



## Homogeneity of Monthly Air Temperature in Estonia with HOMER

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This study presents first results of the application of the HOMER software to the air temperature records in Estonia. HOMER (HOMogenization softwarE in R) is a software designed for homogenisation of essential climate variables at monthly and annual time scales. HOMER was tested during the European COST Action ES0601 HOME project. Within this project it was demonstrated that HOMER is the most efficient interactive homogenization method.

The datasets of monthly mean air temperature as well as monthly absolute maxima and minima were obtained from Estonian Environment Agency (ESTEA). Data from 22 locations over Estonia were used, 8 locations having data from 1925 to 2013 and 14 location having data for the period 1961-2013. The focus is on the homogeneity of Estonian monthly mean, minimum and maximum air temperature with three purposes: 1) to run fast quality control using HOMER software - detecting outliers and checking outlier validity; 2) homogeneity testing with HOMER software – to determine which change points are significant and to give a review on significant breakpoints (also using information from metadata); 3) to detect and correct eventual inhomogeneities in the dataset.