Grimmia indica (Dixon & De la Varde) Goffinet & Greven –

**Type:** India, Pambar Torrent, Kodaikanal, Pulney Hills, leg. R.P. Foreau, in herbarium H.N. Dixon No. 815, lectotype, designated by Muñoz & Pando (2000), BM!; isolecto-types FH!, MO!, NY!

**Synonyms:** Grimmia apophysata Gangulee

**Distribution:** As.2, 3

**Description**

*Grimmia indica* grows in extended, dense, flat mats, green above, dark brown below. The leaves are ovate-lanceolate, plane to slightly carinate, the costa is greenish-brown, 60-80 µm wide and percurrent, hair-points are absent, although at apex, a few cells form an apiculus-like transparent tip, the margins are narrowly recurved on both sides. The entire leaf areolation is unistratose, the mid-leaf cells are irregularly isodiametric with sinuose and incrassate walls, the basal marginal cells are quadrate to short-rectangular, the basal juxtacostal cells are rectangular with slightly sinuose and incrassate walls. The sexuality is dioicous and capsules are occasionally present, they are clearly exserted on cygneous setae, obloid, ± striate, and an apophysis is present, the operculum is rostrate.

**Discussion:**

*Grimmia indica* was initially described as *Trigonodictyon indicum* Dixon & P. de la Varde. The Indian bryologist Gangulee (1976) described it as *G. apophysata* (nom. illeg.), and Goffinet & Greven (2000) renamed it as *G. indica*. It is the only *Grimmia* with a clear apophysis and also the leaves are not characteristic for the genus because the apex does not ends in a hyaline hair, the leaves are, however, not muticous, but end in a transparent apiculus, reminiscent of some species from the Pottiaceae. As a result of these features, it can hardly be confused with any other *Grimmia* species. During a trip through the Nepalese Khumbu valley, I found it frequently on shaded rock walls. On these usually slanting to perpen-dicular walls, the species was growing in extended green mats, occasionally provided with abundant, straw-coloured, exserted capsules on long cygneous setae (Greven 2002).

**Specimens examined**

**India.** Sikkim, Darjeeling district, Phalut, Leg. Kurtz nr. 2344, 16-10-1868 (as *Grimmia apophysata* Gangulee), H-Br.; **China.** Lijang Co., Yunnan, Mt. Yu-Lung, Ma-Huang-Ba, 20 km nnw of Lijang, leg. T. Koponen nr. 42400, 01-08-1985;
**Nepal.** Khumbu valley, 1 km north of Lukla, alt. 2870 m, leg. H.C. Greven nr. N 120, 06-02-2000; Khumbu valley, 5 km north of Lukla, leg. H.C. Greven nr. N 104, 06-02-2000; Khumbu valley, 2 km south of Namche Bazar, alt. 2840 m, leg. H.C. Greven nr. N 103, 105, 07-02-2000;

**References**


