

**62. LEPIDOSTEMON** J. D. Hooker & Thomson, J. Proc. Linn. Soc., Bot. 5: 131. 1861, nom. cons.

鳞蕊芥属 lin rui jie shu

*Chrysobrya* H. Hara.

Herbs annual or caespitose perennial. Trichomes dendritic, forked, submalpighiaceae, or simple, often more than 1 kind present. Stems erect, simple from rosettes, leafy or leafless. Basal leaves petiolate, rosulate, simple, entire or dentate. Cauline leaves similar to basal, sometimes pinnatifid, rarely absent. Racemes few to many flowered, ebracteate or rarely bracteate throughout, elongated or not elongated in fruit, sometimes flowers solitary on long pedicels originating from axils of rosette leaves. Fruiting pedicels slender, divaricate or recurved. Sepals oblong, persistent or rarely caducous, base of lateral pair not saccate, margin membranous. Petals yellow, white, lavender, or purple; blade broadly obovate or rarely spatulate, apex rounded or emarginate; claw subequaling sepals. Stamens 6, tetradynamous; filaments winged or rarely wingless, toothed or rarely toothless; anthers reniform or rarely oblong, obtuse at apex. Nectar glands 4, lateral; median glands absent. Ovules 8–28 per ovary. Fruit dehiscent siliques, linear-oblong to linear, terete or latiseptate, sessile; valves papery, obscurely veined, rarely marginal veins prominent, pubescent, torulose or rarely smooth; replum rounded; septum complete or rarely perforated, membranous; style distinct, to 2 mm; stigma capitate, entire or rarely slightly 2-lobed. Seeds uniseriate, wingless, oblong or ovate, plump; seed coat minutely reticulate, not mucilaginous when wetted; cotyledons accumbent or rarely incumbent.

Five species: Bhutan, China, Nepal, Sikkim; three species (two endemic) in China.

- 1a. Perennials; racemes bracteate throughout; trichomes almost exclusively simple; anthers oblong, 0.7–0.9 mm ..... 2. *L. everestianus*
- 1b. Annuals; racemes ebracteate, rarely lowermost few flowers bracteate; trichomes dendritic, submalpighiaceae, or simple; anthers reniform, 0.3–0.5(–0.6) mm.
  - 2a. Fruit strongly flattened, not torulose, 2.5–3 mm wide; valve margin thickened, with prominent marginal veins; median filaments toothless; flowers white; seeds ovate ..... 3. *L. rosularis*
  - 2b. Fruit terete, torulose, ca. 1 mm wide; valve margin not thickened, with obscure marginal veins; median filaments toothed; flowers yellow; seeds oblong ..... 1. *L. pedunculatus*

**1. *Lepidostemon pedunculatus*** J. D. Hooker & Thomson, J. Proc. Linn. Soc., Bot. 5: 156. 1861.

鳞蕊芥 lin rui jie

Herbs annual, 2–10 cm tall. Trichomes short-stalked and subdendritic or forked, subsessile and submalpighiaceae-stellate on leaves, stems, pedicels and fruit, rarely simple along leaf margin. Basal leaves rosulate, smaller than and somewhat similar to cauline ones, dry by flowering time. Cauline leaves few to many, often densely grouped below inflorescence; petiole 3–10 (–25) mm, ciliate with simple subsetose trichomes; leaf blade spatulate or oblanceolate, 3–12 × 2–7 mm, base attenuate, margin dentate or pinnatifid and with 1–4, oblong or linear lateral lobes 1–5 × 0.5–1 mm on each side, apex obtuse. Racemes 8- to many flowered, ebracteate or sometimes lowermost pedicels with adnate bracts, not elongated in fruit. Fruiting pedicels divaricate, straight, 1–3.5 cm. Sepals oblong, 2–3.5 × 1–1.5 mm, spreading, sparsely pubescent, persistent. Petals yellow, broadly obovate or spatulate, 3–5.5 × 1.5–4 mm, persistent, apex emarginate or rounded; claw 1–2 mm. Filaments 2–3 mm, persistent; median pairs with oblong or obovate wing 0.5–0.9 mm wide, unexpanded portion of filament to 0.6 mm; lateral pair entire or winged; anthers reniform, 0.3–0.5 mm. Nectar glands ovate, to 0.2 mm. Ovules 12–28 per

ovary. Fruit narrowly linear, 1.5–2.5 cm × ca. 1 mm, terete; valves torulose, densely covered with submalpighiaceae trichomes; septum complete; style 0.5–2 mm; stigma ca. as wide as style, entire. Seeds oblong, 1–1.4 × 0.5–0.6 mm; cotyledons accumbent. Fl. Jun–Jul, fr. Jul–Aug.

Rocky slopes; 4200–4900 m. Xizang [Sikkim].

The above new record from Xizang is based on *Gould 2381* (K), *Gould 2132* (K), and *King s.n.* (BM, K).

**2. *Lepidostemon everestianus*** Al-Shehbaz, Novon 10: 331. 2000.

珠峰鳞蕊芥 zhu feng lin rui jie

Herbs perennial, 3–4 cm tall, pilose, with a slender, rhizomelike caudex. Trichomes almost exclusively simple, to 1 mm, rarely a few forked ones present. Basal leaves rosulate, persistent; petiole 0.5–4 mm; leaf blade ovate or oblong, 2–6 × 1–3 mm, densely pilose, base obtuse, margin entire, apex obtuse. Cauline leaves and bracts similar to basal leaves but smaller. Racemes 6–12-flowered, bracteate throughout, slightly elongated in fruit; bracts adnate to pedicels. Fruiting pedicels ascending-divaricate, straight, 2–3 mm. Sepals oblong, ca. 3 × 1 mm, spreading, sparsely pubescent, persistent.

Petals whitish, obovate, ca.  $5 \times 2.5$  mm, apex rounded; claw 2–3 mm. Filaments persistent; median pairs ca. 3.5 mm, winged and ca. 0.5 mm wide basally, minutely toothed below middle; lateral pair ca. 3 mm, slender, wingless; anthers oblong, 0.7–0.9 mm. Ovules ca. 8 per ovary. Fruit linear-oblong, ca.  $7 \times 1.5$  mm, terete; valves torulose, densely pubescent, obscurely veined; septum complete; style ca. 0.7 mm; stigma minute, entire. Seeds ovate, ca. 1.4 mm; cotyledons accumbent. Fl. and fr. Jul.

- Scree; ca. 6400 m. Xizang.

*Lepidostemon everestianus*, which is known only from the type gathering, *Shipton s.n.* (holotype, BM), grows at altitudes higher than those reached by any other species of the Brassicaceae.

**3. *Lepidostemon rosularis*** (K. C. Kuan & Z. X. An) Al-Shehbaz, *Novon* 10: 332. 2000.

莲座鳞蕊芥 *lian zuo lin rui jie*

*Christolea rosularis* K. C. Kuan & Z. X. An in C. Y. Wu, *Fl. Xizang*. 2: 386. 1985.

Herbs annual, 1–4 cm tall. Trichomes short-stalked and subdendritic or forked, simple ones to 1 mm on petioles and fruit. Basal leaves rosulate, smaller than cauline ones, entire, dry by flowering time. Cauline leaves several to many, often densely grouped below inflorescence; petiole 5–14 mm, ciliate with simple trichomes; leaf blade spatulate, oblanceolate, or ovate,  $3\text{--}10 \times 2\text{--}6$  mm, sparsely pubescent, base cuneate, margin with 1–4 teeth on each side, apex obtuse. Racemes 10- to many flowered, ebracteate or rarely lowermost pedicels with adnate bracts, not elongated in fruit. Fruiting pedicels divaricate, straight, 0.5–2 cm. Sepals oblong,  $2\text{--}3.5 \times 1\text{--}1.5$  mm, spreading, pubescent, persistent. Petals white, broadly obovate,  $3\text{--}5 \times 2\text{--}3$  mm, persistent, apex rounded; claw 1–2 mm. Filaments 2–2.5 mm, persistent; median pairs narrowly lanceolate, winged, 0.4–0.5 mm wide; lateral pair slender, wingless; anthers reniform, 0.4–0.5 mm. Ovules 12–16 per ovary. Fruit oblong-linear,  $1\text{--}2 \text{ cm} \times 2.5\text{--}3$  mm, flattened; valves with obscure midvein and prominent marginal veins, somewhat indurated at margin and connate at base, dehiscent basipetally, not torulose, pilose with forked and/or simple trichomes; septum complete; style 0.5–1.5 mm; stigma subentire or 2-lobed. Seeds ovate,  $1.2\text{--}1.6 \times 0.8\text{--}1$  mm; cotyledons accumbent. Fl. Jun–Jul, fr. Jul–Aug.

- Stony grounds, slopes, dry gullies, scree; 4200–5100 m. Xizang.

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