A new species of Bromheadia sect. aporodes (Orchidaceae) from Terengganu, Peninsular Malaysia

ABSTRACT

A new Bromheadia species was rescued and collected from a fallen tree in one of the active logging sites by an avid nature conservationist and activist Mr. Dome with the UPM Orchid Research team. This collaboration was initiated as a conservation effort that is aimed to rescue as much orchids from the depleted forests to be nurtured exsitu in a managed conservatory. The genus Bromheadia was established by Lindley in 1841 based upon Grammatophyllum finlaysonianum in 1833 (Comber, 2001). The genus was named after Sir Edward French Bromhead, whose studies of the natural affinities of plants are well known to systematic Botanists (Kruizinga et al., 1997). The genus Bromheadia was later defined into sections Bromheadia and Aporodes by Schlechter (1914: 367) based on their vegetative dissimilarity. They are easily comparable by the shape of the leaves; Sect. Bromheadia has leaves dorsiventrally flattened, tip bilobed, blade more or less narrowed at the base; and Sect. Approdes has leaves laterally flattened, tip acute, blade not narrowed at the base. The two groups are placed together in one genus of Bromheadia, in spite of the differences in habit, because of the presence of unique two lateral rostellar flaps, which meet over the viscidium covering the upper margin of the stigma. The new species described in this paper is belongs to Sect. Aporodes. In Bromheadia sect. Aporodes, the dimensions of the leaf, the leaf index, and the relative length of the upper stem internode compared with the lower part of the stem, offer the diagnostic characters (Kruizinga et al., 1997). The new species differs distinctively in plant and flower sizes if compared to other species of the same section. Its small and tufted habit had provided initial possible new entity to justify it as a new species to science. There are 31 species of Bromheadia listed in World Checklist of Selected Plant Families (WCSP) with 20 species are belonging to Sect. Aporodes (WCSP, 2018, June), excluding one species insufficiently known due to all known specimens were destroyed during the second world war, but it was stated to be related to B. aporoides and B. falcifolia (in Kruizinga et al., 1997) and 12 species are found in Peninsular Malaysia with seven species from Sect. Aporodes (Ong et al., 2017).

Keyword: Orchidaceae; Bromheadia petuangensis; Hill dipterocarp forest; Malaysia; Field key