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Eucalypt plantations represent the main source of wood for the pulp and paper industry and are affected by an important foliage disease worldwide - the complex of *Mycosphaerella* and *Teratosphaeria* species (*Mycosphaerella* leaf disease). These genera affect mainly young trees with juvenile-phase foliage, causing premature defoliation, decreased growth and wood production. Species of *Mycosphaerella sensu lato* reported on eucalypts in Portugal are *Mycosphaerella communis*, *Mycosphaerella heimii*, *Mycosphaerella lateralis*, *Mycosphaerella madeirae*, *Mycosphaerella marksii*, *Mycosphaerella walkeri*, *Teratosphaeria africana*, *Teratosphaeria molleriana*, *Teratosphaeria nubilosa* and *Teratosphaeria parva*. Since 2004, in order to complete the survey, symptomatic leaves were collected from *E. globulus* plantations. Morphological and molecular characterization was used to give a clear indication of the population composition and the main species.

Key words: *Mycosphaerella*, *Teratosphaeria*, leaf disease, MLD, *Eucalyptus*.

Pathogenicity trials with *Gremmeniella* fungi collected on conifers in Canada

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Gremmeniella abietina var. *balsamea* isolated from balsam fir (*Abies balsamea*) and spruces (*Picea* spp.) was tested for pathogenicity on different conifer hosts including *A. balsamea* and *Picea* spp. Pathogenicity of the fungus was positive on balsam fir only. This pathogen could not colonize other conifers, not even spruces which are hosts included in the taxonomic entity *G. abietina* var. *balsamea*. Also, inoculation trials with isolates from spruces and pines on several conifer species are specific to their respective hosts. These results raise questions on the taxonomic status of the two pathogens classified as var. *balsamea*. We believe that both pathogens on spruce and balsam fir should be promoted to the species level for two reasons: 1) isolates from balsam fir, spruces and pine are specific to their hosts, and 2) they have a colour in pure culture that is characteristic of each three groups of isolates. The species *G. laricina* is morphologically very different from all other known species of *Gremmeniella*. All *Gremmeniella* native to North America cause damage only on shoots in the snow.

Key words: Scleroderris canker, *Gremmeniella* spp., *Abies balsamea*, *Picea* spp.