

3. SHORTIA Torrey & A. Gray, Amer. J. Sci. Arts 42: 48. 1842, nom. cons.

岩扇属 *yan shan shu*

Schizocodon Siebold & Zuccarini; *Sherwoodia* House; *Shortiopsis* Hayata.

Perennial herbs, evergreen, glabrous. Rhizomes woody, branched, creeping, with ovate pinnately veined scales. Leaves numerous, radical or rosulately arranged at end of rhizome, long petiolate. Scape solitary or 2–6, in the axil of the upper leaves, elongated after flowering, with several bracts. Flowers solitary, subterminal, erect or nodding. Calyx persistent. Corolla campanulate to funnel-shaped; lobe obtusely toothed to lacinate, undulate to crenate. Stamens adnate to base of corolla tube; filaments short or none; staminodes 5 or absent. Ovary and capsule 3-locular.

Six species: E Asia, E North America; two species (one endemic) in China.

- 1a. Stamines present; leaf blade ovate-oblong, 7–12(–15) × 3.5–6(–9) cm; flowers 2–2.5 cm in diam. 1. *S. sinensis*
1b. Stamines absent; leaf blade orbiculate, orbiculate-elliptic, or ovate, (0.5–)1.5–5 × (0.3–)1.4–5.5 cm; flowers
1–2 cm in diam. 2. *S. rotundifolia*

1. *Shortia sinensis* Hemsley, Hooker's Icon. Pl. 27: t. 2624. 1899.

华岩扇 hua yan shan

Shortia sinensis var. *pubinervis* C. Y. Wu.

Perennial herbs. Rhizomes 3–7 mm in diam., ascending. Leaves basal, numerous, tufted apex of rhizome, variable in size, some leaves reduced to scales and covering stem base; petiole ± as long as leaf blade, apically narrowly winged; leaf blade ovate-oblong, 7–12(–15) × 3.5–6(–9) cm, papery, abaxially pale green and glabrous or occasionally white pubescent along veins, adaxially green, base rounded and abruptly narrowed and attenuate into petiole, margin ciliate particularly towards apex, apex acute; secondary veins 5–9 on each side of midvein, conspicuous. Scapes 1–6, slender, ca. 2/3 leaf length in flower but elongating in fruit; bracts 2, lanceolate, ca. 2 cm. Flowers nodding, 2–2.5 cm in diam.; bracteoles 3, directly below calyx. Sepal green or slightly purplish, ovate, ca. 10 × 4–5 mm, apex acute, veined. Corolla white or pink, veined; tube shorter than 1 mm; lobes obovate, ca. 8 mm in diam., apically with small rounded teeth. Stamens slightly exerted from corolla; anthers and filaments ± equal in length; staminodes conspicuous but small, scalelike. Ovary ovoid. Style longer than stamens, elongated after flowering; stigma capitate to slightly 3-lobed. Capsule obovate-oblongate, ca. 7 × 4 mm; covered by persistent calyx; stigma persistent, erect or slightly flexed. Fl. Feb–Mar, fr. Apr–May.

- Wet rock faces in forests; 1000–2000 m. SE Yunnan.

2. *Shortia rotundifolia* (Maximowicz) Makino, Bot. Mag. (Tokyo) 9: 327. 1895.

台湾岩扇 tai wan yan shan

Schizocodon rotundifolius Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 32: 497. 1888; *Sherwoodia rotundifolia* (Maximowicz) House; *Shortia exappendiculata* Hayata; *S. ritoensis* Hayata; *S. rotundifolia* var. *ritoensis* (Hayata) T. C. Huang & A. Hsiao; *S. rotundifolia* var. *subcordata* (Hayata) T. C. Huang & A. Hsiao; *S. rotundifolia* var. *transalpina* (Hayata) Yamazaki; *S. subcordata* Hayata; *S. transalpina* Hayata; *Shortiopsis exappendiculata* (Hayata) Hayata.

Perennial herb, 3–17 cm tall. Rhizome prostrate, woody, apical part branched and ascending. Leaves radical, tufted; peti-

ole slender, (2–)4–9(–11) cm; leaf blade orbiculate, orbiculate-elliptic, or ovate, variable even on same plant, (0.5–)1.5–5 × (0.3–)1.5–5.5 cm, thinly leathery, abaxially pale green, adaxially dark green, base truncate, subcordate, or attenuate and shortly decurrent into petiole, margin apiculately obtuse-serrate, rarely subentire, and often undulate, apex rounded to truncate and sometimes minutely retuse; secondary veins 3 or 4 on each side of midvein. Scapes 1–3, slender, erect, 4–5 cm at flowering, 6–13 cm at fruiting, glabrous, with many lanceolate acuminate scales crowded at base; bracts 3–5, remotely alternate on scape, linear-lanceolate, 5–6 × 1–1.5 mm, apex acuminate, upper most one at base of calyx. Flowers 1–2 cm in diam. Sepals persistent, membranous, inner two somewhat smaller, ovate, 5–6 mm at flowering, 7–8 mm at fruiting, margin entire, apex obtuse to subacute. Corolla white or pale pink, campanulate, ca. 8 × 10 mm; lobes obovate, ca. 6 × 4–5 mm, irregularly dentate on apical margin. Stamens adnate to apex of corolla tube; filaments ca. 0.2 mm; anthers broadly ovate; staminodes absent. Ovary ovoid-globose, ca. 2 mm. Style ca. 2 mm; stigma capitate. Capsule globose-ovoid, ca. 4 × 3 mm. Fl. Mar–Apr, fr. Apr–May.

Forests, rocky places in evergreen forests, alpine regions; 1000–3000 m. Taiwan [Japan (Ryukyu Islands)].

This is a variable species, particularly in terms of plant size as well as leaf blade size, shape, and margin. Plants from lower elevations are larger with rounder leaf blades that are basally truncate to subcordate and with a serrate margin. These plants agree with the holotype (at LE) of *Schizocodon rotundifolius* from the Ryukyu Islands. At higher elevations the plants are smaller and with smaller leaf blades that in some cases are basally attenuate and with the margin less serrate. The very high elevation plants in the southern alpine regions of Taiwan are very small and have small leaf blades that are subentire. This variation has been treated variously at the specific or varietal level with highest elevation plants given the name *Shortia transalpina*. All of these differences appear to be clinal and probably do not warrant taxonomic recognition.