
**Type:** U.S.A., Pennsylvania, near Lancaster, leg. Muhlenberg, lectotype (labelled as *G. pensylvanica*), designated by Cao & Vitt (1986), G; syntype, G.


**Distribution:** Am.1, As.1,2,3,5

**Description**

*Grimmia pilifera* grows in robust, rigid, dark- or blackish-green to brownish, loose, tufts, leaves are erect and scarcely contorted when dry, erect-spreading when moist, keeled, the lower oblong-lanceolate and shortly awned, becoming lanceolate, long-acuminate, and long-awned above, costa is excurrent, projecting at dorsal side, hair-points are short in lower leaves, long in upper leaves, denticulate, margins are recurved on one or both sides, occasionally plane. The distal areolation is bistratose and opaque, at margins 3-4 stratose, mid-leaf cells are irregularly rounded with incrassate walls, basal marginal cells are subquadrate with thickened transverse walls, basal juxtacostal cells are elongate, yellowish with incrassate and nodulose walls. The sexuality is dioicus, the seta is short and straight, capsules are occasionally present, they are immersed, oblong-ovoid, smooth with subulate operculum and mitrate calyptra.

**Discussion:**

*Grimmia pilifera* grows in robust, dark green to blackish-green, fragile, somewhat loose cushions on acidic rock. It has a disjunct distribution because it occurs in North America and Asia but has never been recorded from Europe. The species is characterized by small rigid leaves, narrowly lanceolate with an ovate, somewhat sheathing base, suddenly narrowed into the subulate upper part, and capsules on short setae, immersed in the perichaetial leaves. The lamina is bistratose in the upper half of the leaf, the margins thickened in 3-4 cell layers in the upper part. Deguchi (1978) even noted margins with 4-6 cell layers in plants from Japan. In the southern states of North America, *G. pilifera* is replaced by *G. arizonae*, a closely related taxon, differing by a light green/brown colour, long hair-points, flexuose stems, broadly lanceolate leaves, plane leaf apex, and upper leaf margins not thickened, Greven (1999).
Specimens examined


References

