# Grimmia molesta J. Muñoz - Ann. Missouri Bot. Gard. 86: 152. 1999 

Type: Peru, prov. Arequipa, Arequipa, road to Puno, leg. Hegewald and Hegewald No. 5480, holotype MO; isotypes H, IBA, NY.
Distribution: Am. 4

## Description

Grimmia molesta grows in olive-green to brownish patches, the leaves are erect and appressed when dry, erectopatent when moist, lanceolate, acuminate, concavekeeled; perichaetial leaves enlarged, broadly oblong-lanceolate, the costa is weak, disappearing in apex, the hair-points are short, slightly denticulate, the margins are plane and erect. The distal areolation is bistratose, the mid-leaf cells are irregularly quadrate with incrassate slightly sinuose walls, the basal marginal cells are rectangular with thickened transverse walls, the basal juxtacostal cells are rectangular with incrassate nodulose walls. The sexuality is autoicous, and capsules on straight setae usually present, they are immersed, oblong-ovoid and smooth, the peristome teeth are cribrose throughout and irregularly cleft at apex, the operculum is mammillate to rostellate

## Discussion

The description of Grimmia molesta was based on a herbarium specimen from MO. It is only known from the type collection, Peru (Arequipa), where it was collected from rock at 4000 m elevation. I have studied an isotype from NY in which a few sporophytes were present with enlarged perichaetial leaves, comparable with Grimmia macroperichaetialis H.C. Greven, a taxon described from Australia, that differs from $G$ molesta by its blackish colour, oblong-lanceolate leaves, incurved leaf margins, and emergent capsules. Muňoz described G. molesta as cladautoicous, with terminal androecia, however, in the isotype from NY, I found a stem with a gynoecium terminal and androecia below in leaf axils, so the species is gonioautoicous.

## Specimens examined

Peru. Arequipa, am Weg nach Puno, alt. 4000 m , leg. Hegewald \& Hegewald nr. 5480, NY!

## References

Muñoz, J. 1999b. A revision of Grimmia in the Americas. 1: Latin America. Annals of the Missouri Botanical Garden 86 : 118-191

