

云南东南部苦苣苔科一新种——红河短檐苣苔*

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摘要: 描述了采自中国云南东南部红河县的红河短檐苣苔 (*Tremacron hongheense*), 新种与该属模式种短檐苣苔 (*Tremacron forrestii* Craib) 最为相似, 区别在于该新种叶片正面疏被长刚毛, 而非较密的白色贴伏短柔毛和稀疏锈色长柔毛; 花冠筒外面具白色短腺毛, 而非近无毛; 花冠檐部裂片顶端呈红色, 且质地加厚 (特别是上唇裂片), 而非黄色且同质地; 雄蕊长约 1.6~1.8 cm, 而非 0.4~1.2 cm 长; 退化雄蕊长 0.5~1.4 cm, 而非 0.2~0.4 cm 长。

关键词: 苦苣苔科; 新种; 红河短檐苣苔; 云南

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Tremacron hongheense, a New Species of Gesneriaceae
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Abstract: A new species of Gesneriaceae from Honghe County, Southeastern Yunnan, China, *Tremacron hongheense* W. H. Chen & Y. M. Shui, is described and illustrated. The new species is similar to *Tremacron forrestii* Craib, but differs by its leaf blade adaxially sparsely long setose (*vs.* densely white appressed pubescent and sparsely rusty-brown villous), corolla tube outside short white glandular (*vs.* nearly glabrous), corolla lobes red and thickening at apex, especially adaxial lip (*vs.* yellow and not thickening), stamens 1.6–1.8 cm long (*vs.* 0.4–1.2 cm long), staminode 0.5–1.4 cm long (*vs.* 0.2–0.4 cm long).

Key words: Gesneriaceae; New species; *Tremacron hongheense*; Yunnan

On July 2012, during surveys in Honghe County, Southeastern Yunnan, China, we collected a specimen of Gesneriaceae that is similar to *Tremacron forrestii* Craib, but morphologically did not actually

match any of the known species in *Tremacron* Craib. *Tremacron* is an endemic genus to China, and there are only 7 species, distributed in Yunnan, Sichuan and Guizhou provinces, Southwestern China (He *et*

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al., 2010; Li and Wang, 2004; Wang *et al.*, 1990, 1998). According to the references and examination of the type specimen of *Tremacron forrestii*, and comparison with the new specimens of the new species collected again in 2013 and those of *Tremacron forrestii* collected in 2014 in Yongsheng, Yunnan, we confirmed that it was a new species of *Tremacron*. The new species is described and illustrated as below.

The genus *Tremacron* has been merged in the enlarged *Oreocharis* Benth. which circumscribed ten genera: *Ancylostemon* Craib, *Bournea* Oliv., *Dayaoshania* W. T. Wang, *Deinocheilos* W. T. Wang, *Isometrum* Craib, *Opithandra* B. L. Burtt, *Paraisometrum* W. T. Wang, *Thamnocharis* W. T. Wang, and *Tremacron* W. T. Wang and some species of *Briggsia* Craib (Chen *et al.*, 2014a; Möller *et al.*, 2014; Möller *et al.*, 2011a), based on molecular phylogenetic studies by the gene sequences ITS and *trnL*F (Chen *et al.*, 2014b; Möller *et al.*, 2011a, b). Because of the above limited gene sequences, we still regard *Tremacron* as an independent genus for the purpose of easy identification (Wang *et al.*, 1998).

Taxonomy

Tremacron hongheense W. H. Chen & Y. M. Shui, *sp. nov.* (Fig. 1).

The new species is most similar to *T. forrestii* Craib, and differs by its leaf blade adaxially sparsely long setose (*vs.* densely white appressed pubescent and sparsely rusty-brown villous), corolla tube outside short white glandular (*vs.* subglabrous), corolla lobes red and thickening at apex (*vs.* yellow and not thickening), stamens are 1.6–1.8 cm long (*vs.* 0.4–1.2 cm), staminode are 0.5–1.4 cm long (*vs.* 0.2–0.4 cm).

Type: China. Yunnan Province, Honghe County, Amushan Nature Reserve, alt. ca. 2 080 m, on damp rocks in mossy forests, in flowering and fruiting, 15 September 2013, Y. M. Shui *et al.* B2013-590 (holotype, KUN; isotype, KUN).

Perennial herbs, stemless. Leaves basal, with long petioles; petiole 2–5 cm long, densely long

brown pubescent; leaf blade elliptic or oblong, 5–15 × 3.5–6.5 cm, adaxially sparsely long setose, abaxially short pubescent and densely long pubescent along veins, lateral veins 5–7 pairs, inconspicuous adaxially and prominent abaxially, base broadly cuneate, apex acute, margin irregularly crenate or double serrate; cymes axillary, inflorescence 1–18-flowered; peduncle up to 20 cm, densely long brown pubescent and glandular pubescent; bracts 2, opposite, ca. 2 × 0.5 mm, glandular pubescent; pedicel 2–4.5 cm, white glandular. Calyx 5-parted near to base, lobes equal, oblong-lanceolate, ca. 2.5 × 1.2 mm, apex obtuse, outside long brown pubescent and glandular pubescent, inside glabrous. Corolla yellow, ca. 1.5 cm long, outside short white glandular and inside glabrous; corolla tube urceolate, ca. 1.3 cm long, 3–4 mm in diam.; limb 5-lobed, red (especially adaxial lip) and thickening at apex, adaxial lip 2-lobed, lobes triangular, ca. 0.7 mm long, red and thickening at apex, abaxial lip 3-lobed, lobes rounded-triangular, central lobe ca. 2.5 mm long, lateral ones ca. 2 mm long. Stamens 4, separated and exerted out of corolla after days in blooming, adaxial stamens ca. 1.6 cm long, adnate to corolla ca. 3 mm from base, abaxial stamens ca. 1.8 cm long, adnate to corolla ca. 4 mm from base; filaments linear, white pubescent; anthers elliptical, ca. 1 mm long, thecae 2, parallel, confluent at apex and dehiscing longitudinally; staminode 1, 0.5–1.4 cm long, adnate to corolla ca. 2 mm from base. Disc yellow, ca. 1.2 mm high, margin sinuate. Pistil glabrous, ca. 2.2 cm long; ovary linear-oblong, ca. 1.5 cm long; style ca. 0.7 cm long; stigma 1, plate. Capsule linear, 3–4 cm long, 1–2 mm in diam., style persistent ca. 0.7 cm long. Seeds unknown.

Distribution and Ecology: *Tremacron hongheense* is only known in Amushan Nature Reserve, Honghe County, Yunnan Province, China. The new species grows on damp rocks in mossy forests on Amushan Mt. at alt. 2 000–2 100 m.

Phenology: Flowering from July to August, fruiting from August to September.

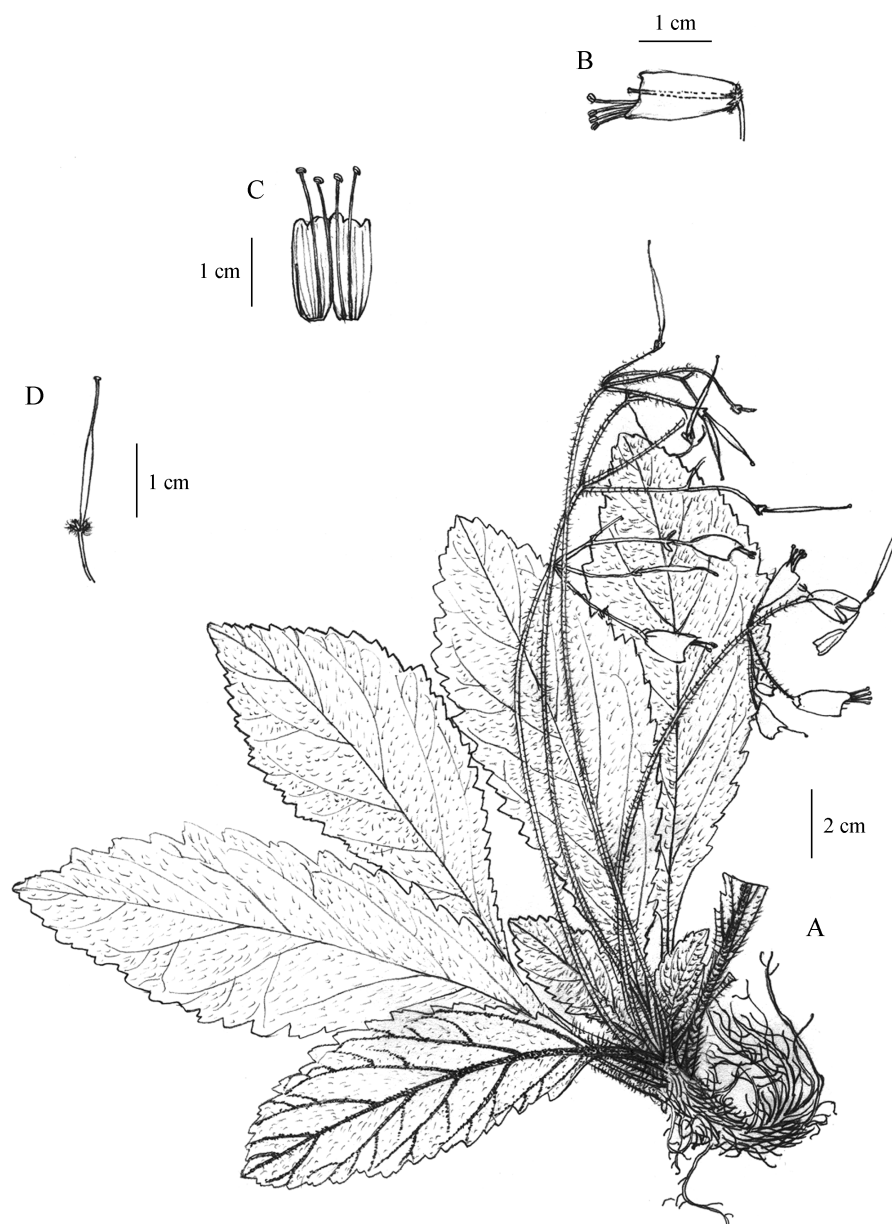


Fig. 1 *Tremacron hongheense* A. plant with flowers and young fruits; B. Flower with stamens and style; C. opened corolla with stamens and staminode, D. Calyx and pistil with disc. Drawn by Mrs Wang Ling

Similar species: *Tremacron hongheense* is mostly similar to *Tremacron forrestii* which is distributed in central and northwestern Yunnan and southwestern Sichuan. They both are perennial herbs, stemless, leaves all basal, with long petioles, leaves up to 15 cm long, lateral veins 5–7 pairs, peduncle up to 20 cm long, densely rusty villous and glandular pubescent. *T. hongheense* can be distinguished from *T. forrestii* by its pedicel 2–4.5 cm long, sepals are

oblong-lanceolate, *ca.* 2.5 × 1.2 mm, apex obtuse, lip lobes red, thickening and reflexed. The contrasting characters between *T. hongheense* and *T. forrestii* are listed in Table 1.

Additional specimens examined (paratypes): China. Yunnan Province, Honghe County, Amushan Nature Reserve, alt. 2 000–2 100 m, on damp rocks in mossy forests, in flowering, 3 July 2012, Z. J. Yin *et al.* AMS 1169 (KUN).

Table 1 Morphological comparison between *T. hongheense* and *T. forrestii*

Characters	<i>T. hongheense</i>	<i>T. forrestii</i>
Leaf	leaf blade, elliptic or oblong, adaxially sparsely long setose, abaxially short pubescent and densely long pubescent along veins, lateral veins 5–7 pairs, inconspicuous adaxially and prominent abaxially, base broadly cuneate, apex acute, margin irregular crenate or double serrate; petiole, 2–5 cm, densely long brown pubescent	leaf blade, elliptic to obovate, adaxially densely white appressed pubescent and sparsely rust-brown villous, abaxially white rust-brown pubescent and rust-brown villous along veins, base cuneate, apex obtuse to acute, margin serrate or double serrate to deeply crenate-serrate; petiole, 3 (–6) cm, densely rust-brown villous
Peduncle	densely long brown pubescent and glandular pubescent; bract 2, <i>ca.</i> 2 × 0.5 mm, glandular pubescent	sparsely brownish villous and glandular puberulent or pubescent; bract 2, 5–6 mm × 1–1.7 mm, pubescent
Calyx lobe	oblong-lanceolate, apex obtuse, outside long brown pubescent and glandular pubescent	triangular or lanceolate, apex acute, outside sparsely pubescent and villous
Corolla	yellow, <i>ca.</i> 1.5 cm long; corolla tube urceolate, <i>ca.</i> 1.3 cm long, 3–4 mm in diam., outside short white glandular and inside glabrous	pale yellow to greenish yellow, 0.5–1.1 cm long; corolla tube subcampanulate, sometimes urceolate, 6–9 mm long, 4–6 mm in diam., outside subglabrous
Lips	red (especially adaxial lip) and thickening at apex	yellow and not thickening
Stamens	1.6–1.8 cm long, adnate to corolla <i>ca.</i> 3–4 mm from base; staminode 0.5–1.4 cm long, adnate to corolla <i>ca.</i> 2 mm from base	0.4–1.2 cm long, adnate to corolla <i>ca.</i> 1–1.5 mm from base; staminode 0.2–0.4 cm long, adnate to corolla 1.5 mm from base
Pistil	<i>ca.</i> 2.2 cm long; ovary, <i>ca.</i> 1.5 cm long, style <i>ca.</i> 0.7 cm long; stigma 1, plate	1–1.7 cm long; ovary, 0.35–0.8 cm long, style <i>ca.</i> 0.15 cm long; stigma 2

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