

**Grimmia serrana Muñoz, Shevock & Toren –
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Type: U.S.A., California, Tulare Co., Sierra Nevada, Sequoia Nat. Forest, Wishon Camp-ground, alt. 1220 m, January 18, 1998, leg. Shevock & Morosco Nr. 16808, holotype, MA, isotypes, CAS, MO, NY, UC.

Distribution: Am. 1

Description

Grimmia serrana forms olive-green to blackish-green rather flat patches, leaves appressed to slightly flexuose when dry, patent when moist, lanceolate to ovate-lanceolate, acuminate, concave, not plicate, costa weakly projecting on dorsal side, hair-points short to absent, slightly denticulate, margins plane with multi-stratose marginal bands that are rounded in cross section, comparable with the costa. Distal areolation bistratose, mid-leaf cells irregularly quadrate with slight sinuosity, incrassate walls, basal marginal cells quadrate to short-rectangular with thickened transverse walls, basal juxtacostal cells elongate with thin to incrassate, smooth to slightly sinuose walls. Sexuality dioicous, capsules on straight to flexuose seta occasionally present, exserted, ovoid, yellowish, smooth, striolate when dry with rostellate to rostrate operculum.

Discussion:

Grimmia serrana, recently described from California, is not rare on western slopes of the Sierra Nevada and the northern Coast Range. Although in the protologue, Muñoz remarked that *G. serrana* is very similar in appearance to some members of *Schistidium*, I do not see any relation to this genus. *G. serrana* is clearly a *Grimmia*, intermediate between *G. montana* and *G. ovalis*, and not so readily distinguished as stated by the authors. In the Sierra Nevada, *G. montana* is a commonly occurring extremely variable species, and some of my samples from this area are rather similar in appearance with *G. serrana*. Under the microscope, the characteristic multi-stratose marginal bands of *G. serrana* might be confused with the incurved margins of *G. montana*. Only cross sections of the leaves show that the margins are not incurved but thickened in a peculiar way. It is a pity that in the discussion, the authors did not compare their new species with *G. montana*, especially because the sporophytes of both species are comparable. In October 2002, I visited the Sacramento valley and the northern Coast range, and found *G. serrana* commonly occurring on outcrops between Garberville and Harris. Here, on slanting rock

G. serrana, frequently associated with *G. laevigata*, replaces *G. ovalis* in the *Grimmietum-commutata-campestris* (Giacomini 1939) v. Krusenstjerna 1945, an epilithic bryophyte association described from Europe.

Specimens examined

U.S.A. California, Sierra Nevada, Sequoia National Forest, south of Fairview, granitic boulder in meadow, associated with *G. laevigata*, leg. H.C. Greven nr. C 83, 84, 85; 05-11-1999; California, Sierra Nevada, Sequoia National Forest, route 178, Onyx, slanting granitic rock, leg. H.C. Greven nr. C 92, 04-11-1999; California, Sierra Nevada, route 178, two miles east of Canebrake, slanting granitic rock, leg. H.C. Greven nr. C 93, 04-11-1999;