13. ***Grimmia macrotheca*** Mitt. chang-shuo zi-e xian

J. Proc. Linn. Soc., Bot., Suppl. 1: 44. 1859. Type. India [Sikkim]: *J. D. Hooker 316* (holotype NY; isotype S).

Grimmia longicapusula C. Gao & T. Cao, Acta Bot. Yunnan. 3(4): 395. 1981. Type. China: Xizang (Tibet), Ya-dong Co., *M. Zang 39* (holotype IFSBH; isotypes HKAS, NY).

Plants medium-sized, up to 1.5–2.0 cm high, yellowish green above, brown to dark brown below, in loose tufts. *Stems* moderately branched, with well developed central strand in cross section. *Leaves* imbricate, somewhat contorted or flexuose when dry, spreading when moist, 2.3–2.8 mm long, lanceolate from ovate base, strongly keeled above, ending in a short, smooth, hyaline hair-point; margins revolute on one or both sides; costa percurrent, consisting of small, median cells in cross section; upper cells unistratose except bistratose at margins, irregularly rounded-quadrate, 7–9 µm wide, with incrassate, slightly sinuose walls; median cells quadrate to short-rectangular, 9–14 µm × 9–10 µm, with thick, sinuose walls; basal marginal cells rectangular to elongate, 23–60 µm × 9–11 µm, with rather thin, straight walls; basal juxtacostal cells elongate, 28–60 µm × 7–9 µm, with thin, straight or slightly sinuose walls. *Autoicous*. *Perichaetial leaves* similar to upper stem leaves. *Setae* up to 5–7 mm long, twisted to almost erect when dry, flexuose or curved in upper part when moist; capsules erect when dry, horizontal or nearly so when moist, yellowish brown, subcylindrical to cylindrical, 2.0–2.5 mm × 0.7–0.8 mm (length:width = 3–4:1); exothecial cells elongate-hexagonal, thin-walled; stomata numerous, present near base of urn; annuli consisting of well developed elongate cells with thick walls; opercula conic-rostrate with obtuse beaks; peristome teeth reddish brown, erect, linear-lanceolate, ca. 0.25 mm long, not cleft and rarely perforate; outer and inner surface finely papillose throughout, more densely papillose above. *Calyptrae* not seen. *Spores* ca. l0 µm in diameter, yellowish, smooth.