

## BIZOTIA PIERROT, A SYNONYM OF CAMPYLOPUS

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In a recent paper PIERROT (BIZOT, PIERROT & POCS 1974) described the new genus *Bizotia* based on *Paraleucobryum densifolium* Thér. (THÉRIOT 1939). However, ROBINSON (1967) already made the presumption that *Paraleucobryum densifolium* should belong to *Campylopus*, notably *C. argyrocaulon* (C.M.) Broth. His conception of *C. argyrocaulon* was apparently based on MUELLER's original description (MUELLER 1874) only, which includes a detailed description of the cross section of the costa. We examined part of the type collection of *C. argyrocaulon* (Wallis s. n., Colombia, NY) but this material, although MUELLER's description is correct, does not exactly match the type material of *Paraleucobryum densifolium* (Troll 2144-2145, Colombia, PC-TH). The type material of *C. argyrocaulon* is identical with one of the paratypes of *C. leucognodes* (C.M.) Par. (Germain s. n., Bryoth. Levier, Bolivia, NY).

ROBINSON also mentions *Campylopus pittieri* Williams (1908) under the presumed synonymy of *C. argyrocaulon*. Examination of the type material of the former species (Pittier 1088, Colombia, NY) shows that this species is indeed identical with *Paraleucobryum densifolium*.

The cross section of the costa is very typical, as described by THÉRIOT and now by PIERROT. As we feel that THÉRIOT's figures are incomplete, we are adding some photomicrographs of cross sections of the costa. Figure 1 shows a cross section at mid leaf. There are two layers of leucocysts as well as two layers of chlorocysts, the dorsal one of which is protruding as low ribs on the dorsal side of the costa. This alone is a marked difference with the genus *Paraleucobryum* which has only one central layer of chlorocysts in the costa throughout the leaf.

Towards the base the dorsal chlorocysts lose their chlorophyll and become gradually arranged between the dorsal row of leucocysts, the ribs thus disappearing (fig. 2). Still farther towards leaf base (fig. 3) these cells have disappeared, leaving two rows of leucocysts with one row of leucocysts in between. The latter are square in cross section giving the cross section of the costa near the base the characteristic pattern found in the genus *Leucobryum*.

As ROBINSON (1967) already states, the capsule of this species is very conclusive in placing it under *Campylopus*. Thériot's type material is sterile, but the type of *C. pittieri* shows the typical cygneous seta of *Campylopus*. Moreover, we have seen several fruiting specimens collected by the senior author and by Mr. A.M. Cleef in Colombia, all with the same typical *Campylopus* characters. We have not been able to see the pores in the cell walls of the leucocysts as indicated by PIERROT.

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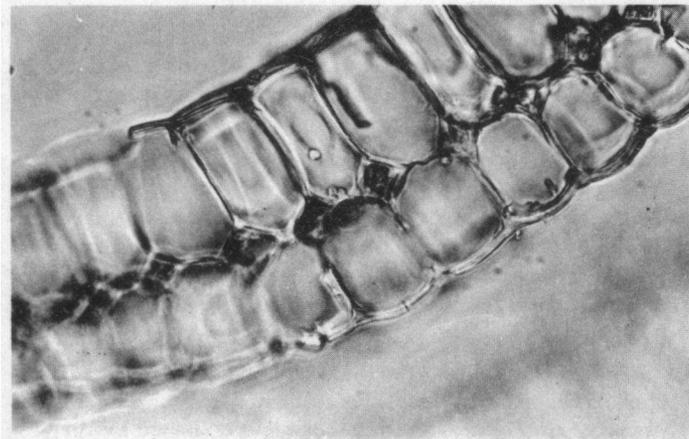
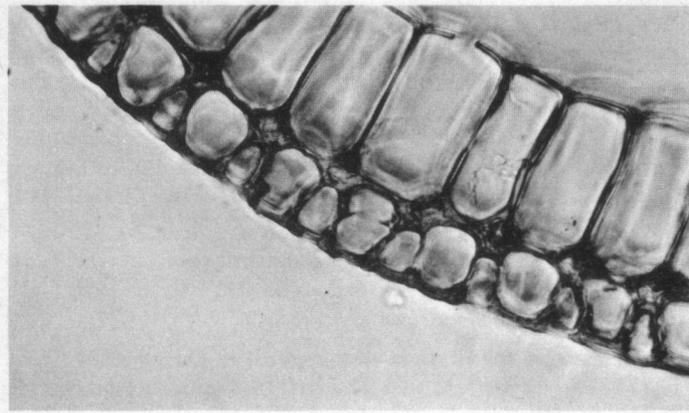
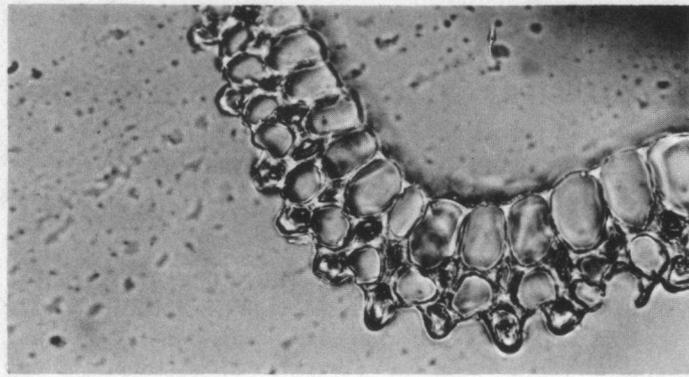


Fig. 1. — *Campylopus pittieri* Will. Cross section of costa at mid leaf.

Fig. 2. — *Campylopus pittieri* Will. Cross section of costa between mid leaf and base.

Fig. 3. — *Campylopus pittieri* Will. Cross section of costa near leaf base.

Although we have doubts as to the constancy and usefulness of the cross section of the costa for specific delimitation in *Campylopus* (FLORSCHUETZ & FLORSCHUETZ-DE WAARD 1974), with our research still in progress we prefer to place *Paraleucobryum densifolium* Thér. under the synonymy of *Campylopus pittieri* Williams. We will deal with the *Campylopus argyrocaulon-leucognodes-pittieri*-complex in a future paper. At this moment the synonymy runs as follows :

*CAMPYLOPUS PITTIERI* Williams *Bull. Torrey Bot. Cl.* 34 : 569. 1908.

Synonyms : *Paraleucobryum densifolium* Thér. *Rev. Bryol. Lichénol.* 11 : 64, 1939 («1938»).

*Bizotia densifolia* (Thér.) Pier. *Rev. Bryol. Lichénol.* 40 : 27, 1974.

#### ACKNOWLEDGEMENTS

The authors are indebted for the loan of the type material to the directors of the herbaria mentioned in this paper. Thanks are due to the Netherlands Foundation for the Advancement of Tropical Research (WOTRO) for a grant which enable the senior author to carry out field work in the Colombian Andes.

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