

**Biological invasions-forest health surveillance and monitoring:  
Surveillance and monitoring****BIO 7 Incidence and severity of pests and diseases on young plantations of *Eucalyptus globulus* in Uruguay**

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There are more than 250,000 hectares of commercial plantations of *Eucalyptus globulus* in Uruguay. Although the emerging pests and diseases are important threats for young plantations, their spatial and temporal dynamic has not been adequately studied in the country. This work summarizes the results obtained through several surveys conducted on *E. globulus* plantations on southeastern Uruguay. The objectives were: i) to identify pests and diseases present in young plantations, ii) to analyze their geographical distribution and iii) to quantify the crown damage caused at different ages. The survey started in 2009 on plantations of 6 months and was repeated on the same plantations at the age of 12 and 24 months. A total of 84 transects, with 10 trees each, were assessed in a total of 21 plantations. On each tree, the incidence (percentage of affected leaves) and severity (percentage of affected foliar area) of the damage caused by foliar diseases (necrosis and defoliation) and insects were estimated using visual scales. The total percentage of foliar damage on each transect was calculated through a modification of the Damage Index (DI) proposed by Stone et al. 2003. Symptomatic leaves and insects were collected for identification. Almost 100% of the DI was associated to diseases over all surveys. *Ctenarytaina eucalypti* was the most prevalent insect whereas *Thaumastocoris peregrinus* and *Gonipterus* spp. were detected with moderate to very low prevalence overall. *Puccinia psidii* was found in the first two surveys and *Mycosphaerella* Leaf Disease (MLD), primarily caused by *Teratosphaeria nubilosa*, was by far the most important health problem. Necrosis was the main component of the DI in the first survey, while defoliation was in the last two surveys. The total foliar damage was increasing overtime, with DI of 11.9%, 46.2% and 76.7% at 6, 12 and 24 months, respectively. This is the first report of the devastating effect of *T. nubilosa* on young *E. globulus* plantations in Uruguay. Severity increased overtime resulting in a severe reduction on the leaf area index. Further investigation is needed to better understand the epidemiology and management of this disease to minimize its impact on wood production.