



## **Temperature dependence of organic mass loadings in the boreal forest area and its effects on aerosol forcing**

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We use long-term aerosol composition data measured at the boreal forest site as a future projection to investigate the effect of increasing temperature on organic aerosol mass loadings, and further on aerosol indirect and direct radiative effects. The analysis is based on 7 years of measurements including two anomalous summers when the summer season temperature has been considerably higher than the current average. To isolate the temperature dependence of the organic mass loadings from the vegetation's seasonal cycle, we limit our investigation to only two summer months, July and August. The observed temperature dependence of organic mass loadings is compared to satellite observations to see if the temperature driven increase in organic mass loadings affect either the AOD or cloud droplet radius.