

Native Plant Science Forum

Tuesday 6th May 2014

9:00am to 2:30pm, Murray Bridge Golf Club, Ritter Street, MURRAY BRIDGE



Guest speakers;



Dr. Linda Broadhurst – Research Scientist- CSIRO Plant Industry

**Improving the past, present and future of Australian restoration – the role of genetics
Restoration in the Australian landscape- Understanding provenance and genetic diversity**

Linda will examine some of the major genetic issues underpinning selecting seed for restoration, review our track record in restoring genetic diversity and discuss how we might use this information to improve restoration. Of major importance in the rebuilding of Australia's degraded vegetation is ensuring that these have the adaptive capacity to cope with the major environmental challenges expected over the coming decades. Linda's research reveals that small plant populations which often characterise highly fragmented landscapes often suffer from inbreeding effects that limit both the quality and quantity of seed available for restoration.



Dr. Adam Miller, Research Fellow

Department of Genetics, The University of Melbourne

Adam will demonstrate the limitations of provenance only and the benefits of composite seed sourcing for revegetation and habitat restoration works. His research focuses on mapping genetic diversity at landscape scales across species groups, using this as a framework for identifying genetically diverse communities, and developing guidelines for sourcing and mixing seed. Done in a calculated fashion this offers a practical strategy for maximising health and environmental resilience of augmented or restored populations. These practices also provide potentially valuable conservation tools, acting as evolutionary conduits that can enhance the adaptive potential of populations in surrounding environments through the spill-over of beneficial genes.



Dr. Andrea Kodym

The University of Melbourne

Growing the ungrowable – Keystone species for revegetation through plant tissue culture

Many Australian native plant species are not available for revegetation because of the lack of efficient propagation methods. Among this group of plants are Austral bracken fern (*Dennstaedtiaceae*) and the sedges *Gahnia radula* and *Lepidosperma spp.* (*Cyperaceae*), which are widespread and significant understorey species of various native plant communities.

This presentation will provide an insight into our research on these difficult-to-propagate plants and will show how plant tissue culture can provide an alternative way of propagating plants when nursery based propagation hits its limitations.

Our research also focuses on the propagation of female trees of the dioecious *Allocasuarina luehmannii* (*Casuarinaceae*).

Morning tea and lunch provided

Places are limited. To reserve your seat please contact Regina Durbridge at regina.durbridge@gwlap.org.au / 0427 364 551 before 25th April 2014.

This event is funded through the Goolwa to Wellington Local Action Planning Association Community Revegetation Project as part of the South Australian Government's Murray Futures Program, funded by the Australian Government's Water for the Future Initiative in conjunction with the Coorong Tatiara Local Action Plan & Coorong District Council.

