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► **To cite this version:**

Geraldine Roux-Morabito, Edmundo Sousa, Juan Alberto Pajares Alonso, Alain Roques. Monochamus Species As Potential Vectors Of The Pine Wood Nematode In Europe: What Can Be Learnt From The Asian Situation?. 25. International Congress of Entomology, New Era in entomology, Jun 2012, Daegu, South Korea. 1 p. hal-02806602

HAL Id: hal-02806602

<https://hal.inrae.fr/hal-02806602v1>

Submitted on 6 Jun 2020

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Monochamus Species As Potential Vectors Of The Pine Wood Nematode In Europe : What Can Be Learnt From The Asian Situation ?

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The worldwide genus of long-horned beetles, *Monochamus*, has drawn a particular attention because several species are known to be a vector of the Pine Wood Nematode (PWN), *Bursaphelenchus xylophilus*, carrying and transferring the nematode to conifer host trees. Although not a pest in its native North American range, PWN has devastated forests in Asia, and more recently in Europe. The five *Monochamus* species recorded in Europe, i.e. *M. galloprovincialis*, *M. sutor*, *M. sartor*, *M. urusovi* and *M. saltuarius*, may represent potential vectors for PWN. However, only *M. galloprovincialis* has been proved so far to be associated with PWN invasion of Portugal and Spain. This talk will review the European *Monochamus* species, with a special focus on their geographic distribution range and ecological requirements. A state-of-the-art of the present situation of pine wilt disease in Europe will be presented, and the potential vectoring role of the different *Monochamus* species throughout Europe will be evaluated with regard to the situation in Asia. Finally, we will present the ongoing European project REPHRAME that is bringing together Europe's leading experts on PWN, together with colleagues from around the world, to address the key gaps in current knowledge of pine wilt disease and its associated organisms.

Keyword : Monochamus species, Pine Wood Nematode, Europe, REPHRAME