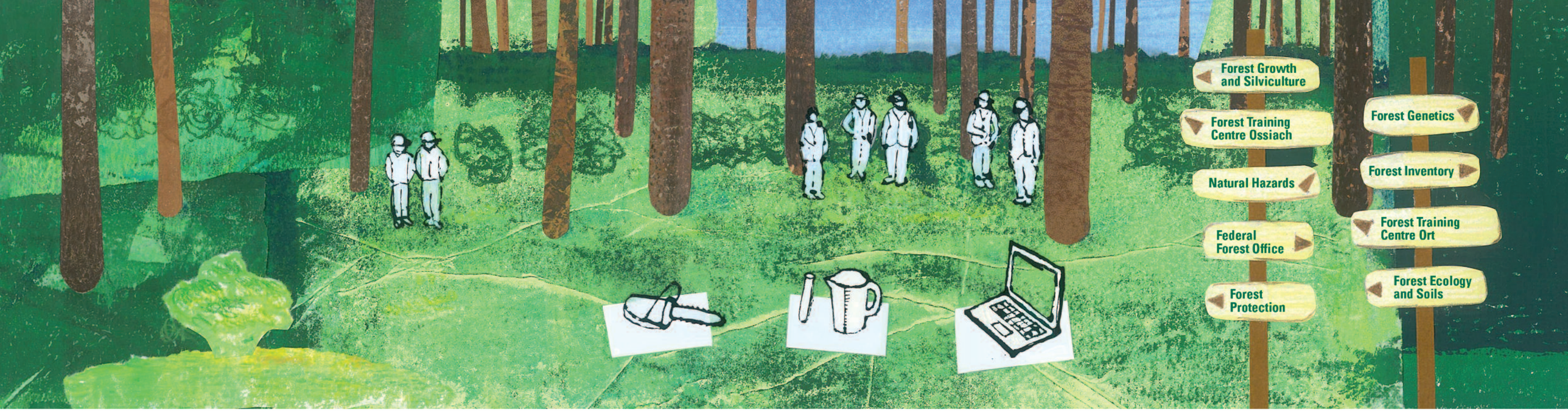

MINISTERIUM FÜR EIN LEBENSWERTES ÖSTERREICH

BFW. bfw.ac.at

BFW. Austrian Research Centre for Forests

We Know All About Forests

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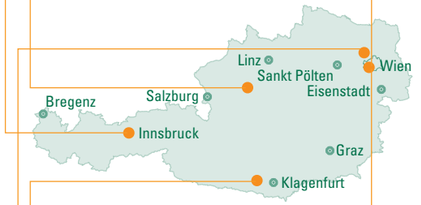

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- Forest Training Centre Ossiach

Austrian Research Centre for Forests – We know all about Forests

The Austrian Research Centre for Forests (BFW) covers all aspects of forests and forest management – from an economic, ecological and social point of view. We use science to advance sustainable forest management and mitigate natural hazards, further aggravated by climate change.

Our research focuses on the sustainable forest management of forests, biodiversity, natural hazards and climate change, aiming to:

- provide national and international policy and decision makers, forest managers and forestry consultants with solid expertise,
- disseminate acquired and practical knowledge on to society,
- provide vocational training for forest technicians and workers as well as environmental education practitioners and forest pedagogues at our two training centres.

In addition BFW is mandated by the Republic of Austria as the national authority to undertake surveillance tasks in regards to international trade of forest reproductive materials, forest plant health and import of forest products under various national and international regulations (e.g.: EU Timber Regulation, FLEGT licensing scheme).

All our activities serve one common goal: to provide knowledge-based answers for the benefit of our society - worldwide.

Peter Mayer, Managing Director of the Austrian Research Centre for Forests

We bring knowledge into the Forest – and to the world

- Forest and its Management | We provide the fundamentals
- Forest and Climate | We explore the change
- Forest and Water | We explore the dynamics
- Forest and Biodiversity | We maintain and utilize diversity
- Forest and Natural Hazards | We give you the green light

The BFW-Facts:
six specialized departments,
two Training Centres and four locations
281 employees and
22,4 million Euros turnover

We know everything about the Austrian forests and provide our expertise worldwide: Our mission reflects the multiple aspects of forests. Through our long standing forest monitoring we observe forests from different perspectives – as a matter of principle. Forests and forest management are an integral part of human society and timber and fuel wood energy has provided shelter and comfort for millennia and will continue to do so in the future. In view of this significance, sustainable forest management and effective forest conservation gain more and more research relevance in view of changing climatic conditions.

In order to sustain the provision of various ecosystem services by forests we focus on a whole range of educational and vocational training services at our two forest training centres, bringing the knowledge gained in research and monitoring "into the forest".

For developing international relations in terms of research, knowledge-transfer and consulting BFW has established a Division for International Cooperation.

Unit

- International Cooperation

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BFW. Department of Forest Growth and Silviculture

Head of Department: Dr. Silvio Schüler

Our Department deals with the establishment, management and sustainable utilization of forest resources, taking into account ecological and economic aspects. We are responsible for long-term trials on forest growth and silviculture for various tree species which provide essential data for the understanding of forest growth and the development of silvicultural strategies.

We are also responsible for forest monitoring in the frame of transnational ICP-Forests and the scientific supervision of the Austrian natural forest reserves programme. A central activity of our department is the development and application of forest growth models. These models and the the various long-term observations allow scientific analyses of the effects of climate change, forest pests as well as anthropogenic disturbances and serve as basis for recommendation on silvicultural management.

Units

- Silviculture
- Forest Growth
- Protective Forest and Natural Forest Reserves
- Special Unit: Management of Monitoring Plots

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BFW.Department of Forest Genetics

Head of Department: Univ.-Prof. Dr. Dr. Thomas Geburek

We are concerned with the analysis of genetic information about forest trees and other organisms living in the forest and the dynamics of genetic processes in forest stands. Environmental stress and forest management issues are also considered. Activities are based on genome research, population genetics and provenance research (gene ecology). The aim is to translate genetic knowledge into measures for biodiversity enhancement, genetically sustainable management of forests, protection and management of genetic resources and promotion of the adaptability and survival of complex forest ecosystems. Breeding programmes are developed and increase the productivity and yield of certain tree species.

Results from our provenience trials are based on our maintained network of test sites and are used to identify specific response functions, predict growth and yield under different environmental conditions and thus mitigate climate change effects.

Units

- Genome Research
- Ecological Genetics and Biodiversity
- Provenance Research and Breeding

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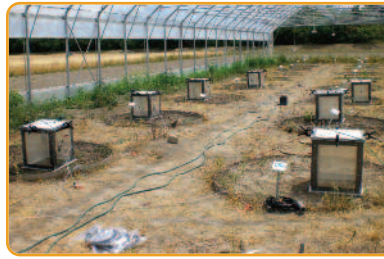
BFW.Department of Forest Ecology and Soils

Head of Department: Dr. Ernst Leitgeb

Forest soils - at the intersection of geology, hydrology and atmosphere - play a key role in ecosystem functioning.

Core themes of the Department are the impact of climate change on forest management, soil carbon storage and green house gas formation and ecological constraints of biomass removal in forests. Moreover, the Department hosts the agricultural soil mapping unit, with a comprehensive pedological database allowing interdisciplinary queries and providing user friendly access to soil information for the public.

The Department is the contact point for the preparation of INSPIRE compliant Geodata for BFW and the Ministry of Agriculture, Forestry, Invironment and Water Management (BMLFUW).



Units

- Site and Vegetation
- Soil Ecology
- Agricultural Soil Mapping and Geoinformation
- Special Unit: Climate Impact Research Coordination

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BFW.Department of Forest Protection

Head of Department: Priv. Doz. Dr. Gernot Hoch

Research and monitoring of pests and pathogens in Austrian forests are the main tasks of the Department of Forest Protection. Damage by tree pathogens, insects and abiotic factors are diagnosed and control measures developed. The department fulfills official tasks in plant protection in Austria to protect forests from quarantine pests. Research on pest organisms of concern and control strategies is done in international cooperation. Continuous monitoring of nutrient status and impact of air pollutants on trees by analysis on needles and leaves embedded in the ICP Forests network allows assessment of the forests as well as investigations of acute damage to pollutants. With research, surveys and transfer of knowledge to forestry practice the department contributes to maintaining Austria's forests in good health.

Units

- Entomology
- Phytopathology
- Forest Health Information and Procedures
- Air Pollution and Plant Analysis

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BFW.Department of Forest Inventory

Head of Department: Dr. Klemens Schadauer

The Austrian National Forest Inventory (NFI) generates forestry data on a large scale – using terrestrial surveys, aerial photographs, powerful computers and modern technology. The NFI creates quantitative information on the state, use, management and trends of forest resources and of the ecosystem as a whole. It is an important database for decision-making in forestry, ecology and political matters.

As a raw material which is being increasingly used as a renewable energy source, wood has become a subject of growing special political interest. Therefore, issues related to sustainable forest management as a whole are being examined in detail at the Department of Forest Inventory. A main pillar of the department deals with international activities. The European National Forest Inventory Network is chaired by its head leading to cooperation projects with the European Commission. NFI competence is also delivered to countries around the globe such as Surinam or Singapore.

Units

- Inventory Design and Remote Sensing
- Assessment Methods and Survey
- Inventory Logistics and Databases

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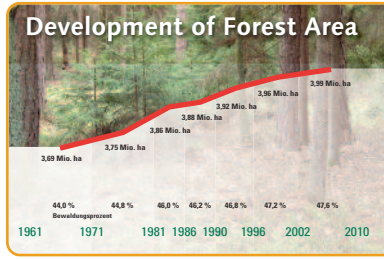

BFW.Department of Natural Hazards

Head of Department: Dr. Karl Kleemayr

The Department of Natural Hazards studies and develops practical methods for the sustainable protection of the human living space. Here, interactions between land cover (e.g. forests), land use and natural hazards, particularly in relation to climate change are examined. Emphasis is placed on the analysis of avalanche activity, runoff processes and shallow landslides. Another important task is the development of risk management concepts and optimization of modelling approaches for the assessment of natural hazards.

Units

- Snow and Avalanches
- Water Balance in Alpine Catchments
- Torrents and Erosion
- Special Unit: Alpine Timberline Ecophysiology

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BFW.Forest Training Centres in Ort/Gmunden and Ossiach

Head of FAST Ort: Prof. Dr. Wolfgang Jirikowski
Head of FAST Ossiach: DI Johann Zöscher

At the two Forest Training Centres in Ort and Ossiach, knowledge generated by BFW is translated into practice covering a wide range of training subjects. Training is offered to forestry workers and anybody interested in forests and forestry. Every year, more than 15,000 participants complete training courses and seminars on an extensive range of subjects from suitable work techniques to strategic issues in the field of forest ecosystem management.

Current examples of courses:
– Vocational training and state examinations
– Chainsaw and safety training
– Cable logging and tree climbing
– Forest management and timber marketing
– Forest education and forest knowledge
– One-day seminars and special courses

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A key player and well connected: Examples of current activities

Integrated land management | Close to nature, stable ecosystems are core topics of BFW. The research centre signifies sustainability in times of climate change. The department of forest growth and silviculture carries out long-term observations, deals with integrated land use concepts and natural forest stands.
▸ **www.waldmonitoring.at, www.naturwaldreservate.at**

Politics of a diverse range | Forests in Austria are sustainably managed. BFW carries out international research projects, implementing modern forestry methods and working in countries like Ethiopia and Burkina Faso. The goals are to increase biodiversity and contribute to solutions regarding climate change. Further research collaborations are partly realized in collaboration with Japan, China and South Korea.

Forest Inventories | Sound data and good mapping of forest stands is of high importance for sustainable management. The department of forest inventories carries out national and international forest inventory projects, using up to date methods and modern techniques. The project DIABOLO brings together many different national forest inventories. International projects are carried out in Suriname and Singapore.
▸ **www.waldinventur.at**

Forests from above | Implemented techniques at BFW are also airborne. The department of Natural Hazards use drones equipped with cameras to monitor damages to forests and imminent natural disasters as landslides, avalanches or mudflows.

Protecting forests | Globalization has led to the movement of species which can cause enormous damage when introduced to an ecosystem. The Department of Forest Protection carries out relevant studies to find efficient solutions, for example the use of scent detection dogs to detect the Asian longhorn beetle in packing material of granite.

Forest education | Research findings need to be applied to make changes and improvements possible. Therefore communication of research results is highly relevant. 450 events with more than 15,000 participants are organized at the training centres in Ort/Gmunden and Ossiach.
▸ **www.fastort.at, www.fastossiach.at**

Forests are complex systems | In the series Unseen Science, cultural projects are implemented, which look at forest biotopes in an aesthetic way. The basic principle of the projects is Open Science, a democratic approach to sharing knowledge.

The websites **www.waldwissen.at** and **http://bfw.ac.at/waldzahlen** are a great source of information for all different kind of user groups – professionals and non-experts.

BFW.Federal Forest Office

Director: Dr. Peter Mayer

International trade and mobility increase the spread of invasive pests - organisms that threaten the ecosystems in Europe. The monitoring of imports and the trade of seeds and seed stocks are becoming increasingly necessary. In order to carry out the surveillance tasks the Federal Forest Office was entrusted with the implementation of the Federal Forest Act on Reproductive Material (FVG) and the Federal Act on Plant Protection (FVG). For this purpose it draws on the human resources of the Austrian Research Centre for Forests (BFW).

BFW has also been charged by the legislator with the establishment and enforcement of a FLEGT licensing scheme and the operational implementation of the EU Timber Regulation (timber imports, commitments of market participants who place timber and timber products on the market).

Tasks

- Forest Reproductive Material
- Forest Plant Health
- Timbertrade

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