



Increasing global cover

Aim: To create a global soil map of tea bag decomposition (and analyze it).

We hereby invite you to participate and determine soil decomposition using the TBI method (Keuskamp et al 2013).

Background

The TBI method measures decay of plant material by using two types of tea bags (green and rooibos) as standard plant material (Keuskamp et al., 2013). Tea bags are placed in the soil and weight loss is determined after three months. Tea is not only used as a standard litter. From the decomposition of Rooibos and Green tea we obtain two parameters assuming a two phase decomposition model, with a fast initial phase and a slower second phase when weight loss levels off. With the decay of easy to decompose green tea (green line, Fig. 1) one can determine how much of the labile fraction of the material is decomposed and how much is stabilized (S). Rooibos tea decomposes much slower (red line, Fig. 1) and after three months, it is still in the first phase of decomposition. Thereby, the weight loss of rooibos tea is a proxy of the initial decomposition rate (k).

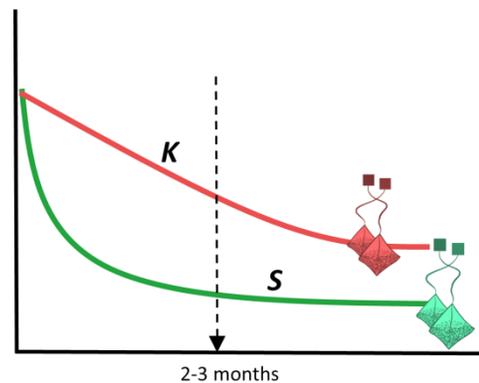


Figure 1: Schematic tea decomposition curves over time

By this it becomes easy to compare sites in an easy and standardized way and test climatic forcing on decomposition with a high resolution. Read more on www.teatime4science.org.

There are two levels of participation.

- 1) If you want to help us by adding a few data points, please let us know (just email judith@decolab.org), and we will provide you with the equipment and protocol.
- 2) If you want to make a more significant contribution to our global soil map, you can apply for co-authorship of the database and its synthesis paper. Please then fill in the table at the bottom of this document and send it to TBI@decolab.org. Evaluation of the proposed contributions and invitations to become co-author can be expected one month after applying. Application closes by August 2017, and data can be collected during the remaining of 2017. Early 2018 is discussable.

Terms of conditions for submission of data

1. **Only** data that are obtained following the protocol as described in Keuskamp et al. (2013) can be submitted.
2. Every participant that submits data will be acknowledged on the TBI-website (launched June 2016), with mention of institute or link to the project page if desired. The publication of the global soil map will acknowledge all participants by referring to this list.
3. Submitted data will be used for meta-analysis purposes. Every participant remains the right to publish her/his data independently or in collaboration with the TBI team, if desired.
4. Co-authorships in the publication of the global map can be discussed with the TBI team **prior** to conducting the tea incubations.
Co-authors are required to:
 - a) Add a substantial amount of unique data points to the database with accompanying field description.
 - b) Conduct tea incubations independently and financed from their own resources.
 - c) Researchers that add data to the TBI database agree on this data policy.
5. After publication of the global soil map, the dataset containing weight losses, incubation time, k and S values linked to their global position will become freely accessible through the TBI-website. Communication and collaborations with TBI team members on the analysis and use of the dataset is highly encouraged but not compulsory. Researchers are asked to at least inform the TBI members if a paper is published that is based or partly based on the TBI dataset so that this paper can be added to the reference list on the website.

Name and institute: Your contact details
Locations: <u>shortly</u> describe what type of locations and how many you are planning to add to the dataset. When providing GPS coordinates next with text, please use the WGS decimal format.
Measurements: are you planning on measuring site characteristics?
When: Describe when you are planning to dig down tea, and why you choose this period.
Motivation: Please describe why you think your contribution would significantly improve the global cover or the quality of the global map (e.g. by adding rare/hard to access locations/high number of locations/high quality of measurements).
Do you agree with the data policy yes/no
Remarks: Any other remark that you want to add.