Poster Presentation 3

P3-18

The spatial distribution of *Serpula* spp. in the decayed woods of Sawara cypress and the decay development process

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Purpose: Butt rot is induced in many adult trees of Sawara cypress (*Chamaecyparis pisifera*) plantations. As the main pathogen, we detected *Serpula himantioides* on the butt-rot Sawara cypress wood in Japan. Understanding the spatial distribution of *Serpula* spp. in the decayed wood needs to reveal the developmental process of the butt rot. In this study, we explored the spatial distribution of Serpula spp. and compared with other fungi in decayed Sawara cypress woods using real-time PCR and amplicon sequence analysis.
Methods: We used healthy and decayed wood samples of Sawara cypress. We extracted genomic DNA from their woods, and conducted real-time PCR of fungal rDNA 18S gene and amplicon sequence analysis of fungal rDNA ITS2 region.
Result and conclusions: There were some fungi in the decayed wood, and many sequence reads assigned to *Serpula* spp. were detected not only in the decayed regions, but also in the border of the decayed regions. Our results suggest that the decay caused by *S. himantioides* is developing in the front of advanced decayed area. We also revealed the *Serpula* spp. distribution in non-decayed heartwood.