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This is the author's manuscript

Original Citation:

Availability:

This version is available <http://hdl.handle.net/2318/1639275> since 2017-05-26T16:01:47Z

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UNIVERSITÀ DEGLI STUDI DI TORINO

This is an author version of the contribution:

Questa è la versione dell'autore dell'opera:

*[Giordano L., Lione G., Sillo F., Gonthier P. 2016. Journal of Plant Pathology, 98
(Suppl.), 46]*

The definitive version is available at:

La versione definitiva è disponibile alla URL:

[<http://sipav.org/main/jpp/index.php/jpp>]

DEVELOPMENT OF PRACTICAL TOOLS FOR THE MONITORING AND THE CONTROL OF THE INVASIVE PLANT PATHOGEN *HETEROBASIDION IRREGULARE* IN CENTRAL ITALY

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The North American forest pathogen *Heterobasidion irregulare* was accidentally introduced in central Italy in 1944. The fungus is invasive and is currently distributed in pine and oak stands over about 105 km of coast around Rome, often in association with significant mortality of *Pinus pinea* trees. Since the complete eradication of the pathogen appears an unrealistic management option, an integrated disease management program would be crucial in order to minimize the risk of spread of *H. irregulare* outside the current zone of infestation and reduce infection rates. Within the EMPHASIS project (Effective Management of Pests and Harmful Alien Species – Integrated Solutions), funded by the European Commission in the frame of Horizon 2020 Research and Innovation Program, practical experiments for the optimization of both local eradication, through uprooting and destumping, and biological and chemical control against the invasive pathogen will be carried out. A target monitoring method for the rapid and sensitive detection of *H. irregulare* based on LAMP technology will be also designed. Research activities, organized with the support of local stakeholders, will be performed in some selected sites located in the Lazio Region (central Italy) including: i) the pine stand “La Gallinara”, ii) the oak stands of Anzio and Nettuno and iii) the oak-pine mixed stand of Castelfusano.