



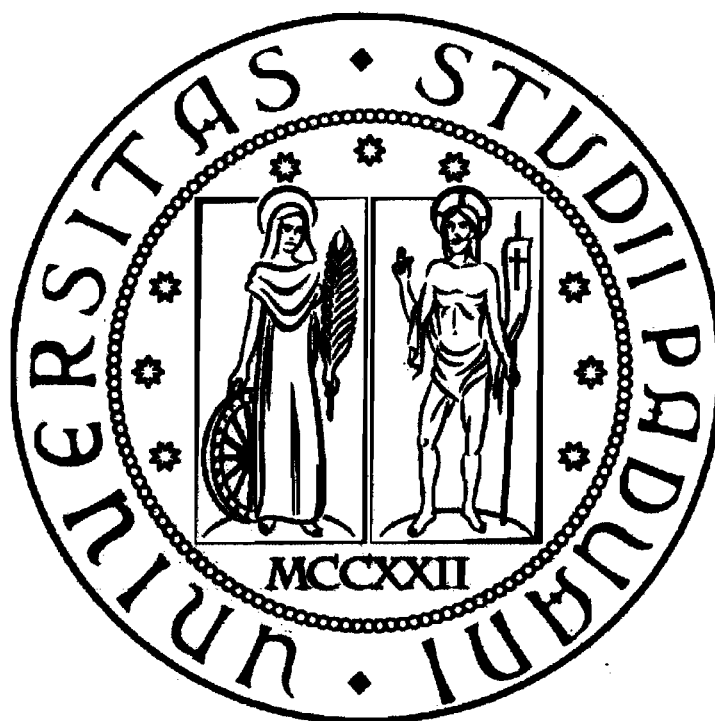
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P58 - BROWN ROT OUTBREAK ON CHESTNUT NUTS CAUSED BY GNOMONIOPSIS sp. IN SOUTHERN ITALY. L. Sigillo¹, D. Zito², V. Senape¹, C. M. Oliveira Longa³, R. Bugiani⁴ and G. Maresi⁵.

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“Brown rot” occurs on chestnut nuts, causing browning and mummification of kernels. Causal agent was previously identified as *Phoma endogena* or as *Phomopsis endogena*, but recently same symptoms were related to *Gnomoniopsis smithogilyii* in Australia and to *Gnomoniopsis castanea* in Piedmont (Northern Italy), resulting homologous to *Gnomoniopsis* sp. isolated from *Dryocosmus kuriphilus* galls. In 2012 a brown rot outbreak was observed on Marrone di Roccadaspide in Salerno Province: a survey performed in ten orchards recorded up to 50% of total yield losses. Fruits showed typical disease symptoms and light brown mycelium colonies with orange conidial masses were isolated on PDA medium from symptomatic fruits, healthy branches and wasp old galls. Molecular identification of four isolates was carried out by amplification of ITS1, 5.8S and ITS2 regions. A GenBank BLAST search with ITS sequences returned *G. smithogilyii* (accession number [KC145863.1](https://www.ncbi.nlm.nih.gov/nucl/145863.1)) as the closest match, attesting a 99-100% homology with isolates previously obtained in Italy and Australia. *Gnomoniopsis* sp. and *D. kuriphilus* infections seemed correlated but disease detection on chestnut in Australia, where the insect is not present, suggests that fungus might live as endophyte and stress factors could induce damage appearance. Nowadays, no effective disease control methods are reported: only copper compounds and tebuconazole are authorized on chestnut in Italy. Since the level of the observed damages caused great concern in Campania, where chestnut has high economic and cultural values, more epidemiological investigations of this emerging pathogen along with effective agronomic practices to reduce its potential in chestnut orchards are needed.