

## 75. WISTERIA Nuttall, Gen. N. Amer. Pl. 2: 115. 1818, nom. cons.

紫藤属 *zi teng shu*

Wei Zhi (韦直); Les Pedley

*Phaseoloides* Duhamel; *Rehsonia* Stitch.

Lianas, deciduous. Winter buds ovoid; scales 3–5. Stipules present. Leaves imparipinnate; leaflet blades opposite, margin entire; stipels present. Racemes terminal, elongate, pendulous; nodes scattered on rachis, with 1 flower. Flowers 1.5–2.5 cm. Corolla standard orbicular, large, reflexed, glabrous or outside with some trichomes at base, with 2 basal calluses; wings free from keel. Stamens diadelphous; vexillary stamen distinct from other 9 or slightly connate at middle of sheath. Ovary stipitate, with trichomes, with 5–16 ovules. Legume linear to oblanceolate, leathery, convex over seeds. Seeds 1–3[or more] per legume, reniform to lenticular, without a strophiole; radicle folded.

About six species: E Asia, North America; four species (three endemic) in China.

The Japanese species *Wisteria floribunda* (Willdenow) Candolle is commonly cultivated as a garden plant in China.

- 1a. Mature leaflet blades glabrescent or with sparse trichomes; corolla purple, occasionally white.
- 2a. Flowers 2–2.5 cm; pedicel 2–3 cm; corolla standard glabrous, apex truncate; abaxial calyx tooth longer than others ..... 1. *W. sinensis*
- 2b. Flowers ca. 1.5 cm; pedicel 0.6–1.2 cm; corolla standard outside sparsely villous, apex emarginate; abaxial calyx tooth as long as others ..... 2. *W. brevidentata*
- 1b. Mature leaflet blades with trichomes on both surfaces but abaxially especially dense; corolla violet or white.
- 3a. Racemes 30–35 cm, densely gray villous; flowers 2.2–2.5 cm, blooming in sequence from base to apex along raceme rachis; corolla violet; leaflet blades villous but abaxially especially dense ..... 3. *W. villosa*
- 3b. Racemes 10–20 cm, yellow tomentose; flowers ca. 2 cm, blooming almost at same time along whole raceme rachis; corolla white; leaflet blades abaxially sericeous, adaxially appressed pubescent ..... 4. *W. venusta*

### 1. *Wisteria sinensis* (Sims) Sweet, Hort. Brit. 121. 1826.

紫藤 *zi teng*

*Glycine sinensis* Sims, Bot. Mag. 46: t. 2083. 1819; *Wisteria alba* Lindley; *W. praecox* Handel-Mazzetti; *W. sinensis* f. *alba* (Lindley) Rehder & E. H. Wilson; *W. sinensis* var. *albiflora* Lemaire.

Lianas, to 25 m. Stems twined leftward, white villous when young, soon glabrescent. Leaves 7–13-foliolate; rachis 15–25 cm, including petiole 3–5 cm; leaflet blades elliptic-ovate to lanceolate-ovate, 5–8 × 2–4 cm with basal pair smallest and becoming larger apically, both surfaces appressed pubescent when young but glabrescent, base rounded to cuneate and somewhat asymmetric, apex attenuate to caudate. Racemes terminal or axillary from branchlets of previous year, 15–30 × 8–10 cm, white villous. Pedicel 2–3 cm, slender. Flowers 2–2.5 cm, fragrant. Calyx with adaxial tooth longer than others. Corolla purple or occasionally white; standard orbicular, sometimes retuse, glabrous, apex truncate. Ovary tomentose, with 6–8 ovules. Legume oblanceolate, 10–15 × 1.5–2 cm, tomentose, hanging on branches persistently. Seeds 1–3 per legume, brown, thickly lenticular, ca. 1.5 cm in diam., shiny. Fl. Apr–May, fr. May–Aug.  $2n = 16$ .

Mountain forests; 500–1800 m. Anhui, Fujian, NE Guangxi, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, S Shanxi, Zhejiang [Japan].

This species is cultivated extensively in areas beyond its native range.

### 2. *Wisteria brevidentata* Rehder, J. Arnold Arbor. 7: 163.

1926.

短梗紫藤 *duan geng zi teng*

Lianas. Stems appressed villous, glabrescent and grayish yellow in second year. Leaves 9- or 11(or 13)-foliolate; rachis 13–17 cm, including petiole 3–4 cm; petiolules sparsely hirsute; leaflet blades elliptic to ovate-oblong, 2.5–5 × 1–1.8 cm, both surfaces sparsely hirsute especially on midvein, base broadly cuneate to rounded, apex obtuse and apiculate. Racemes 10–18 cm. Pedicel 6–12 mm, villous. Flowers ca. 1.5 cm. Calyx with abaxial tooth as long as others. Corolla purple; standard suborbicular, outside sparsely villous, base subcordate, apex emarginate. Ovary tomentose. Legume and seeds not seen.

- Hill slopes and river valleys, cultivated. Fujian, Yunnan.

The status of this species is uncertain, and it may be just a variant of *Wisteria sinensis*. Collections are known from both cultivated and wild plants, but it is uncertain whether or not the wild plants had escaped from cultivation.

### 3. *Wisteria villosa* Rehder, J. Arnold Arbor. 7: 162. 1926.

藤箩 *teng luo*

Lianas. Stems thick, densely gray villous. Leaves 9- or 11-foliolate; rachis 15–32 cm, including petiole 2–5 cm; leaflet blades ovate-oblong to elliptic-oblong, 5–10 × 2.5–3.5 cm, gradually decreasing in size from basal to apical pair, abaxially densely white villous, adaxially sparsely white villous, trichomes persistent on both surfaces, base broadly cuneate to rounded, apex acute to acuminate. Racemes terminal, 30–35 ×

8–10 cm. Pedicel 1.5–2.5 cm, straight. Flowers 2.2–2.5 cm, fragrant. Calyx violet, both surfaces tomentose. Corolla violet; standard orbicular, glabrous. Ovary tomentose, with 5 ovules. Legume oblanceolate, 18–24 × ca. 2.5 cm, brown tomentose. Seeds ca. 3 per legume, dark brown, flat and orbicular, ca. 1.5 cm in diam. Fl. Apr–May, fr. Jul–Oct.

- Thickets and trailsides on slopes. Henan, Shaanxi.

This species is cultivated in Anhui, Jiangsu, and Shandong.

**4. *Wisteria venusta*** Rehder & E. H. Wilson in Sargent, Pl. Wilson. 2: 514. 1916.

白花藤萝 bai hua teng luo

*Wisteria brachybotrys* Siebold & Zuccarini var. *alba* W. Miller.

Lianas, 2–10 m. Stems densely appressed yellow pubescent when young, glabrescent. Leaves 9- or 11-foliolate; rachis 18–35 cm, including petiole 3–5 cm; leaflet blades ovate-oblong to lanceolate-oblong, 6–10 × 2.5–5 cm with pair at middle of rachis somewhat larger than others, both surfaces appressed pubescent but abaxially more densely so especially on midvein and margin, base truncate to subcordate and asymmetric, apex acute. Racemes terminal, emerged at same time as leaves, ca. 15 × 10 cm, yellow tomentose. Pedicel 2.5–3(–3.5) cm, straight. Flowers ca. 2 cm. Corolla white; standard suborbicular, apex truncate and cuspidate. Ovary with trichomes, with 12 ovules. Legume oblanceolate, flat, yellow tomentose. Seeds brown, round, ca. 1.2 cm in diam. Fl. Apr–Jun, fr. Aug–Sep.

- Mountain valleys. Hebei, Henan, Shandong, Shanxi.

This species usually is cultivated as an ornamental in shade.

