
**Type:** Russia, Ossetia, Ardon valley, between Alagir and Misurtsy, July 1877, leg. V.F. Brotherus, lectotype, designated by Muñoz (1999a), H-Br!; isolectotypes H, JE, PC!

**Synonyms:** Grimmia crassifolia var. cucullata Hend., G. cucullata Hend., Gyroweisia shansiensis Sak.

**Distribution:** As.2,3,5. Eur

**Description**

*Grimmia crassifolia* grows in olive-green to brown-blackish flat patches, the leaves are succulent and loosely appressed with incurved margins when dry, erecto-patent when moist, ovate to ovate-lanceolate, concave-keeled above, the costa is weak, not projecting on dorsal side, hair-points are absent to weak and short, not decurrent down margin, the leaf margin is plane to incurved above. The distal areolation is bi- to tristratose, mid-leaf cells are rounded quadrate with incrassate smooth walls, basal marginal cells are quadrate with thickened transverse walls, basal juxtacostal cells are short-rectangular with thin smooth walls. The sexuality is dioicous, the seta is very short and straight. Capsules are occasionally present, they are immersed, oblong-ovoid with a mammillate operculum.

**Discussion**

*Grimmia crassifolia* is characterized by leaves with incurved margins and concave apices, loosely appressed when dry; in this aspect the plant differs from the closely related *G. tergestina* that is characterized by leaves with plane margins and rather flat leaf apices, the leaves are more or less imbricate when dry. Other differences with *G. tergestina* are the weak hair-points, not decurrent down the margins, and hardly differentiated perichaetal leaves; in *G. tergestina*, the hair-points are stout and decurrent down the margins and the perichaetal leaves differ greatly from the vegetative leaves by conspicuously enlarged, broad, whitish apices. Muñoz (1999) synonymized *G. crassifolia* with *G. poecilostoma* (= *G. crinitoleucophaea*), but in this latter species, the seta is excentrically attached to a ventricose capsule; in *G. crassifolia* the seta is straight and the capsule is symmetric. Baumgartner (1934) described a muticous form as *G. crassifolia* var. *cucullata*. However, in 2000, I found in Turkey (Anatolia, Bey Dagliari, 5 km north of Çobanisa) a *G. crassifolia* vegetation with a mixture of hair-pointed and muticous plants, both with sporophytes, so I do not attach value to this variety. Muticous leaved plants of *G.*
*crassifolia* come very close to *G. unicolor* which also has shiny, thick (*crassifolius*) leaves.

**Specimens examined**


**References**


