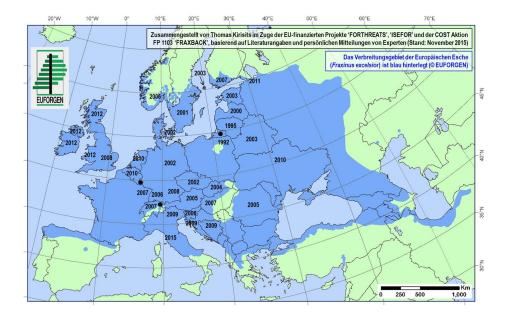
- Appearance and rapid spread of a frequently-lethal fungal disease throughout Europe
- Ash dieback pathogen causes serious ecological and economical problems for forestry, timber industry and nature conservation
- Large scale dropout of young age classes endangers a sustainable forestry with common ash



Since around 20 years the ascomycete fungus *Hymenoscyphus fraxineus*, probably introduced from Northeast Asia, has successively spread in Europe. The fungal pathogen started from Poland (1992) and Lithuania (1996) to spread over almost the whole distribution area of European ash and represents nowadays a serious ecological and economical problem. In the year 2005 the ash dieback pathogen was detected for the first time in Austria. <sup>[1]</sup> The ash dieback pathogen damages infested trees massively and leads from an initial loss in increment to a total dieback of the ash tree. Whereas an increment loss is economically viable for mature trees, the large scale dropout through all age classes endangers the sustainable forestry with ash and the survival of the species itself.

Apothecia are emerging on ash litter of the previous year beneath ash trees. During summer airborne ascospores are produced and dispersed to infect the ash foliage of ash trees in the vicinity. The ash dieback pathogen enters the plant via leaves spreading then to the phloem and the wood.



Symptoms pointing to the ash dieback pathogen can be numerous: drying up and dieback of shoots, twigs and branches in the crown, discoloration, wilting and premature shedding of leaves, tongue-like necrotic lesions in the bark and discoloration of the bark at the trunk base. [2-5] Further visible symptoms are tufted foliation and strong epicormic branching.



Fotos: Kirisits, EUFORGEN

<sup>[1]</sup> Halmschlager, E., Kirisits, T. (2008) First report of the ash dieback pathogen *Chalara fraxinea* on *Fraxinus excelsior* in Austria. Plant Pathology 57: 1177.

<sup>[2]</sup> Husson, C., Grandjean, J. P., Caël, O., Nageleisen, L. M., Marçais, B. (2012): Occurrence of *Hymenoscyphus pseudoalbidus* on infected ash logs. Plant Pathology 61: 889–895.

<sup>[3]</sup> Kräutler, K., Kirisits, T. (2012): The ash dieback pathogen *Hymenoscyphus pseudo-albidus* is associated with leaf symptoms on ash species (*Fraxinus* spp.). Journal of Agricul-tural Extension and Rural Development 4(9): 261–265.

<sup>[4]</sup> Gross, A., Holdenrieder, O., Pautasso, M., Queloz V., Sieber, T. N. (2014): *Hymenoscyphus pseudoalbidus*, the causal agent of European ash dieback. Molecular Plant Pathology 15: 5–21.

<sup>[5]</sup> Kirisits, T., Freinschlag, C. (2014): Eschentriebsterben: Wissensstand und Praxisempfehlungen. Kärntner Forstverein Information 73/Jänner 2014: 18–20.