

Grimmia torquata Drummond - Musci Scotici, Vol.2, nr. 28. 1825.

Type: U.K., Scotland, Glen Clova, leg. T. Drummond, lectotype, designated by Geissler & Maier (1995) E!; isolectotypes, FH!, G.

Synonyms: *Grimmia pellucida* Kindb., *G. prolifera* C. Müll. & Kindb., *G. pseudo-torquata* Kindb., *G. torta* Nees & Hornsch., *G. tortifolia* Kindb.

Distribution: Afr.1. Am.1,2. As. 1. Eur. Oc.

Description

Grimmia torquata forms dense, soft, yellow-green to yellow-brown cushions, blackish to red-brown inside, readily disintegrating, leaves contorted when dry, patent when moist, lanceolate, carinate, brown multicellular gemmae present on the dorsal side of upper leaves, costa weak below, projecting on dorsal side hair-points very short and smooth, occasionally absent, margins slightly recurved below, plane above. Distal areolation unistratose, yellow and transparent, mid-leaf cells rectangular with extremely incrassate and sinuose walls, basal marginal cells quadrate, hyaline with smooth walls, basal juxtacostal cells linear with extremely incrassate and sinuose walls. Sexuality dioicous, capsules on arcuate seta sporadically present, they are exerted, ovoid, smooth with a rostrate operculum.

Discussion

G. torquata is a montane-alpine species with a preference for shaded habitats where it grows in hemispherical cushions on steep damp walls; in this habitat, it is frequently associated with *G. funalis*. The species is easily recognizable by a yellow-brown colour with -when dry- contorted leaves and brown gemmae, borne at the base of older leaves. The cushions are light-green in densely shaded habitats and usually dark-brown on exposed rock. Favourite substrates are granite, gneiss, quartzite and schists, and its distribution area reaches from nearly sea-level in Scandinavia up to above 4000 m on Mexican and Hawaiian volcanoes. Although the species has a wide geographical distribution it is seldom present in quantity, usually growing in a small number of cushions in one habitat. Sporophytes are very rare, they are recorded from Norway (Kristiansamt, Vestre Gausdal, Paalsrud, alt. 550 m) but not found in eastern North America (Crum & Anderson 1981).

Specimens examined

Austria. Pitztal, Stillebach, leg. R. Düll, nr. 36569; **Corsica.** Mte. Cinto, alt. 1510 m, leg. H.C. Greven, nr. 2977, alt. 1760 m, nr.2978; Mte. d'Oro, alt. 1350 m, leg. H.C. Greven, nr. 2976; Lac de Melo, alt. 1720 m, leg. H.C. Greven, nr. 2979; **France.** The Vosges, Col de la Schlucht, alt. 1130 m, leg. H.C. Greven, nr. 2783; Cantal, Trémouille, Monnayeurs, leg. Ph. de Zuttere, nr. 20359, Pyrenees, Bigorre, Gavarnie, alt. 1400 m, leg. H.C. Greven, nr. 2536; Pyrenees, Les Angles, Etang de Balcère, alt. 1770 m, leg. R.J. Bijlsma, nr. 2134; **Iceland.** Asbyrgi, leg. H.C. Greven, nr. 2541; Vididalstunga, Kolugil, leg. H.C. Greven, nr. 2545; Pingvallavatn, leg. H.C. Greven, nr. 2675; **Norway.** Finnmarken, Talvik, Altenfjord, Leg. W. Bauer; **Scotland.** Evanton, Alt nan Coarach, leg. H.C. Greven, nr. 2544; **Switzerland.** Pontresina, Morteratsch, leg. H.C. Greven, nr. 2538; Wallis, Les Haudères, Ferpècle, alt. 1820 m, leg. H.C. Greven, nr. 2542; Murg, Murgsee, alt. 1800 m, leg. H.C. Greven, nr. 2543; **Hawaii.** Maui, Haleakala Nat. Park, Koolau Gap, alt. 2000 m, leg. M.J.H. Kortselius; **Canada:** Alberta, Rocky Mts., Icefields Parkway, above Bow Pass, alt. 1950 m, leg. H.C. Greven nr. 3044, 04-07-1998; Alberta, Rocky Mts., Jasper, Whistler Mt. summit, alt. 2380 m, leg. H.C. Greven nr. 3045, 06-07-1998; British Columbia, one km north of Avola, one km north of Thomson River cross, leg. H.C. Greven nr. 3046, 07-07-1998; British Columbia, Fraser Canyon Highway, between China Bar Tunnel and Hell's Gate Tunnel, leg. H.C. Greven nr. 3047, 09-07-1998;

References

- Crum, H.A. & L.E. Anderson. 1981. Mosses of Eastern North America. Vol 1. Columbia University Press, New York.
- Greven, H.C. 1995. *Grimmia* Hedw. in Europe. Backhuys Publishers, Leiden, The Netherlands.
- Jones, G.N. 1933. Grimmiaceae. *In*: Grout (ed.), Moss Flora of North America Vol. II, Part I: 1-66. Newfane, Vermont.