



Compiling a global database of sap flow measurements: the SAPFLUXNET data workflow

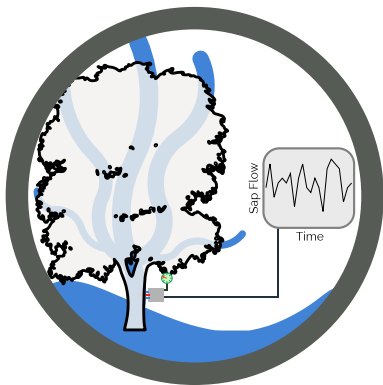
XIV MEDECOS & XIII AEET meeting

Ecoinformatics: data science brings new avenues for ecology
Symposium

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Different **thermodynamic methods** to determine sap flow using heat as a tracer sap movement

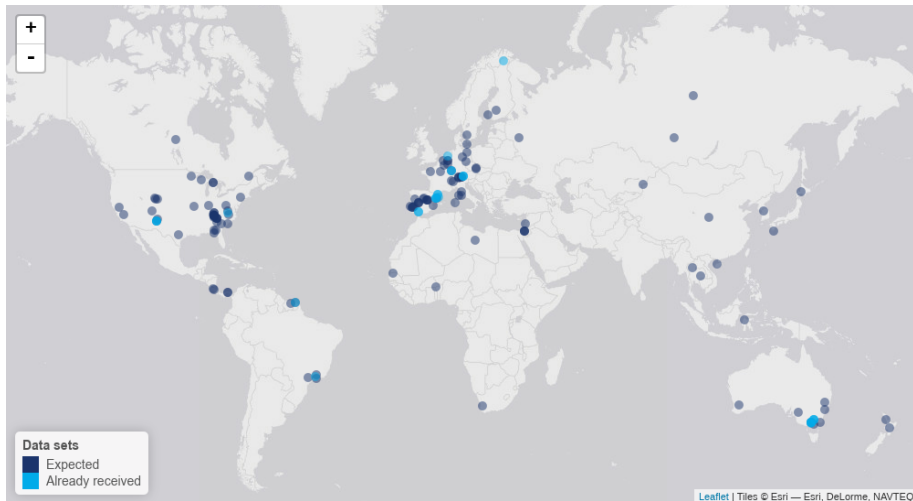
Proxy of the movement of water between the soil-plant-atmosphere continuum.

Allows **upscaling** from stem to plant and landscape level.

Introduction



The **SAPFLUXNET** initiative is building the first global database of plant-level sap flow measurements to analyse the environmental and physiological factors driving tree- and stand-level transpiration





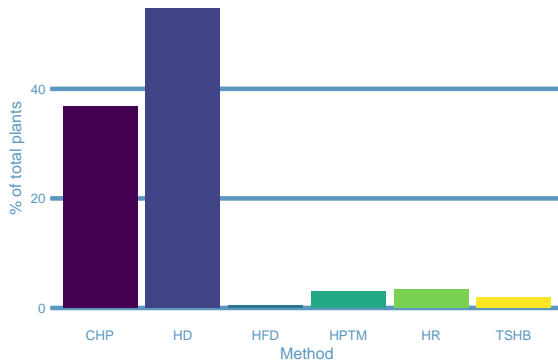
Target datasets:

- Stem or whole-plant level
- Field conditions
- Sub-daily intervals
- Environmental data available (RH, Ta, PAR...)
- Abundant metadata (site, stand, plant, species and environmental)



High data complexity:

- substantial methodological variability





High data complexity:

- Large datasets and ancillary metadata

Metadata	Items
Site	20
Stand	16
Species	4
Plant	24
Environmental	16
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Total	80



How to assay quality and store data?

We need **semi-automatic**, **reproducible** and **robust** checks to ensure the quality of the submitted datasets. Also, we need to store the data in a way that allows all essential information to be **available** in order to use the data in checks and analyses

SAPFLUXNET Data Ingestion Process

