

Timtrace herbarium sampling protocol

For isotope analysis of African timbers

Background and aim

The geographic origin of tropical timber can be verified using the isotopic signature of the wood. To apply this technique, reference information about the variation in isotopic signatures of timber trees across their geographic range is needed. The aim of this standardized sampling protocol is to obtain georeferenced wood pieces of seven African tropical timbers, see table below.

Send samples to:

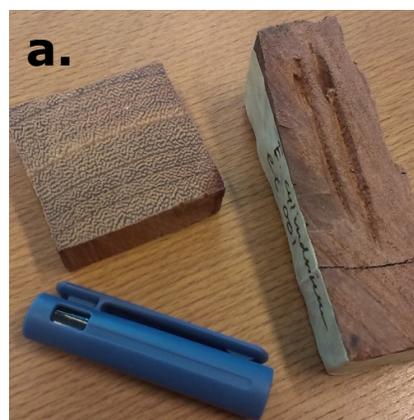
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Planning of the sampling

1. Wood samples should be large enough to contain at least 6 years of diameter growth, preferably around 10 years. If diameter growth rates are less than 1 cm per year, a radial length of the samples of around 5 cm should be sufficient.
2. Because the exact location of each tree is essential to this study, a GPS coordinate or other georeferenced marker is needed for each sample.

Sampling

3. We would like to have three wood samples per individual tree. Preferably these are taken at different positions along the circumference of the tree.
4. Wood samples may consist of either heartwood, sapwood or both.
5. Samples can be whole pieces of wood (photo a), or wood shavings sampled by a knife, gouge or other (photo b).
6. Samples should always include at least 6 years of growth (6 growth rings), and preferably 10 years (10 growth rings).
 - a. Ideally, dimensions of the whole wood samples are at least 5 cm in radial length, 2 cm wide and 1 cm thick.
 - b. When wood shavings are used one Eppendorf tube (5-10 grams of wood) per sample is sufficient.
7. Please store each wood sample, separately in a tube or bag that can be closed and provide it with a unique identification number.
8. Please provide sample details using the Timtrace sample form for herbarium samples.



Sending the samples

9. When samples and forms are ready, they can be sent to the Forest Ecology and Forest Management Group at Wageningen University, The Netherlands:

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Table. List of African target species for Timtrace reference database

Trade name	Scientific name
Abachi / Ayous	<i>Triplochiton scleroxylon</i>
Afrormosia	<i>Pericopsis elata</i>
Azobé	<i>Lophira alata</i>
Iroko	<i>Milicia excelsa (Chlorophora spp)</i>
Okan	<i>Cylicodiscus gabunensis</i>
Sapeli	<i>Entandrophragma cylindricum</i>
Tali	<i>Erythrophleum ivorense</i>