

# NAMN Forum: Citizen Science



**Date:** Tuesday, **26 September 2017**  
**Time:** 9:00am – 3:00pm (Registration from 8:30am)  
**Venue:** WALGA Boardroom, ONE70, LV1, 170 Railway Parade, West Leederville  
**Cost:** \$66.00 (Incl GST)

## ABOUT THE FORUM

Please join us for this fantastic opportunity to hear how Local Government and their communities can benefit from involvement in citizen science programs. The event will provide an overview of a range of citizen science programs, and demonstrate how scientists and local communities can work together to achieve cost-effective monitoring programs, ensure ecological research informs policy and management practices, and increase environmental awareness. Former WA Chief Scientist and keynote speaker Professor Lyn Beazley will be joined by experts from State and Local Government Departments, the WA Biodiversity Science Institute, Conservation Council of WA, Northern Agricultural Catchment Council, research institutes and community organisations. The event will include a morning tea and lunch break where attendees can network with others in their field, and question sessions with all presenters.

## PROGRAM

- 8:30am Registration
- 9:00am Welcome and Introduction**  
*Melanie Davies, Biodiversity and Sustainability Project Officer, WALGA*
- 9:05am Citizen science: a must for a better future**  
*Professor Lyn Beazley AO FTSE*
- 9:35am Citizen science informing biodiversity outcomes**  
*Dr Lesley Gibson, Biodiversity Survey Program Director, WABSI*
- 10:05am What makes a good citizen science project?**  
*Dr Kerry Trayler, Principal Scientist and Science Coordinator;  
Marnie Giroud, Community Program Coordinator, DBCA*
- 10:35am Designing citizen science projects to inform policy relevant investigations**  
*Dr Nic Dunlop, Citizen Science Program Coordinator, Conservation Council (WA)*
- 11:00am Morning tea
- 11:30am Backyard Bandicoots – residents assisting with wildlife conservation**  
*Bonnie Beal Richardson, Senior Environmental Education Officer, City of Mandurah;  
Dr Catherine Baudains and Dr Trish Fleming, Murdoch University*
- 12:00pm MicroBlitz - uncovering the microbial diversity in Western Australia's soils**  
*Professor Andrew Whiteley, UWA*



- 12:30pm**      **Perth Fungi Project – perspectives of a citizen scientist**  
*Roz Hart, Former President, WA Naturalists' Club*
- 1:00pm          Lunch
- 1:30pm**      **Wheatbelt Science Trail – supporting science and tourism**  
*Cec McConnell, Chair, Wheatbelt Science Hub*
- 2:00pm**      **MyPestGuide – pest surveillance for agriculture and biodiversity conservation**  
*Dr Darryl Hardie, Senior Entomologist Biosecurity and Regulation, DPIRD*
- 2:30pm**      **Photomon - detecting environmental change over time using photo monitoring**  
*Tegan Clarke, Photomon Services Project Officer, NACC*
- 3:00pm**      **Close of Event**

## PRESENTATION OVERVIEW

**Professor Lyn Beazley AO FTSE** was Chief Scientist of Western Australia from 2006 to 2013, and WA Australian of the Year for 2015. Lyn believes that we must equip young Australians with an understanding and love of Science, Technology, Engineering and Mathematics (STEM) subjects, to have a work force that can solve the multiple challenges we face in a fast-changing world. Lyn will discuss the importance of working with scientists to monitor, protect and enrich the world around us, and how being a citizen scientist is a very rewarding experience. Lyn will demonstrate how world-leading citizen science programs in Western Australia have helped educate and inform the public, and even initiate changes in government policy and management practices.

**Dr Lesley Gibson, Biodiversity Survey Program Director, Western Australian Biodiversity Science Institute (WABSI)** will discuss how citizen science has become an increasingly important method of obtaining scientific information to inform species and ecosystem management programs. Lesley will present examples of citizen science projects being undertaken by WABSI's joint venture partners to demonstrate how citizen science is helping inform a diversity of biodiversity outcomes. Lesley will also highlight some of the priority areas of the WABSI Biodiversity Survey node which would benefit from a citizen science contribution.

**Dr Kerry Trayler, Principal Scientist and Science Coordinator of the Rivers and Estuaries Division, and Marnie Giroud, Community Program Coordinator, Department of Biodiversity, Conservation and Attractions (DBCA),** will discuss 'what makes a good citizen science project?' Kerry will provide insights into this question, and provide useful pointers on tools and information available to assist. A case study will be provided of the citizen science project Dolphin Watch, which is part of the DBCA's River Guardians program. Dolphin Watch started in 2009 and works in partnership with Murdoch and Curtin Universities to train volunteers to identify dolphins, monitor their movement and record behaviour. The project assists in improving scientific understanding of dolphins residing in the Swan Canning Riverpark and plays an important role in raising awareness and increasing stewardship of the Riverpark.



**Dr Nic Dunlop, Citizen Science Program Coordinator, Conservation Council (WA)** runs the *Citizen Science for Ecological Monitoring Program* for the Conservation Council of WA. Nic will provide examples of how the organisation focuses on subjects that are not adequately addressed by government or industry, such as the impact of climate change on ecosystems, environmental contamination (heavy metals and microplastics), the measurement of NRM project outcomes, and threatened species with no recovery plan. The primary focus of the citizen science program is to undertake policy-relevant investigations and collect long-term biological monitoring data. Nic will provide insights into community engagement, the provision of training, the establishment of partnerships and resourcing from 'social enterprise' projects.

**Bonnie Beal Richardson, Senior Environmental Education Officer, City of Mandurah, and Dr Catherine Baudains and Dr Trish Fleming, Murdoch University,** will discuss the Backyard Bandicoots program, a collaboration between the City, Murdoch University and local residents. Bandicoots are one of the few native mammals that persist in the urban environment, and the study is investigating how bandicoots use urban bushland and residential gardens, as well as how foraging behaviour and soil fungi distributed in their scats supports ecosystem health. Bonnie will discuss how community member involvement is integral to the research and knowledge gained, and engagement strategies used to promote and encourage community participation.

**Professor Andrew Whiteley, School of Agriculture and Environment, University of Western Australia,** was the 2012 Premier's Fellow for WA and instigated the unique soil sampling and DNA analysis project 'MicroBlitz'. MicroBlitz engages all age ranges in Western Australia with a mission to uncover the hidden microbial diversity in our soils. The ultimate aim is to map the microbial distributions across the State and understand how our microbial landscape contribute important functions related to land productivity, ecological restoration and conservation. The program has also recently incorporated the mapping of pathogens in the environment. Andrew will highlight the key findings to date and discuss the citizen enabled research partnerships for the next two years.

**Roz Hart, Scientist and Former President of the WA Naturalists' Club,** and current Vice-President of Fungimap Australia, will discuss her involvement in the Perth Urban Bushland Fungi Project over a six year period from the perspective of a citizen scientist. The Perth Urban Bushland Fungi Project was a highly successful citizen science partnership between the WA Naturalists' Club, the Urban Bushland Council and the WA Herbarium, funded by Lotterywest. Roz will discuss why the project was so successful, including the focus on training leaders, upskilling community members on fungi identification, and ensuring the publication of a 'Fungi Field Guide Book' to provide an ongoing resource. Roz will also discuss the ongoing public interest and need, and options for the future.

**Cec McConnell, Chair, Wheatbelt Science Hub,** will discuss the Wheatbelt Science Trail, launched this August following the support of a grant from the Wheatbelt Development Commission. The trail includes over fifty unique experiences throughout the region where visitors can either engage in an activity or learn about the science of various locations, such as honey production, Aboriginal culture or catchment hydrology. The initiative has been a fantastic collaboration between wheatbelt Local Governments, science organisations and the community. Cec will discuss the linkages to local community services and tourism, and how the model developed can easily be transferred to other Local Government areas.



**Dr Darryl Hardie, Senior Entomologist Biosecurity and Regulation, Department of Primary Industries and Regional Development (DPIRD)**, will discuss the importance of pest surveillance that engages communities and industry in a partnership approach. In recent years, governments across Australia have decreased their investment in biosecurity surveillance, increasing the level of exposure to risks from harmful exotic pests. DPIRD have developed a suite of smartphone apps and programs to support Western Australia's surveillance needs and enable citizen scientists to quickly identify and report a pest, and monitor the distribution of species. Darryl will discuss how MyPestGuide and the annual Biosecurity Blitz assist with monitoring of pests of concern to agriculture, horticulture and the environment. Darryl will demonstrate how the information has enabled management responses in metropolitan and regional areas for pests such as the European Wasp, Myrtle rust and Green snails.

**Tegan Clarke, Photomon Services Project Officer, Northern Agricultural Catchments Council (NACC)** will discuss how one of the most unambiguous ways to detect environmental change is by taking regular photos of exactly the same place over time. Photomon Services was created by the NACC to simplify the photo-monitoring process. It is a smartphone application combined with a database that includes features to improve data quality. A major benefit is the 'guide photo' function, which is the ghosted reference image overlay to ensure a standardised field of view. Tegan will provide examples of how Local Governments and community groups are using the app to monitor various environmental projects, such as coastal change and impact of weed control efforts.