

35. CRANIOSPERMUM Lehmann, Pl. Asperif. Nucif. 336. 1818.

颅果草属 *lu guo cao shu*

Herbs perennial or biennial. Leaves alternate. Cymes bracteate or ebracteate on lower part. Flowers sessile or short pedicellate. Calyx 5-parted; lobes erect, lanceolate-linear, somewhat enlarged in fruit, subtending fruit, hirsute. Corolla long tubular, slightly thickened distally; throat without appendages, sometimes with scalelike emergences alternate with corolla lobes; limb 5-parted; lobes vertical or spreading, triangular to ovate. Stamens inserted at middle of corolla tube, with exserted long filaments and linear-oblong anthers. Ovary 4-parted. Style exserted from corolla, entire at apex; stigma capitate or dotlike. Gynobase narrowly fastigiate. Nutlets oblong, glabrous, with cupular emergence abaxially; margin of emergence narrowly winged, entire or dentate; attachment scar at base adaxially. Seeds ovoid, dorsiventrally compressed.

Four or five species: C Asia; two species in China.

- 1a. Herbs perennial, monocarpic; stems branched above; corolla dark blue-violet; filaments and anthers long exserted 1. *C. mongolicum*
- 1b. Herbs polycarpic; stems not branched; corolla rose-lilac; filaments not exserted, anthers slightly exserted 2. *C. subfloccosum*

1. *Craniospermum mongolicum* I. M. Johnston, J. Arnold Russia (Altai Mts.).
Arbor. 33: 74. 1952.

颅果草 *luo guo cao*

Herbs perennial. Stems usually 1–3, erect, branched above, to 20 cm tall, hirsute and short appressed pubescent. Leaves sessile, spatulate-linear to narrowly oblanceolate, 2–6 cm × 6–10 mm, short appressed pubescent, less so abaxially, apex obtuse to subobtuse. Cymes centered on upper part of stems; bracts subulate, ca. as long as calyx. Flowers short pedicellate, crowded. Calyx lobes linear, ca. 5 mm, to 1 cm in fruit, hirsute, short appressed pubescent. Corolla blue, ca. 1 cm; throat unappendaged; limb spreading, ovate to oblong, ca. 3 mm. Stamens inserted above middle; filaments ca. 7 mm, much exserted, scalelike inward, inflated at attachment point of filament base; anthers ca. 2 mm. Style included or slightly exserted; stigma obscure. Nutlets ca. 4.5 × 2.5 mm, abaxial cupular emergence ca. 4.5 mm, marginal wing finely dentate; attachment scar below middle abaxially. Seeds ca. 3 mm. Fl. Jun.

Arid canyons; ca. 1700 m. Nei Mongol, N Xinjiang [Mongolia, Russia].

2. *Craniospermum subfloccosum* Krylov, Trudy Imp. S.-Peterburgsk. Bot. Sada 21: 10. 1903.

卷毛颅果草 *juan mao luo guo cao*

Herbs perennial; caudex subterrestrial, bearing rosettes and 1 to few stems, 7–15 cm tall. Basal leaves grayish, lanceolate, 5–9 cm × 4–6 mm, apex acute, gradually tapering to petiole; stem leaves sessile, wide lanceolate, smaller than basal leaves, upper part with stems densely covered by flocculent tomentum of fine long hairs, apex obtuse. Inflorescences subcapitate, many flowered, subtended by 1 or 2 stem leaves; bracts lanceolate-linear, small. Calyx 6.5–7.5 mm, densely pubescent. Corolla rose-lilac, 9–10 mm; lobes triangular-lanceolate, apex obtuse. Anthers exserted. Nutlets unknown. Fl. (?May) Jul-Aug.

On rocks. NW Xinjiang [Kazakhstan (Altai Mts.), W Mongolia,

Flora of China 16: 414–415. 1995.