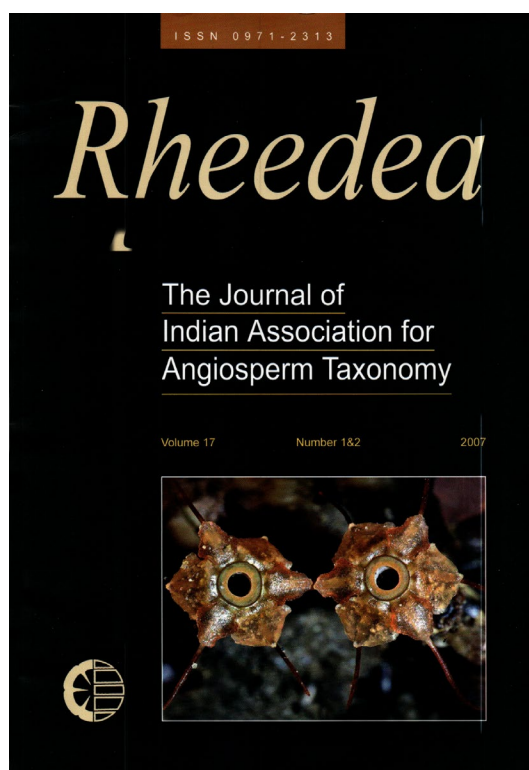




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Murugesan M. & V. Balasubramaniam



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# A New Species of *Hedyotis* L. (Rubiaceae) from the Velliangiri Hills, the Western Ghats, India

M. Murugesan and V. Balasubramaniam

Post Graduate and Research Department of Botany  
Kongunadu Arts and Science College, Coimbatore 641 029, Tamil Nadu, India.  
E-mail: vbalu61@yahoo.co.in

## Abstract

*Hedyotis nairii* M. Murugesan et V. Balasubramaniam, a new species, is described and illustrated from Velliangiri Hills in Coimbatore district, Tamil Nadu, India. It differs from the allied *H. beddomei* Hook. f. in having elliptic, elliptic-lanceolate or oblanceolate leaves, lanceolate glandular stipules, glabrous cymes and pedicellate flowers.

Keywords: *Hedyotis nairii*, New species, Velliangiri Hills, Tamil Nadu

## Introduction

The genus *Hedyotis* L. (Rubiaceae) comprising about 515 species is distributed in warmer parts of the world, chiefly in Australia, Africa, East and South-East Asia and America (Dutta & Deb, 2004). Seventy four species have been reported from India. There are 33 species in Tamil Nadu (Hooker, 1880; Gamble, 1921; Swaminathan, 1987; Dutta & Deb, 2004).

Authors collected an interesting specimen of *Hedyotis* from Velliangiri Hills located between 6°-40' and 7°-10' E longitude and 10°-55' and 11°-10' N latitude. These hills forming partly the western boundary of Coimbatore district in Tamil Nadu constitute part of the Western Ghats. The specimens, upon critical study, turned out to be a new species. It is described and illustrated.

***Hedyotis nairii* M. Murugesan et V. Balasubramaniam, sp. nov.**

**Fig. 1**

*Hedyotis beddomei* Hook. f. affinis, sed foliis ellipticis, elliptic lanceolatis vel oblanceolatis, acuto acuminatis, chartaceis, laevigatis; stipulis lanceolatis, pinnatisectis, glandularibus, solum ad apicem ad midnervum villosis; cymis glabris; floribus pedicellatis; pedunculis glabris; lobis calycis oblongo-lanceolatis vel linearo-oblongis, apice acuminatis differt.

**Type:** INDIA, Tamil Nadu, Velliangiri Hills 1840 m., 5 November 2004, M. Murugesan 1606 (Holotype, Kongunadu Arts and Science College Herbarium;

Isotype, MH).

*Hedyotis nairii* M. Murugesan et V. Balasubramaniam is closely allied to *Hedyotis beddomei* Hook.f. but differs in having chartaceous, smooth, elliptic, elliptic-lanceolate or oblanceolate leaves with acute-acuminate and mucronate apex; lanceolate, pinnatisect, glandular stipules with villous apex and midnerves; glabrous cymes, pedicellate flowers; glabrous peduncle and oblong-lanceolate or linear-oblong calyx lobes with acuminate apex.

**Erect perennial undershrub**, up to 1.5 m high; branchlets grooved, stout, 4 angular, 4 winged, glabrous, yellowish green when dry, sparsely hairy on wings; internodes shorter at base, longer towards apex. **Leaves** sessile or contracted at base to short, flattened petiole, rarely clasping at base, ternately whorled, chartaceous, elliptic or elliptic lanceolate or oblanceolate, rarely oblong, 3-10 x 0.8-3.0 cm, attenuate or cuneate at base, entire or slightly recurved at margin, acute-acuminate and mucronate at apex, yellowish green when dry, 7-11-nerved, nerves prominent, parallel, channelled above, raised beneath, sparsely hairy on nerves and on margins; stipules sheathing at base, elongate from a broad base, longer than internode at lower portions of stem, and shorter towards upper portions as internodes being longer towards apex, connate with the petiole, margins pinnatisect, glandular, villous along margins and midvein, teeth 7-9, 0.5-1.5 cm long, subulate.

*Inflorescence* terminal and axillary, capitate, corymbose cymes, c. 20-flowered; peduncle 2-10 cm long, prominently 4-angled, equal to or slightly longer than leaves, branched trichotomously; flowers dense, 4-merous, 2-5 mm across, shortly pedicellate;

pedicel c. 2 mm long; bracts and bracteoles basally linear-lanceolate, 1.7-6 x 0.3-0.5 mm; hypanthium ovoid, glabrous, 1-1.7 mm long; calyx limb short, 1.2-1.8 x 1-1.7 mm; lobes 2.8-3.2 x 0.5-1.6 mm, ovate-lanceolate or oblong-lanceolate, valvate, broad and

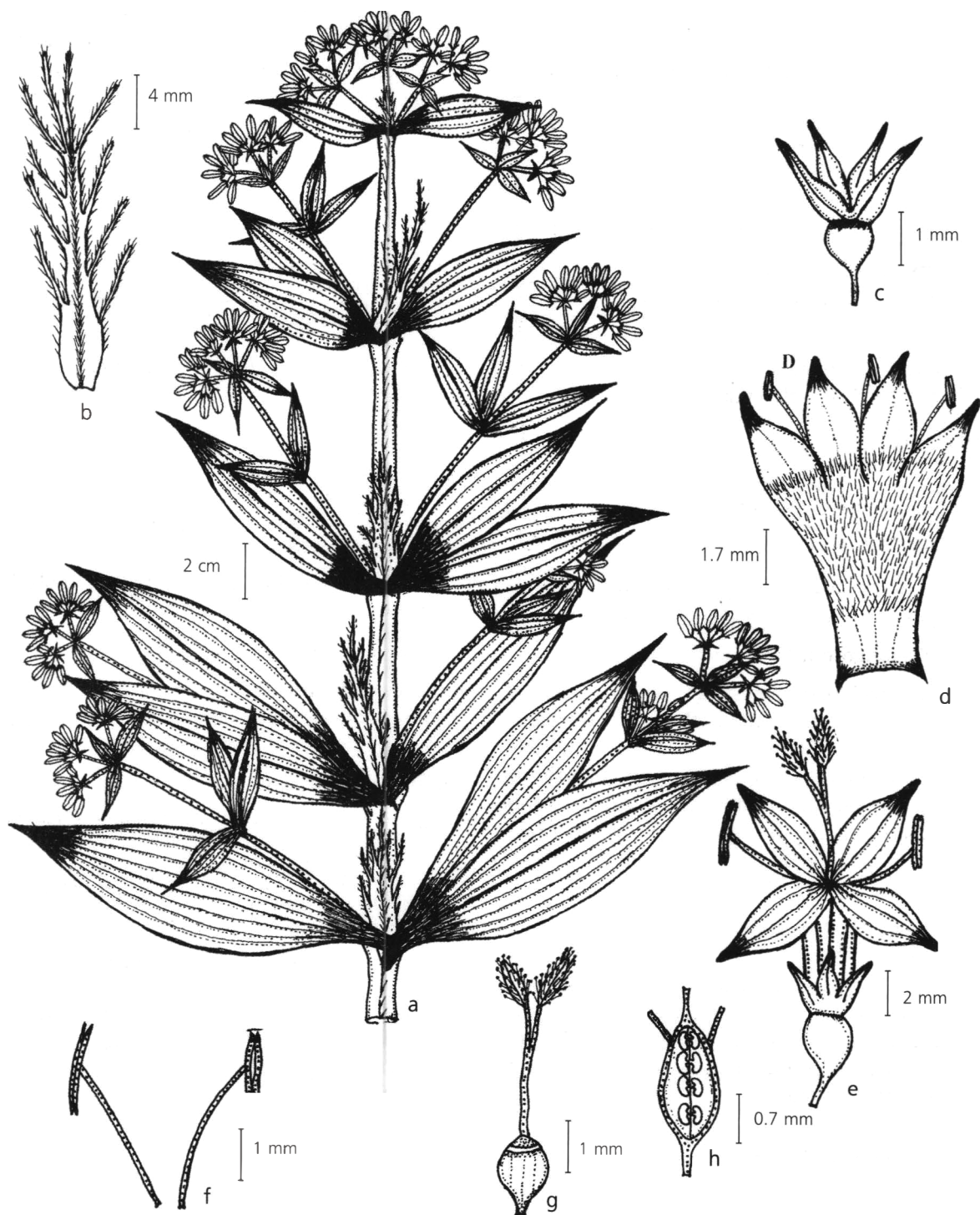


Figure 1. *Hedyotis nairii* M. Murugesan et V. Balasubramanian – a. Habit; b. Stipule; c. Calyx tube; d. Corolla split open; e. Flower; f. Stamens; g. Pistil; h. L.S. of ovary.

rounded at base, attenuate at apex, entire along margin, acute and recurved at apex, midnerve prominent, sparsely appressed hairy; corolla pinkish white, 4-4.5 x 2-5 mm, villous within, glabrous without; tube 4-4.5 x 1.8-2.8 mm; lobes valvate, ovate-lanceolate, 3-3.5 x 1.5-2 mm, villous within, glabrous without, rounded and recurved at apex, stamens 4, alternating with corolla lobes, exerted, attached on the throat of corolla-tube; filaments 1.7-2.2 mm long; anthers linear-oblong, 1-2 mm long; disk annular; ovary inferior, ovoid or globose, bilocular; ovules a

permitting to consult the Herbarium and to Dr M. Aruchami, Secretary and Dr T. Kulandaivelu, Principal, Kongunadu Arts and Science College, Coimbatore for facilities. They also thank Dr P. Lakshminarasimhan of Botanical Survey of India, for sending them through the Editors of *Rheedea* the images of the type specimens of *Hedyotis beddomei* Hook. f. and *H. hirsutissima* Beddome. One of us (V.B.) is thankful to the UGC, Hyderabad for providing necessary financial support. We thank Dr V. J. Nair for Latin diagnosis.

Table 1. Morphological differences between *Hedyotis beddomei* Hook. f. and *Hedyotis nairii*

<i>Hedyotis beddomei</i>	<i>Hedyotis nairii</i>
Leaves 0.7-4 x 0.6-2.0 cm, elliptic-ovate, or elliptic-oblong, coriaceous, scabrid, acute at apex.	Leaves 3-10 x 0.8-3.0 cm, elliptic - lanceolate or oblanceolate, chartaceous, smooth, acute-acuminate at apex.
Stipules 2-3 x 4-5 mm, triangular, sharply toothed, eglandular, strigosely villous at center.	Stipules 1.5-2 x 0.5-0.8 cm, lanceolate, pinnatisect, glandular, villous only along margins and midnerve.
Cymes strigose.	Cymes glabrous.
Flowers sessile, bracts pectinate.	Flowers pedicellate, bracts not pectinate
Peduncle strigose.	Peduncle glabrous.
Calyx lobes 0.8-1 mm long, ovate, acute at apex or oblong- lanceolate, acuminate.	Calyx lobes 2.5-3 x 0.3-0.7 mm, ovate-lanceolate at apex.
Corolla strigose without.	Corolla glabrous without.
Stamens included.	Stamens exerted.

few, on placentae attached to septum; style 2.4-2.8 mm long; stigma 2-fid, 0.8-1.1 mm long, glandular hairy. Fruits not seen.

*Habitat*: Shola forests at Velliangiri, about 1840 m, very rare.

*Flowering*: November.

*Etymology*: The species is named after Dr V. J. Nair, former Joint Director and Emeritus Scientist, Botanical Survey of India, Southern Circle, Coimbatore in honour of his contributions in angiosperm taxonomy.

## Acknowledgements

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