Genetic variation of *Heterobasidion abietinum* in southern Europe and the Mediterranean Basin

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*Heterobasidion abietinum* causes root and butt rot on *Abies* species in central Europe and the Mediterranean Basin. The most important host species is *Abies alba*, but the fungus infects also many other *Abies* species. The distribution of *H. abietinum* ranges from *A. pinsapo* in southern Spain to *A. nordmanniana* in Turkey and Caucasus. In this study the genetic divergence of *H. abietinum* was analysed from different parts of the distribution area using polymorphic molecular markers. The results showed genetic differentiation among *H. abietinum* populations; the most diversified population being that on *A. pinsapo* in southern Spain, which seems to be isolated from other populations. The differences among other European populations were lower, but still sometimes significant. Differences in the genetic structure of the *H. abietinum* populations seem to be related to the history of postglacial re-colonization of *Abies*. 