



Wildlife Health Australia

Wildlife Health Australia is the peak body for wildlife health in Australia.

wildlifehealthaustralia.com.au

Phone +61 2 9960 6333
during business hours
Monday to Friday

If you see any suspicious signs of disease or deaths in wildlife you can report it to the Emergency Animal Disease Watch Hotline on **freecall 1800 675 888**

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International Conference of the Wildlife Disease Association

In July, for the first time in ten years, the International Conference of the Wildlife Disease Association (WDA) was held at Maroochydore in Queensland, Australia.

WDA Australasia section (WDA-A) President and board member of Wildlife Health Australia, Andrew Peters, said that he was delighted with the interest, expertise and enthusiasm for the conference shown by local and international wildlife experts.

WHA staff presented overviews of recent developments in Australia's wildlife health system, wildlife disease surveillance system and Australia's avian influenza wild bird surveillance program (see article below for details).

Andrew was particularly grateful for the sponsorship of the Australian Department of Agriculture and WHA, and the help provided by WHA in promoting conference presentations to the media.

Seven media releases were issued which resulted in over 30 articles highlighting the importance of wildlife health research.

Andrew also commended the local WDA-A conference organising committee for the successful conference.

Rupert said he was delighted to sign up over 20 new members to WHA from Australia and overseas at the event, and touch base with many current members.

He said it was also gratifying to be able to support the WDA.

“The WDA-A was instrumental in setting up the WHA’s predecessor, the Australian Wildlife Health Network, and continues to be a strong supporter of WHA,” he said.



Pictured: The spread of antibiotic resistance to wildlife, including captive sea lions, was one of the topics discussed by Dr Michelle Power of Macquarie University, at the International Conference of the Wildlife Disease Association. Photo credit: Rob Harcourt.

World leading Chief Vet

Congratulations to the Chair of Wildlife Health Australia, Australian Chief Veterinary Officer Mark Schipp, who became Vice President of the World Assembly of the [Organisation for Animal Health \(OIE\)](#) in May.

Mark will serve a three-year term and then become

President at the end of May 2018, for a further three years, while continuing his role as Australia's Chief Veterinary Officer.

The President and Vice President are key roles within the OIE, which works to adopt international standards in animal health, especially for international trade, and adopt resolutions on the control of major animal diseases.

Reston ebolavirus update

Wildlife Health Australia management committee member, Hume Field, has helped in an international effort to track a newly emerged ebolavirus in the Philippines. The story was outlined at the International Conference of the Wildlife Disease Association in July, and published in the same month in the [Virology Journal](#).

Hume described how he joined a multi-disciplinary team at the invitation of the Philippines government, in conjunction with the Food and Agricultural Organization of the United Nations.

Their mission was to find the wildlife reservoir of Reston virus, a type of ebolavirus which appears not dangerous to humans, but definitely capable of causing fatal disease in monkeys.

Hume explained that Reston virus was first described in 1989 when monkeys imported from the Philippines to a research laboratory in the United States became ill and died. Twenty years later, the virus re-appeared in blood samples taken from pigs and people who worked with pigs in the Philippines, though the virus failed to cause disease in either.

In two month-long stints in the Philippines in 2010, Hume and his colleagues worked the night-shift to collect samples from a range of bat species. At the time, Hume headed the Queensland Department of Agriculture and Fisheries Queensland Centre for Emerging Infectious Diseases, which supported the regional investigation. Hume's current role is

EcoHealth Alliance Science and Policy Advisor for China and South-east Asia.

Bats were the focus of the study because some species had been identified as the source of related viruses in Africa, and because of their association with other emerging infectious diseases globally, including Hendra virus in Australia, and Nipah virus in Malaysia and Bangladesh, both of which can cause fatal infection in humans.

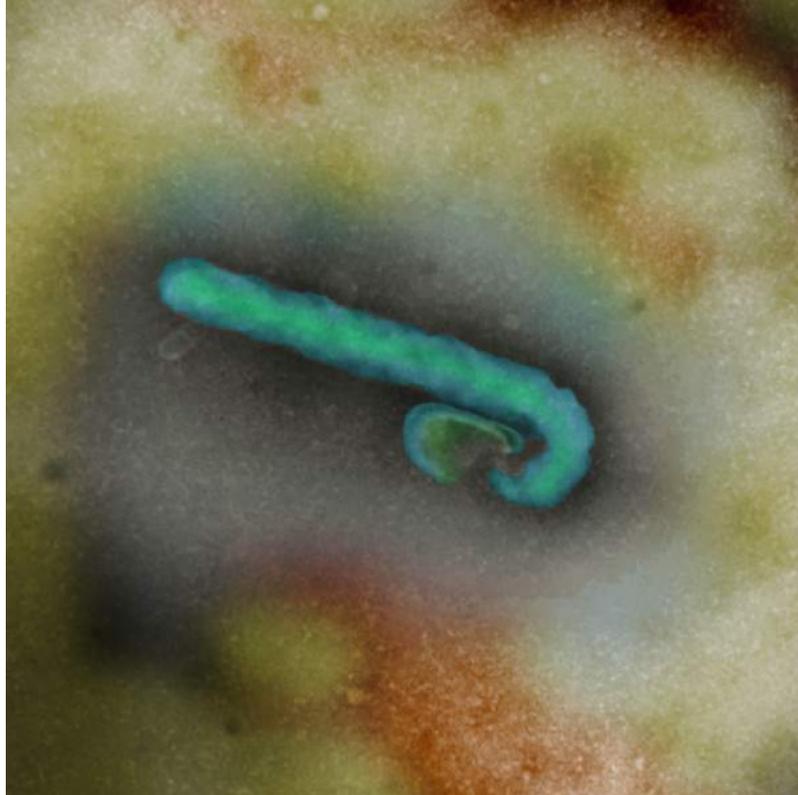
Hume and his colleagues found evidence of Reston virus infection in several Philippine bat species.

Knowing the natural reservoir of the virus was important, Hume said, as it allows follow-up research to target how and when the virus might spill-over to other species, and how that might be prevented.

“Although Reston virus appears not harmful to humans, knowledge about the virus helps to build up a better picture about newly emerging viruses generally, and forewarned is forearmed,” he said.

Hume stressed that the research was not ‘anti-bat’.

“We know that bats are an important part of the ecosystem. These research findings are yet another reason why we need to thoughtfully manage bats and their habitats, because it is when we degrade and disrupt the environment that we are more likely to see virus spill-over events,” he said.



Pictured: An electron micrograph of an ebolavirus, photo credit CSIRO.

Keeping an eye on avian influenza in wild Aussie birds

Tiggy Grillo from Wildlife Health Australia gave an update on the wild bird avian influenza surveillance program at the International Conference of the Wildlife Disease Association in July.

Avian influenza virus surveillance was increased in 2005 by the Australian Government and Australia's states and territories in response to the global emergence of the highly pathogenic H5N1 strain of virus.

Since then, over 80,000 samples have been collected from migratory shorebirds and nomadic waterfowl species from across the country, yielding important information on these viruses. Avian influenza viruses, which are naturally present in wild Australian birds but rarely cause disease, have the potential for some strains to mutate and spread into domestic poultry.

Tiggy said the surveillance program ensures strains circulating in Australia can be detected rapidly, and helps pinpoint periods of higher risk of transmission to poultry.

“It is important to keep testing so we can keep track of subtle changes in the viruses as they happen and ensure that our diagnostic tests work well. We want to be sure that the tests used in Australia can detect overseas virus strains as well as Australian strains. There have been few outbreaks of avian influenza in Australian poultry and diagnostic tests utilised in Australian laboratories rely on wild bird samples to monitor the changes in these strains over time,” she said.

Tiggy said though avian influenza viruses circulate in Australian wild bird populations, the program has never detected highly pathogenic avian influenza viruses in wild birds. Wild waterfowl such as ducks, geese and swans are natural carriers of these viruses. Testing has found that a small proportion of these birds carry the low pathogenic viruses, including some of the H5 and H7 subtypes, which can change to become more lethal to poultry.

Australia’s geographic isolation and unique climate, means that the patterns of circulation and genetics of avian influenza viruses amongst birds are different to other countries. For example, avian influenza virus tends to be detected more often in wild ducks after periods of high rainfall followed by drought.

“A better understanding of these patterns can help determine when there are periods of high risk for poultry farms,” said Tiggy.

The Australian surveillance program is coordinated by Wildlife Health Australia with national funding provided by the Australian Department of Agriculture and in-kind contributions from a large number of collaborators including commonwealth, state and territory government agencies, non-government organisations, industry, and university researchers.



Pictured above: A chestnut teal, one of the species sampled in the national avian influenza surveillance program. Photo credit, Akos Lumnitzer.

Welcome to new AVA President



Wildlife Health Australia member, Robert Johnson, (pictured) has recently been elected as the new national president of the Australian Veterinary Association (AVA).

The AVA represents over 8000 veterinarians and veterinary students throughout Australia.

“I’m really excited about the future and our current focus areas of continuing professional development, antimicrobial resistance, graduate support and animal welfare,” he said.

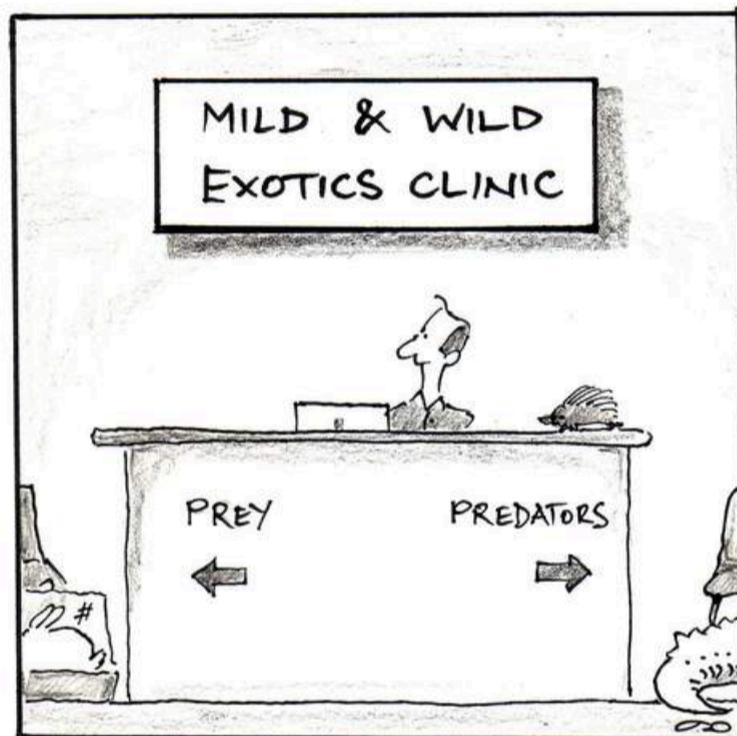
After graduating in veterinary science from the

University of Sydney in 1977, Robert worked in a practice in Blacktown in western Sydney.

In 1983, Robert set up his own veterinary practice with his veterinarian wife Jane. Robert and Jane pride themselves on offering veterinary services for wildlife and reptiles as well as other small animals. Robert was also a clinical veterinarian at Taronga Wildlife Hospital from 2005 to 2012.

Robert has contributed widely to the fields of reptile, zoo and wildlife medicine, through book and journal publications and presenting both nationally and internationally. He is also a talented cartoonist.

Pictured below: A cartoon by Robert Johnson.



Lance Sanders retires



Longstanding Wildlife Health Australia member Lance Sanders (pictured), will continue to keep a close eye on zoonotic diseases after completing a thirty-three year career with Australia's Department of Health.

During his time with the department, Lance helped craft Australia's response to the Bovine spongiform encephalopathy (BSE) crisis in the United Kingdom, and the Hong Kong avian influenza outbreak in 1997, which was the first known case of a H5N1 strain infecting humans. He played a key role in the recognition and control of Australian bat lyssavirus and Hendra virus within Australia.

Lance also worked on arboviral disease and a mosquito control programs in conjunction with the states and territories, and prepared the public health sections for [AUSVETPLANS](#) including West Nile Virus.

Lance described the world of zoonoses as "complex and fascinating".

His involvement with Wildlife Health Australia goes back to the inception of its predecessor organisation, the Australian Wildlife Health Network.

"The contribution of wildlife to public and animal health issues continues, rightly, to gain recognition. I hope that in future the One Health concept will continue to become more widely understood in the community," he said.

Post-retirement, Lance continues to track the latest developments via ProMed and Wildlife Health Australia's Digest, and acts as a peer reviewer for the journal Emerging Infectious Diseases.

He urged Wildlife Health Australia to continue its work involving and informing Australia's public health professionals.

"The expanded horizon scanning and proactive information sharing provided by Wildlife Health Australia made my job easier than it would otherwise have been," he said.

WHA's CEO Rupert Woods thanked Lance for his long support for WHA and One Health.

"Over the years Lance has made a huge contribution to zoonoses management in Australia. He has also acted as the bridge and linkage between Australian government biosecurity and health departments in the area of emerging and zoonotic diseases as well as contributing to the governance and future direction for Wildlife Health Australia.

"Lance has always been there to offer advice and provide the very latest information and analysis. His retirement sees a significant loss of corporate knowledge and the relationships required to do business in such a complex space. He will be missed and we wish him all the best in whatever the future has in store," Rupert said.

Though Lance has now moved on, the Australian Department of Health has moved quickly to provide a replacement who will represent the department on a number of our focus groups. Watch out for future issues of this newsletter for an introduction.

Member profile - Anita Gordon

Senior veterinary pathologist Anita Gordon works in the Biosecurity Sciences Laboratory at Coopers Plains, which is part of Queensland's Department of Agriculture and Fisheries.

Anita has been involved with Wildlife Health Australia since the creation of the Australian Wildlife Health Network in 2002, and she became a WHA state coordinator in 2006.

When rostered on as duty pathologist, Anita oversees all submissions to the laboratory on the day.

“My job involves looking at specimen advice sheets when submissions are unpacked, and allocating tests to different sections of the lab. The pathologist performs any necropsies required, as well as histopathological and cytological examinations. On a busy day, we can receive 20-30 submissions, usually with one or two relating to wildlife,” she said.

“Our focus is on free-living wildlife and as a rule we don’t look at wildlife in care, unless there are any human health concerns,” Anita explained.

Anita also responds to wildlife related enquiries from private and government vets as well as members of the public.

Anita said the wildlife cases seen by the laboratory were usually bats for lyssavirus exclusion testing, or birds involved in mass sickness or mortality, where it is important to exclude Newcastle disease virus and avian influenza.

Over the years, Anita has been involved in other wildlife investigations including mass mortality events in macropods and sea turtles. She has also looked into a mass mortality of black kites in far north Queensland, caused by the protozoan infection trichomonosis, and several cases of a mysterious paralysis syndrome in rainbow lorikeets. The laboratory also sees a number of cases of birds with pesticide poisoning, which in at least some cases appears to be deliberate.

Relevant cases are reported into the national electronic wildlife health information system (eWHIS), which is managed by Wildlife Health Australia.

Anita said the strengths of WHA include keeping members informed about wildlife health issues and linking people who work in wildlife health.

“Networks can take time to establish, but Australia is now starting to reap the benefits. When people start

talking and collaborating, you start to get results,” she said.

WHA’s national coordinator, Tiggy Grillo, who works closely with the WHA coordinators, thanked Anita and all the current and past WHA coordinators for all their good work contributing to Australia’s general wildlife health system. Watch out for profiles of your local WHA coordinators in future editions of this newsletter.



Pictured: WHA member Anita Gordon conducts a bird necropsy in the Biosecurity Sciences Laboratory at Coopers Plains, Queensland.

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