

## **Grimmia mariniana Sayre - Bryologist 58: 323. 1955.**

**Type:** U.S.A., California, Marin Co., Mt. Tamalpais, April 1953, leg. W.C. Steere, lectotype, designated by Muñoz & Pando (2000), NY!

**Distribution:** Am.1

### **Description**

*Grimmia mariniana* grows in black, hoary, loose cushions, the leaves are appressed when dry, erectopate when moist, oblong-lanceolate, weakly keeled above and somewhat concave below, the costa is stout and terete,  $\pm 80 \mu\text{m}$  wide at base, the hair-points are short, nearly smooth, one margin is plane, the other is curved upward. The distal areolation is bistratose, the mid-leaf cells are irregularly quadrate with incrassate, slightly sinuose walls, the basal marginal cells are rectangular with thickened transverse walls, the basal juxtacostal cells are elongate with incrassate longitudinal walls. The sexuality is dioicous, and capsules on short, straight setae are occasionally present, they are immersed to emergent, ovoid, wide-mouthed when empty, narrowed in basal part, the peristome teeth are fragmented, and the operculum is mammillate to rostellate.

### **Discussion**

*Grimmia mariniana* is only known from coastal mountains in California. The species is related to *Grimmia nevadensis* (Greven 2002). Both species share emergent capsules on blackish green cushions; however, there are significant gametophytic as well as sporophytic differences. *G. nevadensis* grows in dense sand-filled cushions and capsule-bearing plants have perichaetial leaves with rather long homomallous hair-points. *G. mariniana* grows in more loose cushions with rather short, non homo-mallous hair-points. In *G. nevadensis*, peristome teeth are absent, the capsule mouth is not especially widened when empty, and the urn is hardly narrowed in the basal part. In *G. mariniana*, the capsules have orange, papillose peristome teeth (these are extremely fragile, but fragments are always present), the urn has a wide mouth when empty, and is clearly narrowed in the basal part. *G. nevadensis* has ovate-lanceolate leaves with a weakly defined costa and rather uniform chlorophyllose basal cells with thin longitudinal walls, *G. mariniana* has somewhat longer oblong-lanceolate leaves with a stout terete costa and pellucid basal cells with incrassate longitudinal walls.

### **Specimens examined**

**U.S.A.** California, Marin. Co. Mt. Tamalpais, near summit, leg. Koch nr. H 37, 03-04-1949, MICH!; California, Marin Co., summit Mt. Tamalpais, leg. Steere, NY!; California, Lake Co., Mt. Cobb, near summit, leg. D.Toren nr. 7390, 19-04-1999; California, Lake Co., Bosch Canyon, west of Yolo Co. line, head of Butte Rock, alt. 3000 ft, leg. D. Toren nr. 8601, 18-03-2001;

**References:**

- Greven, H.C. 2002a. *Grimmia nevadensis* a new species from California.  
The Bryologist 105: 243-246.
- Sayre, G. 1955. *Grimmia mariniana*, a new species from California.  
Bryologist 58: 323-325.