Is Andrographis rotundifolia (Acanthaceae) possibly extinct?

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ABSTRACT

Andrographis rotundifolia (Sreem.) Sreem., is not recollected after the type collection till to date and thus it is presumed here as possibly extinct. In addition, the seed morphology of the species is presented.

INTRODUCTION

Sreemadhavan (1966) described Andrographis neesiana Wight var. rotundifolia Sreem. based on his collection from the Boluvampatti hills in Coimbatore district of Tamil Nadu. He distinguished his new variety from var. neesiana in having 'stems profusely branched and leaves smaller, very shortly petioled, rounded or suborbicular, obtuse at apex, rounded or subcordate at base with 4–5 pairs of nerves'. Later, he elevated the variety to the rank of species based on the substantial differences in leaf architecture (Sreemadhavan, 1977). During the present study on the systematics of the genus Andrographis Wall. ex Nees (Acanthaceae) in India, it was found that this species is known only by the type specimens in addition to his earlier collection (C.P. Sreemadhavan 393), which is devoid of any flower or fruit. Since then this species was not recollected or reported from the type locality or elsewhere.

In view of the above facts, intensive attempts have been made to relocate this species during the present study for three consecutive years (2011–13), but failed to trace/relocate even a single individual from its type locality. Therefore, it is presumed that the species has possibly become extinct from its natural habitats. Thus, it is strongly suggested to continue intensive survey in the adjacent hilltops in the Boluvampatti Reserve Forest, Coimbatore for possible rediscovery of the species.

Keywords: Andrographis, Coimbatore, Endemic, Possibly Extinct, Tamil Nadu.
Fig 1: *Andrographis rotundifolia* (Sreem.) Sreem.: a. Seeds, b & c. SEM photomicrographs of seed showing surface ornamentation, d. Holotype (C.P. Sreemadhavan 862, CAL 0000019985).
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Fig. 2: Andrographis rotundifolia (Sreem.) Sreem.: a. Habit, b. Fruit, c. Seed (C.P. Sreemadhavan 862, MH 00000821).
The seed morphology of this species is described here for the first time using Scanning Electron Microscope (Carl Zeiss EvoM18). The seeds are oblongoid or subquadrate, 1.8–2.2 × 1.4–1.6 mm, narrowly oblique to truncate at base, obtuse at apex, very hard, rugosely pitted, verrucose, glabrous (Fig. 1a–c). In addition, the photograph of the holotype (Fig. 1d) and illustration of habit (Fig. 2) from one of the isotypes available at MH are provided here to facilitate easy identification of this species.

**TAXONOMIC ACCOUNT**


**Fig. 1 & 2**

*Types*: INDIA, Tamil Nadu, Coimbatore District, Boluvampatti hills, 1100 m, 24.09.1963, C.P. Sreemadhavan 862 (holo, CAL 0000019985!; iso, MH 00000818–00000821!).

*Flowering and Fruiting*: September.

*Habitat*: Open grasslands and on rocky hillslopes, at 1100 m elevation.

*Distribution*: Endemic to India, Tamil Nadu (Coimbatore district).


*Notes*: Sreemadhavan (1966) mentioned the place of collection as Boluvampatti hills, and the year of collection as 1963 in the protologue. While studying the holotype housed at CAL, it was found that Sreemadhavan had inadvertently wrote the year as 1964, however, he had corrected the year as 1963, on the isotypes housed at MH. Furthermore, the perusal of his pocket field notebook available at MH shows that this species was collected from the Konamalai hills, adjacent to Mattipalayam village in Boluvampatti Reserve Forest of Coimbatore in the year of 1963.

*Additional specimen examined*: INDIA, Tamil Nadu, Coimbatore District, Boluvampatti R.F., 1100 m, 15.01.1963, *C.P. Sreemadhavan* 393 (MH).

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**REFERENCES**

