

Rediscovery of *Melastoma imbricatum* Wallich ex Triana in Bangladesh

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ABSTRACT

Melastoma imbricatum Wallich ex Triana (Melastomaceae) has been rediscovered after one hundred forty years from Hooker's report. This species was collected from South-east corner of Champaknagar village (near Indian border); Chhagalnaiya Upazila of Feni district under Chittagong division, Bangladesh on 02/06/2019. The paper is the outcome of the project entitled "Ethno-medicinal plant survey for the management of Cardiovascular diseases in Bangladesh" undertaken in the University of Dhaka, Bangladesh.

Keywords: Bangladesh, Chhagalnaiya Upazila, *Melastoma imbricatum*, Rediscovery.

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INTRODUCTION

While exploring the area in the district of Feni under Chittagong division to find out the plants for cardiovascular diseases management, the author collected bushy tea indicator plants on the bank of stream which is running from Tripura hilly region of India to Bangladesh (Fig. 1).



Fig. 1: Showing sample collection area.

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Among the bushy plants, one was with white flowers and rests of them were with violet flowers. The author collected three specimens from plants with white flowers and pressed them properly using standard herbarium techniques (Hyland, 1972; Alexiades, 1996). The specimens were brought to the plant taxonomy laboratory of the Department of Botany, University of Dhaka. In order to identify the specimen up to species level, one flower was dissected, and studied each character of the flower parts wise minutely. With the help of flora of British India by Hooker (1889), Encyclopedia of Flora of Bangladesh by Ahmed *et al.* (2009) and Flora of China by Wu *et al.* (2007), the plant specimen was identified as *Melastoma imbricatum* Wallich ex Triana belongs to the family Melastomaceae. It which was earlier reported from the East Bengal by the Hooker in 1889. But he did not mention any specific location of its occurrence. After Hooker, several other workers have also carried out the floristic works in Bangladesh territory including Prain (1903), Khan *et al.* (1994), Mia and Khan (1995), Rahman and Hassan (1995), Uddin *et al.* (1998, 2002, 2003), Uddin and Rahman (1999), Khan and Huq (2001), Uddin and Hassan (2004, 2010), Hossain *et al.* (2005), Alam *et al.* (2006), Ahmed *et al.* (2009), Rafiqul *et al.* (2009), Tutul *et al.* (2009, 2010) and Barbhuiya and Gogoi (2010). But no other workers have reported the species second time from Bangladesh territory. Therefore, the species is again rediscovery from the Bangladesh after more than one hundred years again after the Hooker (1889). This species rediscovery has been confirmed with the consultation of the database of Dhaka University Salar Khan Herbarium (DUSH), Bangladesh National Herbarium, Chittagong University Herbarium, Jahangirnagar University Herbarium and Rajshahi University Herbarium. Based on the fresh materials and detailed studies in the plant taxonomy laboratory, a short description of the species is given below.

***Melastoma imbricatum* Wallich ex Triana**, Trans. Linn. Soc. London. 28: 60 (1871).

Small much branched shrub up to 2m long (Fig. 2). Stem round, covered with appressed scales. Leaves lanceolate, 8-14 x 2.25-40 cm, acute apex, margin serrate, 5 parallel veins, strigose on the both surface of the leaves. Inflorescence cymes, contains usually three flowers, terminal on the old shoot, overtopped by young sub-terminal shoot. Flowers pentamerous on hypanthium (0.75 x 0.5 cm) with caduceus bract, densely covered with appressed scales. Calyx 5, 0.5 cm long, lanceolate, caduceus. Corolla 5, free, 3 x 2 cm, pinkish white. Stamens 10, dimorphic, outer stamens 4 cm long with pedoconnective (yellow), inner stamens 3 cm long with no pedoconnective, yellow filament. Ovary 5 celled, apically setose, style 2.5 cm long, stigma down ward. Fruits capsule, covered with scales, 0.75 x 0.5 cm, tip star in appearance, pulp soft, purple, edible, seeds minute. Flowering and fruiting times are May to July.

Habitats

The species *Melastoma imbricatum* Wallich ex Triana generally grows on the bank of streams, the foot hills and also in the forest edge near valleys and footpath.

Specimen examined

Champaknagar Village, Chhagalnaiya Upazila, 02.06.2019, Zashim Uddin 413 (DUSH).

It consisted of 50-70 species distributed mainly around Southeast Asia, India, north to Japan and south to Australia and Pacific Islands (Wagner *et al.*, 1999). *Melastoma imbricatum* Wallich ex Triana is known to occur in India and Bangladesh (Hooker 1889). In Bangladesh, the species previously has been encountered in



Fig. 2: A flowering shoots of *Melastoma imbricatum* Wallich ex Triana.

two locations including Kalenga and Lawachara. Lack of proper specimens the author failed to report in the scientific Journal. The present specimen was collected from only one location of Champaknagar village. It was observed that the species *Melastoma imbricatum* Wallich ex Triana in their natural habitat was very low in number. Further exploration is urgently needed to determine the number of population of the species in the wild habitat and in taking all necessary steps to conserve the species from extinction.

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