

The genus *Pleurotus* (Fr.) P. Kumm. (*Pleurotaceae*, Basidiomycota) in Greece – Distribution, ecology and exploitation potential

Georgios I. Zervakis¹, Georgios Koutrotsios¹, Georgios Bekiaris¹, Vassiliki Fryssouli¹, Eleftherios Lahouvaris², Athanassios Mastroiannis² & Elias Polemis¹

¹ Agricultural University of Athens, Department of Crop Science, Laboratory of General and Agricultural Microbiology, Iera Odos 75, 11855 Athens, Greece. E-mail: zervakis@aua.gr

² *Manitaria Dirfis*, Kathenoi, Evvoia, Greece.

The genus *Pleurotus* comprises ca. 30 species and subspecific taxa of edible mushrooms with a world-wide distribution. *Pleurotus* species diversity in Greece has been extensively studied for more than three decades through the use of morphological, biochemical, molecular and compatibility approaches revealing the presence of seven species. They include wood-saprotrophs and/or weak parasites, such as the widely distributed *P. ostreatus* and *P. pulmonarius* recorded on a large variety of hardwood and coniferous trees throughout mainland and insular Greece, the less common to rare *P. dryinus* and *P. cornucopiae*, and the temperate/subtropical *P. fuscusquamulosus* recorded to date only on trees of the genera *Ficus* and *Morus* in a few Aegean islands and in Attica. In addition, two *Pleurotus* species associated with plants of the family *Apiaceae* occur in Greece: *P. eryngii* (comprising two varieties, i.e. var. *eryngii* on *Eryngium* spp. and var. *ferulae* on *Ferula communis* and *Smyrniolum olusatrum*) and *P. nebrodensis* (characterized as ‘endangered’ by IUCN) growing on roots and lower stem parts of *Prangos ferulacea* in remote mountainous localities of North Peloponnese and Sterea Ellas. Information related to ecological preferences/requirements as well as pure cultures obtained from a large number of *Pleurotus* specimens are exploited towards the development of cultivation processes on novel production substrates which could support not only higher yields but also mushrooms with enhanced content in bioactive compounds and improved functional properties.

Acknowledgments: This research has been co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE – INNOVATE (project code: T1EDK-02560).