

Bursaphelenchus spp. inhabitants of a centennial *Pinus pinea* tree of public interest

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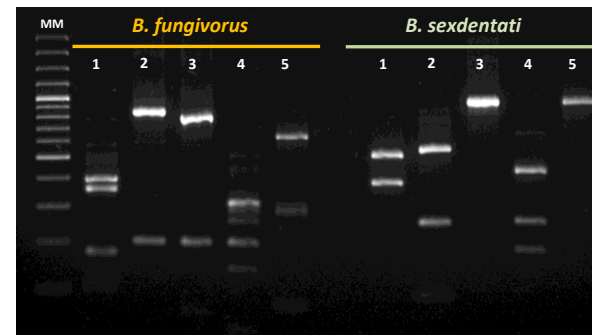
As consequence of their age and size, tree monuments represent biodiversity hotspots, being crucial habitats for a large diversity of organisms. A monumental centennial wilted stone pine, *Pinus pinea*, was felled at the University of Coimbra, Portugal. The diversity of *Bursaphelenchus* species was assessed, including a survey for the presence of the pinewood nematode. This study combined dendrochronological and nematological studies to find out the age of the tree and *Bursaphelenchus* species diversity.



Centennial *Pinus pinea* at Coimbra University



P. pinea trunk base cross section



ITS-RFLP patterns with 5 restriction endonucleases.
1 – *RsaI*, 2-*HaellI*, 3-*MspI*, 4-*HinfI*, 5-*AluI*, MM– Molecular marker

- Differences in tracheid features between earlywood and latewood were used to identify tree rings: 160 years approximately
- *B. xylophilus* was not detected
- Four nematode isolates were cultured in *Botrytis cinerea* and are being characterised molecularly by ITS-RFLP
- *B. fungivorus* and *B. sexdentati* were identified, the two other isolates are being characterised
- Long-established wilted pine trees can host several *Bursaphelenchus* species acting as nematode diversity hotspots