Aloinella venezuelana, a new species of moss from the Andes of northern South America

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GRIFFIN, DANA, III (Dept. Bot., Univ. Florida, Gainesville 32611). *Aloinella venezuelana,* a new species of moss from the Andes of northern South America. Bull. Torrey Bot. Club 102: 26-28. 1975.— *Aloinella* ***venezuelana*** is described as a new species from the Andes of Venezuela. It differs from other species of the genus by the leaves, which are both dorsally and ventrally papillose, and by the strongly papillose leaf filaments, which occasionally end in 2 or 3 subglobose or short- cylindric cells.

In a collection of Venezuelan bryophytes made by the author in 1972 are two packets containing an *Aloinella* that is undescribed. These same plants have been reported on elsewhere (Griffin 1975) as part of a list of new records for the country ; however, the new species has not been validly published until now.

Aloinella ***venezuelana*** sp. nov.

Plantae parvae, dense caespitosae basi fusco-rubescentes,apice luteo-virides. Caules paulo ramosi, erecti, 8-12mm longi. Folia vel sicca vel humida semper imbricata, late lingulata vel ovato-lingulata, 0.6-0.9 mm longa, 0.4-0.6 mm lata, apice cucullato vel raro subtubuloso, marginibus superioribus undulato-denticulatis, membranaceis, in foliis veteribus deletis, inferne integerrimis; cellulis superioribus incrassatis, quadratis vel rectangularibus, saepe transversaliter alongatis, 6-15 µ, medianis minus incrassatis, 12-21 µ, inferioribus pellucidis, aliquantum laxis, rectangularibus, vel aliquando quadratis, 12-24 µ longis, 9-15 µ latis; cellulis superioribus et medianis utrinque multipapillosis; costa valida sub apice cucullado terminans, in medio folio 149-168 µ lata, in sectione transversali ex 3-7 stratis stereidarum dorsalinis composita; filamenta composita ex 2-5 cellulis, interdum terminata 2-3 cellulis brevi-cylindricis vel subglobosis, cellulis valde papillosis, variabilibus, subspheric is, 12-15 µ longis. Dioicia ? Sterilis.

Small plants densely tufted, reddish-brown below, yellowish-green above. Stems little branched, 8-12 mm long. Leaves imbricate whether moist or dry, broadly lingulate to ovate-lingulate, 0.6-0.9 mm long, 0.4-0.6 mm wide, apex cucullate or rarely subtubulose, upper margins undulate-denticulate, membranaceous, worn in older leaves, entire below; upper cells incrassate, quadrate to rectangular, frequently transversely elongate, 6-15 µ, median cells less incrassate, 12-21 µ, lower cells somewhat lax, rectangular or occasionally quadrate, 12-24 µ long, 9-15 µ wide; upper and median cells multi-papillose on both leaf surfaces; costa stout, ending just below the cucullate apex, 149-168 µ wide at mid-leaf, with 3-7 dorsal stereid layers; filaments of 2-5 cells, occasionally ending in 2-3 short-cylindric to subglobose cells, cells strongly papillose, variable, subspherical, 12-15 µ long. Dioicous ? Sterile.

Páramo. On non-calcareous boulders, 3800-4000 m elevation.

Type: Venezuela: Sierra Nevada de Mérida, *Griffin,* López & Ruiz-Terán. 369 (holotype FLAS, isotypes, TENN, MEXU); *Griffin,* López & Ruiz-Terán. 482 (FLAS).

Aloinella venezuelana differs from other described species of the genus in the leaves, which are both dorsally and ventrally papillose. The papillose character occurs also in *A. catenula* Card. of Mexico and Ecuador and in *A. andina* Delgadillo, a species apparently endemic to Peru. In neither of these latter species, however, are papillae borne on the ventral side of the leaves. The

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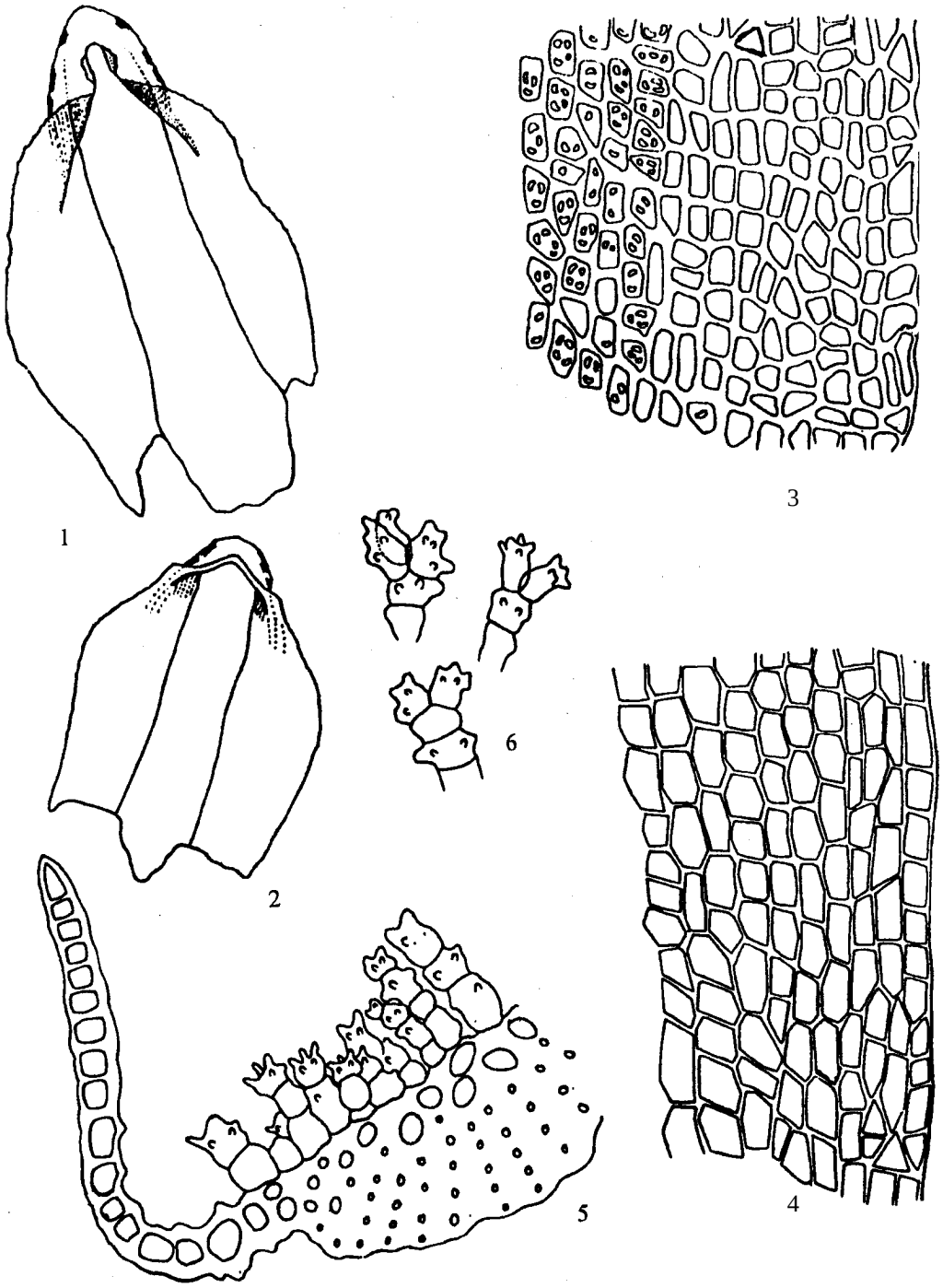

Figs. 1-6. *Aloinella venezuelana.* Figs. 1-2. Leaves, x 75.--Fig. 3. Median cells ofleaf, x 450.--Fig. 4. Basal cells ofleaf, x 450.--Fig. 5. Leaf cross section, x 450.--Fig. 6. Filaments, x 450.

membranaceous upper leaf margin is found in *A. andina,* but *A. venezuelana* differs f rom this species in the character of the costa, In *A. Andina* the costa ends web below the subtubulose tip (Delgadillo 1973), but in *A. venezuelana* it extends to just below the normally cucullate tip.

It is in the matter of the leaf filaments that *A. venezuelana* departs most markedly from its congeners. The strongly papillose filament cells are similar to those described and figured for certain species of *Crossidium* (e.g., *C. aberrans* Holz. & Bartr, *C. seriatum* Crum & Steere, *C. geheebii* [Broth.] Broth. or *C. rosei* Williams) or for *Pseudocrossidium* Williams (Williams 1915). The filament cells in all other species of *Aloinella* are smooth or weakly papillose, and the terminal cell is always dome-shaped and smooth. In *A. venezuelana* the terminal cell of the filament is subglobose or short-cylindric and strongly papillose. The occasional production in *A. venezuelana* of leaf filaments bearing 2 or 3 terminal cells is unique for the genus.

That sueh a distinetive plant as *A. venezuelana* should have been overlooked until now is not at all surprising. Aloinellas are small and not infrequently bypassed by general collectors and bryologists alike! Of the five species hetetofore known for the genus only one, *A. catenula,* seems to have been collected repeatedly. All other species are known from their types alone or from the type and one additional collection.

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