

WILD SIDE

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Wildlife Conservancy of Tropical Queensland

Annabelle Olsson

The Wildlife Conservancy of Tropical Queensland (WCTQ) is a not for profit organisation recognized by Environment Australia. Originally established as the Mareeba Wetland Foundation in 1994, it became WCTQ in 2006. The core objective of the Conservancy is to work with the community, all levels of government and the private sector to conserve wildlife in the most biodiverse region of Australia. The WCTQ recognises the importance of support from larger NGOs and government entities, and has partnership arrangements with Bush Heritage Australia, the Queensland Department of Environment and Resource Management, and the Mareeba Shire Council.

The original conservation initiative of the WCTQ was the establishment of a 5000 acre (2000 Ha) reserve in 1995. The Mareeba Tropical Savanna and Wetland Reserve is managed using funds raised from sustainable tourism as a model of non-government community led nature conservation. The reserve was conceived in 1994 to use excess water left over after passage through the channel system of the Mareeba Dimbulah Irrigation Area. Originally earmarked for devel-



Clancy's Lagoon surrounding the visitor's centre

opment for sugar cane, the reserve was found to have significant environmental constraints, due to its complex soils and geological composition and the risk of downstream salination. The decision to halt agricultural devel-



opment was followed by five years of detailed environmental investigation. At that point the Mareeba Wetland Foundation (now WCTQ) proposed an alternative development strategy based on the wealth of existing environmental data. This scenario envisaged the creation of a series of gravity-fed wetlands that would be set within the tropical savanna, thereby creating a 5000 acre reserve of significant regional biodiversity value. Following approval, the State and Commonwealth government adopted the project and granted staged funding approval.

Transport and Regional Development revealed phenomenal increases in wetland wildlife, with the wetlands after only two years already established as one of the most important Brolga *Grus rubicunda* and Sarus crane *Grus antigone* roosts in Tropical North Queensland.

As a result of this demonstrable increase in biodiversity, the tourism sector wholeheartedly embraced the project, supporting further funding applications under the Regional Tourism Program. The resultant grant contributed to-

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Wildlife Conservancy of Tropical Queensland - Continued

wards the construction of the Clancy's Lagoon Visitor Centre along with significant in kind contributions from the Mareeba business community. A 6 month GreenCorps program saw walking tracks, tree planting and noxious weed eradication programs implemented. The Reserve opened to the public in September 1999.

The Muluridji people were granted native title over the Reserve in December 2011 and work with the Conservancy to ensure that biodiversity is maintained and enhanced.

The Wildlife Conservancy of Tropical Queensland supports a series of environmental initiatives including:

Brolga and Sarus Crane research (*with Charles Darwin University*)

Annual Crane Week (*with Tablelands Regional Council*)

Black-throated Finch monitoring and research (*with James Cook University*)

Buff-breasted Buttonquail monitoring and research

Gouldian Finch captive breeding programme

Northern Quoll monitoring and research (*with Melbourne University*)

Wild Rice genetic diversity (*with University of Queensland*)

Broad-scale wildlife Monitoring and Mapping

Fire Management

Invasive weed species management, including rotational cattle grazing, poisoning, and hand pulling

The current bird species list includes 206 species, as well as numerous mammal, amphibian and reptile species. Volunteers from all over the world help on the Reserve, in the Visitor Centre and



Freshwater crocodile reintroduced as apex predator

with ongoing conservation projects, such as the award-winning Gouldian finch programme; buff-breasted button quail, black-throated finch and Northern Quoll monitoring, and a Freshwater Crocodile reintroduction project. A key management aim is to promote native grasses essential to the survival of tropical granivorous birds, such as one of the Reserve's specialties, the critically endangered buff-breasted button quail. The Reserve is located on the higher altitude Atherton Tablelands in Far North Queensland, but extends its monitoring work into the surrounding region, wherever possible.



Gouldian finch captive breeding and rehabilitation project

The invisible harm – land clearing is an issue of animal welfare

Dr Nahiid Stephens, Veterinary Pathologist and Lecturer, Murdoch University

Dr Hugh Finn, Law Lecturer, Curtin University

Australia is home to some of the most unique and endangered native animals in the world. Unfortunately, tens of millions are killed every year by land clearing, according to our research on the harm done to animals when native vegetation is removed for agricultural, urban and industrial development. That research was recently published as a review paper in the journal *Wildlife Research* and was also described in *The Conversation*.

A key aim of the research was to document the pathology associated with land clearing. Land clearing harms animals in two basic ways. First, they may be killed or injured when native vegetation is removed, typically through the use of earth-moving machinery. Second, the removal of native vegetation puts animals in harm's way. Those that survive the clearing process are left in an environment that is typically hostile, unfamiliar or unsuitable - devoid of food and shelter but filled with predators, disease, and aggression from members of their own (or other) species.

A second aim was to characterise the harm that land clearing causes to the welfare of individual wild animals. Affected animals die in ways that are physically painful and psychologically distressing; those that survive may suffer physical injuries and other pathological conditions that may persist for days or months as they remain in cleared areas or are displaced to other environments. Notably, the harm that animals suffer is consistent with statutory definitions for "harm" in Australian animal welfare legislation (see, for example, the definition in section 3 of the South Australian *Animal Welfare Act 1985* and section 5 of the Western Australian *Animal Welfare Act 2002*).

A third aim was to advocate for changes to decision-making about land clearing. The scientific consensus about the harm caused by clearing means that decisions to allow clearing are effectively decisions to allow most of the animals present to be killed. As such, regulatory frameworks for clearing ought to include proper evaluation of the harm to be imposed. Currently, the statutes and planning instruments regulating land clearing in the Australian states and



territories do not require decision-makers to take into account the harm that a proposed clearing action will cause to the welfare of individual wild animals when assessing those actions.

Land clearing remains a fundamental pressure on the Australian environment and its unique biodiversity. In our study we estimate that, on the basis of previous studies and current estimates of clearing rates, clearing in Queensland and New South Wales combined kills more than 50 million birds, mammals and reptiles each year.

We also need to revise our perceptions about the usefulness and necessity of land clearing in Australia. A better idea of what is "acceptable" would include not only the environmental costs of clearing an area of native vegetation, but also the individual suffering that animals will experience. Critically, the relevant question is not *whether* animals will be killed and harmed when land is cleared, but *how much* of that harm will occur, how severe it will be, and whether it ought to be avoided. If such harm is deemed necessary – based on an accepted system for weighing the potential benefits and harms – the next question is how the harm to animals can be minimised.

The authors can be contacted for a copy of the *Wildlife Research* paper. The citation details are:

Finn, H. C., and Stephens, N. S. (2017). The invisible harm: land clearing is an issue of animal welfare. *Wildlife Research*. <https://doi.org/10.1071/WR17018>.

Introducing Annabelle Olsson

Annabelle was elected to AVCB Committee this year for a 3 year term. She is warmly welcomed and we look forward to her input. Michael Banyard, President

Annabelle grew up in the bushy outskirts of Sydney with an animal obsession, which led her to Veterinary Science where she graduated from Sydney University in 1985. After a few years of mixed practice in NSW, Annabelle sailed north (via a year of working on boats in the Whitsundays) and settled in Cairns in 1989. She opened Boongarry Vet Surgery in 1993, the same year she started the first wildlife rehabilitation group in the region, and today Boongarry is a dedicated avian, reptile, wildlife, zoo and exotic animal practice based in Cairns. Annabelle has an MSc (Vet Science/Tropical Ecology) from JCU by research on health of free living flying foxes and a PhD from Sydney Uni by research into anaesthesia of estuarine crocodiles, and is a member of the ANZCVS in Avian Health and Wildlife Medicine. She also holds Certificate IVs in Captive Animal Management, Animal Control and Regulation and Workplace Training and Assessment.

Annabelle divides her time between the practice in Cairns, consultancies and research in remote Aboriginal communities all over Cape York, and training rangers, zookeepers and animal managers. Her involvement in indigenous animal health enables her to assist senior rangers and animal managers to become proficient in diagnosis and basic treatment of common environmental health problems such as mange, internal parasites and reproductive issues. She also provides professional advice for some of the locally managed endangered species management programmes for sea turtles, dugong and terrestrial wildlife.

Annabelle's research focus led her to establish (in conjunction with Tim Nevard and the Mareeba Wetland Foundation) the Wildlife Conservan-



cy of Tropical Queensland. This NGO manages the 5000 acre Mareeba Wetland and Savannah Reserve and its associated conservation initiatives, and is in the process of establishing a wildlife hospital and research centre in Cairns. Annabelle's research interests include crocodile health and sustainable farming for conservation both here and overseas, and health and disease of free living local wildlife species.

Email: annabelle@boongarryvet.com.au

Expressions of Interest Invited - Animal Care and Ethics Committee - Charles Sturt University

The Animal Care and Ethics Committee Charles Sturt University currently has a vacancy in its Category A (Veterinarian) membership. The veterinarian ideally would have experience in wildlife to complement our expertise. The Committee is responsible for ensuring that all care and use of animals is conducted in compliance with the Australian Code of Practice for the Care and Use of Animals for Scientific Purposes. The Committee

meets for up to four hours once a month to consider applications which propose to use animals for teaching or research purposes. Meetings are conducted via videoconference. To find out more, or send an expression of interest, please send email to animalethics@csu.edu.au as soon as possible or Dr Geoff Dutton Telephone: 02 69334006, Mobile: 0404937714.

Field Trips and Workshops

AVCB organised two successful events on the Friday of AVA conference week, a field trip to Healesville Sanctuary and a workshop run by Wildlife Health Australia (WHA) and Animal Health Australia (AHA). Thirty nine people signed on for the events.

Wildlife Health Australia Workshop

Wildlife, Emergency and Emerging Diseases: What Do You Do? A Training Course for Wildlife Disease Recognition and Diagnosis.

Australia's geographic isolation provides a natural quarantine barrier to disease and Australia is fortunate to be free of most of the serious diseases that affect animals in other parts of the world. This favours our unique wildlife, environment, biodiversity, human health, domestic animal health, farm productivity, trade and economy. Biosecurity is a responsibility shared by governments, animal industries, veterinarians and the general public.

Australia's nationalised, broad-ranging animal health biosecurity system is a complex amalgamation of pre-border (offshore), border and post border (onshore) activities carried out by all Australian governments in collaboration with a large number of industry and other stakeholder groups, represented by a number of peak bodies. Australian veterinarians working with wildlife form an important part of this system, providing a crucial source of wildlife health information and knowledge, as well as surveillance and response capacity for disease events involving wildlife.

Wildlife are one of the most likely sources of emerging and emergency disease therefore vigilance and preparedness are important for Australia's biosecurity. This workshop aimed to improve the knowledge and skills of animal health personnel working with wildlife in recognising potential emerging, exotic and emergency animal diseases (EADs) and the reporting structure and obligations for suspected EAD investigation.

Rupert Woods (CEO WHA) outlined the objectives and laid the ground work for the very profession and experienced team to present. Kathy Gibson (Senior Manager Special Projects, Emergency Preparedness and Response Services, AHA) gave an overview of the role of private practitioners for EAD preparedness and response. Her presentation included information on national animal health preparedness and response arrangements and processes and expectations for reporting. Mark Hawes



Frank Wong, Mark Hawes, Michael Banyard, Kathy Gibson and Rupert Woods (L to R)

(Veterinary Pathologist, Biosciences Research, DEDJTR and WHA State Co-ordinator, Victoria), spoke on the clinical findings and necropsy findings for some EADs relevant to wildlife and Australia. Finally Frank Wong (Research Team Leader, Diagnosis, Surveillance & Response Group, CSIRO Australian Animal Health Laboratory) gave an overview of the role of AAHL in key wildlife diseases including new and emerging diseases of importance to Australia.

After lunch a series of scenario exercises in wildlife were workshopped by the participants. The scenarios were run as "Exercises Only" and did not relate to any current or immediate threats. The scenarios included, Classical Swine Fever, Highly Pathogenic Avian Influenza and Pigeon Paramyxovirus, White nose syndrome in bats, and Rabies. The day finished with a session on the future for wildlife EAD response in Australia including the National Environmental Biosecurity Response Agreement (NEBRA).

Participants seemed to engage and enjoy the day and gained 3 CVE points.

The workshop was generously supported by WHA who receive core funding from the Australian Government. We are very grateful to AHA, DEDJTR and CSIRO AAHL for making their senior people available to help. Silvia Ban (WHA) did a great job of supporting and organising the working group. Practitioners are reminded that they can apply for funding to assist

Healesville Sanctuary Field Trip

The eight participants of the Healesville Sanctuary were given the VIP (Veterinary Important Persons) treatment by Leanne Wicker the senior veterinarian at Healesville and had special access to areas and material which would not normally be on view to visitors. The weather and the day proved exceptional.

The trip included a visit to and discussion about the Facial Tumour Disease in Tasmanian Devils with Kim Miller the Life Science Manager of Conservation and Research at Zoos Victoria. Participants also learned of the Sanctuaries Threatened Species program and enjoyed the Spirits of the Sky show by the sanctuaries birds of prey. Finally a close look at the newly opened Australian Wildlife Health Centre completed a memorable day.



We would like to thank all the staff of Vic Zoos and particularly Leanne Wicker for their time and enthusiasm to communicate their excellent work with wildlife. The photographs are courtesy of Elizabeth Thompson.



Wildlife Health Australia Workshop (Continued)

in investigations of suspected EAD events in production animals and wildlife through the National Significant Disease Investigation Program (NSDIP) administered by AHA and WHA (for more information visit the WHA website: www.wildlifehealthaustralia.com.au).

The speakers' notes are available upon request to avcb@ava.com.au.



If you see any signs of disease that are unusual or clusters of wildlife deaths then you should contact your local Wildlife Health Australia (WHA) Coordinator or call the Emergency Animal Disease (EAD) Watch Hotline: 1800 675 888.

Your local WHA Coordinator contact details: <https://www.wildlifehealthaustralia.com.au/>

Committee and Administrative

A quick update of AVCB administrative and committee things.

Michael Banyard

General Meeting, Melbourne Monday 5th June 2017

A good attendance at the general meeting ensured that the it was informative and congenial. All present were asked to introduce themselves and there was the opportunity at the end of the meeting for informal discussion. Eleven members and guests attended. Annabelle Olsson our newly elected committee member (2017-2020) was warmly welcomed and had represented AVCB at the AVA Group Summit held on the preceding Sunday. The Group Summit is an opportunity for communication within AVA in particular between National, Divisions and Special Interest Groups.

The president's report noted some of the achievements of the last 12 months including:

- the preparation of an excellent AVA/AVCB Conference program 2017
- The field trip and workshops to run on Friday 9th June
- four editions of our newsletter "Wild Side" have been produced
- we have contributed to submissions on a number of issues including: brumby control in Kosciusko National Park, Tasmanian Cat Management Plan, the Australian Government Discussion Paper on Biosecurity and ACT Native Species Management Plan together with a number of smaller issues
- we have engaged with students and currently work with JSU, Sydney Uni and Melbourne and are active in building connections with the other universities.
- we are now represented on the management committee of Wildlife Health Australia
- we have expanded our professional network to learn and engage in issues important to conservation including the 17th Australasian Vertebrate Pest Management Conference
- we have launched our Facebook Page and



Winter Colours. Titbinbilla Sanctuary, ACT

regularly engage with up to 350 responders

- our membership numbers have increased to 77 from a low point of 69

It is pleasing to note that since the President's report was prepared membership has continued to increase now at 82.

All the resolutions of the meeting were passed importantly Resolution 3, *"That members affirm the viability of AVCB and resolve that it should continue the process of active review and redevelopment."*

AVCB is progressing well but is dependent on your active involvement as a member. Its activities are largely driven by member support. The friendly and supportive nature of our committee and associated networks contribute to the fun of being part of the action.

Our Priority Goals 2017_18

- Outreach
- Students – attend student functions, find and provide local speakers
- Veterinarians, Non-veterinary
- Peer Networks – communicate with influencers
- Advocacy & Policy – Develop our position in our selected areas and engage
- Habitat degradation and Welfare

AVA Conference wrap-up, Melbourne, June 2017

Bo Raphael

This year's AVCB stream at the conference was full of thought-provoking topics and inspiring and passionate speakers. And with record-breaking attendance (total 223), the program was very well received by delegates. A total of 10 speakers (many in shared sessions with other SIGs, including AVPH and AVAWE) brought new ideas, rigorous science and project updates to the audience. Many of the sessions had a One-Health theme (human, domestic animal, environmental health) and generated significant discussion in question time. Attendees learnt about: the importance of veterinary involvement and complex problem solving in improving food and environmental security in developing countries (Mike Nunn); updates on Australian bat lyssavirus and the important datasets managed by Wildlife Health Australia, as well as the threat of white nose syndrome to endangered Australian microbats (Keren Cox-Witton); the emerging (in a public sense) issue of the impact of land clearing on native animals (Martin Taylor); a timely update about the science and planning behind introduction of koi herpesvirus for carp biocontrol (Ken McColl); how culture can impact conservation outcomes around the globe (Michele Cotton); and, some fascinating research on non-lethal alternatives to managing predation of livestock and native animals (Chris Johnson). On Wednesday, AVCB was invited to the AVAWE talks on veterinarians' professional concern for biodiversity loss (Sean Wensley) and veterinary



Professor Chris Johnson (School Biological Sciences, University of Tasmania) presenting "Non-lethal management of wild predators

treatment of wildlife in Australian practices (Bronwyn Orr). On Thursday, our final two speakers discussed antiviral immunity in bats (Michelle Baker) and the epidemiology of Nipah virus in the Philippines (Debbie Eagles).

The AVCB would like to say many thanks to all our speakers for their time and attendance in contributing to our program, and to the delegates who attended AVCB talks. Discussions are already underway for the program for the Brisbane conference in 2018. If you have any ideas for speakers or topics, please let us know! Email us at avcb@ava.com.au



Koalas conserving heat on a frosty morning at Tidbinbilla Sanctuary, ACT

Can You Help?

We are very happy to have ex-officio support for our activities. We need input into and moderation of our Facebook Page and Group (to be established) and the Newsletter. If you have any interest in helping please contact Michael Banyard (or any other member of the committee) through avcb@ava.com.au

17th Australasian Vertebrate Pest Conference

Canberra 1-4 May 2017

Michael Banyard

The large multi-stream 17th Australasian Vertebrate Pest Conference (AVPC) organised by Invasive Animals CRC was held in Canberra in May this year. These conferences are held every three years and are the largest gathering of professionals involved in vertebrate pest control in Australasia. It also attracted speakers and participants from North America.

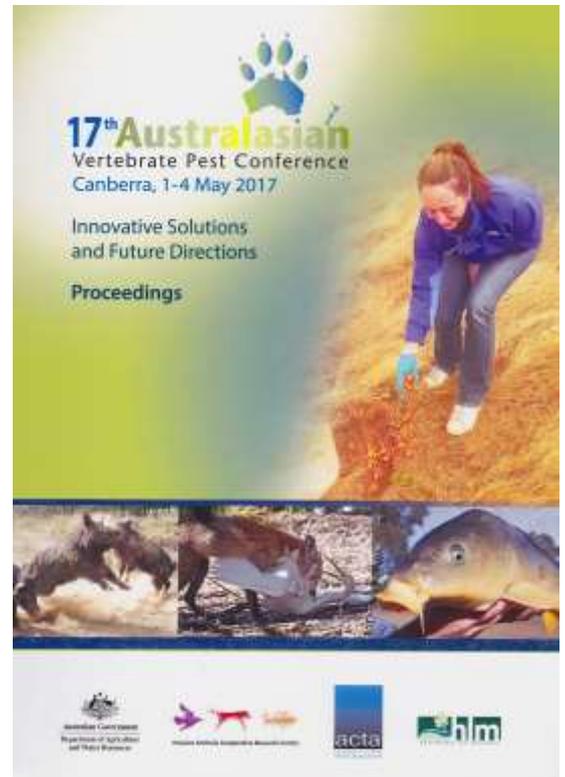
The professionals organising this conference have all made significant contributions to the current knowledge in the area and represent the totality of control measures from molecular genetics, through trapping and lethal control measures. As a participant in the conference the willingness of participants to cooperate and interact and their commitment to the subject was notable. Cross discipline science working at its best.

Some notable sessions included:

Gene Drive and the Potential to Control Vertebrate Pests by Mark Tizard CSIRO Health and Biosecurity Geelong Vic.

The development of gene editing tools like CRISPR/Cas9 make it possible to encode biological payloads which are expressed in the phenotype of the animals inheriting them. These could be used to determine the sex of all offspring, a trait that proves fatal if all were male. The welfare advantages of such control measures are substantial. The group suggests that a 5-10 year lead time is envisaged.

Why Don't They Just Listen to Us? by Craig Cormick, explained the psychology of how non-science based individuals view and respond to scientific ideas and why data does not convince them despite the fact that, "Intuition is unsuited to the modern world...". The take-home message was, "don't debate the science look for the values (social, welfare etc)



Issues with wild dog management including dingoes received attention from several speakers. It is clear that much work and dialogue remains to be had on the role of guard dogs for non-lethal predator control and the trophic effects of dingoes in our environment. As would be expected those dealing with stock losses on a day-to-day basis have defined problems to solve whereas the place of dingoes requires an ecosystem view. The issues of rewilding are current and world-wide.

Keep this conference in mind for its next round in 2020.