

Miriam Munoz-Rojas


Biography

I am a Research Fellow at the University of Western Australia and Kings Park and Botanic Gardens. My research focuses on understanding the functioning and dynamics of natural and disturbed dryland ecosystems, with a particular interest on belowground processes.

EcoTAS abstract

Global environmental changes and other anthropogenic impacts are rapidly transforming the structure and

Restoration Ecology (1)


 Tuesday, November 28, 2017

 1:30 PM - 3:30 PM

 Bimbadeen Room

 Oral presentation

functioning of ecosystems worldwide. These changes are leading to land degradation with an estimated 25 % of the global land surface being affected. In the resource-rich biodiverse semi-arid Pilbara region of Western Australia hundreds of thousands of hectares are disturbed due to established and emerging iron-ore mine operations. The need to develop cost-effective large-scale solutions to restore these landscapes becomes imperative to preserve biodiversity and achieve functionality and sustainability of these ecosystems. The Restoration Seedbank Initiative (RSB) is a five-year multidisciplinary research project that aims to build knowledge and design strategies to restore mine-impacted landscapes in the Pilbara and other arid and semi-arid landscapes worldwide. Within the soil program of the RSB, a series of glasshouse studies and field trials have been conducted in the last three years to advance our knowledge on soil limitations and to provide solutions to effectively overcome these challenges in arid ecosystem restoration. These studies include (i) the analysis of the influence of climate and edaphic factors in the recruitment of arid zone seedlings and (ii) the evaluation of soil physicochemical and microbiological indicators to assess functionality of restored soils in degraded semiarid ecosystems and (ii) the development of nature-based strategies based on bio-tools to enhance soil functionality. Here, we summarize our latest results in the soil program of the RSB, and propose recommendations for integrating soil science in cost-effective landscape-scale restoration practices in ecosystems worldwide.

 **Muñoz-Rojas M**¹, Erickson T^{1,2}, Bateman A^{1,2}, Merritt D^{1,2}

¹ University Of Western Australia, WA, Australia

² Kings Park and Botanic Garden, WA, Australia

³ University of New South Wales, NSW, Australia

The Soil Program of the Restoration Seedbank Initiative project: addressing knowledge gaps in dryland restoration



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EcoTAS17 Presenters

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Kiri (Reihana) Spraggs

EcoTAS abstract

The widespread degradation of water quality and quantity and its state of mauri, is a significant issue for Māori. This issue is represented by widespread degradation of

Open session (1)

📅 Monday, November 27, 2017

🕒 3:45 PM - 5:45 PM

📍 Sugarloaf Room

🗣️ Oral presentation