

Poster Title: Early warning system against forest invasive fungal alien species and emerging diseases on live plant material

Presented By: Jean A. Berube

Affiliation: Canadian Forest Service

Abstract: An early warning system based on a random sampling of asymptomatic live plant material arriving in Canada is used to detect alien fungal pests. Forty-six sample lots collected by Canadian Food Inspection Agency (CFIA) inspectors from the province of Quebec were analyzed by cloning the fungal ribosomal ITS present in the plant tissues. We obtained 101 fungal species associated with 36 different host plants from the USA, France, the Netherlands and Thailand. Six fungal species found in this study could have a low to moderate potential impact and 11 could have a low potential impact for Canadian forests. Another 14 species could not be assessed given the limited scientific information available. In all cases, the potential impact evaluations of these 31 species originate from the fact that these species are new to science and/or belong to genera and families where pathogenic species are common. The alien fungal introductions with a potential to affect Canadian forests were found at a significant frequency (12.4%) and were present in every sample lot sent by CFIA. The 70 other species found in this study were non-pathogenic fungi; weak to moderately virulent, common and cosmopolitan species; or virulent species found on tropical hosts only.