

85. COCHLIANTHUS Bentham in Miquel, Pl. Jungh. 234. 1852.

旋花豆属 xuan hua dou shu

Chen Dezhaoh (陈德昭 Chen Te-chao), Zhang Dianxiang (张奠湘); Mats Thulin

Herbs, climbing, turning black when dry. Leaves pinnately 3-foliolate, stipellate. Racemes axillary; rachis slender, nodose. Flowers usually clustered at swollen nodes; bracts and bracteoles minute, subulate, caducous or subpersistent. Calyx campanulate, 2-lipped, upper 2 teeth connate into a larger upper lip, apex emarginate or entire, lower lip with 3 teeth, middle tooth longest, lateral 2 shorter. Petals subequal in length or standard shorter, with long or short claws; standard broadly ovate, with inflexed auricles at base; wings oblong or subspatulate, slightly longer than standard, base with long auricle; keel linear, as long as or longer than wings, coiled inward in upper part. Stamens diadelphous; vexillary stamen free; anthers uniform. Ovary shortly stipitate, many ovuled; style filiform, glabrous, upper part coiled inward into 1 or 2 circles; stigma large, peltate-dilated, terminal. Legumes linear-oblong, incurved, compressed, obscurely septate. Seeds quadrate; hilum short, estrophiolate.

Two species: S and SW China, Nepal; two species (one endemic) in China.

- 1a. Leaflets broadly ovate-rhomboid, apex broadly acute, mucronate 1. *C. montanus*
- 1b. Leaflets ± narrowly ovate-rhomboid, apex caudate-acuminate 2. *C. gracilis*

1. Cochlianthus montanus (Diels) Harms, Repert. Spec. Nov. Regni Veg. 17: 136. 1921.

Open forests, mountain slopes, scrub, roadsides; 1400–1800 m. Sichuan, Xizang, SW Yunnan [Bhutan, Nepal].

高山旋花豆 gao shan xuan hua dou

Mucuna montana Diels, Notes Roy. Bot. Gard. Edinburgh 5: 247. 1912.

Herbs, robust, twining and climbing. Stems densely villos with grayish white hairs. Terminal leaflet broadly ovate-rhomboid, symmetric, lateral ones slightly oblique, 5.5–8 × 4.5–8 cm, densely silky pubescent on both surfaces, base rounded or broadly cuneate, apex broadly acute, mucronate. Calyx densely adpressed pubescent outside; upper 2 teeth connate to an emarginate lip, lowest tooth lanceolate, ca. 7 mm. Corolla pink or rose-red; standard broadly ovate, ca. 18 mm, shortly clawed; wings slightly longer than standard, base with auricle as long as claw; keel longest, linear, coiled inward. Legumes narrowly oblong, compressed, hirsute. Fl. Jul.

• Dry rocky scrub on mountain slopes; ca. 3000 m. Yunnan (Lijiang).

2. Cochlianthus gracilis Bentham in Miquel, Pl. Jungh. 234. 1852.

细茎旋花豆 xi jing xuan hua dou

Herbs, slender, twining and climbing. Stems hairy at first, later glabrescent. Leaflets membranous or papery, strigose on both surfaces, terminal leaflet ± narrowly ovate-rhomboid, symmetric, lateral ones oblique, 5–9 × 2–6 cm, base broadly cuneate or obtuse, apex caudate-acuminate. Calyx densely hispidulous; upper 2 teeth connate into an entire or emarginate lip; lowest tooth lanceolate, 6–7 mm. Corolla pink or light purple; standard obovate-orbicular or suborbicular, ca. 2 × 1.7 cm; wings broadly spatulate, slightly longer than or as long as standard, base with auricle as long as claw, apex rounded; keel much longer than wings, upper part coiled inward, base with long claw and short auricle. Ovary with 2–4 mm stipe, with or without small cup-shaped disk at base. Style and filaments coiled inward for 1 or 2 turns in upper part. Legumes linear-oblong, densely hirsute with brownish black long hairs.

- 1a. Upper 2 calyx teeth connate into an entire lip; stipe of ovary ca. 4 mm, with a small cup-shaped disk at base; style and filaments coiled inward for 1 turn in upper part 2a. var. *gracilis*
- 1b. Upper 2 calyx teeth connate into an emarginate lip; stipe of ovary ca. 2 mm, without disk at base; style and filaments coiled inward for 2 turns in upper part 2b. var. *brevipes*

2a. Cochlianthus gracilis var. *gracilis*

细茎旋花豆(原变种) xi jing xuan hua dou (yuan bian zhong)

Leaflets strigose on both surfaces. Upper 2 calyx teeth connate into an entire lip. Ovary with ca. 4 mm slender stipe and cup-shaped disk at base. Style and filaments coiled inward for 1 turn in upper part. Fl. Sep.

Open forests, mountain slopes; ca. 1400 m. Xizang, SW Yunnan [Bhutan, Nepal].

2b. Cochlianthus gracilis var. *brevipes* C. F. Wei, Bull. Bot. Res., Harbin 5(2): 49. 1985.

短柄旋花豆 duan bing xuan hua dou

Leaflets densely hairy. Upper 2 calyx teeth connate into an emarginate lip. Ovary with thick, short stipe, without cup-shaped disk at base. Style and filaments coiled inward for 2 turns in upper part. Fl. Aug–Sep.

• Scrub, roadsides, mountain slopes; ca. 1800 m. Sichuan (Baoping).

One of us (Thulin) has seen no material of *Cochlianthus gracilis* var. *brevipes*, but, judging from the description, it seems so different from typical *C. gracilis* that it would perhaps be better treated as a distinct species. Further study is needed.

