**How does moss resist evaporation?**

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While multiple approaches to exist to quantify plant resistance to evaporation, these methods assume that the vegetation is vascular despite many ecosystems, such as peatlands, dominated by a surface cover of mosses. Mosses in peatlands (e.g., Sphagnum species and Brown mosses) conduct water up to the photosynthetic location via capillary forces, in the presence of a moisture potential gradient, brought on by evaporation demand from the atmosphere. If moisture is transported to the evaporating surface to meet atmospheric demand, moss will evaporate at potential rates, and is only limited by available energy. However, as soil moisture declines in the unsaturated zone, the ability to conduct water up to the evaporating surface will also decline, where at a given threshold of evaporative demand and unsaturated hydraulic conductivity, evaporation will decline, and fall below potential rates. While the soil physics theory behind this process has been known for some time, it has proven difficult to parameterise moss resistance to evaporation beyond site specific values, and albeit with a high degree of uncertainty. This work is the beginning of a review of moss resistance values, where the research question being asked is: What is a typical value of moss resistance in a peatland, and how does it vary by species, site, and hydroclimatic setting? This work seeks to constrain peatland moss resistance to better represent peatland evaporative processes in our current landscape-scale ecohydrological models.