

A NEW SPECIES IN THE GENUS *HEDYOTIS* (*RUBIACEAE*) FROM SOUTH CHINA

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A new species of *Rubiaceae*, *Hedyotis shenzhenensis* T.Chen, from Shenzhen, South China, is described and illustrated.

Keywords. China, *Hedyotis*, new species, *Rubiaceae*.

INTRODUCTION

While examining *Rubiaceae* specimens during preparation of the Flora of Shenzhen and the Flora of China treatments, the author discovered a few exceptional specimens which required further study. During a recent botanical excursion to the mountains east of Shenzhen, southern China, the collection locality of the noteworthy plants was revisited and additional specimens were collected. Careful observations of fresh plants with open flowers and dry fruit remnants from the previous year confirm that the plants represent a previously undescribed species new to the genus *Hedyotis* L.

***Hedyotis shenzhenensis* T.Chen, sp. nov. Fig. 1.**

Similis *Hedyotis yangchunensi* W.C.Ko et G.C.Zhang a qua herba herbacea, caule brevi, 1–2 cm longo, internodiis inconspicuis, foliis fasciculatis, leviter rosulatis, lamina basi cuneata, rotunda vel subcordata, petiolis 0.5 cm longis vel subsessilibus, stipulis 0.3–0.5 cm longis 0.5–1 cm latis apice margineque non partitis, pedunculis 10–18 cm longis, calycis lobis persistentibus (1.2–)1.8–2 mm longis anguste triangularibus vel subuliformibus in sicco non reticulatis differt. – Type: China, Shenzhen, Longgang District, Paiyashan Mountain, in forest understoreys on upper slope, 550–600 m, 16 v 2007, *T. Chen* 8043 (holo SZG!).

Perennial herbs, erect, to 40 cm tall, glabrous. *Stem* short, 1–2 cm long, internodes inconspicuous. *Leaves* 3–5 (or 6) pairs, decussate, fascicled on stem, forming a rosette, purplish on both surfaces when young, usually with a small bud in axil; petiole very short, c.0.5 mm long, or leaves sessile; stipule interpetiolar, triangular, 3–5 × 5–10 mm, edges prolonged into leaf axil and slightly fused with prolonged sides of opposite stipule at base of midvein, abaxially and marginally shortly hairy, adaxially glabrous, apex acute; blade flattened or usually twisted, elliptic, oblong-elliptic or obovate, 8.5–15 × 5–9 cm, thick, papery, friable, subleathery when dry, abaxially

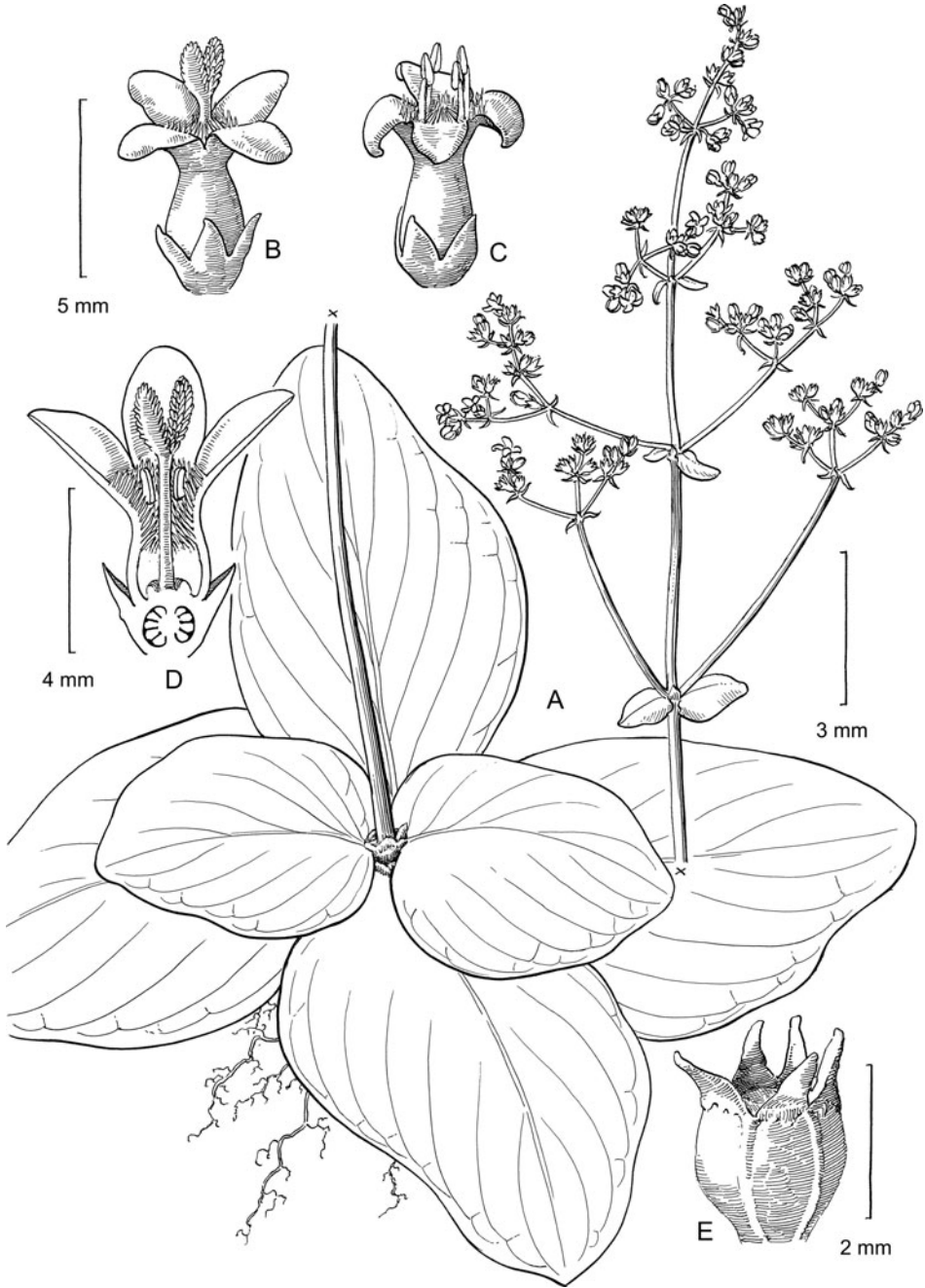


FIG. 1. *Hedyotis shenzhenensis* T.Chen. A, habit; B, long-styled flower; C, short-styled flower; D, long-styled flower opened showing flower parts; E, fruit.

light green, adaxially dark green, both surfaces glabrous, midvein abaxially prominent, adaxially flattened, slightly impressed when dry, lateral veins abaxially inconspicuous or slightly prominent, adaxially conspicuous, with 4–6 veins per side, veinlets abaxially indistinct, adaxially reticulate, base cuneate, sometimes rounded or subcordate, apex acute or obtuse. *Inflorescence* a compound dichasial cyme, usually solitary, terminal, sometimes with 2 or more in uppermost leaf axils; inflorescence axis and branches purplish, tetragonous, glabrous; peduncle 10–18 cm long, sometimes bilaterally compressed, rounded; lower bracts leaf-like, becoming smaller upward and finally subulate; lowest pair of bracts the largest, subovate, $2.5\text{--}3 \times 1.8\text{--}2$ cm or sometimes larger, apex acuminate. *Flowers* heterostylous. Long-styled flowers subsessile, ebracteolate; calyx slightly fleshy, glabrous, tube light green, c.1 mm long, lobes 4, purplish at apex, subulate, c.1.5 mm long; corolla white, suburniform, slightly fleshy, tube c.3 mm long, slightly swollen in lower part, outside glabrous, inside with white straight hairs from throat to middle, lobes 4, reflexed, c.2.5 mm long, ovate, outside glabrous, inside with white straight hairs at base, margin shortly hairy, longer hairy at sinus, apex purplish outside, acute, slightly hooked; stamens 4, included, inserted in upper $\frac{1}{4}$ of corolla tube, alternate to corolla lobes; filaments very short, c.0.2 mm long; anthers 0.8 mm long, dorsifixed, introrse, longitudinally dehiscent; ovary 2-loculed, each locule with numerous ovules, placentation axile; style c.5 mm long, exerted at anthesis; stigma 2-(or 3-)parted, lobes c.1 mm long, forked, shortly hairy or papillate. Short-styled flowers with short pedicels 1–2 mm long; bractlet absent or present, purplish, c.1.5 mm long; calyx tube c.1 mm long, lobes purplish, subulate, c.1.5 mm long, alternate to corolla lobes; corolla lobes c.1.8 mm long; stamens inserted on corolla tube just below sinus, exerted c.1.5 mm at anthesis; filaments c.0.8 mm long; anthers c.0.6 mm long, dorsifixed, introrse; ovary as in long-styled flower; style included, c.3 mm long; stigma 2-parted, lobes c.1 mm long, flat, connivent, shortly hairy or papillate. *Disk* rounded, fleshy. *Fruit* a capsule, subglobose, c.2 mm in diameter, glabrous, subsessile or with short stalk to 1 mm long, crowned with persistent calyx lobes narrowly triangular or subulate, c.1.2 mm long in young fruit, c.2 mm long in mature fruit, septicidally dehiscent. *Seeds* many, black, irregular, angular, minute. Fl. Apr–Jun; fr. May–Oct.

Additional specimens examined. CHINA. Shenzhen, Longgang District, Paiyashan, in broad-leaved forest understorey on mountain slope, 600–700 m, 1 vi 2005, S.Z. Zhang *et al.* 2149 (PE, SZG); same locality, in forest understorey on mountain slope, 16 vii 2005, S.Z. Zhang *et al.* 2948 (PE, SZG); same locality, in dense forest understorey, 600–650 m, 25 x 2006, G.D. Wang *et al.* 6899 (SZG).

This species belongs to *Hedyotis* sect. *Diplophragma* Wight & Arn. based on the mode of dehiscence of the capsule (Ko, 1999). It is similar to *Hedyotis yangchunensis* W.C.Ko & G.C.Zhang, but the latter differs in being subshrubby; the stem is stout with conspicuous internodes, 0.8–1.5 cm long; the leaves are conglomerate at apices of branches, not in a rosette, the petiole is 1–1.5 cm long, the stipule c.1.6 cm long,

c.0.8 cm wide at base, with apex and margins split into linear lobes; the peduncle is 5–7 cm long; and the fruit has persistent lanceolate calyx lobes, 3–3.5(–6) × 1.2–2(–3) mm, thin, veined (Ko, 1995).

The distribution of this species is confined to a narrow area at altitudes from 450 to 650 m on coastal mountain slopes in Shenzhen, SE Guangdong, while its allied species are found far inland in Yangchun, W Guangdong. For a while, *Hedyotis yangchunensis* was thought to be present in Hong Kong (Chen, 2002). However, more recent excursions and observations indicate that *Hedyotis yangchunensis* in Hong Kong is different from the plants in Yangchun and is more similar to *H. shenzhenensis* T.Chen in geography and possibly in morphology. The identity of *Hedyotis yangchunensis* in Hong Kong will be treated separately.

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