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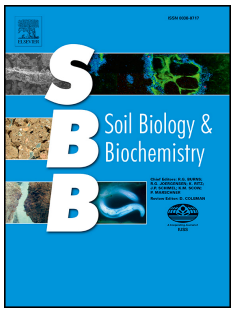

The influence of drought intensity on soil respiration during and after multiple drying-rewetting cycles

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The influence of drought intensity on soil respiration during and after multiple drying-rewetting cycles

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Abstract

Global climate change is projected to intensify soil drying-rewetting (DRW) events with extended drought, especially in arid and semiarid ecosystems. However, the extent to which the soil DRW with intensified drought can alter soil respiration (R_s) in forests is still under debate, and subsequent legacy effects on R_s are not well understood. Here, we conducted a 180-d soil incubation experiment to investigate how soil DRW with different drought intensities alter the R_s in poplar (*Populus simonii*) and Mongolian pine (*Pinus sylvestris* var. *mongolica*) plantations. The incubation experiment included four 30-d cycles of 1) constant moisture treatment

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