

Memo To: Ecological Society of Australia

From: TERN AusPlots (Jeff Foulkes)

Subject: Update on Progress of TERN AusPlots Methodology and Discussion Paper

Date: 26 September 2011

Dear Kris French & Carla Catterall

It has been a number of months since our last communication on the progress of development of the AusPlots methodology and updating of the discussion paper. I have also provided a summary of the process we have followed via establishment of reference groups and other external consultation (see Table 1).

The final version of the discussion paper is currently nearing completion with the outstanding components still to be addressed are 1) an appropriate design for collection of soil bulk density samples to adequately reflect variation across the plot and 2) statistical validity of the sampling methodology and replication. It is anticipated that the discussion paper will be completed by the end of October 2011.

The AusPlots-Rangelands Facility formed two 'analytical/practitioner' Reference Groups, being:

- i) a Protocols & Standards Reference Group  
This reference group had broad representation from scientists and practitioners from government agencies, and its main brief was to provide expert review and advice on the development of the AusPlots-Rangelands methodology. The final AusPlots-Rangelands methodology has now been developed with the advice and input of this group., and
- ii) a Partnerships and Operations Reference Group.  
This reference group was formed to guide and assist in operationalising /AusPlots-Rangelands surveys, which were to be carried out by collaborating agencies.

The composition of these groups will now evolve to the new TERN Facility/Sub-Facility structures under EIF funding, particularly with the inclusion of AusPlots-Forests being led by the University of Tasmania.

Preliminary workshops were conducted in February and May 2009. The Protocols and Standards Reference Group (noted above) was subsequently formed to develop the survey methodology and site selection process.

Further meetings of this group were held in July, August, September & December 2010, and in February and June 2011. A further meeting is to be scheduled for late September or early October 2011. The Ecological Society of Australia (ESA) and the Australian Collaborative Rangelands Information Service (ACRIS) have also provided key input during the 2010-11 year. The methodology has now been finalised and has:

- i) been documented and 'published' on GovDex
- ii) been incorporated into a mobile device (Android) field data collection application for paperless, consistent electronic data collection. The application was developed by Gaia Resources Pty Ltd in partnership with the Atlas of Living Australia;
- iii) begun to be develop a field reference manual.

Interest in application of the methodology has been registered by indigenous organisations, NRM Boards, environmental consulting groups and other monitoring initiatives.

The AusPlots-Rangelands survey methodology has been designed as a series of separate survey modules so that each can be undertaken separately and not all modules need to be

undertaken at all plots. This also relates to the hierarchical nature of the plots, such that plots with an A priority rank involve sampling all the modules, while rapid plots consist of estimates of cover of dominant perennials. These modules are intended as a minimum level requirement to provide basic consistency in the collection of samples and additional vegetation, land and soil attributes and samples can be collected and tested at AusPlots sites to meet other purposes as required (such as state or national based soil condition monitoring).

The Partnerships and Operations Reference Group was formed in anticipation of forming contacts within jurisdictions to progress implementation of contracts and agreements for establishing the methodology. This group has convened on three occasions between July and September 2010. With the substantial increase of the TERN footprint at Adelaide University and the development of LAMPS, we are considering the future role of the Partnerships and Operations Reference Group.

In terms of locating sites for the surveys, a site stratification trial was held with the (SA) Department of Environment and Natural Resources (DENR) in November 2010. Discussions have now been held with SA, NT, WA, NSW and Qld agency field survey contacts, and a field survey implementation plan developed. The agency partners attended a bioregion selection meeting in Adelaide on 5th and 6th May 2011 to mutually and collaboratively agree on both the process of stratification and subsequent selection of priority bioregions for survey across Australia's rangelands. Further development of priority bioregions was progressed through individual discussion with each agency, and the expected number of sites developed between the parties.

### **ESA Respondents**

Responses on the December 2010 version of the discussion paper were received from: Associate Prof Paul Adam (Uni of NSW); Dr Teresa Eyre (Qld Dept of Environment & Resource Management); Dr. John Kanowski (Aust. Wildlife Conservancy); Prof Bill Laurance (James Cook Uni); Dr. John Ludwig (CSIRO); Dr Dan Metcalfe (CSIRO); Dr Lynda Prior (Uni of Tasmania, on behalf of Prof David Bowman); Dr Suzanne Prober (CSIRO, with input from Dr Kevin Thiele, WA Herbarium); Dr. David Tongway (CSIRO). These responses have been summarised and synthesised by Carla Catterall (Griffith Uni) and presented to TERN in March 2011. The reply to the ESA feedback was compiled by the AusPlots team and submitted to ESA in early March 2011.

### **TERN Respondents**

**Table 1: Individuals who have representation on AusPlots Reference Groups, Adelaide Advisory Group and have had input into the refinement of the discussion paper.**

<b>Individual</b>	<b>Affiliation</b>	<b>Adelaide Advisory Group</b>	<b>Protocols &amp; Standards</b>	<b>Partnerships and Operations</b>	<b>Input to discussion paper</b>
Gary Bastin	CSIRO, NT ACRIS	√	√		√
Craig Baulderstone	DENR SA		√		√

Matt Bolton	ERIN, DEWHA	√	√
Teresa Eyre	DERM, Qld/ACRIS	√	√
Alaric Fisher	NRETAS, NT /ACRIS	√	√
Kate Gillespie*	Bush Blitz, ABRS	√	√
Russell Grant	Rangelands NRM Alliance, Western CMA, NSW	√	√
Ron Hacker*	Ind & Invest, NSW	√	√
Gerry Maynes	Land & Coasts DAFF	√	√
Paul Novelly	DAF, WA	√	√
Jim Radford	Bush Heritage Australia	√	√
Richard Thackway	ABARE-BRS	√	√
Stephen Van Leeuwen	DEC, WA	√	√
Glenda Wardle	University of Sydney, & ESA NSW	√	√
Peter Wilson	Manager, National Soil Info, CSIRO	√	√
Rick Fitton	NRETAS, NT		√
Andy Donnelly*	Earthwatch Director of Science Partnerships		√
Angus Emmott	Pastoral Rep	√	√
Mike Fleming	DECC, NSW ACRIS	√	√
Kate Forrest	Rangelands NRM Alliance	√	√
Jo Harding	Bush Blitz (ABRS)	√	√
Craig James	CSIRO	√	√
John Neldner	DERM, Qld	√	√
Jim Radford	Bush Heritage Australia	√	√
Stephen Van Leeuwen	DEC, WA	√	√
Ian Watson	CSIRO, Qld		√

Robert Brandle	SA DENR		√
Tim Croft	SA DENR		√
John McDonald	SA DENR		√
Cathy Waters	NSW DPI		√
Greg Chapman	NSW DPI		√
Simon Jones	RMIT		√
Megan Lewis	University of Adelaide		√
James Hall	SA DENR		√
David Eldridge	NSW DEC		√
Dan Tindall	DERM, Qld		√
Peter Scarth	DERM, Qld		√
Kate Richardson	NRETAS NT		√
Nick Cuff	NRETAS NT		√
Daryl Green	Western CMA, NSW		√
Greg Guerin	University of Adelaide		√
Alex Held	CSIRO, TERN	√	√
David Keith	DECC, NSW		√
Kasper Johansen	CSIRO, TERN		√
Chris Meakin	DSEWPAC		√
Ladislav Mucina	Curtin University		√
Annette Philippa	ERIN		√
Phil Pisano	SA DENR		√
Ashley Sparrow	CSIRO Alice Springs		√
Jasmine Rickards	ABARES-BRS		√
Kris French	ESA, Uni. Wollongong	√	√
Donald Hobern	ALA	√	
Judy West	ABRS	√	
Cam Slatyer*	ABRS	√	√
Stuart Phinn	TERN HQ	√	√
Stefanie Pidcock	TERN AusPlots	√	√
Paul Coddington	UoA	√	
Roger Gifford	CSIRO	√	
Ross Wilkinson	ANDS	√	
Jason	MDBC	√	

Alexandra\*

Mark Westoby	Macquarie University	√	√
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Stuart Pillman	SA DENR	√	√
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Paul Chinnick	TERN Eco- informatics	√	
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\*denotes former member of reference group or advisory group