

6. NEILLIA D. Don, Prodr. Fl. Nepal. 228. 1825.

绣线梅属 *xiu xian mei shu*

Gu Cuizhi (谷粹芝 Ku Tsue-chih); Crinan Alexander

Adenilema Blume.

Shrubs, rarely subshrubs, deciduous. Branchlets spreading, slender, terete or angled; buds ovoid, scales imbricate, apex acute. Leaves often 2-ranked; stipules conspicuous, deciduous; leaf blade simple, margin doubly serrate and usually 3-parted or shallowly 3–5(–7)-lobed. Inflorescence a terminal or sometimes axillary raceme or panicle; bracts linear-lanceolate to ovate, small, caducous. Flowers bisexual. Hypanthium campanulate, urceolate-campanulate, or cylindric. Sepals 5, erect, persistent in fruit and becoming densely pubescent and stipitate glandular abaxially. Petals white or pink-red, subequaling sepals. Stamens 10–30, irregularly 2-whorled on rim of hypanthium, not exceeding petals. Carpels 1(–5); ovary with 2–10 ovules; style erect. Follicles enclosed by persistent hypanthium, dehiscent along adaxial suture. Seeds several, obovoid; testa lustrous; caruncle convex.

About 17 species: C, E, and SE Asia; 15 species (12 endemic) in China.

- 1a. Inflorescence a panicle; hypanthium campanulate.
 - 2a. Branchlets densely yellowish brown pubescent 4. *N. densiflora*
 - 2b. Branchlets glabrous to slightly pubescent.
 - 3a. Flowers 7–10 mm in diam.; petals reddish; stamens 23–27 3. *N. grandiflora*
 - 3b. Flowers 4–5 mm in diam.; petals white; stamens 10–20.
 - 4a. Hypanthium sparsely pubescent abaxially; ovules 8–12 per ovary 1. *N. thyrsoflora*
 - 4b. Hypanthium densely pubescent abaxially; ovules 3–5 per ovary 2. *N. serratisepala*
- 1b. Inflorescence a raceme; hypanthium urceolate-campanulate or cylindric.
 - 5a. Hypanthium campanulate to urceolate-campanulate.
 - 6a. Hypanthium glabrous abaxially; branchlets, petioles, and peduncles red glandular 7. *N. sparsiflora*
 - 6b. Hypanthium pubescent abaxially; branchlets, petioles, and peduncles eglandular.
 - 7a. Subshrubs to 0.5 m; leaf blade to 3 cm; raceme to 1.8 cm, 3–7-flowered 8. *N. gracilis*
 - 7b. Shrubs to 2 m; leaf blade more than 3 cm; racemes more than 2 cm, 5–25-flowered.
 - 8a. Stipules herbaceous; ovules 2 per ovary 9. *N. uekii*
 - 8b. Stipules membranous; ovules 4 or more per ovary.
 - 9a. Buds with 2 or 3 scales; stipules entire at margin 5. *N. rubiflora*
 - 9b. Buds with 4 or 5 scales; stipules serrate at margin 6. *N. affinis*
 - 5b. Hypanthium cylindric (longer than broad).
 - 10a. Hypanthium abaxially glabrous, sometimes glandular pubescent at base.
 - 11a. Branchlets and petioles glabrous to slightly pubescent; hypanthium 10–20 mm 10. *N. sinensis*
 - 11b. Branchlets (when young) and petioles densely pubescent; hypanthium 8–9 mm 11. *N. ribesoides*
 - 10b. Hypanthium abaxially hairy.
 - 12a. Ovary wholly pubescent.
 - 13a. Racemes 4–7-flowered; ovules 2–4 per ovary 14. *N. fugongensis*
 - 13b. Racemes 20–40-flowered; ovules 4 or 5 per ovary 15. *N. jinggangshanensis*
 - 12b. Ovary hairy only on adaxial suture or at apex.
 - 14a. Racemes 1.5–3 cm, 5–8-flowered; ovary hairy only on adaxial suture 13. *N. breviraemoso*
 - 14b. Racemes 5–15 cm, 15–25-flowered; ovary hairy only at apex 12. *N. tibetica*

1. *Neillia thyrsoflora* D. Don, Prodr. Fl. Nepal. 228. 1825.

绣线梅 *xiu xian mei*

Shrubs erect, to 2 m tall. Branchlets red-brown, angled, glabrous to slightly pubescent; buds red-brown, ovoid, with 2 or 3 scales, apex obtuse; often 2 or 3 buds superposed in axils of flowering branches. Stipules ovate-lanceolate, ca. 6 mm, subglabrous, margin remotely serrate, apex acute; petiole 1–1.5 cm, subglabrous; leaf blade ovate to ovate-elliptic, 6–8.5 × 4–6 cm, abaxially sparsely pubescent on veins or subglabrous, base rounded or subcordate, margin usually 3-parted, rarely with 3–5 equal lobes, sharply doubly serrate, apex long acuminate. Panicle 6–15.5 cm in diam., densely or laxly branched, usually

many flowered; peduncle and pedicels slightly pubescent. Flowers ca. 4 mm in diam.; pedicel ca. 3 mm. Hypanthium campanulate, 2–3 mm, abaxially pubescent. Sepals triangular, equaling hypanthium, sparsely pubescent on both surfaces, margin entire, apex caudate. Petals white, obovate, ca. 2 mm. Stamens 10–15. Ovary cylindric, glabrous or only pubescent on sutures, or wholly pubescent; ovules (8–)10–12. Follicles cylindric. Seeds ovoid. Fl. Jul, fr. Sep–Oct.

Dense forests, open forests, forest margins in valleys, scrub; 1000–3000 m. Guangxi, Guizhou, Sichuan, Xizang, Yunnan [Bhutan, India, Indonesia (Java, Sumatra), Myanmar, Nepal, Sikkim, N Vietnam].

- 1a. Panicle densely branched; ovary

- pubescent only on sutures 1a. var. *thyrsiflora*
1b. Panicle few branched; ovary wholly
pubescent 1b. var. *tunkinensis*

1a. Neillia thyrsiflora var. **thyrsiflora**

绣线梅(原变种) xiu xian mei (yuan bian zhong)

Spiraea thyrsiflora K. Koch.

Panicle densely branched. Ovary glabrous or pubescent only on sutures.

Scrub; 1000–3000 m. NW Yunnan (Gongshan Xian) [Bhutan, India, Myanmar, Nepal, Sikkim].

1b. Neillia thyrsiflora var. **tunkinensis** (J. E. Vidal) J. E. Vidal, *Adansonia* 3: 153. 1963.

毛果绣线梅 mao guo xiu xian mei

Neillia tunkinensis J. E. Vidal, *Nutol. Syst.* (Paris) 13: 292. 1948.

Panicle laxly branched. Ovary wholly pubescent.

Dense forests, forest margins in valleys; 1000–2700 m. Guangxi, Guizhou, Sichuan, Xizang, Yunnan [N Vietnam, NE India (Assam), Indonesia (Java, Sumatra)].

2. Neillia serratisepala H. L. Li, *J. Arnold Arbor.* 25: 300. 1944.

云南绣线梅 yun nan xiu xian mei

Shrubs to 2 m tall. Branchlets reddish, glabrous or subglabrous; buds purple-red, long ovoid, with 3 or 4 scales slightly pubescent at margin, apex acuminate. Stipules ovate or broadly so, herbaceous, subglabrous on both surfaces, margin serrate, ciliate, apex acute; petiole 5–10 mm, slightly pubescent; leaf blade elliptic-ovate to triangular-ovate, 7–12 × 5–7 cm, abaxially pubescent on veins, adaxially glabrous or sparsely pubescent, base truncate or subcordate, margin 3(–5)-lobed, doubly serrate, apex acuminate or caudate. Panicle terminal or axillary, 3–5 cm in diam., many flowered; peduncle and pedicels glabrous or slightly pubescent. Flowers ca. 4 mm in diam.; pedicel ca. 5 mm. Hypanthium campanulate, 3–5 mm, abaxially densely pubescent. Sepals triangular, nearly equaling hypanthium, pubescent on both surfaces, margin entire, apex acuminate. Petals white, obovate, ca. 2 mm. Stamens ca. 20. Ovary cylindrical, wholly pubescent; ovules 3–5. Follicles long ovoid. Seeds ovoid. Fl. Jul–Aug, fr. Sep–Oct.

• Open forests, forest margins on slopes; ca. 2000 m. Yunnan.

3. Neillia grandiflora T. T. Yu & T. C. Ku, *Acta Phytotax. Sin.* 18: 493. 1980.

大花绣线梅 da hua xiu xian mei

Shrubs to 3 m tall. Branches red-brown, glabrous or subglabrous; buds purple, ovoid, with 3 or 4 scales pubescent at margin, apex obtuse. Stipules oblong or lanceolate, ca. 4 mm, herbaceous, subglabrous, margin entire, apex acute; petiole 1–2.5 cm, slightly pubescent; leaf blade ovate or long ovate, 4–13 × 2.5–8 cm, abaxially slightly pubescent on veins, adaxially glabrous, base cordate or subcordate, margin usually with 1 or 2

pairs of lobes, with irregular, simple or double teeth. Panicle ca. 7 × 4.2 cm, many flowered; peduncle and pedicels densely tomentose-pubescent. Flowers 7–10 mm in diam.; pedicel 4–8 mm. Hypanthium campanulate, abaxially densely tomentose-pubescent. Sepals triangular-ovate, slightly shorter than hypanthium, abaxially densely tomentose-pubescent, margin entire, apex caudate or long caudate. Petals red, obovate, 3–4 mm. Stamens 23–27. Ovary cylindrical, glabrous or slightly pubescent only at apex; ovules 10–12. Follicles cylindrical. Seeds ovoid. Fl. Jun.

• Slopes in forests; 2400–2700 m. S Xizang (Nyalam Xian).

4. Neillia densiflora T. T. Yu & T. C. Ku, *Acta Phytotax. Sin.* 18: 492. 1980.

密花绣线梅 mi hua xiu xian mei

Branches red-brown, most parts densely yellow-brown pubescent; buds purple-red, ovoid, with 3 or 4 scales, subglabrous, apex obtuse. Stipules not seen; petiole 1.5–2 cm; leaf blade abaxially pale green, adaxially dark green, triangular-ovate or long ovate, 7–11 × 5–9 cm, abaxially densely yellowish brown pubescent on veins, adaxially sparsely pubescent or subglabrous, midvein and lateral veins prominent, adaxially impressed, base rounded or cordate, margin with irregular, simple or double teeth, apex shortly acuminate or caudate-acuminate. Panicle 3.5–4 cm in diam., densely many flowered. Pedicel 2–3 mm. Hypanthium campanulate. Sepals triangular-lanceolate, shorter than hypanthium, margin entire, apex acute. Petals and stamens not seen. Ovary cylindrical, glabrous; ovules 3 or 4. Follicles cylindrical. Seeds ovoid. Fl. Sep.

• Mixed forests; 2700–2800 m. S Xizang (Yadong Xian).

5. Neillia rubiflora D. Don, *Prodr. Fl. Nepal.* 228. 1825.

粉花绣线梅 fen hua xiu xian mei

Spiraea rubiacea Wallich.

Shrubs to 2 m tall. Branchlets red-purple, angled, hairy when young, glabrescent; buds purple-red, ovoid, with 2 or 3 scales glabrous or slightly pubescent at margin, apex acute. Stipules ovate-lanceolate or linear-lanceolate, membranous, slightly pubescent, margin entire, apex acuminate; petiole 1–2 cm, pubescent; leaf blade broadly ovate to triangular-ovate, 4–6 × 3–4.5 cm, glabrous on both surfaces or abaxially slightly pubescent, base cordate, rarely rounded, margin sharply doubly serrate, apex acuminate. Raceme 2–4 cm, 5–12-flowered; peduncle and pedicels glabrous. Flowers 5–6 mm in diam.; pedicel 2–3 mm. Hypanthium urceolate-campanulate, 2–3 mm, abaxially pubescent. Sepals triangular-lanceolate, shorter than or nearly equaling hypanthium, densely pubescent, margin entire, apex acuminate. Petals pinkish white, obovate, ca. 3 mm. Stamens 25–30. Ovary subglobose, slightly hairy at apex; ovules 8–10. Follicles ellipsoid, glabrous. Seeds ovoid. Fl. Jun–Jul, fr. Aug–Sep.

Grassy slopes by streams in mixed forests; 2500–3000 m. Sichuan, Xizang, Yunnan [Bhutan, India, Nepal, Sikkim].

6. Neillia affinis Hemsley, *J. Linn. Soc., Bot.* 29: 3. 1892.

川康绣线梅 *chuan kang xiu xian mei*

Shrubs to 2 m tall. Branchlets red-brown, glabrous or nearly so; buds purple-red, long ovoid, with 4 or 5 scales slightly pubescent at margin, apex obtuse or acute. Stipules long ovate to linear-lanceolate, ca. 4 mm, membranous, subglabrous, margin serrate, apex acute; petiole 8–12 mm, sparsely pubescent or subglabrous; leaf blade ovate, triangular-ovate, rarely long ovate-elliptic, 3.5–6.8 × 3–5 cm, glabrous or subglabrous, base cordate or subcordate, margin usually with 1 or 2 pairs of lobes, sharply singly or doubly serrate, apex acuminate or caudate. Raceme 3–8 cm, 5–15-flowered; peduncle and pedicels pubescent. Flowers 4–5 mm in diam.; pedicel 3–5 mm. Hypanthium urceolate-campanulate, 2–5 mm, abaxially densely pubescent and stipitate glandular. Sepals triangular-lanceolate, shorter than hypanthium, pubescent on both surfaces, margin entire, apex acuminate. Petals pink, obovate, ca. 3 mm. Stamens ca. 20. Carpels 1–5; ovary cylindrical, pubescent; ovules 4–6(–10). Follicles ellipsoid, pubescent. Seeds ovoid. Fl. May–Jun, fr. Jul–Sep.

• Mixed forests, open forests; 1100–3500 m. C Sichuan, S Xizang, NW and SE Yunnan.

- 1a. Carpels 3–5 6c. var. *polygyna*
1b. Carpels 1 or 2.
2a. Raceme 3–8 cm, 6–15-flowered;
carpels 1 or 2, with 4–6 ovules 6a. var. *affinis*
2b. Raceme 3–4 cm, 5–10-flowered;
carpel 1, with 8–10 ovules 6b. var. *pauciflora*

6a. *Neillia affinis* var. *affinis*

川康绣线梅(原变种) *chuan kang xiu xian mei* (*yuan bian zhong*)

Raceme 3–6 cm, 6–15-flowered. Carpels 1 or 2; ovules 4–6.

• Mixed forests; 1100–3500 m. C Sichuan (Emei Shan, Kangding Xian), S Xizang (Nyalam Xian), NW Yunnan (Dêqên Xian, Weixi Xian).

6b. *Neillia affinis* var. *pauciflora* (Rehder) J. E. Vidal, *Adansonia* 3: 156. 1963.

少花川康绣线梅 *shao hua chuan kang xiu xian mei*

Neillia pauciflora Rehder in Sargent, *Pl. Wilson*. 1: 437. 1913.

Raceme 3–4 cm, 5–10-flowered. Carpel 1; ovules 8–10.

• 2000–2300 m. SE Yunnan.

6c. *Neillia affinis* var. *polygyna* Cardot ex J. E. Vidal, *Adansonia* 3: 156. 1963.

多果川康绣线梅 *duo guo chuan kang xiu xian mei*

Carpels 3–5; ovules 4–6.

• Open forests; ca. 3400 m. NW Yunnan.

7. *Neillia sparsiflora* Rehder, *J. Arnold Arbor*. 5: 327. 1942.

疏花绣线梅 *shu hua xiu xian mei*

Branchlets red-brown, sparsely reddish glandular, glabrescent; buds not seen. Stipules ovate-lanceolate, 4–5 mm, glandular, margin ciliate, apex acute; petiole 1–1.5 cm, glandular hairy or appressed pubescent distally; leaf blade ovate or ovate-oblong, 3.5–6 × 2–3.5 cm, abaxially sparsely pubescent on veins and hairy in vein axils, adaxially glabrous, base truncate or subcordate, margin usually with 1 or 2 pairs of triangular lobes, unequally or doubly serrate, apex long acuminate. Raceme 3.5–4.5 cm, 4–6(–12)-flowered; peduncle and pedicels reddish glandular pubescent. Flowers 3–4 mm in diam.; pedicel 2–4 mm. Hypanthium urceolate-campanulate, ca. 7 mm, abaxially glabrous, adaxially pubescent. Petals pinkish, broadly elliptic, 4.5–5 mm. Stamens 20–30. Ovary cylindrical, pubescent distally; ovules 7–9. Follicles not seen. Fl. Jul.

• NW Yunnan.

8. *Neillia gracilis* Franchet, *Pl. Delavay*. 202. 1890.

矮生绣线梅 *ai sheng xiu xian mei*

Subshrubs low, to 0.5 m tall. Branchlets recurved, angled, glabrous; buds red-brown, long ovoid, with 2 or 3 subglabrous scales, apex obtuse. Stipules ovate or triangular-ovate, 4–6 mm, subglabrous, margin serrate, ciliate, apex acute; petiole 1–6 cm, slightly pubescent; leaf blade ovate to triangular-ovate, rarely subreniform, 2.5–3 × 2–3 cm, pubescent on both surfaces or subglabrous, base cordate, margin irregularly 3–5-lobed, sharply doubly serrate, apex acute to acuminate, rarely obtuse. Racemes axillary, 1–1.8 cm, 3–7-flowered; peduncle and pedicels subglabrous. Flowers ca. 6 mm in diam.; pedicel ca. 2 mm. Hypanthium urceolate-campanulate, 3.5–4 mm, abaxially slightly pubescent. Sepals triangular-ovate, 2–3 mm, shorter than hypanthium, slightly pubescent on both surfaces, margin entire, apex acuminate. Petals white or pinkish, orbicular, ca. 4 mm. Stamens 15–20. Ovary narrowly ovoid, densely villous; ovules 2. Follicles pubescent. Seeds ovoid. Fl. May–Jul.

• Alpine meadows, moist slopes; 2800–3000 m. W Sichuan, N Yunnan.

9. *Neillia uekii* Nakai, *Bot. Mag. (Tokyo)* 26: 3. 1912.

东北绣线梅 *dong bei xiu xian mei*

Neillia millsii Dunn.

Shrubs erect, to 2 m tall. Branchlets red-brown, slender, slightly pubescent when young, glabrescent; buds purple, ovoid, with 3 or 4 scales pubescent at margin. Stipules ovate-lanceolate to triangular-lanceolate, herbaceous, margin serrate, apex acute; petiole 5–10 mm, densely pubescent; leaf blade ovate to elliptic-ovate, rarely triangular-ovate, 3–6 × 2–4 cm, abaxially slightly pubescent on veins, adaxially glabrous, base rounded to truncate, margin pinnately lobed, doubly serrate, apex long acuminate or caudate. Racemes 4–9 cm, 10–25-flowered; peduncle and pedicels slightly pubescent and stellate hairy. Flowers 5–6 mm in diam.; pedicel 3–4 mm. Hypanthium urceolate-campanulate, 3–4 mm, abaxially pubescent. Sepals triangular, slightly shorter than hypanthium, pubescent on both surfaces, margin entire, apex acuminate. Petals white, spatulate, ca. 4 mm. Stamens ca. 10. Ovary ovoid, pubescent along adaxial suture and at apex; ovules 2. Follicles long ovoid. Seeds

ovoid.

SE Liaoning (Changdian) [Korea].

10. *Neillia sinensis* Oliver, Hooker's Icon. Pl. 16: t. 1540. 1886.

中华绣线梅 *zhong hua xiu xian mei*

Shrubs to 4 m tall. Branchlets red-brown, glabrous; buds red-brown, ovoid, with 3 or 4 scales slightly pubescent at margin, apex obtuse. Stipules lanceolate to ovate-lanceolate, membranous, margin entire, apex acute or acuminate; petiole 7–15 mm, slightly pubescent or subglabrous; leaf blade ovate or ovate-elliptic, 5–11 × 3–6 cm, glabrous on both surfaces or abaxially pubescent in vein axils, base rounded or subcordate, margin often irregularly lobed or parted, doubly serrate, apex long acuminate. Racemes 4–9 cm, many flowered; peduncle and pedicels glabrous. Flowers 6–8 mm in diam.; pedicel 1–10 mm. Hypanthium cylindric, 0.7–1.2 cm, abaxially glabrous or glandular. Sepals triangular, 3–4 mm, much shorter than hypanthium, glabrous, margin entire, apex acute to caudate-acuminate. Petals pinkish, obovate, ca. 3 mm. Stamens 10–15; filaments unequal. Ovary long ovoid, pubescent at apex; ovules 4 or 5. Follicles long ellipsoid. Seeds ovoid. Fl. May–Jun, fr. Aug–Sep.

• Valley slopes and mixed forests; 1000–2500 m. Gansu, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Yunnan.

- 1a. Pedicels 3–10 mm; hypanthium 10–12 mm, abaxially glabrous 10a. var. *sinensis*
1b. Pedicels 1–3 mm; hypanthium 7–8 mm, abaxially glandular or sparsely so.
2a. Leaf blade margin parted, lobes caudate-acuminate at apex; pedicels 2–3 mm; sepals caudate-acuminate at apex 10b. var. *caudata*
2b. Leaf blade margin lobed, lobes obtuse or acute at apex; pedicels 1–2 mm; sepals acute at apex 10c. var. *duclouxii*

10a. *Neillia sinensis* var. *sinensis*

中华绣线梅(原变种) *zhong hua xiu xian mei* (yuan bian zhong)

Neillia glandulocalyx H. Léveillé; *N. sinensis* f. *glanduligera* (Hemsley) Rehder; *N. sinensis* var. *glanduligera* Hemsley.

Pedicels 3–10 mm. Hypanthium 10–12 mm, abaxially glabrous.

• Valley slopes and mixed forests; 1000–2500 m. Gansu, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Yunnan.

10b. *Neillia sinensis* var. *caudata* Rehder in Sargent, Pl. Wilson. 1: 436. 1913.

尾叶中华绣线梅 *wei ye zhong hua xiu xian mei*

Neillia thibetica Bureau & Franchet var. *caudata* (Reh-

der) J. E. Vidal.

Leaf blade margin parted; lobes caudate-acuminate at apex. Pedicels 2–3 mm. Hypanthium ca. 8 mm, abaxially glandular. Sepals caudate-acuminate at apex.

• 2000–2100 m. SE Yunnan.

10c. *Neillia sinensis* var. *duclouxii* (Cardot ex J. E. Vidal) T. T. Yu, Fl. Reipubl. Popularis Sin. 36: 91. 1974.

滇东中华绣线梅 *dian dong zhong hua xiu xian mei*

Neillia thibetica var. *duclouxii* Cardot ex J. E. Vidal, Adansonia 3: 163. 1963.

Leaf blade lobed; lobes obtuse or acute at apex. Pedicels 1–2 mm. Hypanthium 7–8 mm, abaxially sparsely glandular. Sepals acute at apex.

• About 2000 m. E Yunnan.

11. *Neillia ribesoides* Rehder in Sargent, Pl. Wilson. 1: 435. 1913.

毛叶绣线梅 *mao ye xiu xian mei*

Neillia hypomalaca Rehder; *N. sinensis* Oliver var. *hypomalaca* (Rehder) Handel-Mazzetti; *N. sinensis* var. *ribesoides* (Rehder) J. E. Vidal; *N. villosa* W. W. Smith.

Shrubs to 2 m tall. Branchlets densely yellow-brown pubescent when young, later gray-brown; buds red-brown, ovoid, with 4 or 5 scales pubescent at margin. Stipules oblong to lanceolate, 5–10 mm, herbaceous, slightly pubescent, margin entire, apex obtuse; petiole ca. 5 mm, densely pubescent; leaf blade triangular to triangular-ovate, 4–6 × 3.5–4 cm, abaxially densely pubescent particularly on veins, adaxially sparsely pubescent, base truncate or subcordate, margin 3–5-lobed, sharply doubly serrate, apex acuminate. Racemes 4–5 cm, 10–15-flowered; peduncle and pedicels subglabrous. Flowers ca. 6 mm in diam.; pedicel 3–4 mm. Hypanthium cylindric, 8–9 mm, abaxially glabrous, sparsely glandular pubescent at base. Sepals triangular, ca. 2 mm, shorter than hypanthium, margin entire, apex caudate. Petals white or pinkish, obovate, ca. 2 mm. Stamens 10–15. Ovary narrowly ovoid, pubescent only at apex; ovules 4 or 5. Follicles long ellipsoid. Seeds ovoid. Fl. May, fr. Jul–Sep.

• Open forests; 1000–2500 m. Gansu, Hubei, Shaanxi, Sichuan, Yunnan.

12. *Neillia thibetica* Bureau & Franchet, J. Bot. (Morot) 5: 45. 1891.

西康绣线梅 *xi kang xiu xian mei*

Shrubs to 3 m tall. Branchlets densely yellow-brown pubescent when young, purple-brown when old; buds purple-brown, ovoid, with 3 or 4 scales pubescent at margin, apex acute. Stipules lanceolate or ovate-lanceolate, 4–8 mm, herbaceous, pubescent on both surfaces, margin serrate or repand-serrate, ciliate, apex acute; petiole 8–10 mm, densely pubescent; leaf blade ovate to long elliptic, rarely triangular-ovate, 5–10 × 3–6 cm, abaxially pubescent, adaxially sparsely pubescent, base rounded or cordate, margin sharply doubly serrate, often

irregularly 3–5-lobed or distinctly lobed ca. 1/2 way to midvein, apex acuminate. Racemes 5–15 cm, 3–5-flowered; peduncle and pedicels densely pubescent. Flowers ca. 4 mm in diam.; pedicel 3–4 mm. Hypanthium cylindrical, 5–6 mm, densely pubescent on both surfaces. Sepals triangular, 2–3 mm, shorter than hypanthium, densely pubescent on both surfaces, margin entire, apex caudate. Petals pinkish white, obovate, ca. 3 mm. Stamens 15–20. Ovary cylindrical, pubescent only at apex; ovules 5–8. Follicles cylindrical. Seeds ovoid. Fl. May–Jun, fr. Jul–Sep.

• Stream sides in mixed forests; 1500–3000 m. W Sichuan, NW Yunnan.

- 1a. Leaf blade margin irregularly 3–5-lobed, stipules lanceolate, margin serrate and ciliate 12a. var. *thibetica*
1b. Leaf blade margin distinctly lobed ca. 1/2 way to midvein, stipules ovate-lanceolate, margin repand-serrate and ciliate 12b. var. *lobata*

12a. *Neillia thibetica* var. *thibetica*

西康绣线梅(原变种) xi kang xiu xian mei (yuan bian zhong)

Neillia longiracemosa Hemsley; *N. velutina* Bureau.

Stipules lanceolate, margin serrate and ciliate; leaf blade margin irregularly 3–5-lobed.

• Stream sides in mixed forests; 1500–3000 m. W Sichuan, NW Yunnan.

12b. *Neillia thibetica* var. *lobata* (Rehder) T. T. Yu, Fl. Reipubl. Popularis Sin. 36: 94. 1974.

裂叶西康绣线梅 lie ye xi kang xiu xian mei

Neillia longiracemosa var. *lobata* Rehder, J. Arnold Arbor. 1: 257. 1920.

Stipules ovate-lanceolate, margin repand-serrate and ciliate; leaf blade margin distinctly lobed ca. 1/2 way to midvein.

• About 2900 m. SW Sichuan, NW Yunnan.

13. *Neillia breviracemosa* T. C. Ku, Bull. Bot. Res., Harbin 10(1): 13. 1990.

短序绣线梅 duan xu xiu xian mei

Shrubs to 70 cm tall. Branchlets greenish, subglabrous or slightly pubescent; buds purple-red, long ovoid, with 3 or 4 subglabrous scales, apex acute. Stipules ovate, ca. 5 mm, herbaceous, subglabrous, margin remotely serrate, apex acute; petiole 6–9 mm, densely pubescent; leaf blade ovate-oblong, 4–7 × 2–3.5 cm, abaxially glabrous except on veins, adaxially sparsely pubescent, base cordate or subrounded, margin often with 1 pair of lobes at base, irregularly doubly serrate, apex long caudate. Racemes 1.5–3 cm, 5–8-flowered; peduncle subglabrous. Pedicel 3–4 mm, pubescent. Hypanthium cylindrical, ca. 6 mm, abaxially densely pubescent. Sepals triangular-lanceolate, 6–7 mm, slightly longer than hypanthium, densely pubescent on both surfaces, margin entire, apex long caudate. Petals and stamens not seen. Ovary slightly pubescent or subglabrous; ovules not seen.

Follicles cylindrical, sparsely pubescent, later glabrescent. Seeds not seen. Fr. Jun.

• About 2000 m. W Yunnan (Lushui Xian).

14. *Neillia fugongensis* T. C. Ku, Bull. Bot. Res., Harbin 10(1): 12. 1990.

福贡绣线梅 fu gong xiu xian mei

Shrubs to 3 m tall. Branchlets red-brown, pubescent when young, glabrescent; buds not seen. Stipules ovate, 4–5 mm, herbaceous, subglabrous, margin with remote stipitate glandular teeth, apex acuminate; petiole 5–8 mm, pubescent; leaf blade oblong or ovate-oblong, 4–5.5 × 2–4 cm, abaxially densely pubescent on veins, adaxially sparsely appressed pubescent, base subcordate, rarely truncate, margin irregularly doubly serrate and usually irregularly 5- or 6-lobed, apex long caudate-acuminate. Raceme 4–5.5 cm, 4- or 5-flowered; peduncle and pedicels densely pubescent. Hypanthium cylindrical, abaxially densely pubescent. Sepals triangular-lanceolate, slightly shorter than or equaling hypanthium, pubescent on both surfaces. Petals not seen. Stamens numerous. Ovary cylindrical, pubescent; ovules 2–4. Follicles cylindrical, pubescent. Seeds cylindrical. Fl. Jun–Jul.

• 1700–2600 m. NW Yunnan (Fugong Xian).

15. *Neillia jinggangshanensis* Z. X. Yu, Bull. Bot. Res., Harbin 3(1): 150. 1983.

井冈山绣线梅 jing gang shan xiu xian mei

Shrubs to 3 m tall, yellowish brown pubescent in most parts. Branchlets red-brown, angled; buds purple-red, ovoid, with 3 or 4 subglabrous scales, apex acute. Stipules oblong, 3.5–4.5 mm, herbaceous, subglabrous, margin remotely serrate, apex obtuse; petiole 4–10 mm; leaf blade ovate-oblong or triangular-oblong, 3–9.5 × 2.3–4.5 cm, abaxially pubescent,

densely so on veins, adaxially sparsely pubescent, base cuneate to cordate, rarely rounded, margin doubly serrate and usually 4- or 5-lobed, apex acuminate or caudate-acuminate. Racemes 5–6 cm, 20–40-flowered. Flowers 3–5 mm in diam.; pedicel 3–4 mm. Hypanthium cylindric, abaxially yellowish brown pubescent and stipitate glandular. Sepals triangular, shorter than hypanthium, margin entire, apex acuminate. Petals not seen. Stamens 15–20. Ovary cylindric, yellowish brown villous; ovules 4 or 5. Follicles cylindric. Seeds ovoid-globose. Fl. Jun.

- About 400 m. W Jiangxi (Jinggangshan).

