



## *Cololejeunea tamasii* (Lejeuneaceae, Marchantiophyta), a new species from Panama

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### Abstract

*Cololejeunea tamasii* is described from Chiriqui province in western Panama. It is characterized by its small size, suborbicular to short oval leaf lobes with crenulate margins and papillose leaf cells as well as by its constantly reduced lobules of two cells.

**Key words:** *Cololejeunea*, Central America, liverworts

### Introduction

The first liverwort checklist for Panama was provided by Stotler *et al.* (1998), and some additions were published by Dauphin *et al.* (2006), raising the number of liverworts to 325 taxa in 100 genera and 28 families. Compared to the 582 liverwort taxa in the neighbouring state Costa Rica (Dauphin 2005), it is obvious that the liverwort flora of Panama is still incompletely known. In the genus *Cololejeunea* (Spruce 1884: 291) Schiffner (1893: 121) represented in Panama with 15 species, two new species were recently described, *C. dauphinii* Zhu (2006: 277) (as *C. tixieri* by Morales & Dauphin 1998: 133) and *C. panamensis* Dauphin & Pócs in Dauphin *et al.* (2006: 76). *Cololejeunea* is here defined as including *Aphanolejeunea* Evans (1911: 272) as discussed by Wilson *et al.* (2007). The current paper describes an additional new species, which was discovered during a two-week stay in Panama in 2010.

### *Cololejeunea tamasii* Schäfer-Verwimp *sp. nov.* (Fig. 1)

The new species is characterized by its suborbicular leaf lobes, crenulate-denticulate lobe margins, the rough dorsal surface of the leaf lobes and the two-celled lobule. This combination of characters is quite distinct and separates it from all congeners.

**Type:**—PANAMA. Chiriqui: Cordillera de Talamanca, Boquete, Ostseite des Vulkan Baru, Regenwald entlang der Erdstraße zum Sendero Los Quetzales, epiphyll, 1880 m, 8°51.0'N, 82°29.9'W, 7 April 2010, A. Schäfer-Verwimp & I. Verwimp 30992 (holotype JE!; isotype EGR!).

Small and delicate whitish green plants growing as scattered shoots on living or dead fern fronds, tightly appressed to substrate, with leaves (500–)540–750 µm wide. Stems 2–5(–7) mm long, in lower part of plant 30–40 µm, increasing further upwards to (40–)50–60 µm in diameter, composed of one medullary and 5 cortical rows of cells of which one forms the ventral merophyte; the cortical cells rectangular, the largest ones reaching 20–30 × 60–80 µm; very rarely branched (only one small branch seen, shorter than leaves of main shoot), branches of the *Lejeunea*-type; rhizoids abundant, fasciculate, hyalin. Leaves usually contiguous to slightly imbricate, more rarely somewhat distant, obliquely spreading, often weakly so and nearly at an angle of 90° to the stem, suborbicular to broadly ovate, with rounded to (more rarely) slightly acute apex, to (340–)375–420(–450) µm long and (300–)340–380(–405) µm wide, plane, the bases rounded, the antical base