A REVISION OF HAPLANTHODES O.KUNTZE (ACANTHACEAE)

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Nees (1832) established Haplanthus Nees based on H. tener with two varieties, H. tener var. <i>humilis</i> (presumably the typical element) and H. tener var. <i>elongatus</i>; the former with "raceme terminali trifido" is typified by Wallich 7185 A [7185 B in K-WALL] and the latter, characterised by "racemes axillaribus terminalibusque quarternis .........." is typified by Wallich 7185 b and c [7185 a, C in K-WALL].

Nees (1847) added two more species viz. <i>H. tentaculata</i> (L.) Nees based on <i>Ruellia tentaculata</i> L. (1756) and <i>H. verticillata</i> (Roxb.) Nees based on <i>Justicia verticillata</i> Roxb. (1820). Subsequently, Wight (1850) described <i>Haplantlodes neilgherryensis</i> based on the syntypes. "Neilgherries and Coorg jungles, Munro, for don".

In 1867, T. Anderson described another species under <i>Haplantlodes</i> Nees, viz. <i>H. plumosus</i> T. Anderson with "Concan, Stocks ! Law!" as syntypes. Simultaneously, he transferred <i>Haplantlodes tener</i> Nees, the type species of <i>Haplantlodes</i> Nees (1832) into the synonym of <i>Andrographis tenuiflori</i> T. Anders., but did not describe the taxon. His citations are:

"A. tenuiflori T. Anders. [Spalm. H. (= Haplantlodes) for A. (= Andrographis)] ; <i>Justicia tenuiflora</i> Wall. Cat. 7185. <i>Haplantlodes tener</i> Nab. E. in Wall. l. c. p. 115 et DC. l. c. 512 excl. var. β : Hab. In Colibus prope Prome, ad Taong Dong, Wall. Cat. 7185"

This specimen Wallich 7185 B from Tavoy and Prome (Burma) (K-WALL, microfiche CAL) bears an annotation <i>Andrographis tenuiflori</i> T. Anders. by (?) C. B. Clarke = A. laxiflora (Bl.) Lindau ex Hochr. (Sreemadhavan, 1969).

Since <i>Haplantlodes</i> Nees, with its type species <i>H. tener</i> Nees, is transferred to the genus <i>Andrographis</i> Wall., (characterised by "Flowers in panicked, often unilateral racemes without axillary cladodes and with ciliate or setulose filaments"), it cannot be utilised (Art. 48.1 of ICBN, 1978) to include <i>Haplantlodes tentaculatii</i> (L.) Nees, <i>H. verticillata</i> (Roxb.) Nees, <i>H. neilgherryensis</i> Wight (1850) and <i>H. plumosus</i> T. Anders. (1867), all of which are diagnosed by flowers clustered in the midst of numerous axillary, abortive branchlets reduced to spine-like cladodes terminated by 2-3 minute spino points (reduced leaves) and flattened filaments.

O. Kuntze (1904) established, as permissible under Art. 72 ICBN 1972, <i>Haplantlodes</i> O. Kuntze as a substitute name for <i>Haplantlodes</i> T. Anders. (1867), non Nees (1832) to include the latter group of species. The entries made by Kuntze (l. c.) read as follows:

Since Kuntze made no combinations in species rank and did not name the three of the four species of *Haplanthus* T. Anders. (1867), *non* Nees (1832), a lectotype species has to be chosen here (see below). Unaware of this fact, Sreemadhanvan (1965) founded another substitutive name (*nom. nov.*), *Bremekampia* Sreem., which is a superfluous renaming of *Haplanthus* T. Anders. (1867), *non* Nees (1832) and made combinations of four species with *Bremekampia* Sreem.

Santapau (1967) proposed conservation of *Haplanthus* Anderson (1867), against *Haplanthus* Nees (1832), *Haplanthodes* O. Kuntze (1904) and *Bremekampia* Sreem. (1963). The proposal failed (McVaugh, 1968) and the Committee for spermatophyta recommending acceptance of the correct name *Haplanthodes* O. Kuntze (1904), observed: "at this late date, to conserve *Haplanthus* in a sense contrary to that of the original author would not contribute to stability in nomenclature. As the name *Haplanthodes* is available and as it resembles *Haplanthus* in spelling and in sound, there would seem to be little objection to its retention".


A problem arose because in two cases Majumdar cited later publications rather than original publications of two basionyms: *Justicia verticillata* Roxb., Fl. Ind. 3: 135, 1832, *not* Roxb. Fl. Ind. 1: 135, 1820, and *Ruellia tentaculata* L. *Amoen. Acad.* 4: 320, 1759, *not* L., in *Turner Centuria Pl.* II: 22, 1758. Article 39.9 is rather punitive in its provision that after 1 Jan. 1953; a new combination is not validly published unless its basionym is "clearly indicated and full and direct reference to its author and original publication with page ............ and date cited" Accordingly, it would appear that neither *H. verticillata*; nor *H. tentaculata* are validly published. However, the next sentence states that "Bibliographic errors of citation do not invalidate the publication of a new combination" In the new Code (ICBN 1978) a previous example involving a name, *Echinochloa muricata* (Beauv.) Fernald (1915), involving a new combination published before 1st January 1953, was deleted and a new example, *Trichipteris kalbreyeri* (Baker) Tryon (1970) was inserted clarifying that bibliographic errors, even if committed after 1 January 1953, do not invalidate new combinations.

There is another view: reference to *Amoen. Acad.* 4: 320. 1759 for the combination *Haplanthodes tentaculata* (L.) R. B. Majumdar with *Ruellia tentaculata* L. as the basionym, should be classified also as a "bibliographic error" because *Amenitates Academicae* (1749-90) represent merely reprinted or revised versions of independent publications of several dissertations (including *Turner Centuria Pl.* II: 22. 1758), submitted under the guidance of Linnaeus as "praesus" (Supervisor) and author (Stearn, 1957).

The Kew botanists, who maintain an extremely strict interpretation of Art. 33, consider the new example to be an error (to be deleted) and a violation of the 1 January 1953 deadline (see also Panigrahi & G. C. Das 1978). Nonetheless, the example is in the Code and we are advised to act in accordance with it. (D. H. Nicolson Pes. Comm. 10 Oct. 1979).

The specimens examined are in CAL except where otherwise indicated.


Lectotype sp. Haplantodes verticillata (Roxb.) R. B. Majumdar, l.c. [= Bremekampia verticillata (Roxb.) Sreem, nomen illegit. cited by Sreemadhavan as the type species of Bremekampia] is selected here as the lectotype species.


Erect or reclining herbs. Leaves opposite, petiolate, entire. Cladodes of numerous abortive, reduced branchlets axillary and in false whorls and ending in spinous points (reduced leaves). Flowers axillary, surrounded by cladodes scattered along the stem and branches or collected in terminal spikes. Bracts and bracteoles small, linear-lanceolate; shorter than the calyx lobes. Calyx 5-partite; lobes linear-lanceolate, subequal. Corolla small, tubular, obscurely 2-lipped, imbricate; upper lip 2-fid, the lower obtusely 3-lobed. Stamens 2-shorter than the corolla, inserted below the throat; filaments flat-tined; anthers 2-celled; cells equal or subequal, connivent, dorsifixed; connective hairy behind. Ovary 2-celled; ovules 3-5 in each cell; style slender; stigma linear; capsule narrowly oblong, acute at apex, compressed at right angles to the septum, 6-16-seeded; seeds, slightly compressed, laterally densely hairy when moistened; hairs short.

Airy Shaw (1973) lists three of the genera of the family Acanthaceae as: Haplantodes Kuntze, 1, Indomal.; Haplantodes Nees, 2, Indomal.; Haplantodes Nees ex Anders., = Haplantodes Kuntze; Bremekampia Sreem., 3, India. Santapau and Henry (1973), on the other hand, treat these sets of generic names as: "Bremekampia" Sreem. BBSI 6: 323 (1964)—see Haplantodes & "Haplantodes O. Ktze. Willis: 518. (1966), see Haplantodes; Haplantodes T. And., FBI 4: 506, species 3, India." In the light of the present treatment, Airy Shaw (1973) and Santapau & Henry (1973) negd correction.

1a. Leaves ovate. Inflorescences in whorls at the nodal regions of the aerial branches; stem glandular hairy; cladodes stiff, stout, exceeding 1.5 cm in length, covered with glandular hairs and apex terminating in two spines; seeds more than 1 mm long:

2a. Cladodes more or less vertically erect, up to 3.5 cm long, 4-5-ribbed, ending in two conspicuous spines; bracteoles longer than the calyx; capsules glabrous, seeds 2.5 mm long.

1. H. verticillata

2b. Cladodes tomentose with dense mats of short glandular hairs, recurved, up to 1.0 cm long, ending in two inconspicuous spines; bracteoles shorter than the calyx; capsules pubescent; seeds 1.5 mm long.

2. H. plumosa

1b. Leaves obovate to elliptic-oblong. Inflorescences terminating the apices of branches; stem glabrescent or villous; cladodes slender or filiform, not exceeding 1.5 cm in length, smooth or shortly hairy and with apex shortly or inconspicuously bifid; seeds up to 1 mm long.

3a. Leaves elliptic-oblong, acuminate. Stem and branches glabrous; branches shorter than the leaves; cladodes filiform, erect, compact, shortly glandular hairy and ending in 2- short spines; capsules 6-16-seeded.

3. H. neilgherryensis

3b. Leaves obovate, sub-acute. Stem and branches villous, branches longer than the leaves; cladodes slender lax, curved towards the main axis, more or less glabrous; capsule pubescent, 8-seeded.

4. H. tentaculata

Flowering : December.

Distribution : India (Southern & Central), endemic.

Specimens examined : RAJASTHAN : Mount Aboor, 915 m, 20 April, 1868, Anon s. n. (CAL. 341153). MADHYA PRADHESH : Sagar, Jerdon s. n. MAHARASHTRA : Nagpur D., 24 Jan. 1891, Dutie 10504; Lonavla, 610 m, April 1906, Mebold 4846 (CAL.341450); Mahabaleshwar, Miwar-Fizarrald ghat, 1106 m 19 Dec. 1950, P. V. Bole 179; Bombay, Mathur, 1 Jan. 1942, Anon s. n. (CAL. 341448); Dhulia D., Forest areas near Mandis, Mandis khurd, Tembhwni, near Dhadaon, 6 Mar. 1965, R. D. Pataskar 104146; Bombay, Law, s. n. (MH). CONCAN, Law s. n. TAMIL NADU : Annamallays, June 1859, Beddome 3 (MH). ANDHRA PRADHESH : Bellary, Rajmundry, Bed- dome s. n. (MI).


Erect hercs, 60-90 cm high, woolly tomentose; stem subwoody, terete, leafless, branch-lets tetragonal. Cladodes ± slender, quadr- angular, ca 1.75 cm long, recurved, ending in 2 indistinctly differentiated spines. Leaves ovate, 5-20 x 2.5-7.0 cm, acute at apex,
at base decurrent on a long petiole, sparsely pubescent, with profuse, short glandular hairs. Spikes, usually terminal on the branches. Flowers axillary, occasionally sessile; bracts thin, slender, 1.3-2.3 cm long, glandular-viscous; bracteoles shorter than the calyx. Calyx, short, 5-fid, ca 3 mm long, margin setose-ciliate; apex aristate. Corolla glabrous, 4 mm long, infundibuliform; lobes equal, blue to purple. Stanen 2 inserted; filament short, ligulate; anthers bilobed. Capsules glabrescent, ca 1 cm long, mucronulate, 8-seeded. Seeds 1.5 mm long.

**Distribution**: India (Maharashtra), endemic.

**Ecology**: In shady places in the forest and in dried up bed of a nala.

**Specimens examined**: MAHARASHTRA: Matheran, Apr. 1906, Meebold 4945 (CAL); Concord: Stocks s. n. (MH). Khandala (Battery Hills), 7 Mar. 1962, R. S. Rao 69754 (BSI). Pune Dt.: Ambarone Kate Puni forest on way to Kolaba, 2 Feb. 1964, Venkata Reddi 97349 (BSI).


**Erect or declining herbs**, 30-45 cm high; stem quadrangular, glabrescent, 2 or more branches spreading from each node almost horizontally and shorter than the leaves. Leaves ovate to elliptic, oblong, villous on the upper surface and glabrescent on the lower: petiole 7 cm long, winged. Cladodes very slender, sub-quadrangular, needle-like, long white hairs ending in 2 or more spinoius teeth. Spikes dense, erect and soft. Flowers whitish to blue to purple, in axes of bracts. Bracts linear, 2-3 toothed at the apex; bracteoles minute, subtending the flowers. Calyx 5-parted, small, 3.5 mm long, setaceous, hispid. Corolla bright blue, subregular, 5-lobed. Anthers with a dense tuft of woolly pubescence on the back. Capsules 12 mm long, oblong-pubescent, 6-16-seeded. Seeds ca 1.0 mm long, rugose.

**Note**: Abundant, in shady places near old houses in villages.

**Distribution**: India (Maharashtra, Kerala), endemic.


_Slender herbs_; stem tetragonal, smooth, the upper part pubescent throughout. Leaves ovate to oblanceolate, subacute, thin, more or less pubescent on both the upper and lower surfaces, decurrent at base. *Cladodes* filiform, more or less straight, 6 to 15 mm long, ending in 2 soft teeth, softly villous, both short and long glandular hairs present. Spike 8-10 cm long. *Flowers* axillary, sessile, in the midst of cladodes. Bracteoles subulate, shorter than the calyx. *Calyx* 3-4 mm long, divided almost to the base; lobes linear-subulate, densely hairy. *Corolla* ca 1.00 cm long, bright blue, bluish-white, white or lilac, 2-lipped, cut about a quarter way down. *Capsule* ca 8 mm long, oblong, pubescent, 8-seeded. *Seeds* 1.5 mm long.

**Note:** Common, in forest clearings of Khandala during the rains and first part of winter (Santapau 1967) in the undergrowth of hillslopes (in Murahad range).

**Distribution:** India (Maharashtra, Goa), endemic.


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**REFERENCES**


