Rodriguésia 70: e01452018. 2019
http://rodriguesia.jbrj.gov.br
DOI: http://dx.doi.org/10.1590/2175-7860201970073

Short Communication
Plagiochila eggersii (Plagiochilaceae, Marchantiophyta), a rare neotropical species new to Brazil

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Abstract

During a study of the bryophyte flora of Serra da Jiboia, municipality of Santa Teresinha, state of Bahia, Brazil, *Plagiochila eggersii* Inoue was detected new to Brazil. We provide a brief note on the species along with comments on its occurrence in Brazil and geographic distribution.

Key words: Jungermanniales, liverworts, taxonomy, Neotropics.

Resumo

Durante o estudo da flora de briófitas da Serra da Jiboia, município de Santa Teresinha, estado da Bahia, Brasil, foi encontrada *Plagiochila eggersii* Inoue, uma espécie ainda não referida para o Brasil. Comentários sobre as características taxonômicas da espécie e a sua distribuição geográfica são fornecidos.

Palavras-chave: Jungermanniales, hepáticas, taxonomia, neotrópico.

The genus *Plagiochila* (Dumort.) Dumort. has an almost worldwide distribution and is the only genus in the family Plagiochilaceae occurring in tropical America (Gradstein 2016). It is considered the largest genus of the liverworts with about 400–450 species worldwide (Gradstein *et al*. 2001; Heinrichs 2002; Gradstein 2015b). At first preliminary treatment of the genus in Brazil was published by Gradstein & Costa (2003), who presented a key to 26 species and listed numerous synonyms. Thirty-five species recorded from Brazil remained unstudied and were listed as "further records". In an updated version of the 2003 treatment, Gradstein (2015a) reduced the number of unstudied species to eight and accepted 34 species in Brazil. In addition, 28 species were listed as new synonyms based on study of the types (Gradstein 2015b). A further species was added to the Brazilian *Plagiochila* flora by Gradstein & Costa (2018) who described *P. lamyana* Gradst. & Costa from the Guyana Highland of Brazil. Most of the Brazilian *Plagiochila*'s are widely distributed in tropical America and some of them extend to Africa and/or western Europe. Four species have more restricted neotropical ranges and occur in Brazil, the West Indies and/or Colombia (*P. husnotii* Steph., *P. lingua* Steph., *P. subbidentata* Taylor, *P. subundulata* Lindenb.; Gradstein *et al*. 2016), whereas three species, *P. flabelliflora* Steph., *P. lamyana* Gradst. & Costa and *P. olivacea* Steph., are only known from Brazil.

In the framework of the ongoing work of the second author and his associates on the liverwort flora of Bahia (Reis *et al*. 2015; Vilas Bôas-Bastos & Bastos 2016; Bastos & Vilas Bôas-Bastos 2017; Bastos *et al.* 2017), a very rare and interesting *Plagiochila* species, *P. eggersii* Inoue, was detected. The species is recognized by the margins of young leaves with peculiar, simple to pinnately branched teeth, which are highly fragile and are broken on older leaves (Inoue 1988; Gradstein 2016). Until recently, *P. eggersii* was only known from the type locality from the island of Dominica but Gradstein (2016) expanded its distribution to

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Colombia and Panama. In this paper *P. eggersii* is reported new to Brazil.

Plagiochila eggersii Inoue, Bull. Natl. Sci. Mus. Tokyo, ser. B, 14: 138. 1988.
Type: DOMINICA: Douce river, east of Roseau, 150 m, *J. Eggers* DO 1/3 (holotype: TNS).
Description and illustration: Inoue (1988), Gradstein (2016).

Reported to Dominica, Colombia (Chocó) and Panama; new to Brazil (Bahia). The species inhabits undisturbed and disturbed lowland rainforests, at 30-400 m elevation, growing on bark of living and dead trees (Gradstein 2016). In Bahia the species was found in montane rainforest at an altitude of 810 m. With the detection of *P. eggersii* in Brazil, the elevational range of the species is expanded to montane rainforest.

Plagiochila eggersii is a delicate species that is readily recognized by strongly ventral and somewhat secund, ovate-obcuneate leaves with highly fragile teeth that are simple to pinnately branched and to 15 cells long on young leaves at the stem apex but are broken and only 1−3 cells long on older leaves further down the stem. The peculiar, pinnately branched teeth of young leaves of *P. eggersii* set this species well apart from other members of *Plagiochila*. Fragile teeth occur also in *P. bifaria* (Sw.) Lindenb. and *P. gymnocalycina* Lindenb. var. *surinamensis* (Sande Lac.) Heinrichs & Rycroft but the teeth in the latter two species are simple, not branched. Moreover, *P. bifaria* differs by transverse, vittate leaves and *P. gymnocalycina* var. *surinamensis* by more elongate, asymmetrically oblong-rectangular leaves (Heinrichs *et al.* 2006; Gradstein 2016). By its ventrad, ovate-obcuneate leaves and small plant size, *P. eggersii* approaches *P. cuneata* Lindenb. & Gottsche but the latter species is readily separated from *P. eggersii* by its 2-3-lobed leaves which are usually fragmented in the upper part and have fewer, unbranched teeth which are not caducous (Groth *et al*. 2002). *Plagiochila cuneata* is an uncommon neotropical species that has been recorded scattered from Mexico to Bolivia and is not yet known from Brazil.
Material examined: BRAZIL. BAHIA: Santa Teresinha, povoado de Pedra Branca, Serra da Jibóia, Morro da Pioneira, 12º51'19.7"S, 39º28'30.6"W, elev. 810 m, rainforest, growing on tree trunk, 17.IX.2015, *C. Bastos 5616* (ALCB); growing on tree trunk, mixed with *Lepidolejeunea involuta* (Gottsche) Grolle, 17.V.2016, *K. Rodrigues 345p.p.* (ALCB).

Acknowledgements

The second author is grateful to the Universidade Federal da Bahia (Federal University of Bahia) for supporting fieldwork.

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Area Editor: Dra. Lana Sylvestre
Received in May 07, 2018. Accepted in August 16, 2018.