

21. SINOJOHNSTONIA H. H. Hu, Bull. Fan Mem. Inst. Biol. 7: 201. 1936.

车前紫草属 *che qian zi cao shu*

Herbs perennial, usually rhizomatous. Stems erect or prostrate. Leaves alternate. Basal leaves long petiolate, ovate-cordate; stem leaves smaller, short petiolate. Cymes terminal, racemose or paniculate. Calyx 5-parted to near base, enlarged, becoming saccate in fruit. Corolla tubular to funnelliform; throat appendages 5, shallowly 2-cleft; limb 5-parted, spreading. Stamens inserted above middle of corolla tube or at throat between appendages, exserted or included; filaments filiform. Ovary 4-divided. Style elongated; stigma capitate; ovules anatropous. Gynobase low fastigiata. Nutlets tetrahedral; margin abaxially exserted, becoming a cupular emergence; attachment scar slightly below middle adaxially.

Three species: endemic to China.

- 1a. Stamens included; corolla tube distinctly shorter than limb; nutlets pubescent; plants without rhizomes 1. *S. moupinensis*
- 1b. Stamens slightly exserted; corolla tube ca. as long as to longer than limb; nutlets glabrous or sparsely pubescent; plants with rhizomes.
 - 2a. Corolla lobes narrowly triangular, ca. as long as tube; stamens inserted on throat between appendages 2. *S. plantaginea*
 - 2b. Corolla lobes ovate, ca. 1/2 as long as tube; stamens inserted below throat appendages 3. *S. chekiangensis*

1. *Sinojohnstonia moupinensis* (Franchet) W. T. Wang, Bull. Bot. Res., Harbin 4(2): 2. 1984.

短蕊车前紫草 *duan rui che qian zi cao*

Omphalodes moupinensis Franchet, Nouv. Arch. Mus. Hist. Nat., ser. 2, 10: 64. 1887; *O. cordata* Hemsley; *Trigonotis moupinense* (Franchet) I. M. Johnston.

Plants with fibrous roots, not rhizomatous. Stems several, 15–20 cm tall, short strigose. Basal leaves several; petiole 4–7 cm; leaf blade ovate-cordate, 4–10 × 2.5–6 cm, sparsely strigose, short appressed pubescent, apex short acuminate; stem leaves widely spaced, smaller, 1–2 cm. Inflorescences 1–1.5 cm, densely short appressed pubescent, few flowered. Calyx 2.5–3 mm; lobes lanceolate, short appressed pubescent. Corolla white or purplish; tube shorter than calyx, ca. 1.6 mm; throat appendages semiorbicular, papillate; limb ca. 2 × as long as tube; lobes obovate. Stamens inserted slightly above middle of corolla, included; anthers oblong, ca. 0.6 mm. Style ca. 1.5 mm. Nutlets black-brown, ca. 2.5 mm, adaxially short pubescent; margin of cupular emergence light red-brown, glabrous, mouth constricted, ca. 1.5 mm. Fl. and fr. Mar-Jul.

• Forests, shaded moist rocky areas; 1000–2700 m. Gansu, Hubei, Hunan, Ningxia, Shaanxi, Shanxi, Sichuan, Yunnan.

2. *Sinojohnstonia plantaginea* H. H. Hu, Bull. Fan Mem. Inst. Biol. 7: 203. 1936.

车前紫草 *che qian zi cao*

Plants with divaricate rhizomes, ca. 6 mm in diam. Stems several, 15–20 cm tall, short strigose. Basal leaves numerous; petiole 7–20 cm; leaf blade ovate-cordate, 6–13 × 3–10 cm, sparsely short strigose, apex short acuminate; stem leaves borne at apex, 1.5–3.5 cm. Inflorescences to 5 cm, densely short strigose, many flowered, ebracteate. Calyx ca. 3.5 mm, 5-parted to base; lobes ovate-lanceolate, abaxially short strigose. Corolla white, campanulate, slightly longer than calyx, ca. 4 mm; tube ca. 2.2 mm; throat appendages ca. 4

mm; lobes of limb narrowly triangular, slightly shorter than tube. Stamens inserted between appendages, exserted from corolla; filaments filiform, ca. 4 mm; anthers oblong, ca. 0.8 mm, apex obtuse. Style ca. 6 mm, exserted. Nutlets ca. 2.5 mm, glabrous, shiny; cupular emergence light yellow-brown, ca. 1 mm. Fl. and fr. Mar-Sep.

• Forests, shaded moist ravines. SE Gansu, Sichuan.

3. *Sinojohnstonia chekiangensis* (Migo) W. T. Wang, Bull. Bot. Res., Harbin 4(2): 3. 1984.

浙赣车前紫草 *zhe gan che qian zi cao*

Omphalodes chekiangensis Migo, Bot. Mag. (Tokyo) 56: 265. 1942.

Plants with several rhizomes, to 15 cm. Stems several, prostrate to spreading, 10–35 cm tall. Basal leaves several; petiole to 12 cm; leaf blade ovate, 7–12 × 3–6 cm, densely short strigose, base cordate, apex acuminate; stem leaves smaller. Inflorescences densely short strigose, many flowered, ebracteate. Calyx ca. 6 mm, 5-parted to base; lobes linear-lanceolate, densely strigose abaxially. Corolla white or light reddish, campanulate, ca. 1 cm, glabrous; tube shorter than calyx; throat appendages ca. 1 mm; limb ca. 1/2 as long as tube; lobes ovate. Stamens inserted on upper part of corolla tube, slightly exserted; filaments ca. 3 mm; anthers oblong, ca. 0.9 mm, apex obtuse. Style ca. 6 mm, exserted. Nutlets 3–5 mm; margin of cupular emergence inflexed. Fl. and fr. Apr-May. $2n = 24^*$.

• Forests, shaded moist rocky areas; ca. 900 m. Hunan, Jiangxi, Shaanxi, Shanxi, Zhejiang.

Flora of China 16: 373–374. 1995.