



Microclimate and hydrology of a Sphagnum mire

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Peatlands are precious and diverse hydrogenic ecosystems, very sensitive to disturbances. Variations in hydrology may be both a reflection of human impact and climate changes. We investigated a Sphagnum mire in northern Poland located in transitional temperate climate. We monitored the ground water table changes, Sphagnum growth, and testate amoeba communities. Among meteorological parameters we measured temperature and humidity of the air, photosynthetically active radiation, leaf wetness, temperature and moisture of the mosses at five plots at the mire. We found significant differences in microclimatic conditions between plots. The ground water table was recorded using automatic data loggers placed at eleven plots at the mire. Important differences in depth of water table through the mire which was the effect of surrounding geology were found. The mire is surrounded by sandy outwash plain from north, east and south and by clay moraine hill of dead ice from west. These abiotic factors had a very important impact to Sphagnum growth and testate amoeba. Results obtained during the study will allow better understanding of peatland ecosystem in this transitional climatic setting.

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