Forstschutz Aktuell Nr. 17/18 - Abstracts

Bark beetle infestation in Austria in 1995

H. Krehan

Since 1992 - two years after the big wind-break - more than 6.7 million m^3 bark beetle infested trees were cut. The situation in several secondary Norway spruce forests became very critical. The occurrence of *Dendroctonus micans* in parts of the Austrian Alps and the first findings of *Ips duplicatus* in Upper Austrian forests are also mentioned.

Bark beetles at higher altitudes

C. Holzschuh and B. Perny

The epidemic occurrence of bark beetles in Lech/Arlberg (Vorarlberg) was the reason for investigations about Scolytidae (Coleoptera) at higher altitudes. 15 different species were found and 5 of them, *Ips typographus*, *I. amitinus*, *Pityogenes chalcographus*, *P. cunjunctus* and *Dendroctonus micans* are thought to be very important. The more unknown bark beetle *P. conjunctus* is introduced by its biological and epidemiological characteristics and differentiated from its close relative, *P. bistridentatus*.

Demonax donaubaueri n.sp., a new Clytini Species from South China

C. Holzschuh

The new species, related to *Demonax decens* Gahan, is described and figured.

Neue Pheromone im Praxistest

A. Pfister

New pheromones against *Ips typographus* and *Pityogenes chalcographus* were tested by the FBVA. Some of these new pheromones (Kornek Ltd.) were at least as good as the approved pheromones Pheroprax and Chalcoprax (Cyanamid). Further investigations are planned for next year.

Pine decline in Lower Austria

T. Cech and Ch. Tomiczek

Since 1990 a significant increase in the decline of Scots pine (*Pinus sylvestris*) and Austrian pine (*Pinus nigra*) has been observed in eastern parts of Austria. Till 1995 up to 49,2 % of pine trees died specially in dry, south - to southwest - exposed forest stands. In practically all dying *P. sylvestris* trees sapwood nematodes (*Bursaphelenchus mucronatus*) were observed in high numbers; only few nematodes were isolated out of *P. nigra.* Long-lasting drought periods seem to have weakened the pine trees which were killed by a complex of insects. *Phaenops cyanea*, *Pissodes piniphilus* and *Ips acuminatus* played the most important role in Scots pine, whereas microfungi like *Sphaeropsis sapinea* and *Cenangium ferruginosum* and the bark beetle *Pityogenes bistridentatus* actively infested Austrian pines.

The role of *Bursaphelenchus mucronatus* nematodes in pine decline in Austria

Ch. Tomiczek

Two year old Scots pine (*Pinus sylvestris*) seedlings were inoculated with 6.500 *Bursaphelenchus mucronatus*, kept in climatic chambers (day: 28 °C, 12 h, daylight; night: 18 °C, 12 h, darkness), and watered only once a week. The isolate from "Kamptal" (Lower Austria) seems to be under stress conditions moderately pathogenic. All inoculated seedlings showed wilt symptoms, whereas non inoculated trees stayed healthy.

Lärchensterben in den österreichischen Alpen

T. Cech

Report on twig and shoot decline of *Larix europaea* in Upper Austria, Styria, Salzburg, and Tyrol. Climatic causes are discussed.

Tree condition assessment on hail-damaged trees in Carinthia (South Austria)

H. Krehan

In July 1993 a very strong hail storm caused severe damage on Norway spruce and Scots pine in the centre of the hail damaged area. Radial increment decreased to a level of about 10 % of the previous years. The average rate of defoliation of Norway spruce in the centre was about 60 %, that of Scots pine about 70-80 % of the trees in the centre were dead, the others in a very bad condition, sometimes because of the succeeding attacks of bark beetles.

Gradation of processionary caterpillar and winter moths on oak in Vienna city

Ch. Tomiczek and H. Krehan

In summer 1995 a gradation of *Thaumetopoea processionea* was observed in the most western parts of Vienna feeding on different oak species. Intensive flight activity of winter moths, e.g. of *Operophthera brumata* and *O. fagata*, in western and northern parts of Vienna during December 1995 will announce a serious attack of the caterpillars in next spring on different broadleaves.

Damage by a wood wasp in connection with testing of a new wound dressing

Ch. Tomiczek

Tests with Fongisil on Norway spruce (*Picea abies*) and different broad-leaved tree species showed interesting results. Whereas practically no butt rot infection could be observed on the treated wounds of maple, beech or oak, most of the treated wounds of Norway spruce were heavily infected by butt rot. The main reason seems to be the attractance of a horntail (*Urocerus tardigradus*) by the yellow colour of the tested wound dressing. After this experience the colour of Fongisil was changed to "natural brown".

Stem cracks in fast growing Norway spruce stands

J. Ferenczy and Ch. Tomiczek

Typically "left turning" stem cracks were observed on 20-40 year old Norway spruce. All trees showing these symptoms were extremely fast growing (more then 8mm/year). Damage is thought to be induced by water stress during dry summer periods.

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