

Supplemental Information for:

Carbonaceous aerosol source apportionment using the aethalometer model-Evaluation by radiocarbon and levoglucosan analysis at a rural background site in southern Sweden

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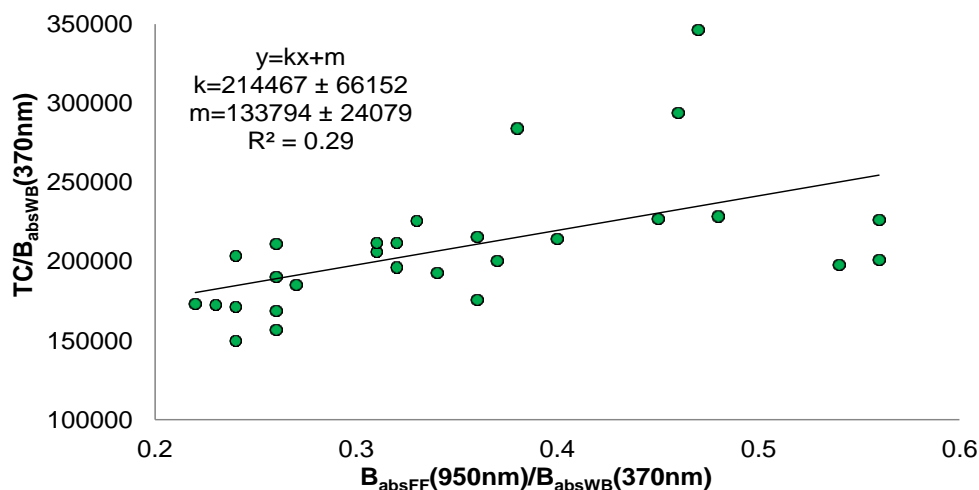


Figure S1. Linear regression model fit derived from Eq. 10. The slope (k) equals the C_1 parameter. Only winter data are used. One outlier has been detected with the Grubbs test and hence removed.

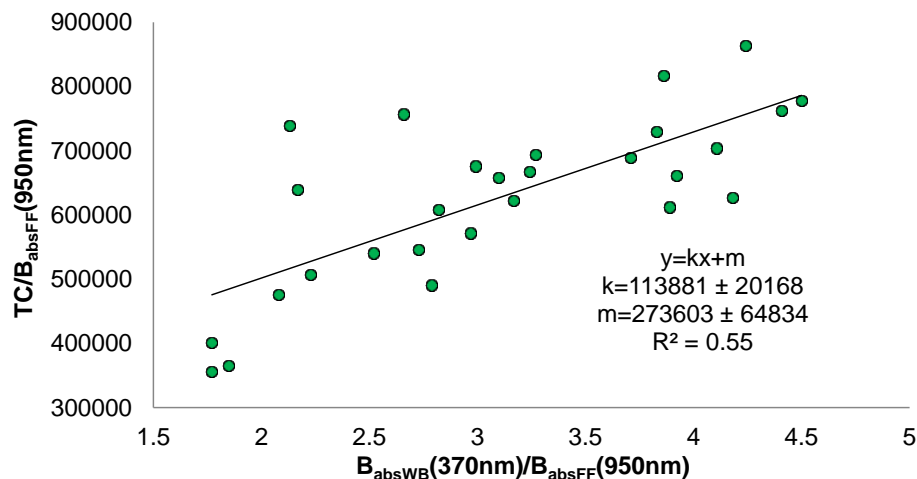


Figure S2. Linear regression model fit derived from Eq. 11. The slope (k) equals the C_2 parameter. Only winter data are used. One outlier has been detected with the Grubbs test and hence removed.

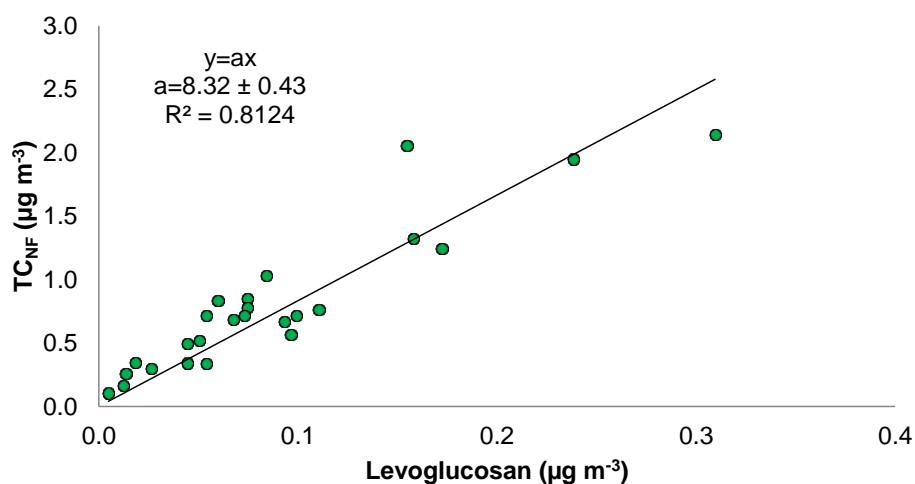


Figure S3. Linear regression model fit between total carbon non-fossil (TC_{NF}) and levoglucosan. The model fit is forced through origin. The slope (a) is used in Eq. 18. Only winter data are used.

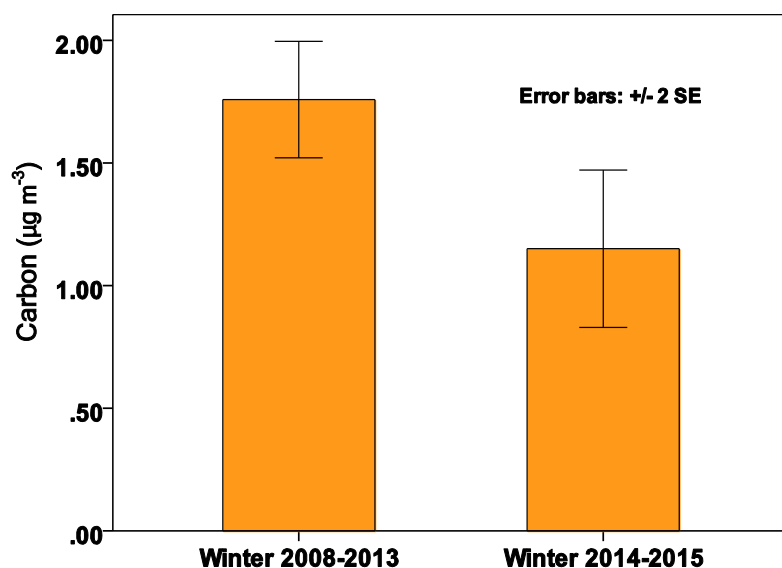


Figure S4. Measured total carbon at Vavihill measurement station the winters (December-February) of 2008-2013 and 2014-2015. Error bars display 2 times standard error of the mean.

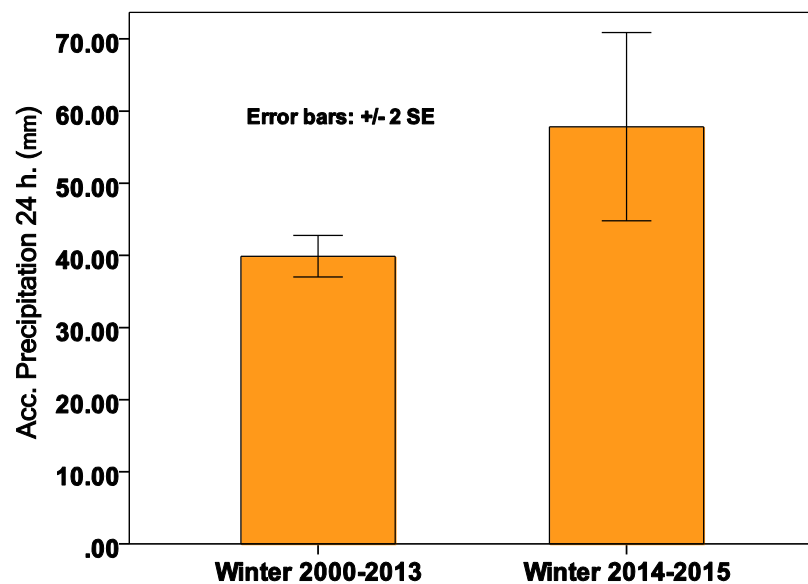


Figure S5. Accumulated precipitation the last 24 h before air mass arrival at Vavihill measurement station the winters (December-February) of 2008-2013 and 2014-2015. Error bars display 2 times standard error of the mean.

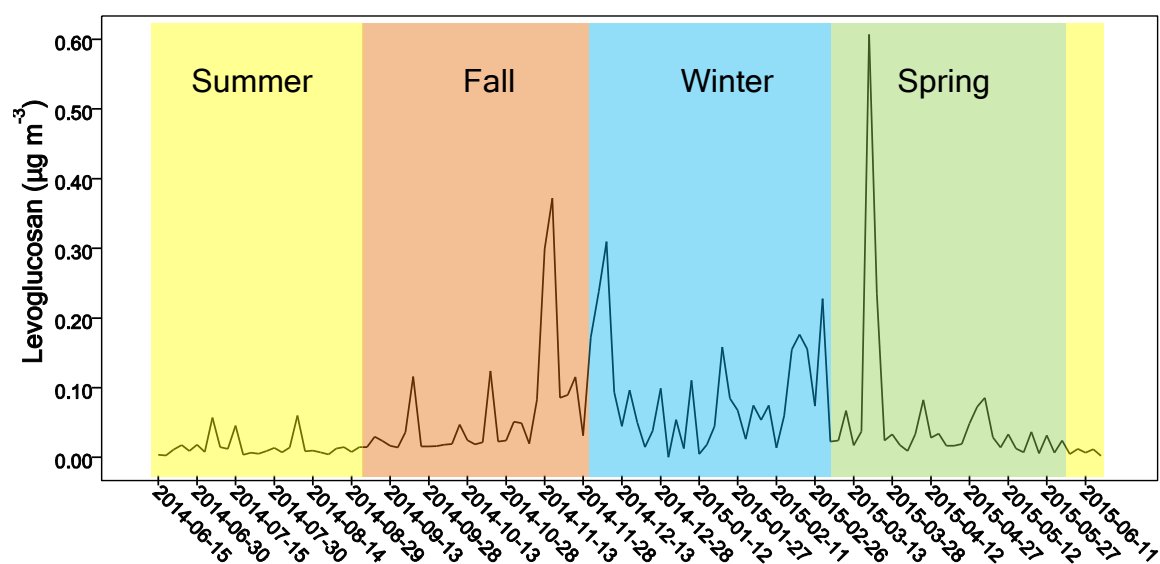


Figure S6. Levoglucosan concentrations in aerosols collected at Vavihill measurement station (N=122) June 2014-June 2015. Colors represent different seasons.

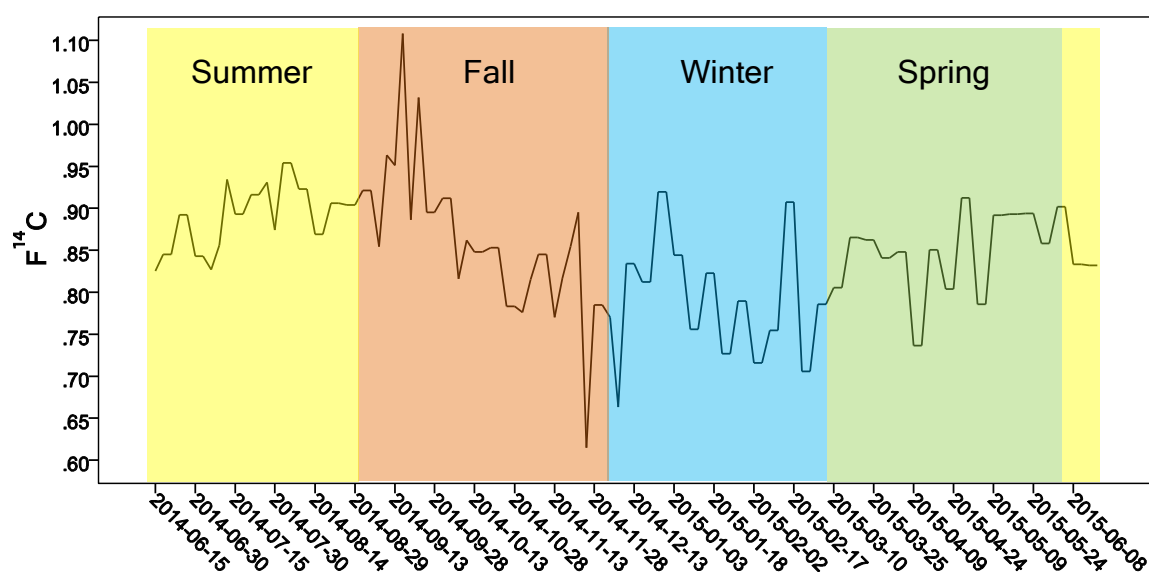


Figure S7. Radiocarbon concentration in aerosols, expressed as fraction modern carbon, $F^{14}\text{C}$, for 119 aerosol filter samples collected at Vavihill measurement station June 2014-June 2015. Colors represent different seasons.