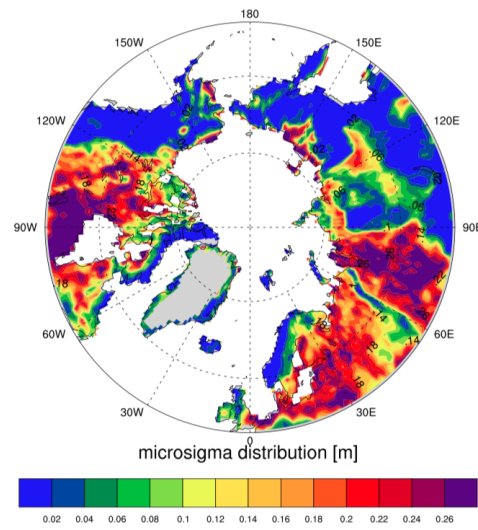


1 **Supplementary**

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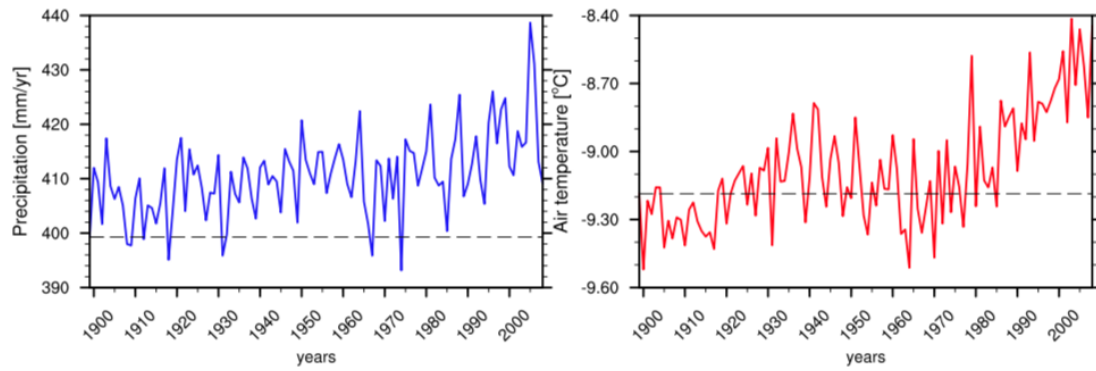


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Fig. S1: High latitude ( $>50^{\circ}\text{N}$ ) map of default microsigma distribution.



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Fig. S2: Timeseries of high latitude ( $>50^{\circ}\text{N}$  average -land only) CRUNCEP precipitation and air temperature forcing for the period 1900-2010. Dotted lines show 1900 value.