

84. SERISSA Commerson ex Jussieu, Gen. Pl. 209. 1789.

白马骨属 bai ma gu shu

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Small shrubs, usually much branched, unarmed, fetid when bruised, usually with short shoots. Raphides present. Leaves opposite but often crowded and apparently verticillate, decussate, without domatia; stipules persistent, interpetiolar and often fused to petioles, generally triangular to truncate, with 1–8 bristles. Inflorescences terminal on principal stems and/or terminal on axillary short shoots and apparently axillary, capitate and several flowered or reduced to 1 flower, sessile, bracteate. Flowers sessile or subsessile, bisexual, distylous. Calyx limb 4–6-lobed essentially to base. Corolla white to pink, funnellform or tubular-funnelform, inside villous in tube; lobes 4–6, valvate-induplicate in bud, with margins sometimes crisped. Stamens 4–6, inserted in upper part of corolla tube, included or exerted; filaments short to developed, anthers dorsifixed near base. Ovary 2-celled, ovules 1 in each cell, erect, basal; stigma 2-lobed, included or exerted. Fruit drupaceous or tardily capsular, obconic to obovoid, leathery to apparently dry, tardily dehiscent septically then loculicidally across top, with calyx limb persistent and often enlarging and becoming spiny; pyrenes 2, 1-celled, each with 1 seed, oblong to obovoid, longitudinally densely ridged.

One or two species: China, Japan, Nepal, Vietnam; one or two species (one endemic) in China.

Puff et al. (Rubiaceae of Thailand, 232. 2005) reported that the fruit of *Serissa* are dehiscent through an apical operculum, releasing two 1-seeded pyrenes; the fruit of the Chinese specimens studied appear to split across the top and partly down the sides to release the obovoid striate pyrenes through the top or disk portion (i.e., the apical section inside the calyx limb), which may correspond to the dehiscence described by Puff et al. The leaf and flower size and pubescence appear to be widely variable, which probably has fueled the selection that has produced a wide range of cultivated forms. *Serissa* is widely cultivated in tropical and warm temperate regions for its foliage, both variegated and solid, and showy flowers, including frequently as bonsai plants. Normally the cultivated plants in regions outside the native range do not produce fruit. Puff et al. (loc. cit.) discussed and illustrated some of the numerous cultivated forms, which go under the English name “snowrose.”

The number of species of *Serissa* is controversial. W. C. Ko (in FRPS 71(2): 159–162. 1999) and Puff et al. (loc. cit.) recognized two species, others (Govaerts et al., World Checkl. Rubiaceae; <http://www.kew.org/wcsp/rubiaceae/>; accessed on 20 Aug 2007; D. Lorence, Fl. Mesoamericana, in prep.) recognize only one species. In general, more robust plants have been included in *S. serissoides*. W. C. Ko’s treatment is presented here for reference, with the description of *S. japonica* augmented with characters from specimens; however, some specimens are not conclusively assignable to one of these species.

- 1a. Leaf blade drying stiffly papery to leathery, ovate to oblanceolate, elliptic, elliptic-oblong, or lanceolate, 0.6–2.2 × 0.3–0.6 mm, apex acute to obtuse or acuminate; flowers solitary to several; corolla tube longer than calyx lobes 1. *S. japonica*
- 1b. Leaf blade drying thinly papery, obovate or oblanceolate, 1.5–4 × 0.7–1.3 cm, apex acute or subacute; flowers solitary or usually several; corolla tube as long as calyx lobes 2. *S. serissoides*

1. *Serissa japonica* (Thunberg) Thunberg, Nov. Gen. Pl. 132. 1798.

六月雪 liu yue xue

Lycium japonicum Thunberg, Nova Acta Regiae Soc. Sci. Upsal. 3: 207. 1780; *L. foetidum* Linnaeus f.; *Serissa foetida* (Linnaeus f.) Lamareck.

Small shrubs, 60–90 cm tall, presumably evergreen; branches weakly flattened to terete, puberulent to villosulous or hirtellous in interpetiolar lines to sometimes uniformly puberulent throughout. Leaves subsessile or with petiole to 2 mm, glabrous or puberulent to villosulous; blade drying leathery to stiffly papery, ovate to oblanceolate, elliptic, elliptic-oblong, or lanceolate, 0.6–2.2 × 0.3–0.6 cm, both surfaces glabrous to hispidulous or villosulous on principal veins to throughout, often shiny adaxially, base obtuse to acute, apex acute to obtuse or acuminate; secondary veins 2–4 pairs; stipules 0.5–2 mm, puberulent to villosulous, truncate to triangular, with bristles 0.5–4 mm. Flowers solitary to several; bracts narrowly triangular to spatulate, 1–6 mm, glabrous to villosulous, acute, margins entire to ciliate or hispidulous. Calyx glabrous to puberulent or hirtellous; ovary portion obconic, 1–1.5 mm; limb lobed essentially to base; lobes narrowly triangular to lanceolate or linear, 1–5 mm, entire to ciliolate or hispid. Corolla outside gla-

brous to puberulent or villosulous; tube 4–8 mm; lobes narrowly triangular to ovate, 2–2.5 mm. Drupes 2–3 mm; pyrenes 2–2.5 mm. Fl. Apr–Oct, fr. Jun–Nov.

• Stream-sides or broad-leaved forests on hills; 100–1600 m. Anhui, Fujian, Guangdong, Guangxi, Jiangsu, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [widely cultivated elsewhere].

The Fl. Taiwan (ed. 2, 4: 324–325. 1998) treated one species of *Serissa*, which was called *S. serissoides* but which keys out to *S. japonica* in the classification of W. C. Ko (in FRPS 71(2): 160. 1999); that report is accordingly listed here based on this re-identification.

2. *Serissa serissoides* (Candolle) Druce, Rep. Bot. Soc. Exch. Club Brit. Isles 1916: 646. 1917.

白马骨 bai ma gu

Democritea serissoides Candolle, Prodr. 4: 540. 1830; *Leptodermis nervosa* Hutchinson; *Serissa democritea* Baillon, nom. illeg. superfl.

Small shrubs, to 1 m tall; branches stout, subterete, gray, pilosulous to glabrescent or puberulent. Leaves usually in clusters, subsessile; blade drying thinly papery, obovate or oblanceolate, 1.5–4 × 0.7–1.3 cm, glabrous except sparsely pubescent abaxially, base acute, apex acute or subacute; secondary veins 2

Fl. China 19: 323–324. 2011.

or 3 pairs; stipules with lobes subulate, ca. 2 mm, broad at base, sparsely pubescent. Flowers solitary to usually several; bracts membranous, elliptic, ca. 6 mm, long acuminate, sparsely ciliate. Calyx glabrescent; ovary portion obconic, ca. 1 mm; limb lobed essentially to base; lobes 5, lanceolate-subulate, ca. 4 mm, sharply acute, ciliate. Corolla outside glabrous; tube ca. 4 mm; lobes 5, oblong-lanceolate, ca. 2.5 mm. Fruit not seen. Fl. Apr–Jun.

Wastelands, lawns. Anhui, Fujian, Guangdong, Guangxi, Hubei, Jiangsu, Jiangxi, Taiwan, Zhejiang [Japan].

W. C. Ko (in FRPS 71(2): 162. 1999) reported this species also from Japan, but the Fl. Japan (3a: 228–229. 1993) did not recognize it.

Fl. China 19: 323–324. 2011.