

A new locality of *Plagiochila dimorpha* var. *ecuadorica* (Plagiochilaceae, Hepaticae)

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Abstract — The rare Neotropical montane *Plagiochila dimorpha* Lindenb. & Gottsche var. *ecuadorica* (Inoue) J. Heinrichs (*Steeereochila ecuadorica* Inoue) has been collected for the second time in Ecuador, growing intermingled with *Plagiochila cucullifolia* Jack & Steph. Apart from the two Ecuadorian sites, *P. dimorpha* var. *ecuadorica* has only been reported from single localities in Bolivia and Costa Rica.

Plagiochila dimorpha var. *ecuadorica* / *Plagiochila cucullifolia* / *Plagiochila* sect. *Hylacoetes* / *Steeereochila* / distribution / Neotropics

The Neotropical *Plagiochila* flora comprises more than 100 species and includes some of the most peculiar representatives of the genus. *Plagiochila dimorpha* Lindenb. & Gottsche as well as some forms of *Plagiochila macrostachya* Lindenb. and *Plagiochila turgida* Herzog are characterised by the occurrence of numerous repeatedly divided branchlets with caducous leaflets suitable for vegetative distribution (Fig. 1 A). *Plagiochila dimorpha* Lindenb. & Gottsche var. *ecuadorica* (Inoue) J. Heinrichs is the only representative of the genus with caducous, thread-like leaflets with a partly rough surface (Fig. 1 D, E). Related taxa have caducous, toothed or lobed leaflets with a smooth surface (Heinrichs, 2002).

Plagiochila dimorpha var. *ecuadorica* was first described as recently as 1987, and initially placed in its own monospecific genus, *Steeereochila* Inoue (Inoue, 1987). Cladistic analyses of morphological and phytochemical characters as well as of nrITS sequences, however, clearly indicated that the taxon is a member of the Neotropical-African *Plagiochila* sect. *Hylacoetes* Carl (Heinrichs, 2002). Except for the differences concerning the caducous leaflets, *Steeereochila ecuadorica* shares its characters with *P. dimorpha* [e.g., subopposite foliation (Fig. 1 B, C), occasional occurrence of lateral-terminal branches beside lateral intercalary ones] and was therefore lowered to a variety of the latter (Heinrichs, 2002).

Initially, *P. dimorpha* var. *ecuadorica* was only known from the type which was collected in the Province Carchi, Northern Ecuador (Inoue, 1987). Later, the plant was detected in the Cordillera Talamanca of Costa Rica (Inoue, 1988) where the species is locally abundant (Gradstein *et al.*, 1994), and in the Yungas near La

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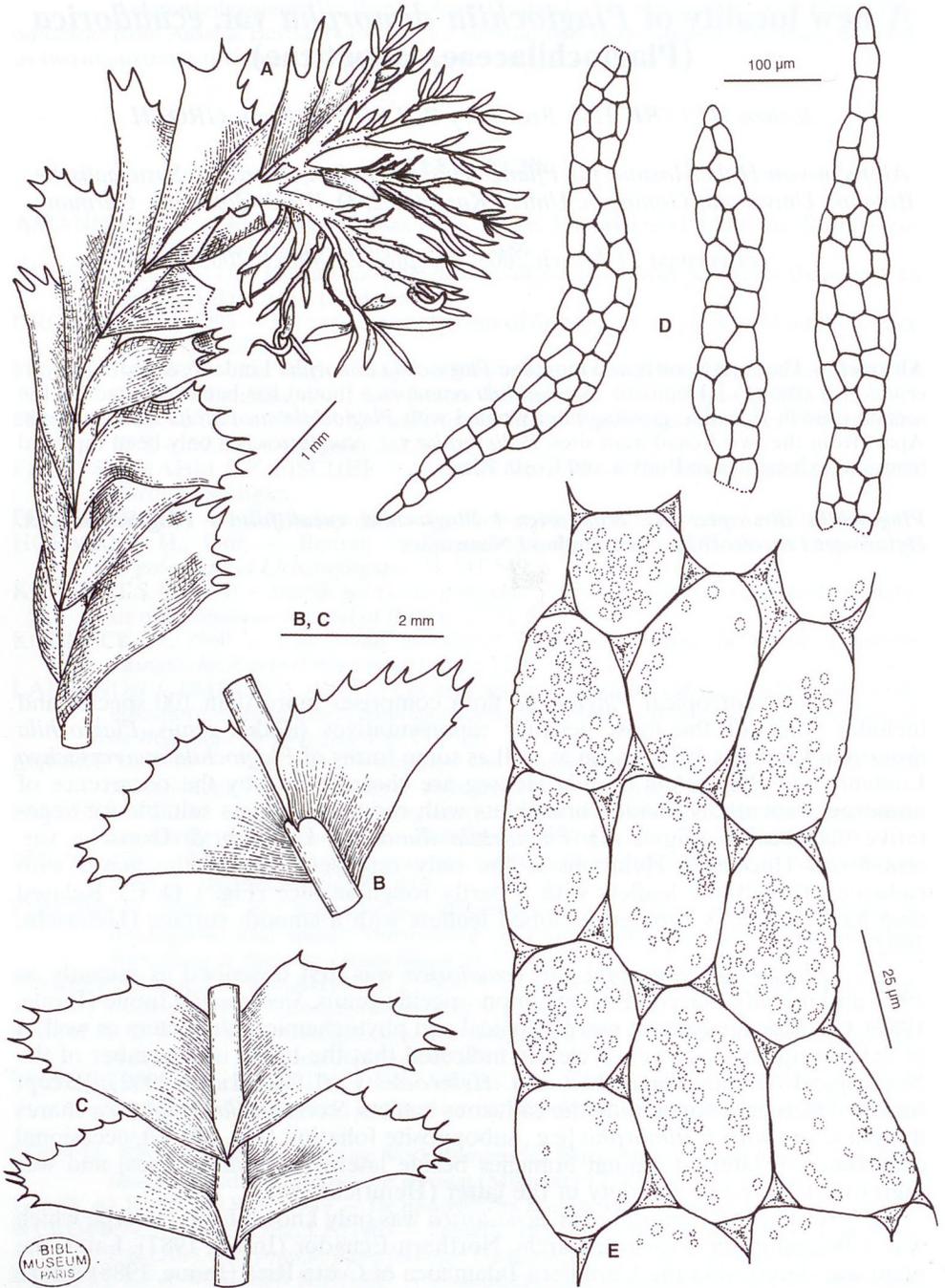


Fig. 1. *Plagiochila dimorpha* Lindenb. & Gottsche var. *ecuadorica* (Inoue) J. Heinrichs — **A**: top of shoot with repeatedly divided branchlets and caducous leaflets, dorsolateral view. **B**: part of shoot, ventral view. **C**: part of shoot, dorsal view. **D**: caducous leaflets. **E**: central part of caducous leaflet [all from Schmidt-Lebuhn 384 A, GOET].



Fig. 2. Distribution of *Plagiochila dimorpha* Lindenb. & Gottsche var. *ecuadorica* (Inoue) J. Heinrichs

Paz, Bolivia (Heinrichs, 2002). With only three known localities, *P. dimorpha* var. *ecuadorica* is one of the rarest representatives of *Plagiochila*.

Recently, two shoots of *P. dimorpha* var. *ecuadorica* were detected in a mixed collection of hepatics (*Schmidt-Lebuhn 384*) from Central Ecuador which contained mainly *Plagiochila cucullifolia* Jack & Steph., as well as *Plagiochila macra* Taylor, *Radula* spec. and various Lejeuneaceae.

The plants were separated and deposited in the herbarium at Göttingen University:

ECUADOR. NAPO: road Baeza - Tena at km 27 (0°37,5' S 77°50,3' W), disturbed montane rainforest, on dead wood, ca 1500-2000 m, *Schmidt-Lebuhn 384 A* (GOET).

The rainforests along the road Baeza - Tena are distinguished not only by the occurrence of *P. dimorpha* var. *ecuadorica* but furthermore represent the first known Ecuadorian locality of *Plagiochila cucullifolia* (*Schwerdtfeger & Weis s.n.*, GOET!, *Gradstein et al.*, 2001). A second stand of *P. cucullifolia* is located in Southern Ecuador, Zamora-Chinchipec, at the road Loja - Zamora (Heinrichs, 2002), which represents the southernmost stand of the species.

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