

Grimmia sessitana De Notaris – Atti Reale Univ. Genova 1: 704. 1869.

Type: Italy, Val Sessia, leg. Carestia (lectotype, designated by Cao & Vitt. (1986: 164), RO!; isoelectotypes, BM!, 2 replicates FH!, PC-Thuret, WRSL).

Synonyms: *Grimmia alpestris* var. *hybrida* (Chal.) Chal., *G. alpestris* var. *sessitana* (De Not.) I. Hagen, *G. anceps* Boulay, *G. caucasica* (C. Müll.) Jaeg., *G. laevidens* Broth., *G. microstoma* (B.S.G.) Torre & Sarnth., *G. mixta* Herzog, *G. subcaespiticia* Schiffn., *G. subsulcata* Limpr., *G. subpapillinervis* Kindb., *G. tenerrima* Ren. & Card.

Distribution: Afr.1. Am. 1,4,6. Ant. As. 5. Eur.

Description

Grimmia sessitana forms dense, green-blackish, flat patches, leaves appressed to slightly contorted when dry, spreading when moist, usually sharply lanceolate, acute and keeled, sometimes weakly plicate. costa weak below, channeled above, projecting on dorsal side, hair-points short to rather long, slightly denticulate, margins plane to partly recurved on one side. Distal areolation unistratose with bistratose ridges and bistratose margins, mid-leaf cells irregularly quadrate with sinuose walls, basal marginal cells rectangular with thickened transverse walls, basal juxtacostal cells linear with thin walls. Sexuality autoicous, capsules on straight setae usually present, they are exserted, oblong-ovoid, yellowish, smooth and striolate when dry with a mammillate to conical operculum.

Discussion:

Grimmia sessitana De Not., is an alpine taxon with a nearly cosmopolitan distribution. The species has frequently been confused with *G. alpestris*. It differs in autoicous sexuality, usually present yellowish striolate capsules with thin-walled exothecial cells, mostly some stomata at the base of the urn, and rectangular basal marginal cells. *G. alpestris* is dioicous, the occasionally present capsules are brown and smooth with thick-walled exothecial cells, stomata are absent, and the basal cell pattern is rather uniform with quadrate basal marginal cells and short-rectangular basal juxtacostal cells. Muñoz (1998) synonymised *G. sessitana* with *G. reflexidens* C. Müll., and Maier (2002) noticed that the type specimen of *G. reflexidens* is a *Coscinodon*. Both observations are incorrect. *G. reflexidens* is dioicous, it has enlarged perichaetial leaves and very long, smooth, along the leaf tip decurrent, hair-points. With respect to the type of *G. reflexidens*, Deguchi, Muñoz and Greven,

studied the same type specimen as Maier, and identified this as a *Grimmia* and not as a *Coscinodon*.

Specimens examined

Andorra. Commune d'Ondino, Coma Obaga, Refuge de Tuverroles, alt. 2000 m, leg. A. Sotiaux nr. 8051; **Austria.** Tirol, Stubai Alps, Schnitztal, Laponisalm, alt. 1450 m, leg. H. Lauer; Tirol, Kitzbühel, Schwarzer Kogel, alt. 2020 m, leg. A.C. Crundwell nr. 77; Pasznauntal, alt. 1850 m, leg. A. Maas-Geesteranus; Oetztal, Kühtai, alt. 2310 m, leg. H. C. Greven nr. 2473, 2477; Oetztal, Obergurgl, Zirbenwald, alt. 2056 m, leg. H.C. Greven nr. 2476, 2666; Oetztal, Sölden, Geislacher Kogel, alt. 3050 m, leg. H. C. Greven nr. 2474; Stubai Alps, Niederthai, Umhausen, alt. 1630 m, leg. H. Lauer nr. Oes. 1168; Hohe Tauern, Heiligenblut, Kl. Fleischtal, Zirmsee, alt. 2530 m, leg. H.C. Greven, nr. 3055, 3057/3059; Hohe Tauern, Heiligenblut, Leitertal, Sandersee, alt. 2150 m, leg. H.C. Greven, nr. 3054,3056; Carinthia, Kreutzeckgruppe, Zweiseetörl, alt. 2367 m, leg. H.C. Greven, nr. 3052, 3053; **Bulgaria.** Rila Mnts, Borowetz, Musalla, alt. 2400 m, leg. R. Düll; **Corsica.** Mte Cinto, alt. 1790 m, leg. H.C. Greven, nr. 2980, 2981, 2982; **Italy.** Alpi Cozie, Valle Sessitana, Valdobbia, leg. Carestia; **Norway.** Spitzbergen, Nordenskiöld Land, Longyearbyen, Nybyen, leg. N. Lundqvist; Telemarken, Gausta, alt. 1600 m, leg. Kaalaas; Dovre, Storhö, leg. C. J. Hartman; Lom, Suleims, leg. Zetterstedt; Dovre, Storhö, Kalvella fossen, leg. Chr. Kaurin; Dovre, Wangsfjeld, leg. Slyth; Opdal, Vangsfjeldet, leg. Chr. Kaurin; Trondhjem, Nystuhö, leg. Chr. Kaurin; Telemarken, Gaustafjär, leg. Taderholm; Kristian, Valdors, Bergsfjeld, leg. M.N. Blytt; Bergenhus, Filefjeld, leg. M.N. Blytt; Dovre, Jerkin, leg. N. Bryhn; Jotunheimen, Beskö, alt. 1750 m, leg. N. Bryhn; Oppland, Kristian, Galdhö, alt. 1950 m, leg. I. Hagen; **Sardinia.** Monti del Gennargentu, Punta la Marmora, alt. 1750 m, leg. Th. Herzog; **Scotland.** Little Culrannoch, Clova (vc. 90), July 1886; near Ballater (vc 92), leg. J. Ferguson; Ballater (vc. 92) July 1912; Clova, Ballater (vc 92); Coyles of Muick near Ballater (vc 92), dry serpentine rock, June 1966, leg. Ms. G. Stirling, U.K. Duncan & A.C. Crundwell; **Slovakia.** Tatra, Sliesky dom, alt. 1800 m, leg. H.C. Greven nr. 2475; Tatra, Valle Mala Studena, leg. Smarda; **Spain.** Avila, Circo de Gredos, alt. 2000 m, leg. J.L. Rupidera; **Sweden.** Jämtland, Sylfjällen, alt. 1300 m, leg. N.H.P. Persson; Jämtland,

Undersäkers, Ottfjället, leg. N.G. Hakelier; Lappmark, Kvikkjokk, Njuonjes, leg. H.A. Möller; **Switzerland.** Wallis, Lötschental, alt. 1842 m, leg. H.C. Greven, nr. 1956; Graubünden, Piz Grialetsch, alt. 3131 m, leg. G. M. Dirkse; Wallis, Saastal, Saas Fee, alt. 1900 m, nr. 2470; Wallis, Mattertal, Seetalhorn, alt. 2800 m, nr. 2472; Graubunden, Fimbertal, Heidelberger Hütte, alt. 2300 m, leg. B.O. van Zanten nr. 750872; St. Moritz, alt. 3000 m, leg. J.H. Albrecht; Graubunden, Klosters, Gotschnagrät, alt. 2300 m, leg. J.H. Albrecht; Wallis, Les Haudères, Ferpècle, alt. 1950 m, leg. H.C. Greven nr. 2478; **Japan.** Honshu, Mt. Nishidake, Azumimura, Minami-azumi-gun, alt. 2550 m, leg. H. Deguchi; Yamanashi, Mt. Kitadake, Ashiyasu-mura, Nakasoma-gun, alt. 2900 m, leg. H. Deguchi; **Canada:** British Columbia, Glacier Nat. Park, track to Glacier crest, alt. 2075 m, leg. H.C. Greven nr. 3038, 30-06-1998; Alberta, Rocky Mts., Icefield Parkway, above Bow Pass, alt. 2050 m, leg. H.C. Greven nr. 3039, 04-07-1998;

References

- Cao, T. & D.H. Vitt. 1986. A taxonomic revision and phylogenetic analysis of *Grimmia* and *Schistidium* in China. Journ. Hattori Bot. Lab. No. 61: 123-247.
- Greven, H.C. 1995. *Grimmia* Hedw. in Europe. Backhuys Publishers, Leiden, The Netherlands.
- Maier, E. 2002b. The genus *Grimmia* (Musci, Grimmiaceae) in the Himalaya. Candollea 57: 143-238.