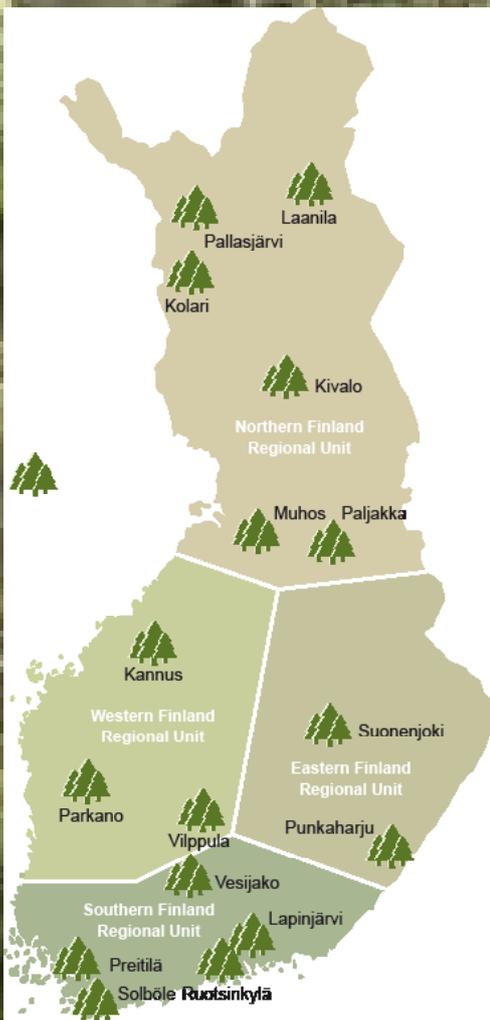


Research forests – resource of knowledge and know-how

Research forests account for 0.1 per cent of the area of state-owned forests, and they host approximately 3,000 ongoing trials. These areas serve the purposes of research and decision-making with regard to the forest ecosystems and silviculture.



forest · knowledge · know-how · well-being

METLA

Trials are important in forest research

Series of trials play an important role in forest research, enabling the monitoring of interaction between human activities and forest nature. The establishment, management and preservation of trial plots that require exceptional treatment or careful follow-up are most successful in areas reserved specifically for research. Research forests are owned by the state, and their use is decided by Metla on the basis of research needs.

Research forests allow the use of treatments that are different from standard forest management methods and the testing of new methods before their general introduction. Many trials have been carried out as series of trials across Finland. The forests are divided into management lines, designed to grow different types of forests for future research needs. These include the lines for **old-growth forests**, **dense forests**, **pristine forests** and **normally managed forests**.

Trials generate practical guidelines

Studies conducted in research forests have provided information that is used by forest owners and forest sector professionals as well as policy-makers.

Information is used for example

The results of long-term studies have been used to establish thinning models specific to each tree species for various forest types in Southern and Northern Finland, for example. The length of time that seed transfers can be recommended for when regenerating a forest has also been examined.

Focus is on effects of climate change

From the perspective of forest research, the effects of climate change on forests are more significant than climate change in itself. Trials set up over the course of several decades make research forests an excellent experimental field for studying the impact of climate change, since long series of observations reveal changes in environmental conditions.

The rhythmic cycles observed in Finland's nature advance like a wave from the south to the north in the spring and vice versa in the autumn. Examples of subjects studied in research forests are the time birches break bud and the time autumn colours appear. The purpose of research is to define the timing and changes in these phenomena as well as their connection to global warming.

Shared test laboratory and observational network

The research data on the forests studied can also be used in new research projects. In addition, Metla's research forests may be used by other research organisations for trial purposes.

Visitors to the research forests can learn about forest research and its results, tree species and forest nature in general. Nature trails and introductions to trials give visitors an opportunity to deepen their knowledge of forests and enjoy the great outdoors. As and when required, Metla staff are happy to provide guidance and advice to visitors.

The nationwide network of research forests currently comprises about 30,000 hectares of land and water areas in various vegetation and climate zones. The first research forests were established in the 1920s. The oldest information on the history of forests, management methods and trials established in these areas date back to the 1800s. The research forests were previously managed by Metla, but in 2008 they were transferred to Metsähallitus, which now manages them in compliance with Metla's guidance.

LISÄTIETOA: <http://www.metla.fi/metla/metsat/index-en.htm>



- ▶ in the assessment of the sustainability of forestry and in forest certification
- ▶ in the assessment of changes in the carbon reserve and the amount of greenhouse gas emissions
- ▶ as a basis for decision-making related to forest policy
- ▶ as baseline information for forestry planning
- ▶ as support for investment decisions in forestry
- ▶ in selection of regeneration methods
- ▶ in research related to the timing and intensity of felling
- ▶ in determining the growing density

