

**Grimmia brittoniae R. S. Williams - Bull. Torr. Bot. Cl. 27: 316. 1900.**

**Type:** U.S.A., Montana, Columbia Falls, leg. R. Statham Williams, lectotype, designated by Muñoz (2000), NY!; isolectotypes, NY.

**Distribution:** Am.1

**Description**

*Grimmia brittoniae* grows in extremely hoary, compact glaucous cushions, brown inside, the leaves are loosely appressed to slightly contorted when dry, erecto-patent when moist, lanceolate, keeled above, the costa is weak, projecting on dorsal side, the hair-points are smooth, in the upper leaves 2-3 times as long as the leaves, the perichaetial leaves are enlarged, oblong with extremely long hair-points, the margins are narrowly recurved on both sides. The distal areolation is unistratose, the mid-leaf cells are short-rectangular with incrassate and sinuose walls, the basal marginal cells are quadrate with thickened transverse walls, the basal juxtacostal cells are rectangular with incrassate smooth walls. The sexuality is dioicous, capsules on flexuose setae are occasionally present, they are exserted, ovoid with a conical operculum and lanceolate peristome teeth.

**Discussion:**

*Grimmia brittoniae* is a peculiar endemic from Montana. Peculiar, because it has the longest hair-points of all so far known *Grimmia* species. Muñoz (2000) regarded *G. brittoniae* as a synonym of *G. funalis*. Greven & Spribille (1999), however, had already made it clear that in *G. funalis* the leaves are much more spirally curved, the upper areolation is bistratose, the lower leaves are blackish with short hair-points, the margins are plane or recurved on one side and the basal cells are linear, incrassate and sinuose. Further, *G. funalis* is characterized by male plants growing in separate cushions, with muticous to very short hair-pointed leaves. Male plants of *G. brittoniae* grow intermingled with female plants and can hardly be separated from those. *G. brittoniae* is much more closely related to *G. orbicularis* and the leaves of both species are very similar, however, the latter species is autoicous, usually provided with capsules on arcuate setae, the hair-points are much shorter, the peristome teeth are broad, cribrose, irregularly cleft at apex, and the operculum is mammillate.

**Specimens examined**

U.S.A. Montana, Sanders Co., Cabinet mts., Snake Creek, leg. Schofield nr. 12025, 26-07-1960, U 575958; Montana, Sanders Co., Bitterroot mts., south side of Cabinet Gorge Reservoir, leg. Spribille nr. 7407, 25-08-1997;

### References

- Greven, H.C. & T. Spribille. 1999. *Grimmia brittoniae*, a rare moss endemic to Northwestern Montana. *The Bryologist* 102: 116-118.
- Jones, G.N. 1933. Grimmiaceae. *In*: Grout (ed.), Moss Flora of North America Vol. II, Part I: 1-66. Newfane, Vermont.
- Muñoz, J. 2000. New synonyms in *Grimmia* (Grimmiaceae). *Journal of Bryology* 22: 99-102