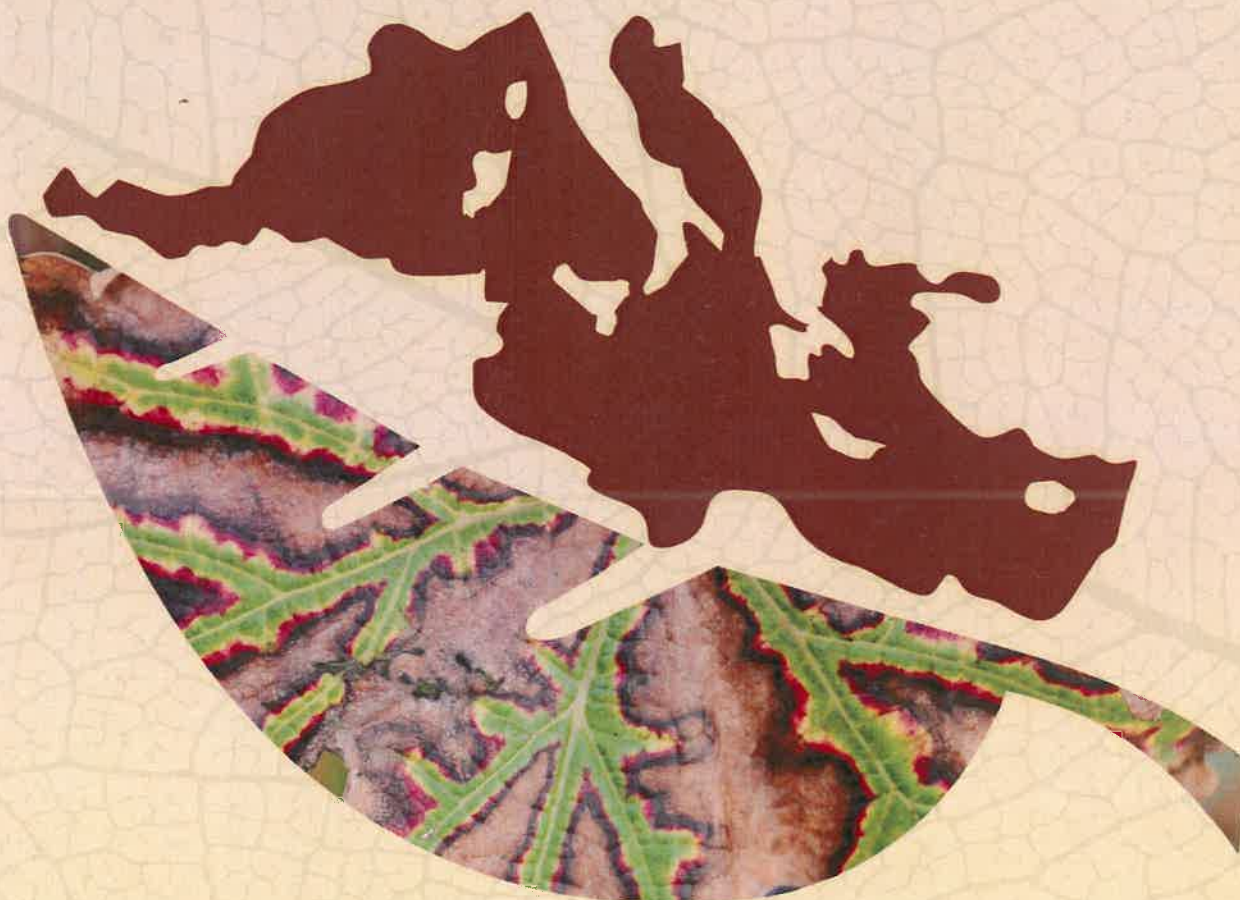




15TH CONGRESS OF
THE MEDITERRANEAN
PHYTOPATHOLOGICAL UNION

PLANT HEALTH SUSTAINING MEDITERRANEAN ECOSYSTEMS

ABSTRACTS BOOK



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P.135 Diversity of fungal endophytic community in *Quercus suber* L. and detection of opportunistic phytopathogenic fungi. D. COSTA^{1*}, J. CUNHA^{1*}, R. M. TAVARES¹, P. BAPTISTA², T. LINO-NETO¹. ¹BioSystems & Integrative Sciences Institute (BioISI), Plant Functional Biology Centre, University of Minho, Campus de Gualtar, 4710-057 Braga, Portugal. ²CIMO/School of Agriculture, Polytechnic Institute of Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal. E-mail: tlneto@bio.uminho.pt

Cork oak (*Quercus suber* L.) is a species of high ecological importance in Mediterranean Basin and has high relevance for Portuguese economy due to cork production and processing. The sustainability of cork oak is currently being threatened by reduction of water availability that would increase the occurrence of diseases. Charcoal disease, caused by the fungus *Biscogniauxia mediterranea*, leads to death of the tree. *Diplodia corticola* is involved in various diseases considered responsible for the decline of cork oak in Mediterranean Basin. To identify endophytic fungi in cork oak, including these opportunistic pathogens, four sites of continental Portugal (Bragança, Gerês, Alcobaça and Grândola) with differences in water availability were selected to carry out the collection of biological material. The community of fungal endophytes of leaves, stems and roots was evaluated. The roots displayed a more diverse fungal community than the aboveground organs. Although no disease symptoms were detected in studied cork oaks, the referred pathogenic fungi were essentially affecting stems and leaves. In general, Grândola presented the highest colonization frequency and diversity of endophytes, while Alcobaça had the lowest. From all studied sites, cork oaks from Gerês showed the most distinct community and did not present those pathogens. *D. corticola* only infected southern regions, while *B. mediterranea* also infected trees in Bragança. The exclusive presence of both pathogens in aboveground organs and the absence of visible disease symptoms in all studied cork oaks encourage the searching of adequate biocontrol agents from the endophytic community for restricting these diseases in cork oak.

*These authors contributed equally to this work.

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