

**Grimmia teretinervis Limpricht - Jahresber. Schles.
Ges. Vaterl. Cult. 61: 216. 1884.**

Type: Austria, Tyrol, Innervillgraten, leg. H. Gander, holotype, BP (herbarium Limpricht), or GZU (herbarium Breidler), not seen.

Synonyms: *Grimmia tenuis* Roth.

Distribution: Am.1, Eur.

Description

Grimmia teretinervis forms reddish-green to blackish-green, readily disintegrating tufts with thread-like, single or scarcely branched stems, leaves of uniform length throughout stem, imbricate and shiny when dry, erecto-patent to spreading when moist, ovate-lanceolate, concave-keeled above, frequently hyaline-tipped, julaceous innovations, in upper leaf axils, occasionally present, costa firm, convex on both sides, projecting on dorsal side, hair-points short, denticulate, margins plane and erect. Distal areolation unistratose, only margins and extreme apex bistratose, mid-leaf cells irregularly rounded-quadrate with incrassate walls, basal marginal cells quadrate with equally-thickened walls, basal juxtac. cells rectangular with straight walls. Sexuality dioicous, sporophytes unknown.

Discussion

G. teretinervis is a rare and puzzling species that occurs in Europe, North America and Canada. The plants grow with thread-like, sparsely branched stems in dense tufts on dry, usually south-facing, calcareous sand- and limestone. The leaves are concave rather than keeled, and yet the costa projects on dorsal side; further distinguishing characters are thickened but plane leaf margin and short basal cells. *G. teretinervis* is one of the species that is fairly difficult to describe, although the brownish-green tufts with small, imbricate, shiny leaves are very typical. In 1994, I found *G. teretinervis* on south-facing limestone at Hochfelln (Germany, Bavaria, Bergen, alt. 1670 m). In this locality, the plants were growing in dense short cushions, they were difficult to distinguish from associated *G. tergestina*, *Schistidium flaccidum* and *S. apocarpum*. It is not astonishing that *G. teretinervis*, never found with capsules, should disperse by gemmae, it is more peculiar that after Limpricht (1890), no author has noticed this. Being curious about its way of propagation, I investigated many samples, and finally I found the gold-coloured multicellular gemmae in richly developed plants from Canada (Nahanni mountains). The species thus propagates by gemmae as well as by innovations, formed in the

upper leaf axils. *G. teretinervis* was recently recorded from France (Vadam 1994) and its biogeography in North America was recently published by Hastings (2002).

Specimens examined

Austria. Windischgarsten, Veidittal, alt. 750 m, leg. F. Grims; Steiermark, Tüffer, Humberg, alt. 400 m, leg. J. Breidler; **France.** Jura, Aiguille de Bauhinés, leg. C. Meylan; Doubs, Fleurey, Ramacien, alt. 720 m, leg. J.Cl. Vadam; Doubs, Soulce-Cernay, Aiguille du Sapois, alt. 710 m, leg. J.Cl. Vadam; Doubs, Ville-du-Pont, Kimmérédgienne, alt. 820 m, leg. J.Cl. Vadam; **Germany.** Württemberg, Kr. Sigmaringen, Gutental, leg. G. Philippi; Schwäbische Alps, Fridingen, Burgstal, alt. 700 m, leg. M. Ahrens; Bavaria, Schlierseer Berge, Geitau, Aiplspitz, alt. 1750 m, leg. J. Poelt; Bavaria, Rosenheim, Heuberg, alt. 1310 m, leg. L. Meinunger and W. Schröder, nr. 21283; Bavaria, Traunstein, Hochfelln, alt. 1400 m, leg. R. Meinunger and W. Schröder, nr. 21531; **Switzerland.** Caslano, Giro di Sassalto, leg. Al-brecht; Sassa di Gandria, leg. Albrecht; Waadt, Ergraz, alt. 820 m, leg. J.J. Amann; Jura, Grand Saragnère, alt. 1450 m, leg. C. Meylan; Canton de Bâle, Raemelsberg, alt. 830 m, leg. J.Cl. Vadam; **Alaska.** Chugach Mnts, Valdez, alt. 430 m, leg. D.H. Vitt; **Canada.** Ontario, Thunder Bay, Quimet canyon, leg. R.R. Ireland, nr. 15497; Ontario, Grey County, Oxenden, leg. R.R. Ireland, nr. 20347; Mackenzie distr., Nahanni Range, Nahanni Mnts., leg. R.R. Ireland; **Canada:** Alberta, Rocky Mts., Icefields Parkway, Mt. Coleman, limestone, alt. 1450 m, leg. H.C. Greven nr. 3043, 05-07-1998; Alberta, Rocky Mts., Banff Sulphur Mt. southwest-facing limestone alt. 2325 m, leg. H.C. Greven nr. 3040, 3041, 3042, 03-07-1998;

References

- Hastings, R.I. 2002. Biogeography of *Grimmia teretinervis* in North America. *The Bryologist* 105(2): 262-266.
- Limpricht, K.G. 1890. Die Laubmoose Deutschlands, Oesterreichs und der Schweiz. I. Abtheilung. Kummer, Leipzig.
- Vadam, J.-C. 1994. Nouvelles stations Franc-Comtoises de *Grimmia teretinervis* *Limpr.Cryptogamie, Bryol. Lichénol.* 15: 153-159.