



Short-term response of testate amoebae to wildfire

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Many peatlands are exposed to intermittent burning but the implications of this burning for microbial communities have been little studied. Here we consider the impacts of burning on the dominant protists of peatland ecosystems, the testate amoebae. To do this we use a 'natural experiment'; a peatland exposed to wildfire where fire-fighting activity left a combination of unburned and heavily burned areas in close proximity. We assessed the change in testate amoebae three days after the end of the fire. We find that burning led to a large change in assemblage composition, primarily noted by a shift from taxa with tests constructed of idiosomes to those constructed of xenosomes. The most likely explanation for this change is the direct destruction of idiosome tests by extreme heat. Although we did not differentiate live individuals from empty tests it is probable that the fire has led to significant change in the amoeba community. This change may have interesting implications for the structure of the microbial foodweb, for silica cycling and for palaeoecological reconstruction in burned peatlands. This is clearly a topic which deserves more research attention.