

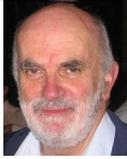
Wildlife Health in Australia



Newsletter of the Australian Wildlife Health Network

Volume 7, Issue 2

March 2009



Message from the Chair

DR. CHRIS BUNN,

Office of the Chief Veterinary Officer

Hello and welcome to our first quarter Newsletter for 2009.

This quarter we have said farewell to Leesa Haynes who has moved on to a residency at Healesville Sanctuary. The search is now on to find a suitable candidate to replace her, and the recruitment process is well underway. We hope to be welcoming a replacement in the coming weeks.

In other Network developments, our founding deputy Chair, Tony Robinson (ex CSIRO Sustainable Ecosystems) has now retired and Ian Roth (NSW DPI) has agreed to replace him as deputy Chair of the Networks Operations Committee. Tony was a great support to both Rupe and I and we thank him for his unflagging support during our early years.

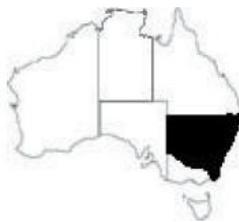
As well as acting as deputy Chair, Ian will also provide linkage with the CVOs and Animal Health Committee. We are very grateful to Ian for his continued support and involvement with the network.

We are looking forward to a busy second quarter heading towards end of financial year, and we will keep all our subscribers posted with any Network updates.

Disease Events

New South Wales

A Grey Headed Flying Fox found in Padstow, Sydney, showing classic signs of ABLV, has been diagnosed with ABLV.



There have been reports of major deaths in young Galahs in Albury. Chlamydia, Newcastle, and parasites were excluded. Cause remains unknown.

Large number of Starlings have been dying in Queanbeyan. Possible poisoning, have tried to eliminate any viral disease. There was a pathogenic species found, possibly in error, so that's been excluded and the cause remains unknown.

Botulism has occurred Centennial park, Sydney, and one Pelican diagnosed at Cooks river.

Queensland

There have been many microbat and Flying Fox submissions, including a lot of flying foxes with neurological signs. 3 Lyssavirus positives were obtained in late March (two Black Flying Fox, one Little Red Flying Fox). Other causes included suppurative meningitis, traumatic myelomalacia, electrocution, trauma and a meningoencephalitis of unknown cause.



A range of bird poisonings were diagnosed, including fenthion ethyl in about 12 crows, 10 Corellas poisoned with fenthion, and magpies poisoned with bendiocarb (a carbamate insecticide). Other cases in wild birds included a case of respiratory cryptosporidiosis in a Pacific Black Duck, and avian chlamydiosis was suspected in two spotted turtle doves.

Possums with exudative dermatitis have caused some media interest.

Victoria

There has been a die-off of young Swans from Phillip Island. There was a greater than usual number of hatchlings, although the die-off was in reasonably large numbers. There were initial concerns of Botulism, but this was unconfirmed and most probable cause was malnutrition.



Dwarf Galaxias were submitted due to deformities of the head, which turned out to be large numbers of subcutaneous and intracoelomic trematode metacercariae. The same species of fish in other river systems don't have this, so it seems to a local increase in parasites.

Other individual cases included a raven with papillomatosis.

ACT

Kangaroo culls have caused significant media attention.

South Australia

Testing has been conducted on Microbats for exclusion for ABLV and Hendra virus. No positives cases.

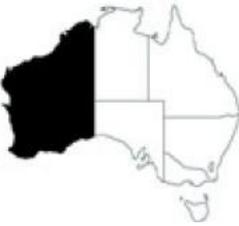


A report of captive finches dying. Cultured *Klebsiella pneumoniae*.

Last quarter, (December) there was a significant die off of Southern Bentwing bat pups in Naracoorte Cave. Estimates of 500 out of the 5000 pups died, which is a significant number for this endangered species. Only able to conduct exclusion testing for Lyssavirus. Pups appeared very emaciated and weak, and also have really ulcerative skin lesions on various areas on their bodies.

Western Australia

Part of WA's wildlife surveillance system has broken down since an active carer has stopped caring for mammals due to over demand. The Broome carer has restricted her activities to bats and birds due to work overload.



A group of juvenile magpies at a rehab facility died. All birds in that particular enclosure were diagnosed with Coccidiosis, as a result of animal management.

Tasmania

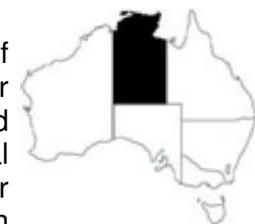
There have been 3 cases of cutaneous round cell tumors in distinct to DFTD in Tasmanian Devils (2 wild, 1 captive) in the last 5 months. Immunohistochemistry is being undertaken to further classify them.



Reports of Shearwater chicks being in low numbers this year and reports of carcasses being found. Unable to get any decent samples for analysis. There is a post-harvest season survey on currently so hoping more information will present with that.

Northern Territory

Reports from the Alice Springs area of possible Psittacine Beak and Feather disease, one bird euthanised and positively diagnosed. Since the initial investigation, there has been another submission confirming an outbreak in psittacines in the Darwin area.



MVE Disease Warning for the NT

Friday 20 March 2009

NT residents are advised to protect themselves from mosquito bites following suspected cases of Murray Valley encephalitis in the Top End and northern WA.

Murray Valley Encephalitis (MVE) is a potentially fatal disease transmitted by the common banded mosquito, *Culex annulirostris*, which bites after sundown. About one person in 1000 bitten by infected mosquitoes will contract the disease and, despite best care, one in four of these will die from the infection. There have also been indications that MVE virus activity has begun in the Katherine and Barkly regions. Virus activity is expected to return to a minimum from the end of July.

Precautions include avoiding outdoor exposure at dusk and at night, ensure all insect screens are installed and mosquito-proof and use mosquito nets and mosquito-proof tents at night when camping. Wear protective, light-coloured clothing with long sleeves, long trousers and socks between dusk and dawn, and using a protective repellent containing diethyl toluamide (DEET) or picaridin when outdoors in areas of mosquito activity.

Usual symptoms of MVE disease include severe headache, high fever, drowsiness, tremor and seizures—especially in young children—and in some cases the condition progresses to delirium and coma, leading to paralysis or brain damage.

New Wildlife Health and Environment section with the Australian Department of Agriculture Fisheries and Forestry

The Australian Department of Agriculture Fisheries and Forestry (DAFF) is currently restructuring. As part of the restructure a new section within Post Border "Wildlife Health and Environment" has been formed. This is a significant step forward for Australia as it recognises wildlife health as being significant at a national level. A business case is currently being considered and we will keep Network subscribers updated on developments. Though currently small, it is hoped that the new section will improve linkage and outcomes between biosecurity, environment and health. It will be lead by Chris Bunn.

INTERESTING CASES

The Australian Registry of Wildlife Health

Coastal bearded dragon Captive, NSW

Euthanased due to severe ulcerative dermatitis affecting the skin over the jaw and left forelimb and generalized poor body condition. Gross post mortem revealed no changes apart from those of the skin. Histological and microbiological examinations have identified a multisystemic infection with a fungus, *Chrysosporium* sp. This fungus has been isolated in one previously reported dragon, but is thought to be the cause of death in all 4 animals. This fungal infection ("Yellow fungus") has not previously been identified in this species of bearded dragon (6742.1).

**Red Kangaroo** Captive, NSW

Found in enclosure, prostrate and exhibiting respiratory distress. Medical management failed to resolve the issue and anaesthesia was elected to explore the issue. Infection was suspected, but source of problem was unclear and antibiotics again failed to resolve the issue. Animal died during a second anaesthetic event. On post mortem, a large cavity containing degenerating tissue, plant material and inflammatory exudate was found adjacent to and involving the larynx (abscess). Areas of inflammation were also found in the lungs. On histological examination, these areas were confirmed to represent aspiration pneumonia, most certainly secondary to the laryngeal lesion. The initiating cause of the abscess around the larynx is unclear, but is most likely have been caused by a penetrating foreign body.

ANALYSIS: Bornavirus and Proventricular Dilatation Disease (PDD) - Implications for Australia

PDD is a disease that has been found in many species of birds and is common in North America and Europe. Recent papers have associated PDD with Bornaviruses. The disease has also been reported in captive bird collections in Australia (http://www.wildlifehealth.org.au/AWHN/FactSheets/Fact_All.aspx). Henle-Koch's postulates are yet to be established. However, unpublished information suggests that the association of bornavirus with PDD is more substantial than in the currently available literature and bornavirus is now being considered as the likely causal agent for PDD.

The bornaviruses found in birds are antigenically distinct from those found in mammals and in North America and Europe bornavirus is considered (after Chlamydiosis) to be the most significant infectious disease of caged and aviary birds. At least one bornavirus can infect people. Whether these new bornaviruses can infect mammals is unknown.

In Australia PDD has been seen in a number of captive native and non-native parrot species. Cases have been identified south of Sydney and possibly Melbourne. The disease status in wild birds both in Australia and overseas is unknown. Pathogenesis is unknown, but is suspected to be associated with the immunological response to the causal agent. Intense work is occurring on this disease in North America and other places in the World and it is likely that many of the unanswered questions of causality and epidemiology will be resolved in the near future.

Currently a diagnosis of PDD can be made by demonstrating specific inflammatory lesions in affected nerves. Crop biopsies are preferred and can be performed in the live bird, but only 50% will have crop lesions. The PCR test is not readily available in Australia. However, primers are available and this test has been run at one Australian University, so far with negative results.

The risk this disease presents to the Australian aviculture industry, human health, native populations and the environment is unknown. However, PDD may become significant for the aviculture industry and conservation activities in Australia. Governments need to be kept informed, but no official action such as making the disease notifiable is considered necessary, as it may hinder reporting from the aviculture industry.

The Network will maintain a watching brief and we would be grateful for any reports of suspected PDD from subscribers for inclusion in the national database.

AWHN updates

Renewal of Subscriptions

The Network is in the process of renewing and updating all subscriptions. At the last Operations Committee meeting a decision was made for the Network to absorb subscription costs into its annual budget. This will facilitate information transfer and linkage. However, we still require subscribers to agree to the necessary business rules regarding information management. If you are a current subscriber to the Network and are yet to update your details, please email the Network to ensure your continued subscription. If you are not currently a subscriber and would like to get involved, email the Network to be sent the appropriate paperwork. Enquiries can be sent to kmagee@zoo.nsw.gov.au

Fact sheet update

Thank you everyone who has offered to write fact sheets for the Network. The response was terrific and we are slowly working our way through the list matching potential authors to topics. If you are keen to be involved (either writing or editing) please let us know. We have allocated a small amount of funding to assist with production. A number of new and updated fact sheets have also been posted to the website this quarter. These include: proventricular dilatation disease and bornavirus; psittacid herpesviruses and mucosal papillomas of psittacine birds in Australia and; psittacine circovirus disease. (See http://www.wildlifehealth.org.au/AWHN/FactSheets/Fact_Display.aspx). We would be very interested in feedback on the contents of these (or any other sheets).

Wildlife Health in Australia is the newsletter of the Australian Wildlife Health Network. The newsletter aims to facilitate communication between people with an interest in Australian wildlife health issues. It is distributed to approximately 500 professionals and others around the country and overseas. We encourage you to show it to others and give us critical feedback on its contents.

If you wish to contribute to a future addition of the newsletter please send (in word format) articles to the AWHN email or postal address with your name and contact details supplied.

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Farewell to Leesa Haynes



Following over 2 years service at the Network, Leesa has moved on to a Residency with Melbourne University based at Healesville Sanctuary. Leesa was an integral and valued member of the team, demonstrating excellent commitment and knowledge, and we wish her all the best for the future.

New Deputy Chair



Ian Roth become the deputy Chair for the Networks Operations Group. Ian is the Manager for the Field Veterinary Service and Product Integrity, at the DPI in NSW. We thank Ian for his increased involvement and commitment to the network, and we look forward to working closely with him.

DISEASE WATCH HOTLINE

1800 675 888

The Disease Watch Hotline is a toll-free number that connects callers to the relevant state or territory officer to report concerns about any potential emergency disease situation.

INFORMATION IN THIS NEWSLETTER IS NOT INTENDED FOR CITATION IN SCIENTIFIC LITERATURE—PLEASE CONTACT THE AWHN FOR DETAILS