

146. GUELLENSTAEDTIA Fischer, Mém. Soc. Imp. Naturalistes Moscou 6: 171. 1823.

米口袋属 mi kou dai shu

Bao Bojian (包伯坚); Anthony R. Brach

Amblytropis Kitagawa (1936), nom. illeg. superfl., not (Mitten) Brotherus (1907).

Herbs, perennial. Taproot thick. Stem very short or nearly absent, with a rosette of leaves at soil surface. Leaves imparipinnate, rarely 1-foliolate; stipules adnate to petiole or free; stipels absent; petiolule short or leaflets nearly sessile; leaflets ovate, lanceolate, elliptic, oblong, or linear, rarely orbicular. Flowers purple, pink, or yellow, 3–8(–12) per umbel on axillary peduncles. Calyx campanulate, densely appressed villous, rarely glabrous, 5-toothed; upper 2 teeth broader. Standard ovate or orbicular, narrowing to claw at base, retuse at apex; wings free, obovate-oblong, slightly shorter than standard; keel ovate, very short. Stamens diadelphous. Ovary sessile, many ovuled; style short, rolled inward at apex; stigma broad. Legume cylindrical or linear, not septate, with many seeds. Seeds triangular-reniform.

About 12 species: from Russia (Siberia) to the Sino-Himalayan region; three species (two endemic) in China.

- 1a. Leaflets orbicular to ovate or elliptic 3. *G. taihangensis*
- 1b. Leaflets obovate to linear.
 - 2a. Stems short, less than 5 cm, not woody; standard obtuse at apex 2. *G. verna*
 - 2b. Stems long, ca. 5 cm, woody; standard acuminate at apex 1. *G. henryi*

1. *Gueldenstaedtia henryi* Ulbrich, Bot. Jahrb. Syst. 36(Beibl. 82): 59. 1905.

川鄂米口袋 chuan e mi kou dai

Amblytropis henryi (Ulbrich) C. Y. Wu ex H. P. Tsui.

Stems to 5 cm, woody, branched, with basal rosette of leaves. Leaves imparipinnate, 2–9 cm, pilose or glabrescent; stipules narrowly triangular; petiolules very short or leaflets nearly sessile; leaflets oblong or obovate, 3–10 × 2–5 mm, abaxially pubescent, adaxially glabrous, apex rounded, obviously mucronate. Umbels 4- or 5-flowered; rachis ca. 10 cm, sparsely pilose or glabrous; bracts narrowly lanceolate, ca. 3.5 mm. Corolla purple; standard broadly ovate, ca. 14 × 8 mm, apex acuminate, retuse; wings elliptic, ca. 11.5 × 3.5 mm, claw short, ca. 1.8 mm; keel ca. 5.5 × 2.5 mm, claw ca. 2 mm. Ovary oblong, villous. Legume ca. 1.5 cm, pilose. Seeds reniform.

• Grasslands; ca. 100 m. Hubei, Sichuan.

2. *Gueldenstaedtia verna* (Georgi) Borissova, Spisok Rast. Gerb. Fl. S.S.S.R. Bot. Inst. Vsesojuzn. Akad. Nauk 12: 122. 1953.

少花米口袋 shao hua mi kou dai

Astragalus vernus Georgi, Bemerk. Reise Russ. Reich. 1: 226. 1775; *Amblytropis delavayi* (Franchet) C. Y. Wu ex H. P. Tsui; *A. maritima* (Maximowicz) Kitagawa; *A. pauciflora* (Pallas) Kitagawa; *A. stenophylla* Bunge; *A. verna* (Georgi) Kitagawa; *Astragalus biflorus* Pallas (1776), not Linnaeus (1771); *A. brevicarinatus* Candolle; *A. cavaleriei* H. Léveillé; *A. pauciflorus* Pallas; *Gueldenstaedtia brachyptera* Pampanini; *G. brachyptera* var. *elongata* (Pavolini) Pampanini; *G. delavayi* Franchet; *G. delavayi* f. *alba* H. P. Tsui; *G. gansuensis* H. P. Tsui; *G. giraldii* Harms; *G. giraldii* var. *alba* Jacot Guillarmod; *G. giraldii* f. *elongata* Pavolini; *G. giraldii* subsp. *glabra* Jacot Guillarmod; *G. gracilis* H. P. Tsui; *G. guillonii* Franchet; *G. harmsii* Ulbrich; *G. maritima* Maximowicz; *G. multiflora*

Bunge; *G. multiflora* f. *alba* F. Z. Li; *G. multiflora* var. *maritima* (Maximowicz) Jacot Guillarmod; *G. pauciflora* (Pallas) Fischer; *G. stenophylla* Bunge; *G. verna* f. *alba* (H. P. Tsui) P. C. Li; *G. verna* f. *multiflora* (Bunge) H. P. Tsui; *G. verna* subsp. *multiflora* (Bunge) H. P. Tsui.

Taproot straight. Stems short. Leaves imparipinnate, (1.5–) 2–20 cm, (5 or) 7–19-foliolate; stipules persistent, triangular or ovate, joined at base; petiole white pilose; leaflets elliptic, oblong, narrowly obovate, or ovate (in spring) to lanceolate or linear (in autumn), (2–)5–25(–35) × (1–)1.5–7(–9) mm, both surfaces pilose or villous, adaxially rarely glabrous, apex variably obtuse, rounded, truncate, retuse, or acute, and with mucro. Umbels 2–4(–8)-flowered; rachis variable in length, ca. 1/2 as long to as long as leaves or longer; bracts narrowly triangular, lanceolate, or linear, sometimes subulate, 2–3 mm; pedicel 0.5–1(–3) mm; bracteoles linear, shorter than calyx. Calyx (4–)5–7 mm, white pilose; teeth lanceolate, upper 2 longer. Corolla purplish red, purple, pink, rose, or white; standard ovate, elliptic, or obovate to orbicular, (0.6–)1.3(–1.4) cm, apex retuse or acuminate; wings obovate, (0.6–)1.1 cm, auriculate or cuneate, claw (0.8–)3 mm; keel obovate or ovate, (4–)5.5(–7) mm, claw (1.8–)2.5 mm. Ovary elliptic or cylindrical, densely pilose or villous; style glabrous, rolled inward. Legume cylindrical or narrowly ovoid, (1–)1.5–2 cm × 3–4 mm, villous, pilose, or glabrescent, dehiscent. Seeds reniform, ca. 1.5 mm in diam. Fl. (Mar–)May, fr. (May–)Jun–Jul(–Nov).

Roadsides, grasslands, hillsides, valleys, meadows, terraced fields, margins of farms, riverbanks, sandy soil, sea bluffs; sea level to 2600 m. Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jiangxi, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Tianjin, Yunnan, Zhejiang [India, Laos, Mongolia, Myanmar, Pakistan, Russia].

A white-flowered form, *Gueldenstaedtia verna* f. *alba* (H. P. Tsui) P. C. Li (Vasc. Pl. Hengduan Mts. 1: 940. 1993), occurs in Beijing and Shandong.

3. *Gueldenstaedtia taihangensis* H. P. Tsui, Bull. Bot. Lab. N.

E. Forest. Inst., Harbin 1979(5): 40. 1979.
太行米口袋 tai hang mi kou dai

Gueldenstaedtia guangxiensis W. L. Sha & X. X. Chen.

Taproot straight. Stems many from root crown, with basal rosettes of leaves and rachis. Leaves (3-)3.5-7.5(-13) cm, 5-13-foliolate; petiole slender, pilose; petiolules very short; leaflets orbicular to ovate or elliptic, (5-)6-9(-10) × (3-)5-7(-8) mm, both surfaces pilose or abaxially villous and adaxially glabrous, base rounded, apex truncate or notched, or obtuse or acute and with mucro. Umbel 2- or 3(-12)-flowered; rachis equal to leaves or longer, slender; bracts narrowly triangular or linear; pedicel very short; bracteoles adnate to base of calyx. Calyx (5-)7 mm, densely appressed villous, 5-toothed; upper 2 teeth larger. Corolla purple; standard oblong or obovate, ca. 11 × (6-)7 mm; wings obovate, (7-)9 × ca. 3 mm, claw (1.5-)2 mm; keel ovate, (3-)5 mm. Ovary oblong or cylindric, villous; style glabrous, rolled inward. Legume conical or cylindric, (1-)1.5(-1.7) cm, ca. 3 mm in diam., pilose, valves twisted after dehiscence. Seeds reniform. Fl. (Jan-Feb or)May, fr. (Apr-May or)Aug.

• Meadows and bushes on slopes of hills; 1100-1600 m. Guangxi, Hebei, Shanxi.

