



## **Water table dynamics of an Alpine peat bog, Upper Styria, Austria**

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Peatland functioning is fundamentally linked to the hydrological status of the peatland, such as water table position. Research is often focused on measuring and monitoring peatland water table position and in many parts of the world is a key metric for the degradation of a peatland, as well as a target for restoration efforts. Despite a growing body of literature on peatland hydrology from around the world, little is known about bogs in the Alpine region of Central Europe.

This study looks at the hydrological behavior an Alpine raised bog in central Austria over a 10 year period (2006 – 2016) as well as a more detailed high-resolution annual monitoring campaign (2017 – 2018). The site, Pürgschachen Moor, is an ombrotrophic small-shrub and pine bog with a current extent of approximately 62 ha. It is located 10 km west of Admont in the Enns valley, an intra-Alpine basin in the Eastern Alps, Austria (N 40° 34.873' E 14° 20.810'). Depth to water table (WTD) were measured manually from dipwell transects across the bog during summer and autumn sampling campaigns in the period 2006 – 2016. In recent years the site has instrumented two transects with high-resolution (5-min intervals) water table loggers. Coupled with meteorological data from the site's micrometeorological station, we examine the following two objectives: i) can long-term water table data, and associated thresholds, explain the spatial distribution of vegetation communities in the bog; and ii) does a high-resolution water table dataset allow us to infer the dynamic of wetting and drying processes of a long-term, low-resolution dataset?