

## Forstschutz Aktuell Nr. 37 - Abstracts

### Forest Protection - A Topical Issue without Frontiers

Christian TOMICZEK and Thomas IMMMLER

Record volumes of damaged timber, unexpected gradations by leaf-eating insects which have not been of major concern during recent decades, ever increasing problems due to invasive pests or introduced diseases provide an indication for the seriousness of forest protection issues in Central Europe. It is debatable if the causes thereof are climate change or forest management changes (e.g. "proper forest management"). We can assume that this is due to several factors which will probably not reduce but rather increase forest health problems. Also, country boundaries will be irrelevant. While, some years ago, the owners of large estates still favoured the idea of minimum forest protection requirements, it is now largely understood that feasible and common solutions need a diversified approach. As a consequence, the idea was born to join forces of Department of Forest Protection of the Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW) and Bavarian Forest Institute Freising (LWF) in the future.

This edition of **Forstschutz Aktuell** marks the beginning of a collaborative effort between the two institutions. The intention is to inform on forest protection issues in Austria and Bavaria at least twice a year. The face of the expert journal Forstschutz Aktuell will remain unchanged. LWF will contribute at a regular basis with information and articles from Bavaria. In the future, Forstschutz Aktuell will be made available to a much wider audience. The two institutions will also enhance cooperation in research and monitoring.

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### The Pros and Cons of Stem Injections to Control Horse Chestnut Moth (*Cameraria ohridella*)

Christian TOMICZEK

Stem injections and stem infusion methods have a long tradition in Northern America. The advantage over spraying or soil injections is that the pesticide remains inside the tree. In spring 2004 four horse chestnut trees were injected with a systemic insecticide to find out whether this method could be useful to control *Cameraria ohridella*. The degree of leaf damage by the moth was calculated in August 2004 and 2005. Injected trees showed significant lower leaf damage (20 % - 80 %) than untreated trees (60 % - 95 %). Two years later one tree was felled and the injection points, parts of the stem and the crown investigated for damage symptoms. Near the injection points the cambial layer had died and discolouration increased with distance from the injection point. The highest damage occurred in branches, where up to 50 % of the cross section showed dead xylem wood. The results showed, that for the time being the negatives prevail by far.

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### Meeting of the Austrian Forest Protection Specialists on Bark Beetles - Actual Situation and Discussion Results

Hannes KREHAN, Christian TOMICZEK and Gottfried STEYRER

During a meeting of Austrian Forest Protection specialist of the federal provinces and BFW actual problems in the management of bark beetle control in mountainous regions were discussed. The bark beetle situation of the year 2006 seems to be as critical as the year before. Some forest offices started to prescribe control methods in accordance with federal regulations. Many problems resulted from wrong and uncoordinated management, logistic deficits and wrong estimations of the reproductive potential of bark beetles even at high altitudes. The storage of bark beetle infested logs outside the forests should be regulated by forest law.

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### Bark beetles Hold in Breath

Thomas IMMMLER, Cornelia TRIEBENBACHER and Martina MUCK

In Bavaria, a mass outbreak of spruce bark beetles has been noted since the dry and hot year of 2003. Due to the extremely warm and dry weather during the months of June and July 2006, bark beetles found exceptionally favourable conditions. But also other bark beetle species profited of the dry and warm summers of the recent years, locally causing damages to Douglas firs, larches, silver firs and beeches.

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### Development of New Strategies in Bark Beetle Management

Gabriela LOBINGER

Since insight into the aggregation behaviour of bark beetles has been gained, there are efforts to make use of these mechanisms to create modern methods in the fight against bark beetles. Olfactorily induced repellent effect seems a promising method to induce dispersion in order to prevent beetles from attacking and from building up local mass propagations. In the case of spruce bark beetle, verbenone as the specific antiaggregation-pheromone showed good effects. Other trials were successful using L-Allylanisol against *Pityogenes chalcographus* attacks in canopy material. The wood-breeding bark beetle *Trypodendron lineatum* shows reaction to the repellent agent alpha-Terpineol. There are good chances but still many limitations of using repellents in the practice of bark beetle management.

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## Plague of Cockchafer Grubs in Upper Carinthia

Bernhard PERNY

For some years an increase of the occurrence of Cockchafers in Austria (Carinthia, Lower Austria and the Tyrol) has been observed. In 2006, a mass outbreak of this pest has been noted in the district of Hermagor/ Carinthia in the valleys Gailtal, Gitschtal and for the first time even in the Lesachtal, which is located at a high altitude. Hereby, the abundance of the pest is several times higher than the critical numbers. Beside common preventive and control measures, a new method using an insect pathogenic fungus is described.

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## International Meeting of Forest Scientists in Gmunden - IUFRO Working Party 7.03.10 at the FAST Ort of the BFW

Ute HOYER-TOMICZEK and Hannes KREHAN

The seventh workshop of the IUFRO Working Party 7.03.10 took place from 11th to 14th September 2006 at the Forestry Training Centre of BFW in Ort, Gmunden/Upper Austria. Altogether, 67 participants from 21 countries gave an overview of the "Methodology of forest insect and disease survey in Central Europe" in different countries. In total, 31 oral papers and 30 posters were presented. The excursion visited Lambach and the forest stands of the forest company "Stift Lambach" where the monitoring of the Gregarious Spruce Sawfly and the bark beetle situation in Upper Austria as well as the production of wood shavings directly in the forest were presented and discussed.

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## Ash Dieback and Premature Leaf Shedding in Austria

Thomas L. CECH

Widespread dieback and premature leaf-shedding of ash (*Fraxinus excelsior*) is reported from Lower Austria, Upper Austria, Styria and Salzburg. The dieback is associated with cankers of microfungi. The role of climatic stress factors as primary cause is discussed.

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## Two Hop-hornbeam-wych Elm Stands in Southern Carinthia which are Still Unaffected by Dutch Elm Disease

Thomas KIRISITS and Wilfried Robert FRANZ

Two small forest stands dominated by wych elm (*Ulmus glabra*) in Southern Carinthia are described that have as yet not been affected by Dutch elm disease (causal agents: *Ophiostoma ulmi* und *Ophiostoma novo-ulmi*). Each of the stands cover about one hectare. They are located on the southern slope of the "Sattnitz", a range of hills south of Carinthia's capital Klagenfurt consisting of conglomerate bedrock. They have previously been described as a new forest community (Ostryo-Ulmetum glabrae, hop-hornbeam-wych elm forest). Repeated inspections during the last few years and just recently, in October 2006 revealed that all elm trees were healthy and vigorous. This suggests that the trees have not been in contact with *Ophiostoma ulmi* and *Ophiostoma novo-ulmi* so far. However, these remarkable stands which presumably represent one of the rarest forest communities of Carinthia and the whole of Austria are at high risk to become affected by Dutch elm disease.

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