Forstschutz Aktuell Nr. 65 - Abstracts

Distribution of the northern bark beetle (*Ips duplicatus*) in Austria

Gottfried Steyrer

Only local and rare records of the northern bark beetle (*Ips duplicatus*), a bark beetle species of the boreal zone, from Central Europe existed until a few decades ago. For Austria, numerous publications cite its presence; however, these refer to a single specimen and appear questionable in the context of historical literature. At the end of the 20th century, forest health experts from the Austrian Research Centre for Forests (BFW) found I. duplicatus in Austria frequently on storage yards of industry processing imported timber and adjacent areas. Since 2013, *I. duplicatus* was regularly caught in pheromone traps in forests in Lower Austria at considerable distance from timber storage. Consequently, the distribution of *I. duplicatus* in Austria was examined with bark beetle traps baited with the species-specific pheromone lure. *Ips duplicatus* was present in the traps in all examined federal provinces of Austria in 2017.

Drought stress predisposes Norway spruce stands to attack by the Eurasian spruce bark beetle

Sigrid Netherer, Josef Pennerstorfer, Bradley Matthews

Bark beetle mass outbreaks have led to an increasing amount of salvage cuttings in Austrian Norway spruce forests since 2015. A recent study performed by the Institute of Forest Entomology, Forest Pathology and Forest Protection for the Austrian Federal Forests (ÖBf AG) focused on the correlation of bark beetle infestation and parameters related to climate, stand structure and drought stress. Predisposition of forest stands to attack by the Eurasian spruce bark beetle, *Ips typographus*, increases with proportion of Norway spruce, stand age and unfavourable stand density. Stands already infested by bark beetles in the previous year are highly prone to continued attack. By means of the novel water balance model TDEF that was particularly developed for risk assessment recent periods of drought stress indicated by transpiration deficits were identified retrospectively for management units of the various ÖBf forest enterprises. Constellations of predisposing parameters differed with region; yet, transpiration deficits occurring in the previous year and the actual year, particularly during the summer months June to August of the period 2014-16 turned out to be equally relevant for bark beetle infestations in all areas.

Horse-chestnut leafminer (*Cameraria ohridella* Deschka & Dimić, 1986) on yellow buckeye (*Aesculus flava*) – observations from Munich

Olaf Schmidt

Since the beginning of the successful spread of the horse chestnut leafminer throughout middle Europe in the mid-80s, park and city gardeners have been searching for possible alternative tree species that offer a similar decorative value like the white-flowering horse-chestnut (*Aesculus hippocastanum*). Until now, the red-flowering horse-chestnut (*Aesculus x carnea*), which is not infested by *C. ohridella*, has been preferred. The yellow buckeye (*Aesculus flava*) is also proposed as alter native tree species, since it is thought not to be infested by the leaf-mining moth. Observations from Munich in recent years, however, show that *A. flava* can serve as host tree for *C. ohridella*.

Sooty bark disease endangers stands of Sycamore maple in Lower Austria

Thomas L. Cech

In 2018, decline of Sycamore maples from sooty bark disease of maple (*Cryptostroma corticale*) in a mixed forest stand in Eastern Lower Austria was reported to the Austrian Research Centre for Forests (BFW). The disease is described; likely relations to climate as well as measures are discussed.

Eutypella canker on maple detected in Bavarian forest stands

Nicole Burgdorf, Markus Blaschke, Ludwig Straßer

Subsequently to the first European finding in 2005 in Slovenia and detections in Austria, Croatia and the Czech Republic, *Eutypella parasitica*, the causal agent of maple canker, was first detected in Germany in the urban area of Munich in 2013 (Cech et al. 2016). New studies show that the fungus is established also outside the urban area in adjacent forest stands. Our survey resulted in detection of Eutypella canker in deciduous forest stands in southern Bavaria. Increasing damage to drought-tolerant tree species of the genus maple, particularly *Acer pseudoplatanus*, is expected for the next years.

Bark lesions of hornbeam associated with *Anthostoma decipiens*

Thomas L. Cech

In 2018, cases of decline of European hornbeam (*Carpinus betulus) were reported from several sites in the Austrian provinces Vienna and Lower Austria. The decline was related to stem bark lesions, which consistently revealed bright red spore droplets of the microfungus Anthostoma decipiens. The association of this species to bark lesions and subsequent decline of the tree was primarily reported from Northern Italy, later on from Germany and quite recently also from France and the Iran. The disease affects predominantly hornbeams in urban areas and seems to follow dry and hot summers. Further causal factors as for instance damage by human activities are discussed.*

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