

## Contact

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## Thünen Centre of Competence on the Origin of Timber

Consolidated scientific expertise

## Participating Institutes

Thünen Institute of Wood Research  
Thünen Institute of Forest Genetics  
Thünen Institute of International Forestry and Forest Economics

[www.thuenen.de/en](http://www.thuenen.de/en)

The Thünen Centre of Competence is an institution within the remit of the



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## Photos and diagrams

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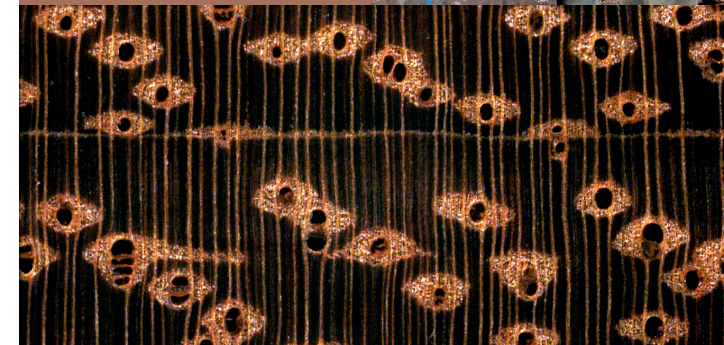
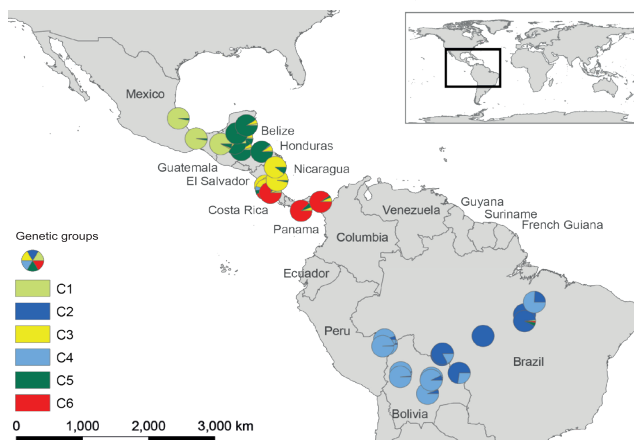
Examples of CITES-protected timbers:

Top row: CITES Appendix I: trade is strictly prohibited

Middle row: CITES Appendix II: trade is subject to strict export and import controls

Bottom row: CITES Appendix III: trade is subject to national export controls

Genetic reference data to control the geographic origin of timber from natural stands of broadleaf mahogany (*Swietenia macrophylla*) in Latin-America. The colours indicate genetic groups. Timber from different regions can be distinguished. So wood declared to be from Brazil should represent genetically the blue group.



## The Centre of Competence

The Thünen Centre of Competence on the Origin of Timber is the central contact facility for government agencies, timber trade, consumers and associations to verify the species of wood and/or wood products and its origin. The Centre combines the analytical expertise and competence of the three Thünen institutes of Wood Research, Forest Genetics and International Forestry and Forest Economics responsible for wood identification, proof of origin, certification and timber trade structures.

To enable reliable wood identification, the Centre of Competence maintains one of the world's largest scientific wood collections comprising over 37,000 specimens representing 12,000 species. These serve as reference material for the macroscopic and microscopic identification of trade timbers.

Additional molecular genetic methods (e.g. genetic fingerprinting and DNA barcoding) are available to control the identity of botanical species and geographical origin of imported timbers.

In collaboration with partner countries, we are constantly working to improve certification systems for trade timbers and to optimise the criteria for legality verification with the goal of promoting the sustainable management of forest resources. Timber markets are analysed continuously to gather information for policy makers, business and consumers. Thus high-risk countries and high-risk categories of goods can be detected.

Left: The scientific wood collection  
Right: Preparing a genetic test in the laboratory



## Background

Are the decking boards you want to purchase made from durable Bangkirai or from inferior-quality substitutes? Is the origin of the mahogany logs at the Hamburg docks properly declared? Does the imported timber come from illegal harvest? Are the importation documents correct and genuine?

Such questions are gaining in significance because the globalised marketplace and growing demand have led to many tropical forests being overexploited, with lesser-known species being introduced at an increasing rate. As a result, false declarations and the processing of "inferior" substitutes are of frequent occurrence.

The **Washington Convention on International Trade in Endangered Species** (CITES) lists the endangered tree species and restricts their trade. The **EU Timber Regulation** (EUTR) comes into force in March 2013. This obliges all operators who intend to market timber and timber products to exercise due diligence as trade in illegally harvested timber is prohibited in the EU. In Germany, monitoring of trade in timber and timber products is regulated by the **Timber Trade Protection Act** (HolzSiG) and an additional **EU Regulation** (EU FLEGT). The **Centre of Competence on the Origin of Timber**, established at the Thünen Institute in Hamburg, provides support in implementing these rules and monitoring compliance.

Origin-checked hardwood logs from certified forest in Surinam (South America)



## Service for Partners and Consumers

In Germany, controls and sampling required by the EU Regulation are carried out by the Federal Agency for Agriculture and Food (BLE). To perform this task, the BLE has formed a dedicated group of inspectors who are trained and assisted by specialist staff of the Thünen Centre of Competence.

With timber-exporting countries, the Thünen Institute shares its expertise via collaborative projects and training courses at partner institutions, enabling it to gather precise information at the source about the scope of traded woods, their origin and their legality.

Consumers, associations and companies can approach the Centre of Competence with wood samples to be checked on their species identity and geographic origin, and with questions relating to legality, sustainability and trading channels. Depending on complexity, fees may be charged for this service.

## Research

Research at the Centre of Competence includes work on the optimisation of identification methods and the development of databases for practical applications. The focus is currently on:

- genetic methods for proving the origin of timber,
- methods for identifying individual logs during the processing stage,
- methods for identifying wood species used in pulp and paper production.

Left: Microscopic cross-section of Wengé, a West African tree species  
Right: Banding pattern of a genetic test with different DNA fragments

