

Root and Butt Rot of Forest Trees

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The 13th IUFRO meeting on Root and Butt Rot of Forest Trees ended on September 10th 2011 and was described by all as “a smashing success!” Over 80 participants from 20+ countries presented their research in three spectacular venues: the Convent of Sant’Appollonia in timeless Florence; the Istituto Agrario di San Michele in the heart of the glorious wine-producing valley of the Adige river; and the Sass Maor Hunting “Hut” (only 200+ rooms!) in front of the breathtaking Dolomites of the Pale di San Martino.

A session on “Genomics and Plant-Host Interactions” opened the scientific portion of the meeting, in which advances made possible by the availability of the *Heterobasidion* genome were elegantly showcased.

In the days to follow, many talks filled the knowledge gaps on the role played by root rots in European forest ecosystems that are either novel (such as pine plantations on former agricultural soils in Poland or Latvia or on the Atlantic coast of Spain and Portugal), or that have not been intensively studied yet, as in the case of the forests of Serbia or Turkey, just to mention a couple.

A few interesting presentations discussed the role of root rots in Western North America, highlighting for instance a greater than expected presence of *Armillaria* in the interior of British Columbia. The role and biology of *Heterobasidion* in Washington State (USA) was discussed, including the discovery of a natural hybrid between *H. irregulare* and *H. occidentale* found on larch in Montana.

Population genetics reports showed a surprising lack of genetic structure among Swiss populations of *Armillaria cepistipes*, in clear contrast with the highly structured populations of *A. ostoyae* in the French Gascogne. Vineyards planted on former forest soils in the Adige valley showed the presence of large *Armillaria* genets, indicating a long history of presence of the pathogen, even prior to changes in land uses.

Heterobasidion irregulare was the real star of the meeting: not only its genome is now fully sequenced, but its spread was described both using field data in Eastern Canada and genetic data in Italy. A pre-meeting was organized West of Rome, where the pathogen was introduced presumably during World War II, and a



Photo from IUFRO RG [7.02.00 Newsletter 2/2011](#)
Participants at the root and butt rot meeting in front of the Pale di San Martino peaks in the Dolomites, Italy.

presentation showed that the North American species is now hybridizing with the Eurasian congener, after what we now know is approximately 35 million years of allopatric separation.

Disease management highlights included several studies on the biological control agent *Phlebiopsis gigantea* in comparison with chemical control alternatives, but also touched on the role played by buried roots and stumps in the secondary infection process by *Heterobasidion*, and on the presence and the role of resistance vs. tolerance to *Armillaria* in Douglas-fir families tested both in the greenhouse and the field.

Last but not least there were reports on the incidence of root and stem rots in urban situations in Spain and Italy, completely underestimated based on the frequency of visible fruit-bodies, and on the presence of economically significant root diseases in West Africa and Japan.

A mesmerizing field trip was organized in the Forest of the Violins, where participants admired the world renowned Resonance Wood used to make musical instruments, and plenty of alpine food was served in traditional high mountain restaurants known as “Malghe”. The group selected Turkey as the host country for the next meeting in four years and ended the business session with a taxonomic debate on the new name of *Armillaria ostoyae*, showing once again that forest pathologists remain avid mycologists.