

Publication**Microbial biomass and respiration in rangeland soils of southern Siberia and western Mongolia****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4636812**Author(s)** Yakutin, Mikhail V.; Conen, Franz**Author(s) at UniBasel** [Conen, Franz](#) ;**Year** 2021**Title** Microbial biomass and respiration in rangeland soils of southern Siberia and western Mongolia**Journal** Arid Land Research and Management**Volume** 35**Number** 1**Pages / Article-Number** 120-125

Southern Siberia and western Mongolia are characterized by very cold, dry winters, and short, warm summers with modest or little precipitation. In the driest region that we investigated (119mm annual precipitation), the upper part of two catenas had a larger fraction of microbial biomass in soil organic matter (6-12%) than the four other catenas (<4%) in less dry regions (260 and 442 mm). All six catenas had values $\leq 4\%$ at the lowest position near the shore of saline lakes. Respiration per unit microbial biomass was similar within and among the catenas, except for the lowest position in three catenas, where enhanced values indicated microbial stress, probably due to high salinity.

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