

Hello,

Here is your copy of the Biodiversity Special Edition of our AdaptNSW newsletter.

## Biodiversity Adaptation - resources for you

The outputs of the NSW Biodiversity Adaptation Research Node are now live on AdaptNSW! The Biodiversity Adaptation webpages represent the culmination of the five-year research collaboration between the Department of Planning, Industry and Environment, Macquarie University and other research institutions. This collaboration has produced world-leading research and tools that increase scientific knowledge and provide strategies to support the management of biodiversity and ecosystems under climate change.

The research outputs can be found on the biodiversity adaptation pages.



## Climate-ready Revegetation: Yass Area Network Case study

A recent revegetation trial in Yass has applied the climate-ready revegetation guide (PDF 2.6MB), produced by Macquarie University.

Using localised climate projections and information from Niche finder, this trial produced a climate-adjusted seed sourcing strategy for revegetation projects in the area to ensure the trees planted will survive the future climate

#### Get Involved!

If you have upcoming revegetation works and are interested in being involved with our climate-ready revegetation project – contact us.



### **Dead tree detective**

Unprecedented dry conditions this year have been killing trees that have survived previous droughts. With over 95% of NSW in drought, scientists are calling on citizens to help them understand the extent of the problem. The dead tree detective app was launched to help map the scale of drought mortality in trees. You can help by reporting observations of tree deaths – get involved here access tool >

This research also produced a paper investigating the triggers of tree mortality under drought recently published in Nature access paper >

## **Snapshot of success – Weed Futures**

Weed Futures provides a powerful sciencebased decision-making tool for natural resource managers to help tackle the threat to Australia's biodiversity from exotic plants under present and future climates.

Weed Futures was shortlisted as a finalist in the prestigious Eureka prizes 2019, for Environmental Research.



#### Weed Futures access tool >



## NSW threatened species and communities

This search-based tool explores profiles for species and ecological communities listed as threatened in NSW, view maps of their distribution and identify threats to survival, including climate change.

Threatened Species access tool >

## Women in Conservation – Researcher profiles

### **Dr Nola Hancock**

Nola is a post-doctoral researcher at Macquarie University, who worked with the Biodiversity Node of the NSW Adaptation Research Hub. Nola's research interests are in climate change adaptation at the broad level of biodiversity but more specifically in the practice of revegetation.



Prior to revegetation Nola spent many years working in the agricultural sector and the money markets.

Hear about Nola's Climate ready revegetation here >



## Associate Professor Linda Beaumont

As an ecologist, Linda researches biological responses to climate change. She has led work at Macquarie University identifying regions likely to serve as climate refugia for dominant and threatened plant species across NSW. Climate refugia are regions of the landscape that will likely retain suitable conditions for species in coming decades, critical in an era of rapid climate change.

Developed by Linda, the climate refugia website is a decision support tool to: identify and visualise putative refugia from climate change for threatened species; download habitat suitability maps for key species; and generate reports for major administrative regions.

NSW Climate Refugia tool >



### **Dr Rachael Gallagher**

Rachael is a plant ecologist and conservation biologist who runs the Plant Ecology and Conservation lab at Macquarie University. Her mission is to address fundamental questions in plant ecology to predict species extinction risk including their response to global change.

Rachel was lead researcher for the NSW Niche Finder, a searchable online portal providing access to baseline ecological data for NSW flora. The tool includes interactive mapping, graphing of niche metrics for populations of NSW plants, and comparisons of range metrics.

**NSW Niche Finder tool >** 

# **Change of Node leader for Human Health and Social Impacts Node**

Professor Tony Capon is taking up an excellent opportunity as the Director of Monash Sustainable Development Institute in Melbourne. Under Tony's leadership the Human Health and Social Impacts (HHSI) Node has delivered excellent research. We welcome the new HHSI Node Leader, Associate Professor Geoff Morgan. Geoff has more than 15

years experience in epidemiological research, environmental health policy and education. His research addresses health issues in both environmental health research and health services research, specialising in the use of state of the art biostatistical and geographical information system techniques applied to routinely collected health data linked to small area level socio-demographic and environmental risk factors. The results of his research have been translated into environmental health and health services policy. He has a joint appointment with the University Centre for Rural Health - University of Sydney and the North Coast Public Health Unit.

### **Upcoming events**

### AdaptNSW 2019 Forum – 12 November 2019 at Dockside

We are busy planning the AdaptNSW Forum and booking in inspiring speakers and we can't wait to share the agenda with you soon.

To register your interest to attend, email us at adapt.nsw@environment.nsw.gov.au

To host a marketplace stall, register your interest here ASAP, as there are only a few spaces left!

Watch the short video here to see what went on at the AdaptNSW event last year.

### Climate Information Spring Survey and Workshops – save the date

Data and information for a changing climate - Improving future natural hazard data for infrastructure, communities and services

The Climate Research Team of the Science Division, Department of Planning, Industry and Environment (DPIE) invite you to attend one of the workshops, to be held across the state on:

- Wednesday and Thursday, 23-24 October 2019 in Dubbo
- Wednesday and Thursday, 30-31 October 2019 in Wagga Wagga
- Wednesday and Thursday, 6-7 November 2019 in Coffs Harbour
- Thursday and Friday, 21-22 November 2019 in Sydney CBD

If you need, use, or provide climate projection data and future natural hazard data and information, come join us. You will learn about and contribute to improving the design, delivery and access to soon-to-be-released and next generation NARCliM regional climate projections. You can connect with others in industry, government and service professionals to discuss real world case studies of how climate and natural hazard data are used to assess risks and impacts to infrastructure, services and communities.

**REGISTER NOW >** 

Whether you have interest in attending or not, we also invite you to complete a survey that will inform the workshops. Further information on the project can be found here (PDF 297KB).

For more information, contact Climate.Research@environment.nsw.gov.au.

Our mailing address is: PO Box A290 Sydney South, NSW, 1232

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