

## ***Duthiella declinata* (Mitt.) Zanten (Meteoriaceae, Bryophyta) – a new record for Maharashtra, Western Ghats, India**

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### **Abstract**

*Duthiella declinata* (Mitt.) Zanten of the family Meteoriaceae is recorded as new to the state of Maharashtra in Western Ghats. The same has been described here along with a colour photo plate.

**Keywords:** Moss, *Duthiella declinata*, Maharashtra, New record

### **Introduction**

The Western Ghats of India are recognized as a region of immense global importance for biodiversity conservation. The checklist of mosses from Maharashtra includes 129 moss species belonging to 11 orders; 26 families and 59 genera. Some of the genera like *Fissidens*, *Bryum*, *Sterophyllum*, *Philonotis*, *Campylopus* and *Entodon* are found to be species-rich genera (Magdum et al., 2017).

This family Meteoriaceae is represented by ca. 21 genera (Frey et al., 2009; Naren & Jia, 2020) and ca. 195 species in tropical-temperate regions of the World. Of them, 17 genera and ca. 68 species are known to occur in India. The genus *Duthiella* is one of the smallest members of this family, represented by 5 species in the World namely *Duthiella declinata* (Mitt.) Zanten, *D. flaccida* (Cardot) Broth., *D. formosana* Nog., *D. speciosissima* Broth. ex Cardot, and *D. wallichii* (Mitt.) Müll. Hal. Except,

*Duthiella speciosissima* all were known from Western Himalaya and North-east India.

Only *Duthiella declinata* was earlier reported in the Western Ghats from the Wayanad district of Kerala by Nair et al. (2007). While exploring the bryoflora of Maharashtra, we collected *Duthiella declinata* from the Vajarai waterfall near Kass Plateau in Satara District. We also found the same species on Purandar Fort in the Pune district of the State.

### **Taxonomic description**

*Duthiella declinata* (Mitt.) Zant., Blumea 9(2): 559. 1959; Gangulee, Moss. E. India 2(5): 1240. 1976. *Trachypus declinatus* Mitt., Musc. Ind. Orient. 129. 1859. *Duthiella mussooriensis* Reim., Hedwigia 76: 289. 1937.

The plants are yellowish and green, dioicous and robust, with many secondary stems, radiculose and stoloniform, more

or less regularly pinnate or miniature-dendroid; branches of unequal lengths, somewhat complanate or not tortuous, gradually attenuated. Leaves short acuminate, 500 and 250  $\mu\text{m}$  leaf borders not or faintly defined, when dry appressed to stem, faintly plicate and erecto-patent when moist; stem leaf gradually linear-lanceolate and acuminate from the ovate-lanceolate base, margin plane, serrate. Cells are more or less isodiametric to elongate hexagonal or linear at apex, basal

cell walls thin and sometimes thick, papillae small and smooth; seta smooth up to 5 cm long. Calyptra is cucullate and naked. (Fig. 1 a-f).

#### Habitat and ecology

Corticolous in the damp and moist deciduous forests, associated with other acrocarpous mosses at an elevation of material from Vajarai Waterfall (MSL-1206 m) from Satara district and same

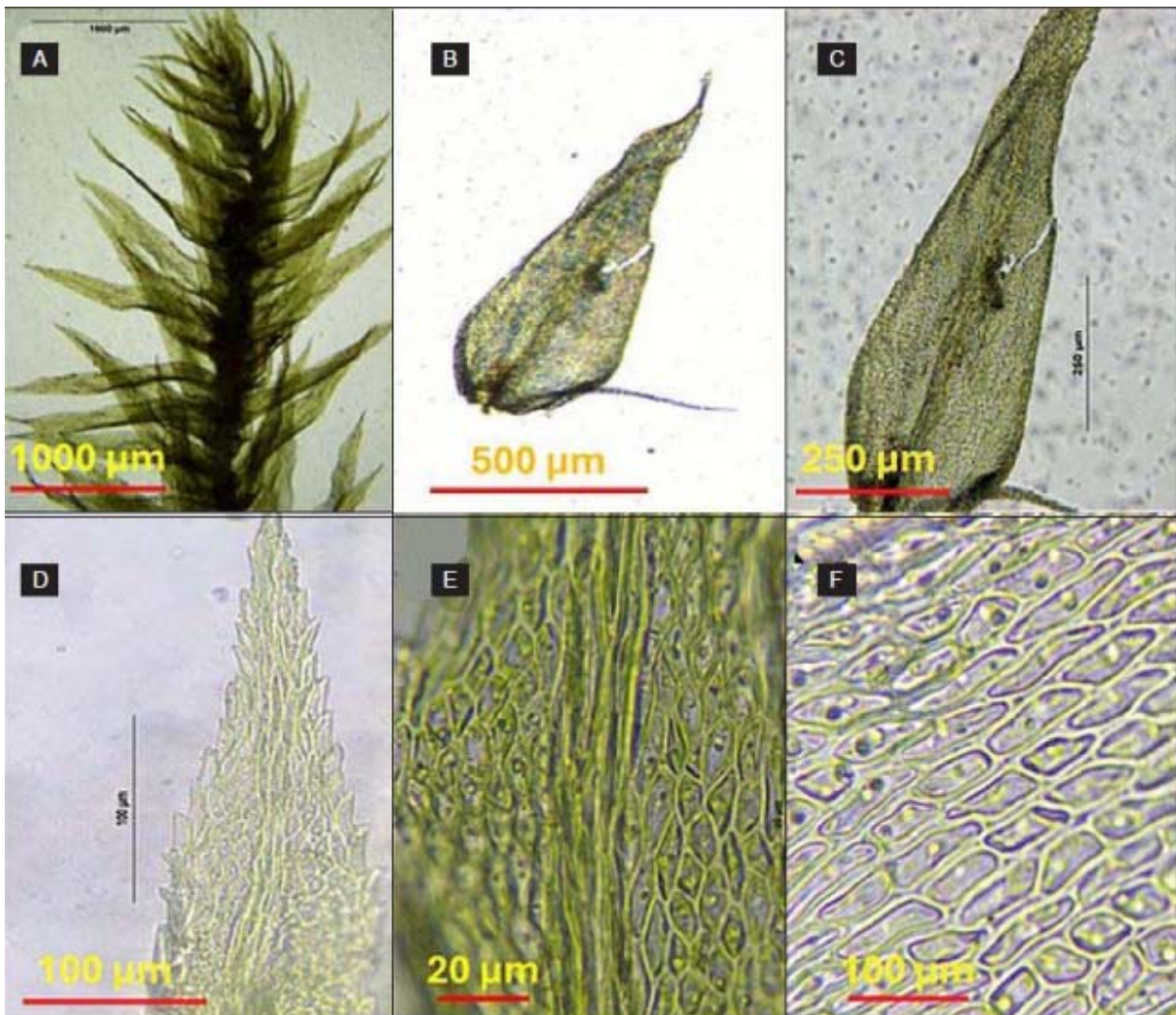


Fig. 1. *Duthiella declinata* (Mitt.) Zanten: A. Habit, B, C. Leaves, D. Leaf apex, E. Leaf apex cells, F. Leaf median cells.

collection material from Purandar fort (MSL-1103 m) from Pune district.

### Distribution

India (Himachal Pradesh, Kerala, Meghalaya, Uttarakhand, Maharashtra-present record), China, Nepal, Indonesia, Philippines.

### Specimens examined

One of the authors, Raturaj Shete collected material from Vajarai Waterfall (17R 71279.973N 73R 85289.983E, MSL-1206 m) Satara district (collection no. RS-4) and Purandar fort (18R 28241.23N 73R 97242.473E, MSL-1103 m) Pune district (collection no. RS-12) 06/08/2023.

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