

Forstschutz Aktuell Nr. 40 - Abstracts

Editorial

Harald Mauser and Olaf Schmidt

Forest Research Institutes are instrumental in providing competent support to practitioners and policy-makers. Thereby, knowledge and experience from research projects and monitoring programmes are utilized.

Due to their geographical proximity, the similarities in physiogeography and forestry sector, BFW and LWF have decided to foster their cooperation and to increasingly search for common solutions. This approach has been followed already in the field of forest protection.

Protecting forests against biotic and abiotic damage in order to ensure the sustained provision of living space and the production function of the forest is among the basic tasks of forestry. Those who are in charge of forest protection, both in research and in practice, carry a high responsibility.

Climate change and globalization pose new challenges in forest protection. Climate change can weaken the vigor of several tree species and forest stands, thus favoring the spreading and the virulence of forest pests and diseases. Globalization with its worldwide trading scheme holds additional risks for our forests. Especially wood products such as wood packing materials contribute to the introduction of invasive species to Central Europe.

These new challenges for forest protection can only be met by a new quality of cooperation across national borders. We, the heads of BFW and LWF, explicitly welcome the good cooperation of our experts in forest protection. We are pleased that this cooperation will gain further visibility by institutionalizing the contribution of LWF to the editing of the renowned journal "Forstschutz Aktuell" published by BFW.

We would like to thank the forest protection experts of our institutes for their pioneering initiative and hope that this fruitful cooperation will continue for a long time.

Hurricane Damage and Weather Favour Bark Beetle Gradation

Gottfried Steyrer and Christian Tomiczek

At the beginning of 2007, gales caused severe wind throws in Austria. Damaged wood could not be totally removed from the forests and therefore further breeding material is available for the bark beetles. Due to the mild and dry weather in winter and spring, the bark beetle flight activity started three to four weeks earlier and the development of the beetles was favoured. Together with the bark beetle record level from the last year, it is to be expected that in Austria, three and in higher altitudes two generations of *Ips typographus* can completely develop.

Bark Beetle in Bavaria - Actual Situation

Cornelia Triebenbacher and Thomas Immler

Through the favourable climatic conditions of the last year, the bark beetles could reproduce strongly in Bavarian. Due to the mild winter 2006/2007 all larvae stages survived. Their development was finished to the first entusing-flight at the beginning of April. In this way, we had a very large initial population, which also started unusually early. Damaged wood left behind by hurricane "Kyrill" influenced the infestation process. The beetles bored increasingly into the lying timber and created the first breeding there. Infestations at standing trees were found in areas, where single and nest breaks were still remaining in the stands. Meanwhile, the first generation is fully developed and swarms. The first sibling breeding will swarm to mid-June.

Actual Situation of Dieback of Ash in Austria

Thomas L. Cech and Ute Hoyer-Tomiczek

Dieback of *Fraxinus excelsior* and *F. angustifolia* is a phenomenon present in many European countries. In Austria, ash dieback is being investigated on the base of assessing symptoms and pathogenic agents in monitoring plots. First findings are presented. The pattern of disease-intensity shows an association with some site and stand factors indicating a primary relation of the dieback to problems with water supply. Though among the microfungi infecting shoots and twigs even species of *Phytophthora* were found, an epidemic spread of a single or several aggressive shoot infecting pathogens seem unlikely. Moreover, these preliminary suggestions are also supported by observations of trees showing root rot.

First Record of *Eutypella parasitica* in Austria

Thomas L. Cech

Eutypella parasitica R.W. Davidson & R.C. Lorenz was detected in Austria in December 2006 as a cause of stem cankers on *Acer pseudoplatanus*. The pathogen is of North American origin, where it occurs on various species of *Acer*. In Europe, the fungus has been detected for the first time in Slovenia in 2005. The relatively slow spread by ascospores over short distances may be a chance for an eradication of this disease, which probably was introduced with plant material.

Increase of Sap Feeding Pests in Forests and Urban Areas

Bernhard Perny

Favoured by the mild climate in winter 2006/2007, many mass outbreaks of sap feeding pests took place, especially in coniferous trees. Beside spider- and gall mites Sitka spruce aphid, fir adelgids and the fir root aphid are worth mentioning. The increasing number of froghoppers observations, especially spittlebugs, attribute not only to the gentle weather but also to the rising interest in short rotation areas.

Feeding damage by *Boarmia bistortata* Goeze (Lep., Geometridae) in a Pine Stand in Bavaria

Gabriela Lobinger

The geometrid moth *Boarmia bistortata* Goeze appears temporarily as a forest pest. In Bavaria, this insect species prefers older pine stands with blueberry. At first, the young larvae of *Boarmia bistortata* cause feeding damage on the blueberry bushes. Later on they climb up the pine trees and feed on needles of the previous years and even on new shoots in case of high population density. Mass propagations of this insect over several years lead to severe loss of vitality and partly high tree mortality in pine forests. Thinning of trees by the feeding larvae result in the occurrence of secondary pest insects like bark beetles and buprestid beetles. In case of mass propagation of *Boarmia* during several successive years, control measures will be necessary to save the pine stands. The special biology of this insect species makes a reliable and early risk assessment very difficult.

Braunau/Inn: Expansion of the Area Infested by the Asian Longhorned Beetle

Ute Hoyer-Tomiczek

There has been further spread of the Asian Longhorned Beetle in the industry- and shopping area reaching almost the eastern limits of the city of Braunau/Inn. In spring 2007, during a monitoring period of several weeks, a total of 25 infested trees was detected, including also willow and poplar, the new host trees in Braunau. In the years 2005 and 2006, 38 adult ALB could emerge unnoticed and reproduce in near standing trees. From just one maple tree standing on the ground of a company 36 ALB emerged. Several infested trees also stood within a forest near this company ground featuring all developing stages. Therefore, the opinion is refuted, that the ALB cannot reach its final development stage within a forest. At the beginning of April 2007, all infested trees, the whole forest, and all broad-leaved trees on the company ground were cut, chopped and burned.

Frost Injuries in Spite of Mild Winter

Hannes Krehan and Gottfried Steyrer

In 2007, the spring flush of growth and flowering of plants started about three weeks earlier than in normal years. In the first week of May, after a long period of very warm days, a sudden drop in temperature below 0 °C caused frost injuries on conifers and broadleaves in the eastern parts of Austria. Because of lack of precipitation during late winter and spring, many people confused the symptoms with drought damages. Spring frost injuries, especially when new shoots droop, redden or turn light brown, are often more noticeable than fall injuries in autumn.

Massaria-Disease of Plane Was Detected for the First Time in Austria

Thomas L. Cech, Martin Brandstetter and Christian Tomiczek

Infection of twigs and branches by the ascomycete *Massaria platani* syn. *Splanchnonema platani*, anamorph *Macrodiplodiopsis desmazieresii*, result in bark lesions and a quick progressing wood-rot. A probable relation to the dry winter and spring 2007 is discussed and information on control measures is given.

Petrakia Leaf Blotch of Sycamore Maple

Thomas Kirisits

The anamorphic fungus *Petrakia echinata* was identified as causal agent of a leaf blotch disease of sycamore maple (*Acer pseudoplatanus*) trees at two localities in Austria between 2003 and 2004. Although this fungus has been known as leaf pathogen on sycamore maple for a long time, it is not mentioned in reference books of forest pathology in Europe. The characteristics of *Petrakia echinata* and the disease caused by this fungus are therefore described and illustrated. No common name has previously been designated for this infectious leaf disease. It is thus suggested to refer to it as "Petrakia leaf blotch of sycamore maple" (German: "Petrakia-Blattbräune des Bergahorns") in the future.

Declining Scots Pines: A Consequence of the Drought in 2003?

Markus Blaschke and Thomas L. Cech

Decline of Scots pine (*Pinus sylvestris*) is an increasing problem in Bavaria and other parts of Germany. Causal agents are

interacting biotic agents such as the blue pine wood borer (*Phaenops cyanea*) and, among microfungi, Diplodia-blight of pines (*Sphaeropsis sapinea*). Spread of Diplodia-blight is a consequence of drought stress and subsequent nutrition deficiencies. Recent reports on many local outbreaks suggest the association of *Sphaeropsis sapinea* with hail injuries, though drought can be regarded as the main predisposing factor. In Bavaria, the amount of declining pines has increased considerably since the extreme drought in 2003. Probable losses of Scots pine stands as a consequence of climate change are discussed.



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