



***Psychotria apdavisiana* sp. nov. (Rubiaceae), a remarkable calciphile from the southern karst of Papua New Guinea**

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Abstract

Psychotria apdavisiana is described from remote environments in Papua New Guinea's Southern Escarpment. The calciphilous species is the latest addition to an expanding conspectus of discoveries from the limestone biome.

Key words: limestone environments, Southern Escarpment, Strickland basin

Introduction

With an estimated 120 plus species in Papuasias, *Psychotria* Linnaeus (1759: 929) is the principal component in a rubiaceaceous flora noted for its diversity and endemism (Davis *et al.* 2009). Whenever previously unknown environments are opened to investigation, modern expeditions have consistently added new species to the genus.

As the largest remaining tract of uninhabited forest in Papua New Guinea (PNG) the Southern Escarpment (*sensu* Sekhran & Miller 1994) is arguably the most prospective venue for taxonomic discovery on the mainland. In the following description of *Psychotria apdavisiana*, an unusual limestone endemic is presented from karst habitats in this region.

Methods

Taxonomic descriptions are based on the metrical and qualitative attributes from dried specimens. Characters determined *in situ* from living plants are reported separately as 'field characters'. Alcohol-preserved fruits have been deposited with the isotype at LAE.

Description

Psychotria apdavisiana W.N.Takeuchi, *sp. nov.* (Figs. 1–3)

Affinis Psychotriae reflexapedunculatae Sohmer *sed stipulis majoribus usque ad 18–31 mm longis (nec 5 mm longis) infructescentiis capitatis (nec ramosis) differt.*

Type:—PAPUA NEW GUINEA. Western Province: Strickland drainage, Juha South, survey track 1 to sinkhole area, mossy montane forest, 5°53.994'S, 142°26.234'E, 910 m, 21 February 2008, *Takeuchi, Gambia & Jisaka 23261* (holotype A!; isotypes K!, LAE!).

Subshrubs to 0.6 m tall, monoaxial (rarely once-branched). Stems compressed, planate or angulate, 2–4.5 mm wide, pithy; surfaces longitudinally wrinkled, furrowed or not, nigrescent to brunnescent, dull, without lenticels, abscission scars absent; indument velutinous, reddish brown, subpersisting; internodes 2–7.5 cm

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