

141. CHESNEYA Lindley ex Endlicher, Gen. Pl. 1275. 1840.

雀儿豆属 que er dou shu

Zhu Xiangyun (朱相云); Kai Larsen

Spongiocarpella Yakovlev & N. Ulziykhutag.

Plants perennial. Root stout, woody. Stem lignified, short. Leaves imparipinnate, rarely 3-foliate; stipules herbaceous, adnate to petiole; leaflets entire. Flowers solitary, axillary, rarely 1–4 in a raceme; peduncle with nodes bearing 1 bract. Calyx with 2 bracts at base; tube tubular, gibbous on one side at base, 5-lobed; 2 upper lobes connate, 3 lower lobes free, with brown glands at apex. Corolla yellow or purple; standard suborbicular or oblong, abaxially with dense short appressed hairs, ± longer than wings or keel. Stamens diadelphous; anthers uniform. Ovary sessile; stigma capitate, papillary. Legume oblong to linear, 1-loculed. Seeds reniform. Basic chromosome number $x = 8$.

About 21 species: C and SW Asia, Mediterranean region; seven species (two endemic) in China.

Chesneya dshungarica Goloskokov (Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.R. 18: 117. 1957) was recorded from Xinjiang by Chang Y. Yang (Claves Pl. Xinjiang. 3: 72. 1985). However, the present authors found no relevant specimens and therefore could not substantiate the occurrence of this species in China.

- 1a. Stipules deciduous; plants not cushionlike, with dense whitish appressed hairs; leaflets obovate or obovate-elliptic, apex rounded, emarginate, or truncate; legume 4–6 cm.
2a. Racemes 1–4-flowered; mature legume glabrous 1. *C. cuneata*
2b. Flowers solitary; mature legume with dense appressed hairs.
 3a. Leaflets 5–7 × 3–5 mm; pedicels ca. as long as or slightly longer than leaves; legume 35–50 × 4–5 mm 2. *C. crassipes*
 3b. Leaflets 7–15 × 4–10 mm; pedicels ca. as long as or shorter than leaves; legume 50–60 × 9–10 mm 3. *C. acaulis*
1b. Stipules persistent; plants cushionlike, with spreading whitish appressed hairs or glabrous; leaflets obovate, elliptic, or suborbicular, apex acute or subrounded; legume shorter than 3 cm.
4a. Persistent stipules not becoming spines, darkened when dry, incurved or straight, leaflets without hard spine at apex.
 5a. Leaflets 19–41, glabrous, base conspicuously oblique 4. *C. polystichoides*
 5b. Leaflets 15–21, both surfaces with dense spreading appressed hairs, base rounded or slightly so 5. *C. nubigena*
4b. Persistent stipules becoming spines; leaflets with hard spine at apex.
 6a. Corolla purple; bracteoles linear, ca. 8 mm; leaflets 3 or 4 pairs, both surfaces with whitish silvery appressed hairs 6. *C. macrantha*
 6b. Corolla yellow; bracteoles subulate, shorter than 1 mm; leaflets 4–6 pairs, with whitish spreading short appressed hairs 7. *C. spinosa*

1. *Chesneya cuneata* (Bentham) Ali, Scientist (Karachi) 3: 3. 1959.

截叶雀儿豆 jie ye que er dou

Gueldenstaedtia cuneata Bentham in Royle, Ill. Bot. Himal. Mts. 200. 1835; *Calophaea cuneata* (Bentham) Komarov; *Caragana cuneata* (Bentham) Baker (1876), not Moench (1794).

Stems 10–15 cm tall, with many branches. Leaves 2–10 cm, 5–17-foliate; stipules ovate-lanceolate, 5–6 mm, adnate to petiole for ca. 1/2 its length; axis and petiole with dense spreading long hairs or short appressed hairs; leaflet blades obovate or obovate-oblong, 4–16 × 2–4 mm, both surfaces with dense spreading long or short appressed hairs, base rounded, apex rounded, cuneate, or emarginate. Racemes umbellate, 1–4-flowered; peduncles 3–10 mm, with dense white appressed hairs; pedicels 2–4 mm. Calyx tubular, 15–17 mm, gibbous at base, inflated on one side; teeth lanceolate, shorter than tube, with black glands at apex. Corolla purple; standard 20–30 mm, with short appressed hairs abaxially; wings 18–28 mm; keel

slightly shorter than wings. Legume linear, 4–6 cm × 8–10 mm, glabrous when mature. Fl. Jul, fr. Aug.

Dry slopes on hills, gravelly areas, between stones; 3300–4300 m. Xinjiang, Xizang [India, Kashmir, Pakistan].

2. *Chesneya crassipes* Borissova, Trudy Bot. Inst. Akad. Nauk S.S.R., Ser. 1, Fl. Sist. Vyssh. Rast. 3: 207. 1936.

长梗雀儿豆 chang geng que er dou

Plants cushionlike. Stems woody at base, with branches. Leaves 3–8 cm, 11- or 13-foliate; stipules lanceolate, 6–7 mm, adnate to petiole for ca. 1/2 its length, persistent; axis and petiole slender, with dense long hairs; leaflet blades dense, obovate-oblong, 5–7 × 3–5 mm, both surfaces with dense spreading long hairs, base rounded, apex emarginate or cuneate. Flowers solitary; pedicels 10–60 mm, with dense spreading white short hairs; bracts subulate; bracteoles almost same as bracts. Calyx tubular, 12–13 mm, with dense white short hairs, gibbous at base, inflated on one side; teeth lanceolate, slightly shorter than tube, with red-brown glands at apex. Corolla purple or orange-yellow with purple; standard 13–18 mm, lamina ellip-

tic. Ovary sessile, glabrous. Legume linear, 3.5–4 cm × 4–5 mm, with dense appressed hairs. Fl. Jul, fr. Aug.

Gravelly areas; ca. 3800 m. Xizang [Pakistan, Tajikistan].

3. *Chesneya acaulis* (Baker) Popov, Byull. Sredne-Aziatsk. Gosud. Univ. 15(2, Suppl.): 10. 1927.

无茎雀儿豆 *wu jing que er dou*

Caragana acaulis Baker, J. Linn. Soc., Bot. 18: 44. 1880;
Calophaca acaulis (Baker) Komarov.

Plants cushionlike. Stems woody at base, 3–8 cm tall. Leaves 4–8 cm, 13–17-foliolate; stipules ovate-lanceolate, 5–6 mm, adnate to petiole for ca. 1/2 its length; axis and petiole with dense white appressed hairs; leaflet blades obovate or obovate-oblong, 7–15 × 4–10 mm, both surfaces with dense white appressed hairs, base subrounded, apex emarginate, rarely cuneate. Flowers solitary; pedicels 3–4 cm, slightly shorter or ca. as long as leaves, with white short appressed hairs; bracts subulate; bracteoles ca. as long as bracts. Calyx tubular, 12–13 mm, with dense white short hairs, gibbous at base, inflated on one side; teeth lanceolate, slightly shorter than tube, with red-brown glands at apex. Corolla purple or orange-yellow; standard 13–18 mm, lamina elliptical, with dense white short hairs abaxially. Ovary sessile, glabrous. Legume linear, 5–6 cm × 9–10 mm, with dense appressed hairs. Fl. Jul, fr. Aug.

Gravelly areas; 2900–3000 m. Xizang [Afghanistan, Pakistan].

4. *Chesneya polystichoides* (Handel-Mazzetti) Ali, Scientist (Karachi) 3: 10. 1959.

川滇雀儿豆 *chuan dian que er dou*

Calophaca polystichoides Handel-Mazzetti, Symb. Sin. 7: 552. 1933; *Spongiocarpella polystichoides* (Handel-Mazzetti) Yakovlev.

Plants cushionlike. Stems woody at base, prostrate, ca. 25 mm in diam., branched, bark red-brown, with dense persistent petioles and stipules. Leaves 3–14 cm, 19–41-foliolate; stipules linear, ca. 15 mm, adnate to petiole for ca. 1/2 its length, rarely with short white hairs; axis and petiole rarely with long hairs, incurved after drying, persistent; leaflets sessile; leaflet blades dense, abaxially gray-white, adaxially dark green, oblong, ovate, or nearly orbicular, 3–11 × 2–6 mm, both surfaces hairy, base conspicuously oblique, apex rounded, seldom truncate or emarginate. Flowers solitary; pedicels 10–20 mm, with spreading white long hairs; bracts linear; bracteoles slightly shorter than bracts. Calyx tubular, 12–15 × 5–7 mm, rarely with long hairs, gibbous at base, inflated on one side; teeth triangular-lanceolate, ca. 1/2 as long as tube. Corolla yellow; standard 20–22 mm, lamina oblong, with dense white short hairs abaxially; keel 15–17 mm, auriculate, ca. as long as wings. Ovary sessile, glabrous. Legume narrowly elliptical, 2.5–3.5 cm × ca. 8 mm, leathery, slightly applanate, glabrous. Fl. Jul, fr. Aug.

• Slopes, on rocks, meadows; 3400–4400 m. Sichuan, Xizang, Yunnan.

5. *Chesneya nubigena* (D. Don) Ali, Scientist (Karachi) 3: 4. 1959.

云雾雀儿豆 *yun wu que er dou*

Plants cushionlike. Stems woody at base, branched, with persistent petioles and stipules. Leaves 3–15 cm, 15–21-foliolate; stipules linear, ca. 10 mm, adnate to petiole for ca. 1/2 its length, upper part rounded or 2- or 3-lobed, with dense long hairs; axis and petiole with dense spreading long hairs, incurved or erect after drying, persistent; leaflet blades dense, oblong, 3–8 × 1–4 mm, both surfaces with dense spreading long hairs, base rounded or slightly oblique, apex acute. Flowers solitary; pedicels 10–40 mm, with dense spreading white long hairs; bracts linear, ca. 10 mm; bracteoles slightly shorter than bracts. Calyx tubular, 10–15 mm, rarely with long hairs, gibbous at base, inflated on one side; teeth lanceolate, ca. 1/2 as long as tube. Corolla yellow or purple; standard 20–30 mm, lamina broadly ovate or suborbicular, with dense white short hairs abaxially, apex emarginate; wings 18–28 mm; keel ca. as long as wings, without auricles. Ovary sessile, with dense white long hairs. Legume narrowly elliptical, 2–3 cm × 7–8 mm, rarely with long white appressed hairs, slightly applanate, leathery. Fl. Jul–Aug, fr. Aug–Sep.

Rocky alpine slopes, within shrubs, slopes, meadows, gravelly areas; 3600–5300 m. Xizang, Yunnan [Bhutan, India, Nepal].

- 1a. Flowers yellow; plants 11–16 cm; leaflets 4–8 × 2–4 mm, with a few persistent petioles 5a. subsp. *nubigena*
1b. Flowers purple; plants 3.5–6 cm; leaflets 3–5 × 1–2 mm, with many persistent petioles 5b. subsp. *purpurea*

5a. *Chesneya nubigena* subsp. *nubigena*

云雾雀儿豆(原亚种) *yun wu que er dou (yuan ya zhong)*

Astragalus nubigenus D. Don, Prodr. Fl. Nepal. 245. 1825; *Calophaca crassicaulis* (Bentham ex Baker) Komarov; *Caragana crassicaulis* Bentham ex Baker; *Chesneya intermedia* (Yakovlev) Z. G. Qian; *C. paucifoliolata* (Yakovlev) Z. G. Qian; *C. yunnanensis* (Yakovlev) Z. G. Qian; *Spongiocarpella intermedia* Yakovlev; *S. nubigena* (D. Don) Yakovlev; *S. nubigena* subsp. *kumaoensis* Yakovlev; *S. paucifoliolata* Yakovlev; *S. yunnanensis* Yakovlev.

Plants tall, 11–16 cm. Leaflet blades 4–8 × 2–4 mm, with a few persistent petioles. Flowers yellow. Fl. Jul–Aug, fr. Aug–Sep.

Rocky alpine slopes, within shrubs, slopes, meadows; 3600–5300 m. Xizang, Yunnan [India, Nepal].

5b. *Chesneya nubigena* subsp. *purpurea* (P. C. Li) X. Y. Zhu, Acta Phytotax. Sin. 34: 561. 1996.

紫花雀儿豆 *zi hua que er dou*

Chesneya purpurea P. C. Li, Acta Phytotax. Sin. 19: 236. 1981; *Spongiocarpella purpurea* (P. C. Li) Yakovlev.

Plants small, 3.5–6 cm. Leaflet blades 3–5 × 1–2 mm, with many persistent petioles. Flowers purple. Fl. Jul, fr. Aug.

Within shrubs, hilly slopes, meadows, gravelly areas; 4700–5200 m. Xizang [Bhutan].

6. *Chesneya macrantha* S. H. Cheng ex H. C. Fu, Fl. Intra-mongol. 3: 291. 1978.

大花雀儿豆 da hua que er dou

Chesneya potaninii (Yakovlev) Govaerts; *Oxytropis grubovii* N. Ulziykhutag (1971), not *Chesneya grubovii* Yakovlev (1979); *Spongiocarpella grubovii* (N. Ulziykhutag) Yakovlev; *S. potaninii* Yakovlev.

Plants cushionlike. Stems shortened, 5–10 cm tall. Leaves 2–4 cm, 7- or 9-foliolate; stipules ovate, ca. 4 mm, submembranous, adnate to petiole for ca. 1/2 its length, persistent, with dense white long appressed hairs; axis and petiole rarely with spreading white long hairs, persistent and forming spines at apex; leaflet blades elliptic or obovate, 5–6 × ca. 3 mm, both surfaces with white silky short appressed hairs, base cuneate, apex acute or spinelike. Flowers solitary; pedicels 4–5 mm; bracts linear, ca. 8 mm; bracteoles similar to bracts. Calyx tubular, ca. 15 mm, with dense long hairs and dark brown glands, gibbous at base, inflated on one side; teeth linear, almost as long as tube, with glands at apex. Corolla purple; standard ca. 25 mm, lamina oblong, with dense short hairs abaxially; wings ca. 20 mm; keel shorter than wings. Ovary sessile, with dense hairs. Legume unknown. Fl. Jun, fr. Jul.

Dry slopes. Nei Mongol, Xinjiang [Mongolia].

7. *Chesneya spinosa* P. C. Li, Acta Phytotax. Sin. 19: 236. 1981.

刺柄雀儿豆 ci bing que er dou

Spongiocarpella spinosa (P. C. Li) Yakovlev.

Plants cushionlike. Stems short, 4–6 cm tall, woody at base, branched, with dense persistent spinelike petioles and stipules. Leaves 2–2.5 cm, 9–13-foliolate; stipules ovate, 2–3 mm, papery, adnate to petiole for ca. 1/2 its length, glabrous, rarely with short white hairs; axis and petiole rarely with long hairs, persistent and forming spines; leaflet blades narrowly oblong, 3–5 × ca. 1.5 mm, both surfaces with dense white short hairs when young, becoming glabrous, base rounded or slightly oblique, apex acute, rounded, or truncate, with short spines. Flowers solitary; pedicels shorter than leaves; bracts lanceolate, ca. 1.5 mm; bracteoles subulate, shorter than 1 mm. Calyx tubular, 14–16 mm, rarely with white short hairs and brown glands, gibbous at base, inflated on one side; teeth lanceolate, with glands and hard acute at apex. Corolla yellow; standard 24–26 mm, lamina suborbicular, with dense white short hairs abaxially; wings 23–25 mm, claw slightly longer than lamina; keel 19–21 mm. Ovary sessile, with dense white short hairs. Legume oblong, 2–2.5 cm × 4–5 mm, rarely with long white hairs. Fl. Jul, fr. Aug.

• On gravelly slopes of hills; 3900–4200 m. Xizang.

