

33. COLURIA R. Brown, Chlor. Melvill. 18. 1823.

无尾果属 wu wei guo shu

Li Chaoluan (李朝銮 Li Chao-luang); Hiroshi Ikeda, Hideaki Ohba

Herbs perennial, low, rhizomatous, softly tomentose. Leaves mostly radical; leaf blade interrupted pinnatisect; lobes obovate, margin crenate; cauline leaves sessile among connate stipules and entire or 3-fid. Inflorescence erect, few-flowered, bracteate. Hypanthium obconic, eventually elongated, 10-ribbed. Sepals 5, valvate, persistent; epicalyx segments minute. Petals 5, yellow or white, larger than sepals. Stamens numerous, in 2 or 3 series; filaments free, persistent in fruit. Disk lining hypanthium, glabrous. Carpels numerous, inserted on short receptacle; ovule ascending from base of locule; style subterminal, erect, deciduous. Achenes numerous on columnar receptacle, included in hypanthium, compressed, rugose.

Five species: China, Mongolia, Russia; four species (all endemic) in China.

- 1a. Radical leaf blades lyrate pinnate.
 - 2a. Carpels and achenes markedly papillate 1. *C. henryi*
 - 2b. Carpels and achenes rigidly hairy 2. *C. omeiensis*
- 1b. Radical leaf blades pinnate, but not lyrate so.
 - 3a. Radical leaf blades regularly interrupted pinnate, leaflets in 9–20 pairs, proximal ones smaller, distal ones larger; flowers 1.5–2.5 cm in diam.; carpels numerous; carpels and achenes glabrous 3. *C. longifolia*
 - 3b. Radical leaf blades irregularly interrupted pinnate, leaflets in 4 or 5 pairs, variously sized; flowers ca. 1 cm in diam.; carpels ca. 4; carpels and achenes markedly papillate 4. *C. oligocarpa*

1. *Coluria henryi* Batalin, Trudy Imp. S.-Peterburgsk. Bot. Sada 13: 94. 1893.

大头叶无尾果 da tou ye wu wei guo

Coluria henryi var. *grandiflora* Cardot; *C. henryi* var. *pluriflora* Cardot.

Rhizome long, slender, covered with remains of old leaves. Radical leaves: stipules ovate, both surfaces pilose or ciliate, margin entire or 1- or 2-serrate; petiole 1–2.5 cm, densely yellow-brown villous; leaf blade lyrate pinnatisect, 5–18 cm; rachis longitudinally ribbed, densely yellow-brown villous; leaflets in 4–10 pairs, laxly arranged at intervals of up to 1 cm; terminal leaflet ovate, broadly so, or oblong-ovate, 3–7 × 1.5–6 cm, yellow-brown villous, base cordate, margin obtusely serrate, apex rounded; lateral leaflets sessile, ovate or oblong-ovate, 2–16 × 0.5–11 mm, densely villous, base oblique, margin triangular dentate, apex acute; cauline leaves: leaf blade ovate, 1–1.5 cm, margin entire or 3-lobed. Flowering stems radical, ascending, 6–30 cm tall, spreading pilose, 1–4-flowered; bracts ovate or oblong, ca. 1.5 cm, both surfaces pilose, margin serrate. Flowers 2–2.5 cm in diam. Hypanthium obconic, 3–5 mm, densely villous. Sepals triangular-ovate, ca. 5 mm, abaxially pilose, adaxially glabrous or subpilose, apex acute; epicalyx segments minute, lanceolate, 1–2 mm, abaxially pilose, apex acute. Petals yellow or white, obovate, 5–10 mm, glabrous, base shortly clawed, apex emarginate. Filaments 5–6 mm. Carpels numerous; ovary ovoid; style erect. Achenes brown, ovoid or obovoid, 1–1.5 cm, papillate. Fl. Apr–Jun, fr. May–Jul.

• Rocks; 1600–2400 m. Guizhou, Hubei, Sichuan.

2. *Coluria omeiensis* T. C. Ku, Bull. Bot. Res., Harbin 10(3): 19. 1990.

峨眉无尾果 e mei wu wei guo

Plants 10–30 cm tall. Radical leaves 7–15 cm including

petiole; leaf blade pinnatisect; rachis hirsute; leaflets sessile, in 4–10 pairs, variously sized, terminal one largest, others becoming smaller toward leaf blade base; terminal leaflet ovate or broadly so, 2–6 × 1.5–4.5 cm, both surfaces sparsely villous, base cordate, margin obtusely incised serrate, apex rounded; lateral leaflets 2–10 × ca. 2 mm, both surfaces hirsute. Flowering stems to 20 cm tall, hirsute, 2–4-flowered; bracts usually 3-lobed, sometimes irregularly lobed, both surfaces hirsute. Flowers 2–3 cm in diam. Sepals triangular-lanceolate or ovate-lanceolate, 6–8 × 3–4 mm, hirsute, apex acuminate; epicalyx segments narrowly oblong, 1–3 × ca. 1 mm, hirsute, apex acuminate. Petals white or yellow, obovate, 1–1.5 × ca. 1 cm. Stamens numerous; filaments 5–6 mm. Carpels numerous; ovary hispidulous or hairy; style erect, base hispidulous or glabrous. Achenes long ovoid or ellipsoid, 1–1.5 cm, rigidly hairy. Fl. and fr. Apr–Jun.

• 1200–2400 m. Guizhou, Shaanxi, Sichuan.

This species is similar to *Coluria henryi*, but differs in having the ovary hispidulous or hairy (vs. papillate).

- 1a. Petals yellow; ovary and style base hispidulous 2a. var. *omeiensis*
- 1b. Petals white or yellow; ovary hairy, style base glabrous 2b. var. *nanzhengensis*

2a. *Coluria omeiensis* var. *omeiensis*

峨眉无尾果(原变种) e mei wu wei guo (yuan bian zhong)

Petals yellow. Ovary and style base hispidulous. Fl. May.

• About 2400 m. C Sichuan (Emei Shan).

2b. *Coluria omeiensis* var. *nanzhengensis* T. T. Yu & T. C. Ku, Bull. Bot. Res., Harbin 10(3): 20. 1990.

光柱无尾果 guang zhu wu wei guo

Petals white or yellow. Ovary hairy; style base glabrous. Fl. Apr–May.

- 1200–2300 m. Guizhou, Shaanxi, Sichuan.

3. *Coluria longifolia* Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 27: 466. 1882.

无尾果 wu wei guo

Coluria elegans Cardot; *C. elegans* var. *imbricata* Cardot; *C. longifolia* f. *uniflora* T. C. Ku; *C. purdomii* (N. E. Brown) W. E. Evans; *Geum elatum* Wallich ex G. Don var. *humile* Franchet (1890), not (Royle) J. D. Hooker (1878); *Potentilla purdomii* N. E. Brown.

Radical leaves: stipules ovate, both surfaces pilose or margin ciliate, margin entire or 1- or 2-serrate; petiole 1–3 cm, sparsely villous, base decurrent, membranous; leaf blade interrupted pinnate, 5–10 cm, with 9–20 pairs of leaflets; rachis sulcate, villous; leaflets sessile, proximal ones ovate or oblong, 1–3 × 0.5–1 mm, base oblique, margin entire or obtusely crenate, ciliate; distal leaflets broadly ovate to suborbicular, 0.5–1.5 cm × 3–8 mm, base oblique, margin sharply serrate, yellow ciliate, apex rounded or acute; cauline leaves 1–4, broadly linear, 3-lobed or pinnately lobed, 1–1.5 cm. Flowering stems erect, branched distally, 4–20 cm tall, pubescent; inflorescence cymose, (1 or) 2–4-flowered; bracts ovate-lanceolate, 3–4 mm, long ciliate. Flowers 1.5–2.5 cm in diam.; pedicel 1–2.5 cm, densely pubescent. Hypanthium campanulate, ca. 2 mm, together with sepals abaxially densely pubescent and villous. Sepals triangular-ovate, 3–4 mm, apex acute; epicalyx segments oblong, ca. 2 mm, villous and ciliate, apex rounded. Petals yellow, obovate or obcordate, 5–7 mm, glabrous, apex emarginate. Stamens 40–60; filaments persistent, shorter than petals, glabrous, base dilated. Carpels many; ovary cylindrical, glabrous; style filiform, glabrous. Achenes black-brown, long globose, ca. 2 mm, glabrous. Fl. Jun–Jul, fr. Aug–Oct.

- Alpine meadows; 2700–4600 m. Gansu, Qinghai, Sichuan, Xizang, Yunnan.

This species is used medicinally.

4. *Coluria oligocarpa* (J. Krause) F. Bolle, Notizbl. Bot. Gart. Berlin-Dahlem 11: 210. 1931.

汶川无尾果 wen chuan wu wei guo

Geum oligocarpum J. Krause, Repert. Spec. Nov. Regni Veg. Beih. 12: 412. 1922.

Rhizome covered with remains of old leaves. Radical leaves few; stipules ovate, tiny, margin long ciliate, apex rounded; petiole 1–2 cm, spreading villous; leaf blade interrupted pinnate, 5–10 cm; leaflets in 4–6 pairs, laxly arranged, sessile, obovate-flabellate, nearly 3-lobed, 0.6–1.2 × 0.5–1.5 cm, terminal one largest, lateral ones variously sized, both surfaces and margin densely appressed villous; lobes broadly cuneate at base, margin irregularly serrate, apex rounded; cauline leaves ca. 3, sessile, oblong-ovate, 3-lobed, 1–1.5 cm × 4–5 mm. Flowering stems 2 or 3, erect, branched distally, 15–30 cm tall, pubescent; bracts ovate-lanceolate, 3–5 mm, pilose, margin sev-

eral serrate, apex acute. Flowers ca. 1 cm in diam.; pedicel 1.5–2 cm. Hypanthium obconic, 2–3 mm, abaxially pubescent. Sepals ovate-triangular, ca. 2 mm, pubescent, margin ciliate, apex rounded; epicalyx segments linear-oblong, ca. 1 mm, margin ciliate, apex rounded. Petals white, obovate, 5–7 mm, glabrous, base shortly clawed, apex truncate or emarginate. Filaments shorter than petals, base pilose. Carpels ca. 4; ovary ovoid, apically thickened, papillate; style slightly thickened at base,

Flora of China 9: 289–290. 2003.

villous. Achenes brown, ovoid or obovoid, 2–3 mm, densely papillate. Fl. and fr. Apr.

- Ravines, grassy places. Sichuan.

Flora of China 9: 289–290. 2003.