

Grimmia ochyriana J. Muñoz - Nova Hedwigia 66: 235-240. 1998.

Type: Nepal, Khumbu valley, Lobuje, 5100 m, May 1952, leg. Zimmermann No. 558, holotype, G!; isotype MA.

Distribution: As.2,3

Description

Grimmia ochyriana grows in robust, olive-green, loose tufts, brownish-black below, the leaves are appressed when dry with incurved apices, spreading when moist, oblong-lanceolate, gradually tapering to an acute apex, muticous, canaliculate, perichaetial leaves enlarged, the costa is percurrent, broad but hardly projecting at the dorsal side, the margins are recurved to halfway on one side, plane on the other side. The distal areolation is merely bistratose, the mid-leaf cells are irregularly quadrate with incrassate and sinuose walls, the basal marginal cells are frequently brownish, quadrate to rectangular with thickened transverse walls, the basal juxtacostal cells are elongate with incrassate slightly nodulose walls. The sexuality is dioicous, the seta are arcuate when dry, straight when moist, 1.0-1.5 mm long, capsules are usually present, they are shortly exserted, ellipsoid, light brown, smooth with obliquely rostrate operculum.

Discussion:

Grimmia ochyriana, endemic to the Himalayas, is characterized by robust olive-brown mats, the leaves muticous with incurved tips. The species is very common around Pheriche, alt. 4300 m, in the Khumbu valley in Nepal (Greven 2002). Here, it grows in extended mats on the upper sides of large boulders, usually richly provided with pale, ellipsoid capsules which, when dry, stretch out sideways from the enlarged perichaetial leaves, and when moistened emerge on straight setae. The gametophytes can be confused with *G. handelii*, since both species share muticous leaves with incurved tips. However, in this latter species moist leaves are spreading to recurved, the entire areolation is unistratose, and capsules are extremely rare, exserted and obloid. Muñoz (1999) reported *G. ochyriana* from Guatemala and Mexico, confusing it with *G. mexicana*, an error corrected by Delgadillo (2000). Maier (2002) synonymized *G. ochyriana* with *G. atrata*. This latter species however, has longly exserted obloid to cylindrical capsules and the leaves are linear, tapering to a blunt cucullate apex (Greven 2008).

Specimens examined

Nepal. Sankhuwasabha district, Makalu basecamp, Barun Pokhari, alt. 4725 m, leg. D. Long nr. 20947, 04-10-1991, E!; Khumbu valley, Namche Bazar, boulder behind visitor centre, alt. 3585 m, leg. H.C. Greven nr. N 122, 08-02-2000; Khumbu valley, between Pheriche and Dingboche, alt. 4310 m, leg. H.C. Greven nr. N 128, 130, 131, 10-02-2000; Khumbu valley, 2 km south of Pheriche, alt. 4190 m, leg. H.C. Greven nr. N 127, 10-02-2000; Khumbu valley, Pheriche, alt. 4260 m, leg. H.C. Greven nr. N 123-129, 11-02-2000;

References

- Delgadillo, C.M. 2000. The distinction between *Grimmia mexicana* and *G. ochyriana*. *Bryologist* 103: 762-764.
- Greven, H.C. 2002. *Grimmia* (Bryopsida, Grimmiaceae) in the Nepalese Khumbu valley. *Journal of Bryology* 24: 157-161.
- Greven, H.C. 2008. The remarkable story of *Grimmia ochyriana* Muñoz. *Field Bryology* 95: 11-15.
- Maier, E. 2002. The genus *Grimmia* (Musci, Grimmiaceae) in the Himalaya. *Candollea* 57: 143-238.
- Muñoz, J. 1999. A revision of *Grimmia* (Musci, Grimmiaceae) in the Americas: 1: Latin America. *Ann. Missouri Bot. Gard.* 86: 118-191.