



## ***Antrophyum henryi* Hieron [Antrophyaceae]: A rare fern recorded from Peninsular India.**

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**Abstract:** *Antrophyum henryi* Hieron is reported from the Similipal Biosphere Reserve, Odisha, India. Thus, the taxon extends its distribution from Eastern Himalaya to Peninsular India which adds to the biogeographical significance of Similipal hill ranges under Chhotnagpur plateau. Detail accounts of the taxon comprising description, photographs, distributional and ecological notes have been provided.

**Keywords:** *Antrophyum henryi*, *Antrophyaceae*, occurrence, Odisha, New record.

### **Introduction**

During an intensive floristic survey in connection with "Diversity assessment and documentation of Pteridophytes of Similipal Biosphere Reserve, Odisha" the taxon *Antrophyum henryi* was collected, identified and was sent to CAL Herbarium for confirmation of the identity (Plate-1). Before matching with herbaria at Central National Herbarium the specimen was identified in consultation with the floras and published literatures by eminent workers like Haines (1921-25), Beddome (1833), Saxena & Brahmam (1994-96), Panigrahi (1998), Borthakur *et al.*, (2001), Ghosh *et al.*, (2004), Fraser-Jenkins (2008) and Pardeshi (2009).

### **Taxonomic Treatment:**

The family Antrophyaceae include 4 genera, out of which only genus *Antrophyum* finds distribution in India. It comprises about 40 species, but India is represented by six species.

About 141 ferns and fern allies have been outlined from the state of Odisha (Saxena & Brahmam l.c.). Panigrahi *et al.*, (1964) report on the occurrence of *Antrophyum reticulatum* from Similipal Biosphere Reserve. Fortunately, two distinct taxa of the genus were collected during the present study. Though, both the taxa resembles superficially, but differs in many ways and have been mentioned in botanical key formulated taking diagnostic characters.

### **Key to Species:**

1. Frond small, 7-15 cm long, lanceolate, acuminate with a long beak, mid vein absent; veins neither reticulate nor raised, never anastomosing... *A. henryi*
2. Frond large, 23-38 cm long, oblanceolate, abruptly acuminate, mid vein present at the base; veins reticulate and raised, lateral veins obliquely anastomosing....*A. reticulatum*

***Antrophyum henryi*:** Hieron. *Hedwigia* 57(3): 208-210. 1915; C. Chr. Ind. Fil. Suppl. 2: 4, 1917; Dixit et Nair, Journ. Ind. Bot.Soc.53: 281, 1974.

Lithophytes or epiphytes, rhizome small, creeping; scales dark-brown, clathrate, deltoid-lanceolate with numerous polygonal cells at the base, 1.5-3.5mm long, margins toothed. Fronds small, drooping when epiphytic, lanceolate, 7-15cm long, 0.8-1.3cm broad, glaucous, subcoriaceous, acuminate at apex; midvein absent; veins absent or slightly raised on upper surface. Transverse veins never anastomosing, often branched. Sori submerged; paraphyses brown, taeniform, spores yellow.

**Specimens examined:** Chenglang, NEFA, 16.10.1969, R.S. Rao (Acc No. 20250, CNH), Upper Barakamda, Similipal, Odisha, 23.06.2009, N. C. Rout (Field No. 12621).

**Ecological Note:** Growing on moss covered rock boulders and at the lower portion of tree trunks in moist, shady pockets

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of moist deciduous forests. This taxon is relatively less common in the locality, where as *A. reticulatum* is comparatively robust and relatively frequent in distribution. How ever both the taxa are habitat specific and scanty in population.

### Plate-1



a. *Antrophyum henryi* in Habitat



b. *Antrophyum henryi* (Close up)



c. *Antrophyum henryi* in herbarium



d. *Antrophyum henryi* (dry frond close up)

**Distribution:**India: Eastern Himalaya: Arunachal Pradesh, Sikkim; Odisha (present collection) and China

### Discussion

*Antrophyum henryi* Hieron is collected from Similipal Biosphere Reserve is a new record for the state of Odisha as well as for peninsular India. This finding adds to the biogeographical significance of Similipal hill ranges under Chhotnagpur Plateu. There are many commonalities of taxa in both Similpal and Himalayan region. The distribution of *Antrophyum henryi* in Similipal supports this hypothesis.

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