

1. ACRANTHERA Arnott ex Meisner, Pl. Vasc. Gen. 1: 162; 2: 115. 1838, nom. cons.

尖药花属 jian yao hua shu

Chen Tao (陈涛); Charlotte M. Taylor, Christian Puff

Herbs or subshrubs, unbranched or little branched, unarmed. Raphides absent. Leaves opposite and often clustered at ends of stems, without domatia; stipules persistent or deciduous, interpetiolar, triangular to oblong. Inflorescences terminal or sometimes displaced to pseudoaxillary, borne on principal stems or sometimes short shoots at stem apex or in 1 or both leaf axils, 1-flowered [or cymose to fasciculate and several flowered], bracteate [or bracts reduced]. Flowers pedicellate or subsessile, bisexual, apparently monomorphic. Calyx with ovary portion usually relatively prolonged; limb lobed essentially to base; lobes 4 or 5, often with 1 well-developed colleter in each sinus. Corolla pale green or white to blue or purple, funnellform to campanulate, glabrous inside; lobes 4 or 5, valvate or reduplicate-valvate in bud. Stamens 5, inserted near base of corolla tube, included or exerted; filaments short to well developed, glabrous, free or fused in basal portion; anthers linear, at apex with sharply acute or spurred appendage, these connate into a tube surrounding stigma and united with it at tops of both structures. Ovary 1-celled, ovules many per cell on 2 T-shaped parietal placentas; stigma 1, clavate, relatively large, 10-ridged, sometimes fused at top to anther appendages. Fruit baccate or perhaps occasionally tardily capsular with irregular dehiscence, fleshy, ovoid to cylindrical or turbinate, color not reported, with calyx limb persistent; seeds numerous, reddish brown or nearly black, small, compressed or lenticular; endosperm fleshy; embryo small, straight.

About 40 species: China, India, Indonesia, Malaysia, Sri Lanka, Thailand, Vietnam, with most species apparently in Borneo; one species (endemic) in China.

This genus was monographed by Bremekamp (J. Arnold Arbor. 28: 261–308. 1947), who named a number of subgenera and series. C. Y. Wu's new species did not fit into Bremekamp's classification; consequently, he described a new monotypic subgenus for it, *Acranthera* subg. *Sinacranthera* C. Y. Wu, distinguished from *A.* subg. *Acranthera* and *A.* subg. *Androtropis* Bremekamp by its funnellform corollas, inflorescences borne on opposite brachyblasts bearing two rudimentary leaves, and red to purple corolla color (vs. basal part of corolla cylindrical, inflorescences borne at stem apices, and blue corollas in *A.* subg. *Acranthera* and inflorescences borne at stem apices and pale green corollas in *A.* subg. *Androtropis*) and from the other subgenera by its well-developed, subglobose disk (vs. inconspicuous and presumably flattened). *Acranthera* is considered based on recent molecular and some morphological data to be a rather isolated basal lineage in Rubiaceae: its closest relative is probably *Coptosapelta*, and these two genera are probably most closely related to *Luculia* (Alejandro et al., Amer. J. Bot. 92: 544–557. 2005; Rydin et al., Pl. Syst. Evol. 278: 101–123. 2009).

Puff et al. (Ann. Missouri Bot. Gard. 82: 357–382. 1995) concluded that the flowers have an “anther-style and stigma complex” that is unique in Rubiaceae and suggested that at least some *Acranthera* species may be buzz-pollinated. Bremekamp described the ovaries as 2-celled with laminar axile placentas, but Puff et al. showed that the ovaries are actually 1-celled, with parietally inserted placentas that are T-shaped and meet closely enough in the middle to appear superficially to be borne on a median septum, though there is none.

1. *Acranthera sinensis* C. Y. Wu, Acta Phytotax. Sin. 6: 295. 1957.

中华尖药花 zhong hua jian yao hua

Herbs or subshrubs, 40(–100) cm tall, with tissues often turning black when dry; branches generally quadrangular, densely hirsute to strigose and strigillose becoming glabrescent with age. Petiole 1–7 cm, strigose to strigillose; leaf blade thinly papery to membranous, elliptic or obovate, 8–22 × 4.5–9 cm, adaxially sparsely to moderately hirsute to hispid, abaxially strigillose to strigose or hispid with pubescence denser along principal veins, base acute or cuneate, margins ciliolate, apex acuminate or acute; secondary veins 9–11 pairs; stipules persistent, broadly ovate to triangular, 1–3 mm, glabrescent, cuspidate or 2- or 3-dentate. Inflorescences terminal, pseudoaxillary, and/or axillary on short shoots, 1-flowered, short shoot reduced to developed (appearing as base of articulate peduncle), to 2 mm; peduncle (i.e., directly subtending flower) 3–4 cm; bracts lanceolate, 2–3 mm, acute. Calyx strigillose to strigose or pilose; ovary portion cylindrical to obconical, 3–4 cm; lobes linear-lanceolate, 2.7–4 cm. Corolla purple outside and pink inside, funnellform, outside hirtellous to tomentulose; tube ca. 45 mm; lobes ovate, ca. 10 mm, obtuse then abruptly

acuminate with tip ca. 1.5 mm. Filaments free; anthers 6–8 mm, with connective spurred at apex. Berry compressed cylindrical, 40–45 × ca. 5 mm, bisulcate; seeds with testa reticulate. Fl. Apr–Jun, fr. Jun–Oct.

- Forests on mountain slopes; 1000–1500 m. SE Yunnan.

Wu in the protologue explicitly designated two syntypes, *H. T. Tsai* 55229 collected on 19 May 1934 as the “typus florifer” and *H. T. Tsai* 60568 collected on 29 Jun 1934 as the “typus fructifer”; his species was published in 1957, so this name is validly published in spite of the lack of a single holotype.

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