

Haplanthodes Verticallatus - A Brief Review

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Abstract: Wound healing is the process of repair that follows injury to the skin and other soft tissues. Following injury, an inflammatory response occurs and the cells below the dermis (the deepest skin layer) begin to increase collagen (connective tissue) production.

Acanthaceae is one of 24 groups of blooming plants in the mint request (Lamiales). Spiny Bottle Brush is a tall, annual plant that only grows about half a meter tall. Oval, narrow, oppositely arranged leaves have a length of 5-10 cm. The leaves have two spinous teeth at the tip and are covered with long spreading hairs. Stalkless flowers are found in the leaf axils, crowded near the stem's peak. The blossoms, which seem to have five petals, really have just two petals which are 2 and 3 lobed. The flowers have a throat that is a light green and are dark blue in color. Ordinarily tracked down on rough slants in the Western Ghats. Flowering: November-January. Plants play a significant role in traditional medicine's treatment of many conditions.

Keywords: Acanthaceae, spiny bottle brush, haplanthoda, plants, applications

I. INTRODUCTION

Acanthaceae family:

Acanthaceae is one of 24 families of flowering plants in the mint order (Lamiales). It has about 220 genera and nearly 4,000 species, most of which are found in tropical and subtropical areas of the world. 1,2. Most of the Acanthaceae family are spices or bushes, however plants and trees happen too. Although the majority of these plants can be found in humid tropical forests, the range of habitats includes everything from marshes and estuaries to extremely dry environments. 3,4 Acanthaceae is a diverse family with few common traits among its members. Most have basic leaves organized in inverse matches, with cystoliths (developed cells containing gems of calcium carbonate) in streaks or projections in the vegetative parts. 5 The sexually unbiased blossoms are much of the time respectively even and are generally encased by leaflike bracts, frequently shaded and huge. Each of the five or four petals often fuses together to form tubular structures. Beyond the flower's mouth, there are typically two to four stamens with one to three staminodes (sterile stamens).

The pistil is predominant (i.e., situated over the connection point of the other blossom parts) and by and large comprises of two combined carpels (ovule-bearing portions) encasing two locules (chambers), every one of which has two to numerous ovules in two lines along the focal pivot of the ovary. Typically, the fruits are capsules that explode and contain seeds that are carried by hooks on the placenta. 6-9 The endemic Indian genus *Haplanthodes* (Acanthaceae) is revised. Four species, viz. *H. neilgherryensis*, *H. plumosa*, *H. tentaculata* and *H. verticillata* and a new variety, *H. neilgherryensis* var. *toranganensis* are recognized. Lectotype is designated for *Haplanthodes*, *Haplanthus plumosus* and *H. verticillaris*. 10,11 Spiny Bottle Brush is an erect annual herb, growing to only about half meter high. oppositely arranged ovate narrow leaves are 5-10 cm long. The leaves have two spinous teeth at the tip and are covered with long spreading hairs. Stalkless flowers occur in the leaf axils, densely concentrated near the top of the stem. The flowers, which appear to have five petals, actually have only two petals which are 2 and 3 lobed. The flowers are dark blue in color and have a light green in the throat. Commonly found on rocky slopes in the Western Ghats. Flowering: November-January. 12-15.

CLASSIFICATION:

- Kingdom : Plantae – Plants
- Phylum : Tracheophyta .
- Subkingdom : Tracheobionta - Vascular plants

- Superdivision: Spermatophyta - Seed plants
- Division :Magnoliophyta - Flowering plants
- Class : Magnoliopsida – Dicotyledons
- Subclass: Asteridae
- Order :Scrophulariales
- Family : Acanthaceae - Acanthus family Acanthaceae,

one of 24 families in the mint order (Lamiales) of flowering plants, containing approximately 220 genera and nearly 4,000 species distributed predominantly in tropical and subtropical regions of the world. The greater part of the Acanthaceae family are herbs or shrubs, but vines and trees occur as well.

- Genus :HaplanthodesHaplanthodes is a genus in the plant family Acanthaceae. It is endemic to India.
- Species: Haplanthodesverticillate

PHARMACOGNOSTIC CHARACTERISTICS:

- Botanical name: Haplanthodesverticillata (Roxb.)R.B.Majumdar (=Haplanthusverticillata(Roxb.) Nees, = Justicia verticillatus, Bremekampiaverticillata(Roxb.) Sreem.)
- Common name: Spiny Bottle Brush
- Gujarati: કલુકરિયાતકalukariyatu
- Hindi: कालाकरियातkala kiriyat, कस्तुलाkastula
- Konkani: काळककियातेंkalemkiraytem
- Marathi: जकााजकारा
- Tamil: ஒட்டுமுடிசூறிஞ்சிottumudikurinji
- Synonyms: Justicia verticillata, Eranthemumverticillatum, Haplanthusverticillaris homotypic synonyms: Bremekampiaverticillata (Roxb.) Sreem. • Eranthemumverticillatum (Roxb.) Spreng.
- Vernacular name: Jakara, Kateri.
- Family : Acanthaceae
- Threatened category: Low risk (Gaikwad & Yadav, 2004)

Key characters: Flowers clustered in the midst of axillary cladodes, Corolla-lobes imbricate in bud, Cladodes quadrangular, more than 1 cm long , capsules compressed, glabrous.

Chemical constituents: Vanillic acid 4-hydroxybenzoic acid Vitexin Isovitexin

Description: Spiny Bottle Brush is an erect annual herb, growing to only about half meter high. oppositely arranged ovate narrow leaves are 5-10 cm long. The leaves have two spinous teeth at the tip and are covered with long spreading hairs. Stalkless flowers occur in the leaf axils, densely concentrated near the topof the stem. The flowers, which appear to have five petals, actually have only two petals which are 2 and 3 lobed. The flowers are dark blue in color and have a light green in the throat. Commonly found on rocky slopes in the Western Ghats. Flowering: November-January. Seeds rugose, hygroskopically hairy. 16.

Flowering and fruiting: December- June.

Distribution: Assam, Bihar, Goa, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, West Bengal, endemic to India

Localities: Throughout Maharashtra -Ahmednagar, Dhule, Jalgaon, Kolhapur, Nanded, Nasik, Parbhani, Pune, Raigad, Ratnagiri, Satara, Sindhudurg, Yavatmal. 17

Ecology: Quite common in shady moist places and rock crevices of forests. Altitude ranges between 300- 1200m above sea level. 18

Ailments cured: • Diabetes •Heart disease• Piles • Kidney • Urinary disorders

APPLICATIONS:

- Traditional medicines rely heavily on plants to treat a wide range of ailments. In order to find a bioactive molecule, this study selected *Haplanthodesneilgherryensis* (Wight) R.B. Majumdar (*H. neilgherryensis*) from the endemic Western Ghats flora.19,20 T
- A flavanone glycoside, haplanthin has been separated from this plant and furthermore viewed as in another species called *Haplanthustentaculatus*. The flavonoids that were extracted from *H. neilgherryensis*, their structure, and their ability to increase glucose uptake in L6 rat skeletal muscle cells are all described in this report21-23

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