anthers ellipsoid-globose. Ovary superior, puberulous. Capsule conical, ca. 7 mm, sparsely puberulous, apex reflexed.

• Dense or sparse forests, mountain thickets, valleys, streamsides, roadsides; 600–1500 m. Guangdong, Guangxi, Guizhou, Hainan, Jiangxi.

This species differs from *Itea omeiensis* in having stout petioles, thickly leathery leaf blades, and sparsely hairy petals.

9. *Itea yangchunensis* S. Y. Jin, Acta Phytotax. Sin. 33: 497. 1995.

阳春鼠刺 *yan chu shu ci*

Shrubs or small trees. Branchlets terete, glabrous. Petiole stout, 6–7 mm, glabrous; leaf blade abaxially pale green, adaxially dark green, oblong or oblong-elliptic, 5.5–7 × 1.7–2.5 cm, thickly leathery, both surfaces glabrous, conspicuously glandular punctate, secondary veins in ca. 5 pairs, arcuate curved, tertiary veins both parallel and reticulate, secondary and reticulate veins prominent on both surfaces, margin ± revolute when dry, densely serrulate except near base, apex rounded or obtuse. Racemes axillary, often longer than leaves, 3–5 cm; rachis and pedicels sparsely puberulous; bracts early deciduous. Flowers few, usually 2- or 3-clustered, rarely solitary. Calyx shallowly cupular; lobes oblong-lanceolate, ca. 3 mm, glabrous. Capsule turning black when dry, conical, ca. 6 mm, sparsely puberulous or subglabrous. Fr. Nov.

• Streamsides. SW Guangdong (Yangchun Xian).

This species is similar to *Itea coriacea*, but differs in having leaves smaller, shorter than the racemes, with a short, stout petiole and a glandular blade with prominent secondary and reticulate veins and a rounded or obtuse apex.

10. *Itea oldhamii* C. K. Schneider, Ill. Handb. Laubholz. 1: 396. 1906.

台湾鼠刺 *tai wan shu ci*

Itea chinensis Hooker & Arnott var. *subserrata* Maximowicz; *I. formosana* H. L. Li.

Shrubs or rarely small trees, evergreen. Branchlets stout, young ones sparsely pilose, old ones glabrous. Petiole 5–10 mm, glabrous; leaf blade ovate to ovate-elliptic, 6–9 × 3.5–5.5 cm, thickly leathery, both surfaces glabrous, midvein raised abaxially, impressed adaxially, secondary veins in 5–7 pairs, arcuate ascending, reticulate veins prominent, base obtuse or cuneate, margin remotely 2–10-dentate on both sides, apex shortly acute or acuminate, rarely obtuse. Racemes axillary or terminal, 3–5 cm, often pubescent; bracts 1–2 mm. Flowers numerous, solitary or 2-clustered; pedicel spreading, 2–4 mm, puberulous. Calyx shallowly cupular; lobes triangular-lanceolate, ca. 1/2 as long as petals. Petals white, lanceolate, ca. 2.5 × 1 mm. Stamens longer than petals; filaments hairy; anthers ellipsoid-globose. Ovary superior, puberulous. Capsule conical, 5–6 mm, slightly pubescent, with persistent sepals at base. $2n = 22$.

Thickets, valleys; 300–500 m. N Taiwan (Taipei) [Japan (Ryukyu Islands)].

The wood is hard and slightly peach-colored and is used for making furniture.

11. *Itea kwangsiensis* H. T. Chang, J. Sun Yatsen Univ., Nat. Sci. 1959(2): 30. 1959.

子农鼠刺 *zi nong shu ci*

Itea chingiana S. Y. Jin.

Shrubs 5–6 m tall. Branchlets yellow-green, conspicuously striate, terete, glabrous. Petiole stout, ca. 2.5 cm, sulcate, glabrous; leaf blade abaxially pale green, adaxially yellow-green, narrowly lanceolate or

oblong-lanceolate, 10–15 × 1.8–3.5 cm, thinly leathery, both surfaces glabrous, midvein raised abaxially, distinctly impressed adaxially, secondary veins in ca. 9 pairs, arcuate curved upward, connected near margin, raised abaxially, reticulate veins prominent, base rounded or broadly cuneate, margin often reflexed when dry, usually entire proximally and remotely glandular serrulate in distal 1/3–1/2, apex acuminate, glandular mucronulate. Racemes axillary, solitary, stout, 6–6.5 cm; rachis puberulous; bracts subulate, early deciduous. Flowers numerous, usually 2- or 3-clustered, rarely solitary; pedicel 2–2.5 mm, puberulous. Calyx cupular or shallowly so; lobes shortly triangular-lanceolate, ca. 1.5 mm, sparsely puberulous. Petals erect at anthesis, white, ovate-lanceolate, ca. 3 mm. Stamens conspicuously longer than petals; filaments 3–4 mm, glabrous; anthers oblong-globose. Ovary superior, glabrous. Style simple; stigma capitate. Capsule (immature) brown, striate, ca. 6 mm, glabrous, with persistent sepals and petals at base. Fl. and fr. May.

• Thickets; ca. 400 m. N Guangxi (Luocheng Xian).

This species is distinguished by having narrowly lanceolate leaf blades remotely glandular serrulate in the distal 1/3–1/2 of the margin and mucronulate at the apex, short, stout racemes, and striate capsules.

12. *Itea chinensis* Hooker & Arnott, Bot. Beechey Voy. 189. 1833.

鼠刺 shu ci

Shrubs or small trees, 4–10 m tall, rarely much taller. Young branchlets yellow-green, glabrous; old branchlets brown, striate. Petiole 1–2 cm, glabrous, sulcate adaxially; leaf blade abaxially pale green, adaxially deep green, obovate or ovate-elliptic, 5–12(–15) × 3–6 cm, thinly leathery, both surfaces glabrous, midvein distinctly raised abaxially, impressed adaxially, secondary veins in 4 or 5 pairs, arcuate curved upward, connected near margin, base cuneate, margin obscurely crenate-serrulate distally, repand, or subentire, apex acute. Racemes axillary, solitary or rarely 2- or 3-fascicled, erect, usually shorter than leaves, 3–6(–9) cm, glabrous; rachis puberulous; bracts linear-subulate, 1–2 mm. Flowers numerous, 2- or 3-clustered, rarely solitary; pedicel slender, ca. 2 mm, puberulous. Calyx shallowly cupular, sparsely pubescent; lobes triangular-lanceolate, ca. 1.5 mm, puberulous. Petals erect at anthesis, white, lanceolate, 2.5–3 mm, glabrous, apex emarginate. Stamens subequaling or slightly longer than petals; filaments puberulous. Ovary superior, densely villous. Stigma capitate. Capsule striate, oblong-lanceolate, 6–9 mm, puberulous. Fl. Mar–May, fr. May–Dec. $2n = 22$.

Sparse forests, mountain slopes, valleys, streamsides, roadsides; 100–2400 m. Fujian, Guangdong, Guangxi, Hunan, SE Xizang, NW Yunnan [Bhutan, India, Laos, N Myanmar, Thailand, Vietnam].

This is a widespread species variable in the shape, size, and marginal dentation of the leaf blades.

13. *Itea omeiensis* C. K. Schneider in Sargent, Pl. Wilson. 3: 421. 1917.

峨眉鼠刺 e mei shu ci

Itea chinensis Hooker & Arnott var. *oblonga* (Handel-Mazzetti) Y. C. Wu; *I. longibracteata* Hu; *I. oblonga* Handel-Mazzetti; *I. stenophylla* H. T. Chang.

Shrubs or small trees, 1.5–10 m tall, rarely much taller. Young branchlets yellow-green, glabrous; old branchlets brown, striate. Petiole stout, 1–1.5 cm, glabrous; leaf blade abaxially pale green, adaxially deep green, oblong, rarely elliptic, 6–12 (–16) × 2.5–5(–6) cm, thickly leathery, both surfaces glabrous, midvein and secondary veins distinctly raised abaxially, secondary veins in 5–7 pairs, connected near margin, reticulate veins prominent, base rounded or obtuse, margin conspicuously densely serrulate except subentire near base, apex acuminate or caudate. Racemes axillary, solitary or 2- or 3-fascicled, slightly curved distally, usually longer than leaves, 12–13 cm, rarely only 2–3 cm; bracts leaflike, triangular-lanceolate or oblanceolate, ca. 1.1 cm × 1 mm. Pedicel 2–3 mm, puberulous. Calyx shallowly cupular, sparsely puberulous; lobes triangular-lanceolate, 1.5–2 × ca. 1 mm. Petals erect at anthesis, slightly curved apically, white, lanceolate, 3–3.5 mm, sparsely puberulous. Anthers oblong-globose. Ovary superior, densely villous. Capsule 6–9 mm, pubescent. Fl. Mar–May, fr. Jun–Dec.

• Sparse forests, thickets in valleys, mountain slopes, roadsides; 300–1700 m. Anhui, Fujian, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Yunnan, Zhejiang.

14. *Itea indochinensis* Merrill, Univ. Calif. Publ. Bot. 8: 134. 1926.

毛鼠刺 mao shu ci

Shrubs or trees, to 10(–15) m tall. Young branchlets black-brown or black-green, densely pubescent; old branchlets striate, glabrescent or glabrous. Petiole 1–1.7 cm, sulcate adaxially, pubescent; leaf blade abaxially pale green, adaxially olive green, elliptic to oblong-elliptic, 10–15(–19) × 4.5–8 cm, papery, abaxially densely pubescent and glandular punctate, more densely so along veins, or barbellate only at vein axils, adaxially sparsely puberulous or glabrous, midvein and secondary veins raised abaxially, secondary veins in 6–11 pairs, arcuate ascending, connected near margin, tertiary veins parallel, base rounded or obtuse, margin serrulate to subentire, apex obtuse to shortly acuminate. Racemes axillary, usually 3- or 4-fascicled, 4–7(–8) × ca. 1 cm; rachis densely villous. Pedicel ca. 2 mm, densely villous. Calyx cupular, villous; lobes triangular-lanceolate, ca. 1/2 as long as petals. Petals erect at anthesis, white, lanceolate, 2.5–4 mm, pubescent. Stamens subequaling or longer than petals, 4–5 mm; filaments villous at base. Ovary semi-inferior, puberulous. Capsule ca. 8 mm, puberulous, dehiscent from base when ripe. Fl. Mar–May, fr. May–Dec.

Dense or sparse forests, forest margins, thickets, streamsides, roadsides; 200–2100 m. Guangdong, Guangxi, Guizhou, Yunnan [Vietnam].

This species is sometimes cultivated.

This species is distinguished from *Itea chinensis* by having leaf blades abaxially densely pubescent or at least barbellate at vein axils (vs. glabrous), with secondary veins in 6–11 (vs. 4 or 5) pairs.

- 1a. Leaf blade abaxially densely pubescent, more densely so along veins 14a. var. *indochinensis*
- 1b. Leaf blade abaxially barbellate only at vein axils 14b. var. *pubinervia*

14a. *Itea indochinensis* var. *indochinensis*

毛鼠刺(原变种) mao shu ci (yuan bian zhong)
Itea chinensis Hooker & Arnott var. *indochinensis* (Merrill) Lecompte; *I. homalioidea* H. T. Chang; *I. quizhouensis* H. T. Chang.

Leaf blade abaxially densely pubescent, more densely so along veins. Fl. Mar–May, fr. May–Dec.

Dense or sparse forests, forest margins, thickets, streamsides; 200–1400 m. Guangxi, Guizhou, S Yunnan [Vietnam].

14b. *Itea indochinensis* var. *pubinervia* (H. T. Chang) C. Y. Wu, Fl. Yunnan. 1: 106. 1977.

毛脉鼠刺 mao mei shu ci

Itea chinensis var. *pubinervia* H. T. Chang, Acta Phytotax. Sin. 2: 126. 1953.

Leaf blade abaxially barbellate only at vein axils.

• Sparse forests, streamsides, roadsides; 1000–2100 m. Guangdong, Guangxi, Guizhou, Yunnan.

15. *Itea parviflora* Hemsley, Ann. Bot. (London) 9: 153. 1895.

小花鼠刺 xiao hua shu ci

Itea arisanensis Hayata; *I. arisanensis* var. *longifolia* Yamamoto; *I. arisanensis* var. *parvifolia* Yamamoto; *I. chinensis* Hooker & Arnott var. *arisanensis* (Hayata) Masamune; *I. parviflora* var. *arisanensis* (Hayata) H. L. Li; *I. parviflora* var. *latifolia* H. L. Li.

Shrubs or small trees, evergreen, to 5 m tall. Branchlets slender, glabrous or glabrescent. Petiole slender, 1–1.5 cm; leaf blade abaxially pale green, adaxially dark green or brown, lanceolate to oblong-lanceolate, 8–12 × 2.5–3.5 cm, membranous or thinly papery, both surfaces glabrous except barbellate at vein axils, midvein raised abaxially, slightly impressed adaxially, secondary veins in 5–8 pairs, arcuate curved, reticulate veins prominent, base cuneate or rarely obtuse, margin ± crenulate-serrate or repand, rarely entire, apex acuminate or subcaudate. Racemes axillary, to 3 cm, many flowered; rachis glabrous or sometimes puberulous; bracts slightly spreading, linear-subulate. Pedicel slender, 2–3 mm, glabrous. Calyx shallowly funnelform; lobes triangular, glabrous. Petals white, narrowly ovate-lanceolate, ca. 2 × 1.5–1 mm, glabrous, apex acuminate. Stamens subequaling or slightly longer than petals; filaments pilose; anthers oblong-globose. Ovary superior, sparsely puberulous. Capsule ca. 4.5 mm, slightly puberulous, many seeded. Fl. and fr. May–Jun. $2n = 22^*$.

• Sparse forests; low to medium altitudes. Taiwan.

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