

WA WETLAND MANAGEMENT CONFERENCE 2017

Program



North Lake Reserve: Water Couch, Bulrush and Bacopa spp.

World Wetlands Day, 9am-4pm, Thursday 2 February 2017

**Cockburn Wetlands Education Centre
184 Hope Road, Bibra Lake, Western Australia**

The 13th Annual WA Wetland Management Conference will be held at the Cockburn Wetlands Education Centre on Thursday 2 February 2017 in celebration of World Wetlands Day, which commemorates the signing of the Convention on Wetlands in the Iranian city of Ramsar on 2 February 1971.

The primary objective of the Conference is to provide an annual opportunity for the exchange of information and ideas between wetland practitioners with a focus on the latest developments about how to effectively manage and restore wetlands. The Conference is intended to bring together community conservation volunteers, landowners, educators, local and State Government officers and private sector environmental officers involved with wetland management.

This year's theme follows the Ramsar theme for 2017 of "Wetlands for Disaster Risk Reduction". This theme was selected to raise awareness and to highlight the vital roles of healthy wetlands in reducing the impacts of extreme events such as floods, droughts and cyclones on communities, and in helping to build resilience.

Sub-themes include wetland management and restoration, wetland education and wetland policy.

Minimising impact The conference strives to minimise its environmental impact by encouraging delegates to car-pool and bring their own water bottles. We also provide re-usable coffee mugs, glasses and plates, produce e-program booklets and use recycled paper. We also encourage the display of promotional material on common tables or at exhibition spaces, rather than in conference kits, ensuring only interested persons take the relevant material.

Sponsors Thanks to the generous support of our sponsors, fees are kept to a minimum to enable all sectors of the community to attend. The 2017 registrations fees are corporate \$80, general \$65 and concessional \$20 (includes conference registration, morning tea, lunch, afternoon tea, post conference nibbles and conference proceedings).

The Cockburn Wetlands Education Centre gratefully acknowledges the following sponsors:

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NCCARF
National Climate Change Adaptation Research Facility
www.nccarf.edu.au

SUPPORTERS



Conference Program

(*Denotes speaker, where there are multiple authors)

8 am REGISTRATIONS (come early for a cuppa and catchup with other wetlanders)

Opening

- 9.00 am Opening remarks
Emeritus Professor Philip Jennings, Wetlands Conservation Society Inc
- 9.05 am Welcome to country
Reverend Sealín Garlett

Keynote presentation: (Chairperson: Emeritus Professor Philip Jennings, Wetlands Conservation Society Inc)

- 9.10 am Climate risk and adaptation strategies at a coastal Ramsar Wetland
Dr Stuart Blanch, Hunter Wetlands Centre Australia

Plenary presentations: session 1

- 9.40 am Legal duties to make environmental water provisions for wetlands in Western Australia
*Prof Alex Gardner and Jeanette Jensen, School of Law, The University of Western Australia
- 10.05 am Improving the health of the Swan and Canning rivers using drainage nutrient intervention works
Peter Adkins, Department of Parks and Wildlife

10.30 am MORNING TEA

Plenary presentations: session 2 (Chairperson: Melanie Davies, WA Local Government Association)

- 11.10 am Supporting adaptation to the effects of climate change in and around coastal wetlands
Dr David Rissik, NCCARF (National Climate Change Adaptation Research Facility)
- 11.35 am Wetland creation and management projects in the SE Metropolitan Region. Perth WA
Glen Byleveld, South East Regional Centre for Urban Landcare

Poster presentations

- 12.00 pm Gathering Data on *Chelodina colliei* to better manage their population
Kevin McLeod, Friends of Yellagonga Regional Park Inc.
- 12.04 pm Is Water Supplementation the Answer? Assessing the condition of Thomsons Lake against Ramsar 'Limits of Acceptable Change'
Catherine Prideaux, Regional Parks Unit, Department of Parks and Wildlife
- 12.08 pm Revive Our Wetlands
*Tristan Duke and *Katie Ronald, Conservation Volunteers Australia
- 12.12 pm Caring for a valuable urban wetland in a drying climate
Chris Howe, Friends of Big Swamp & Leschenault Catchment Council
- 12.16 pm The effect of drying on sediment and water quality and implications for submerged macrophytes in the Vasse Wonnerup wetlands
*Caitlin Conway, Dr Jane Chambers and Assoc Prof Dr Belinda Robson, Murdoch University
- 12.20 pm Here today, gone tomorrow? : lack of knowledge may lead to urban turtle extinction
*Anthony Santoro, Dr Jane Chambers and Dr Stephen Beatty, Murdoch University
- 12.24 pm Restoring pig damaged peat wetland ecosystems in the Walpole Wilderness Western Australia
*Alison McGilvray, Department of Parks and Wildlife
Dr Karlene Bain, Python Ecological Services
Dr David Edmonds and Elizabeth Edmonds, Walpole-Nornalup National Parks Association (WNNPA)
- 12.28 pm Healthy Wetland Habitats program
Adam Turnbull, Department of Parks and Wildlife

12.32 pm LUNCH

Panel discussion on wetland policy (Facilitator: Linda Metz, City of Cockburn)

1.30 pm A facilitated discussion with a focus on wetland issues requiring attention both politically and from a management perspective. The panel will comprise 3 independent commentators and speakers from the major political parties.

Independent commentators

Prof Alex Gardner, School of Law, The University of Western Australia

Mary Gray, President, Urban Bushland Council WA Inc; Hon. Life Member Wildflower Society of WA

Mark Batty, Executive Manager Waste and Environment, WA Local Government Association

Political representatives

Mr Christopher Tallentire MLA, Shadow Minister for the Environment; Climate Change

Hon Lynn MacLaren MLC, Member for South Metropolitan

2.40 pm AFTERNOON TEA

Workshop concurrent session: (choice of 1 workshop)

2.55 pm Workshop Session

4.00 pm POST-CONFERENCE DRINKS & NIBBLIES

WORKSHOP CHOICES

Delegates can attend one workshop during the concurrent session. Please select two preferences from the following five workshops and number from 1 to 2 on the registration form (1 equals your highest preference). Workshops will be filled on a first-come basis following registration.

Workshop 1: Mozzie Wise Program- reducing mosquito population in wetlands and around the home

Presenters: Dr Rose Weerasinghe and Amy Krupa, South East Regional Centre for Urban Landcare

Keeping a balance between wetland habitat functions and public health due to mosquito breeding has been one of the most challenging tasks that wetland managers deal with on a regular basis. People often assume that all wetlands produce nuisance or disease-carrying mosquitoes. However, healthy wetlands, with diverse aquatic invertebrates, fish, birds and other fauna that prey on mosquito larvae often produce very few adult mosquitoes. In urban areas, backyard elements such as clogged gutters, unmaintained pools, stagnant bird baths, neglected tyres and buckets or pot plant trays are fertile mosquito breeding grounds.

Public education is a key component of a successful integrated mosquito management program and once people know where to look, they can identify and eliminate potential mosquito breeding habitats around their homes, neighbourhood and wetlands. An informed public will help mosquito control officers minimise breeding sites in residential areas, help reduce misinformation and minimise unreasonable demands on chemical application to wetlands and other waterways. Recently SERCUL launched the new Mozzie Wise program and resources to educate school children and the public about mosquitoes and their control.

This workshop will educate the participants about mosquito control by giving information on how they can help to reduce mosquito breeding in urban wetlands, their backyards and neighbourhood. This session will also be used to educate the participants about the importance of mosquitoes in the environment and the measures that can be taken to protect themselves from mosquitoes and their disease. There will be interactive activities with macroinvertebrates to identify and learn about mosquito larvae's natural predators. The workshop will showcase the Mozzie Wise educational resources.

Workshop 2: Mapping tools to design your next restoration project

Presenter: Renata Zelinova, Western Australian Local Government Association

Workshop participants will be exploring the capabilities of the on-line publicly accessible Environmental Planning Tool in assisting with prioritising and designing natural area restoration projects. The presenter will demonstrate how to access the Environmental Planning Tool, what information is available and how to use the mapping data and various tools to design natural area restoration projects.

Since its release in 2011, the Environmental Planning Tool (EPT) has continually expanded, providing access to a greater range of mapping information and increasing the ability of users to generate or use their own data and communicate with other stakeholders. The EPT has been used to assist with the identification of ecological linkages at regional and local levels, to assess impacts of proposed land use changes on natural areas and can be used to record vegetation condition and management issues in nature reserves. Access is provided to information on vegetation

types by current and pre-clearing vegetation extent as well as to Reference Sites which summarise information on typical plant communities on the Swan Coastal Plain and Jarrah Forest in the metropolitan area.

The EPT can be used to generate project files and shape files which can be exchanged with others, facilitating fast and more transparent communication with the community and other stakeholders. Further benefits of using the EPT include the ability to display information collected in the field with other relevant information not only an aerial photography and an ability to undertake basic mapping without the need to purchase or access other GIS software and collect datasets.

Following a series of simple exercises and case studies, participants will have the opportunity to apply the EPT reporting function to their own project. This will include the generation of reports on the size of the project area, vegetation type, vegetation conservation significance, proximity to wetlands and their buffers, proximity to protected areas or ecological corridors and other information relevant to natural resource management.

WALGA will supply four laptops for participant use. Workshop participants are also welcome to use their own laptops with Wi-Fi internet access to participate.

Workshop 3: Management of reptile predators using models as proxies

Presenters: Ashleigh Wolfe, PhD Candidate, Curtin University and Dr Bill Bateman, Lecturer, Curtin University

We will present some results from a variety of projects that form part of Ms Wolfe's PhD thesis research into the impacts of urbanisation on reptiles and other research projects from the Curtin University Behavioural Ecology lab. Participants will be seated in groups of 5 or 6 to encourage everyone to participate in workshop activities.

The themes explored will include:

- **Predator behaviour and predation of small and large-bodied reptiles using plasticine models**

We will present our findings from two separate studies investigating predator responses to plasticine reptile models within the Perth metropolitan area. The first study used snakes and bobtails as model lizards in Cockburn and Yanchep, and the second study used fence skinks as model lizards in the Perth Hills. This topic will discuss how vegetative shelter and body shape/size affects the perception of predators, including birds and foxes, on reptiles.

Following our presentation of this topic, participants will be provided with a 5 minute discussion time to list the management outcomes for reptile predation based on our findings. Following this, each group will have 1 minute to express their outcomes to the wider group, and 2-5 minutes afterwards to summarise.

- **Managing people's perceptions of reptiles on roads**

Reptiles commonly use roads for basking, scavenging food, and to cross between fragmented habitats. Current road management tools for wildlife incorporate a calculation of crossing success. This calculation takes into account factors such as the road width, number of lanes and signed speed limit, as well as the size and speed of the animal crossing. Intentional motor-vehicle strikes do occur in Perth, and out wetlands are at particular risk due to the diversity of species that live in and around them. We conducted a series of experiments that studied if motorists intentionally strike snakes and lizards on a road in Cockburn, and also modelled potential outcomes for reptile (and other wildlife) strikes based on participant responses to an online survey held in Winter of 2016.

Prior to the workshop, participants will be asked to take the survey assessing attitudes towards wildlife on roads. Following our presentation and findings of this topic, but before we reveal any survey findings, we will ask participants to state how they think the general public responded to the survey. We will then reveal our general results and the results from the pre-workshop survey to compare conference attendees to the general public. We will then open up the room to a discussion.

Workshop participants will leave this session with a better understanding of how predators, both human and animal, respond to wildlife. Our discussions will provide an opportunity to brainstorm management ideas, and ways to better engage with the general public. We will also present some friendly local WA reptiles that have been affected by urban predators in a variety of ways.

Workshop 4: Aquatic weeds-a floating menace

Presenters: Dan Friesen, South East Regional Centre for Urban Landcare and Linda Metz, City of Cockburn

The wetlands and associated drainage system that exists across the SCP are often interconnected. These systems provide a network of waterways for aquatic weeds to exploit. Aquatic weeds can become a serious environmental threat as well as very costly to manage. Due to the nature of these plants they can spread very quickly and reproduce from small fragments and are easily dispersed throughout the landscape.

Workshop participants will have the opportunity to learn more about aquatic weeds that are common in and around Perth. The workshop will provide samples of common aquatic weeds, their taxonomy and explore a range of control methods.

Recent outbreaks of Amazon Frogbit across the metro area have flagged this as a potential serious weed to biodiversity. Case studies will be explored that detail how these outbreaks have been managed with multiple stakeholders. Case studies will explore management responses in both wetlands and drain systems. Participants are welcome to share their experiences.

Workshop 5: From wetland weeds to a wetland SPA (site visit)!

Presenter: Denise Crosbie, Cockburn Wetlands Education Centre Inc

The wetland vegetation community at Bibra Lake has suffered from past land clearing practices and subsequent invasion by weeds. Since 2003 the Cockburn Wetlands Education Centre, with support from the City of Cockburn, has undertaken a variety of trials to develop practical techniques for re-establishing the wetland vegetation communities. The project aimed to create reasonably self-sustaining vegetation communities that would also function as a wetland seed production area (wet SPA) to supply locally provenanced seed for annual revegetation projects.

The site visit will pass through an annual sequence of works dating back to 2003 and examine the practical techniques used including seed collection and propagation, initial site preparation, revegetation and maintenance.

Photomonitoring records will demonstrate the changes over time. A highlight of the visit will be the *Narma Kullarck* floating boardwalk. Please wear enclosed shoes, a hat and bring a water bottle. *(Please note: some delegates may have participated in this site visit at previous conferences. The visit is primarily aimed at new attendees).*

This Program may be subject to some changes prior to or during the conference.

Please help the environment – bring your own water bottle!