

## NEW OR LITTLE KNOWN EPIPHYLLOUS LIVERWORTS, XXII. *Reinerantha* (Lejeuneaceae), a genus new to Venezuela

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*Reinerantha foliicola* was recently described as a new epiphyllous genus and species in the Cololejeuneinae subtribe of the liverwort family Lejeuneaceae, from the montane rainforest region of Ecuador. A second locality of this unusual plant was detected in Venezuela in a rich Andean montane rainforest near Mérida, at an elevation of 2,300 m.

Key words: Andes, Cololejeuneinae, Mérida, *Reinerantha*, Venezuela

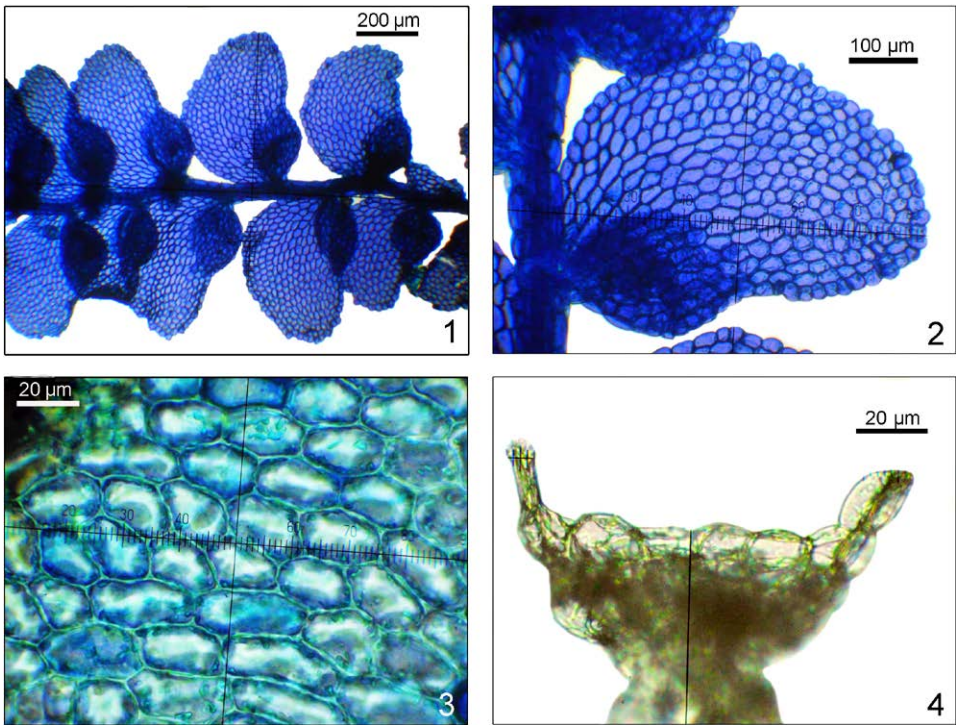
### INTRODUCTION

Gradstein *et al.* (2018) recently described a new genus and species of epiphyllous liverworts from a montane rainforest region of Ecuador, *Reinerantha foliicola* Gradst. et R. L. Zhu gen. et sp. nov. (Lejeuneaceae subtribe Cololejeuneinae), based on morphological and molecular evidence. Like in other members of this subtribe, crown group of Lejeuneaceae, the leaves have very short, transverse insertion and the lower half of outer capsule valve surface has a broadly quadrate-shaped hinge (Gradstein 2013). Although being sister to the genus *Diplasiolejeunea* in molecular-phylogenetic analysis, the genus is morphologically distant from *Diplasiolejeunea* and more similar to the unrelated Asiatic genus *Tuyamaella*, having helical leaf segmentation with one underleaf belonging to each pair of leaves. The distant underleaves of *Reinerantha* are particularly characteristic of the plant, having a very wide, lunulate sinus and narrow, upside directed lobes (Fig. 4).

### THE VENEZUELAN RECORD

Within the framework of the tropical bryology course held in 1997 at the Andes University (Universidad de los Andes), Mérida, Venezuela, organized by prof. Yelitza León Vargas, numerous interesting localities in the neighbourhood of Mérida were visited (León *et al.* 1998). In addition, I collected

bryophytes in the experimental forest “La Carbonera”, 27 km WNW from the town, accompanied by my wife and by the staff of the Botany Department of the Andes University. Upon microscopic examination of the epiphyllous liverwort collections, I have found a few tiny shoots of a very strange, unknown member of the family Lejeuneaceae. I wrote on the packet of the specimen: “Lejeuneaceae, very *Cololejeunea* like, (but) with amphigastria. Gen. nov.?” The specimen remained without further identification for 20 years until I recently received from prof. Gradstein the paper describing the new genus and species of *Reinerantha foliicola* Gradst. et R. L. Zhu (Gradstein *et al.* 2018). I immediately realised having seen this plant and to my greatest pleasure found it in my collection of novelties awaiting description (Figs 1–4). The material fully agreed with the description of Gradstein *et al.* (2018). The two specimens collected in Venezuela bear the following label data: “Loc.: Estado Mérida. Municipio Campo Elias. Bosque Experimental de San Eusebio. La Carbonera (ULA). Via La Azulita. Longitud: 8° 39.5' N, lat.: 71° 23.5' W (GPS), altura 2300



Figs 1–4. *Reinerantha foliicola* Gradst. et R. L. Zhu. 1 = Habit, ventral view; 2 = leaf, ventral view; 3 = median lobe cells; 4 = underleaf. 1–3 from Pócs *et al.* 9713/DM, Venezuela, La Carbonera (EGR), dyed by methylene blue. 4 from Pócs *et al.* 9713/DN, Venezuela, La Carbonera (MERC)

m. Hab.: Bosque montano Andino. Con predominancia de *Decussocarpus rospigliosii*, *Clusia* sp., *Cyathea* sp., muchos epifitos como helechos, *Anthurium* sp. y Bromeliaceae. Col.: Y. León, J. Quevedo, S. & T. Pócs, R. Rico 9713/DM & DN, 18. febrero 1997, EGR & MERC”.

The habitat is a wet montane rainforest dominated by giant trees of *Retrophyllum rospigliosii* (Pilger) C. N. Page (Syn.: *Podocarpus rospigliosii* Pilger, *Decussocarpus rospigliosii* (Pilger) de Laub.), and very rich in epiphytes, especially in Bromeliaceae (*Guzmania* spp.) and bryophytes. The epiphyllous liverworts accompanying *Reinerantha* included *Cololejeunea camillii* (Lehm.) A. Evans, *C. gracilis* (Ast) Pócs, *C. sicifolia* (Gottsche et Steph.) Pócs et Bernecker, *C. azorica* V. Allorge et Ast, *C. microscopica* (Taylor) Schiffn., *C. subsphaeroidea* (R. M. Schust.) Pócs, *C. diaphana* A. Evans, *C. papillosa* (K. I. Goebel) Mizut., *C. yelitzae* Pócs (Pócs and Bernecker 2013), *Colura tortifolia* (Nees et Mont.) Steph., *Diplasiolejeunea pellucida* (Meissn.) Schiffn., *D. brunnea* Steph., *Leptolejeunea* sp. and *Odontolejeunea lunulata* (F. Weber) Schiffn.

The discovery of the Venezuelan occurrence of *Reinerantha* confirms the statement of Gradstein *et al.* (2018) that this new epiphyllous genus should be more widespread in the northern Andes and may be expected to occur in many other places, just having escaped attention due its very small size.

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