AN INTERACTIVE TOOL FOR PROCESSING SAP FLUX DATA FROM THERMAL DISSIPATION PROBES

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Sap flux sensors are an important tool for estimating tree-level transpiration in forested and urban ecosystems around the world. Thermal dissipation (TD) or Granier-type sap flux probes are among the most commonly used due to their reliability, simplicity, and low cost. However, the accuracy of TD sensors depends upon the correct processing of the raw data. Improper signal processing can lead to over- or under-estimation of sap flux and may ignore the contribution of nocturnal water through the trunk. In an effort to improve and standardize the approach of TD probe data processing, we developed a MATLAB-based software script that combines automated signal processing with an interactive QA/QC interface. We show results from a variety of tree species and climates.

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