

Grimmia longirostris Hooker - Musci Exot. 1: plate 62. 1818.

Type: Ecuador, Mt. Chimborazo, 2380 hexapod, leg. Humboldt & Bonpland No. 2670, lectotype, designated by Deguchi (1984), BM!; isolectotype BM!

Synonyms: *Grimmia affinis* Hornsch., *G. afro-ovata* Broth. & Thér., *G. akaisialpina* Tak., *G. allionii* Broth., *G. antillarum* Thér., *G. bogotensis* (Hampe) Jaeg., *G. breviexserta* C. Müll., *G. calyculata* C. Müll., *G. campylotricha* C. Müll., *G. cavifolia* Lindb. & Arn., *G. catalinensis* Bartr., *G. cinerea* Thér., *G. columbica* De Not., *G. cylindrica* Nees & Hornsch., *G. elata* Kindb., *G. erythraea* (C. Müll.) Cufodontis, *G. hausmanniana* De Not., *G. hawaica* C. Müll., *G. immergens* C. Müll., *G. integridens* C. Müll., *G. itatiaiae* C. Müll., *G. itatiaiensis* Broth., *G. leucophaeola* C. Müll., *G. micro-ovata* C. Müll., *G. nanoglobosa* C. Müll., *G. neilgherriensis* C. Müll., *G. nigella* Herzog, *G. obliqua* Hornsch., *G. ortholoma* Kindb., *G. ovata* Web. & Mohr, *G. ovataeformis* Kindb., *G. patens* Hornsch., *G. peruviana* Sull., *G. praetermissa* Card., *G. raphidostega* C. Müll., *G. rufa* C. Müll., *G. schimperi* C. Müll., *G. sciuroides* Nees & Hornsch., *G. somervellii* Dix., *G. speiophylla* Herz., *G. stenopyxis* Thér., *G. subovata* C. Müll., *G. sumatrana* Dix., *G. tenuicaulis* Jaeg., *G. vernicosula* C. Müll. Thér.

Distribution: Cosmopolitan.

Description

Grimmia longirostris usually grows in compact, rounded, dull, yellowish-green cushions, however, the growth form is extremely variable, the plants can also be encountered in mats with colours, ranging from yellowish-green, brownish-green, blackish-green to nearly entirely black. The leaves are appressed and straight when dry, erectopatient when moist, keeled, the costa is firm, channeled above, projecting on dorsal side, hair-points usually present, but muticous forms occur, from short to long, slightly denticulate, the margins are recurved on one side or both sides, more rarely plane. The distal areolation is bistratose and opaque, the mid-leaf cells are short-rectangular with incrassate, sinuose walls and usually urn-shaped lumen, the basal marginal cells are short-rectangular with thickened transverse walls, the basal juxtacostal cells are elongate with straight to slightly incrassate and sinuose walls. The sexuality is autoicous, and capsules on straight seate are usually present, they are emergent to exserted, obloid to cylindric, yellowish to brownish, smooth, the operculum is rostellate to rostrate with oblique beak.

Discussion

Grimmia longirostris is probably the most frequently described bryophyte species. Above, only legitimately published synonyms are summed up, neglecting ssp., var., forma, nom. illegit and nom. nud. Reason for the numerous descriptions is the extreme morphological variation, and the cosmopolitan distribution. Before Sayre (1951), the species was confused with *G. ovalis* (Hedw.) Lindb. In most floras, *G. longirostris* can be found under *G. affinis*, but Hooker described it just a few months earlier. Despite the extreme variability, identification is mostly not problematic. The species is characterized by usually present exserted (more rarely emergent) yellowish to brownish sporophytes on straight setae, lanceolate leaves with recurved margins and keeled apex, opaque areolation in the upper lamina, and in particular, by short-rectangular mid-leaf cells with incrassate and sinuose walls, and urn-shaped cell lumen.

Specimens examined

Andorra: Entremesaigues, Cami de Perafita, alt. 1625 m, leg. Sotiaux nr. 8287; **Austria:** Defreggental, Staller Sattel, alt. 2000 m, leg. Fl. van Gelder; Hohe Tauern, Heiligenblut, Kl. Fleischtal, Alter Pocher, alt. 1807 m, leg. H.C. Greven, nr. 3001; Carinthia, Hermagor, Guggenberg, alt. 1090 m, leg. H.C. Greven, nr. 2002; Carinthia, Kreuzeckgruppe, Naszfeldriegel, alt. 2200 m, leg. H.C. Greven, nr. 3003; Carinthia, Kreuzeckgruppe, track to Zweisee, alt. 1935 m, leg. H.C. Greven, nr. 3004; Osttirol, Matrei, Frosznitztal bei Gruben, Katalalpe, alt. 1750 m, leg. G. Schwab; Kärnten, Radlgraben, alt. 815 m, leg. R. Düll; Pitztal, ob Jerzens Hochzeiger, alt. 1450 m, leg. R. Düll, nr. 36551; Pitztal, Pitzehang bei Scheibrand, alt. 1260 m, leg. R. Düll; Oetztal, Mühlau, alt. 1121 m, leg. H.C. Greven, nr. 1944; Oetztal, Sölden, alt. 1200 m, leg. H.C. Greven, nr. 1945; Oetztal, Geislacher Kogel, alt. 3056 m, leg. H.C. Greven, nr. 1946; Oetztal, Tumpen, alt. 938 m, leg. H.C. Greven, nr. 1943; **Belgium:** Prov. Luxemburg, Heyd, Aisnes, leg. E. Marchal; **Bulgaria:** Balkangebirge, Berg Vesen, Leg. L. Meinunger; **Caucasus:** Georgia, Khde Ravine alt. 1530 m, leg. C.C. Townsend, nr. 85/860; **Corsica:** Lac de Melo, alt. 1370 m, leg. H.C. Greven, nr. 2900, 2901; Mte. Cinto, alt. 1550 m, leg. H.C. Greven, nr. 2902, 2903; **Finland:** Lapland, Enontekiö, Könkämäeno, Karjalanvaara, alt. 450 m, leg. H. Roivainen; **France:** Puy-de-Dome, St. Nectaire, Sapchat, leg. Ph. de Zuttere, nr. 19601; Cantal, Trémouille, leg. Ph. de Zuttere, nr. 20354; Pyrenees, Bigorre, Gavarnie, alt. 1350 m, leg. H.C. Greven, nr. 1947, 1948; Pyrenees, St. Engrace, alt. 650 m, leg. H.C. Greven, nr. 1949, 1950, 1951; The Vosges, La Bresse, alt. 750 m, leg. H.C. Greven, nr. 1952; The Vosges, Col de la Schlucht, alt. 1110 m, leg. H.C. Greven, nr. 1953, nr. 2759; The Vosges, Le Thillot, Col de la Croix, alt. 700 m, leg. H.C. Greven, nr. 2757; The Vosges, Magelsberg, west of

Soultzeren, alt. 762 m, nr. 2758; **Germany**: Hocheifel, Herrbachtal, Welfsberg, alt. 425 m, leg. R. Düll; Hocheifel, Manderscheid, alt. 380 m, leg. R. Düll; **Iceland**: Myvatn, leg. E.C. Wallace; Siglufjordur, leg. W. Labey, nr. 1954; **Italy**: Val di Fassa, Campitello, alt. 1690 m, leg. H.C. Greven, nr. 1941; Val di Fassa, Passo di Pellegrino, alt. 1880 m, leg. H.C. Greven, nr.1942; **Scotland**: Perthshire, Glen Lyon, leg. C.H. Binstead; Craigh Ghailloch, leg. W. Smith; Perth, Killin, Creag an Lochan, leg. U. Duncan; Edinburgh, Blackford Quarry, alt. 90 m, leg. D.G. Long, nr. 6546; **Sweden**: Lule Lappmark, Kvikkjokk, Njuonjes, alt. 600 m, leg. H. Möller; **Switzerland**: Wallis, Ferpècle, alt. 1828 m, leg. H.C. Greven, nr. 1936, 1937, 2642; Wallis, Evolène, alt. 1560 m, leg. H.C. Greven, nr.1938, 1939; **Turkey**: Prov. Coruh (Artvin), Kordevan dag at Kütül yayla, alt. 2100 m, leg. Davis & Hedge, nr. D30403; **Canada**: Alberta, Rocky mts., Lake Louise, Ten Peaks, alt. 2050 m, leg. H.C. Greven nr. 3022, 02-07-1998; Alberta, Rocky Mts., Icefield Parkway, above Bow Pass, alt. 2050 m, leg. H.C. Greven nr. 3023, 04-07-1998; Alberta, Rocky Mts., Icefields Parkway, 2 km south of Sunwapta Fall, alt. 1635 m, leg. H.C. Greven nr. 3024, 3025, 05-07-1998; British Columbia, Little Ford, north of Kamloops, alt. 380 m, leg. H.C. Greven nr. 3026, 08-07-1998;

References

Sayre, G. 1951. The identity of *Grimmia ovalis* and *G. commutata*.
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