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of interesting species were isolated such as *Metarrhizium flavoviridae* var. *flavoviridae*, which was recorded for the first time in a cave system.

Our results underline the mycoodiversity of hypogean environments and, in particular, shows that the anthropogenic influence strongly affects the mycobiota in such semiclosed environments.

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Genetic diversity of the chestnut blight fungus Cryphonectria parasitica and its associated hypovirus in Portugal

Eric Pereira¹, Simone Prospero², Daniel Rigling², Eugénia Gouveia¹

¹CIMO/School of Agriculture, Polytechnic Institute of Bragança, Bragança, Portugal ²2WSL/Swiss Federal Institute for Forest, Snow and Landscape Research, Birmensdorf, Switzerland

The European chestnut (Castanea sativa Mill.) agro-ecosystem has been of high social, economic, and landscape importance in Portugal. Chestnut blight caused by the fungus Cryphonectria parasitica is considered a major cause of the decline of chestnut trees across Europe. C. parasitica is an ascomycete (Diaporthales) that is native to eastern Asia. Infection of chestnut trees with this pathogen is typically associated with extensive bark necrosis (so-called cankers) on stems and branches, resulting in the subsequent death of the part of the tree above the infection point. Chestnut blight in Portugal was first reported in 1992 and since expanding in distribution. Here, we investigated the invasion history of C. parasitica and its associated hypovirus in Portugal. For this, we characterized 137 isolates collected between 2013 and 2014 in four chestnut stands for virus-infection, vegetative compatibility (vc) type, mating type and microsatellite haplotype. A total of 33 haplotypes and four vc types were observed, although the Portuguese C. parasitica population is currently dominated by a single haplotype and a single vc type (EU-11). Further diversification may be expected due to ongoing sexual recombination, but eventually also to new migration and additional introductions. Cryphonectria hypovirus 1 (CHV-1) was found in two populations. Genetic analysis of the six CHV-1 isolates obtained revealed that three viral strains belong to the Italian subtype and three to the French subtype, which suggest different, independent introductions.

Keywords: Chestnut, Cryphonectria parasitica, microsatellite