

The Australian Registry of Wildlife Health



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The following are some interesting cases that have passed through the Registry recently. These reports originate from free-ranging animals, and native fauna held in a variety of zoos, fauna parks and private collections.

OCTOBER 2006

- **Magnificent tree frog** – captive, NSW - submitted to clinic with subcutaneous fluid accumulation, died despite treatment. Post-mortem revealed severe chronic glomerulonephropathy, suggestive of toxin exposure (5446.1).
- **White-lipped green tree frog** – captive, NSW - submitted to clinic with subcutaneous fluid accumulation, died despite treatment. Post-mortem revealed severe chronic glomerulonephropathy similar to that found in magnificent tree frog above (2903.2).
- **Greater stick-nest rat** – captive, NSW - Found dead with severe pneumonia and pleuritis due to *Cryptococcus neoformans* (5445.1) (this is the second stick-nest rat to die with infection due to this organism recently).
- **Brown cuckoo dove** – captive, NSW - Found dead with severe hepatitis and splenitis due to mycobacterial infection, *Mycobacterium avium* (5455.1).
- **Superb parrot** – captive, NSW - History of being intermittently fluffed and lethargic, found dead with severe liver disease. Lesion too chronic to ascertain aetiology (5459.1).
- **Land mullet** – captive, NSW - History of lethargy and possible paresis, euthanasia due to poor response to treatment. Histology revealed pyogranulomatous inflammation involving the meninges of the ventral hindbrain, suggestive of localised infection in this area and possibly explaining the paresis (5461.1).
- **Koala** – captive, NSW - Euthanasia due to old age and chronically thin. Post-mortem revealed non-suppurative pancreatitis, pancreatic atrophy and fibrosis and subclinical *Cryptococcus* infection of sinus (5465.1).
- **Little Lorikeets** – captive, NSW - Three chicks found dead and partially decomposed in the nest. Post-mortem revealed severe oral yeast infection and multisystemic focal necrosis associated with hypertrophied cells with possible intranuclear inclusion bodies, suggestive of viral infection. Electron microscopy showed inclusions in the pancreas suggestive of an adenovirus (5481.1-5481.3).
- **Tiger quoll** – wild, NSW - Found in backyard with crusty skin lesions, seemed bright and alert but died suddenly and rapidly went into rigor mortis. Post-mortem revealed extensive aberrantly migrating larval nematodes (probably *Ophidascaris* spp.) in the thoracic cavity and lung. Some larvae were in inflamed pulmonary

vessels, suggesting that pulmonary thromboembolism may have been the cause of death (5450.1).

- **Fjordland crested penguin** – wild, Bermagui, NSW - Found moribund on beach with severe injury to flipper, kept with WIRES carer for five days prior to transfer to zoo wildlife facility. Emaciated, dyspneic, died overnight. Most notable post-mortem finding was marked dehydration. Histologically the animal showed signs of severe subacute skeletal myodegeneration consistent with over exertion and starvation (5488.1).

SEPTEMBER 2006

- **White-lipped green tree frog** – captive, NSW - Aged animal died after being submitted moribund, had severe chronic nephropathy plus focal renal infection with both gram negative bacteria (probably *Ochrabactrum anthropi*) and mycobacteria. The frog also had unilateral hyphaema with a cataract and retinal detachment and degeneration (4719.3).
- **Koala** – captive, NSW - Pouch young found dead with massive bacterial overgrowth on skin, acute necrotising dermatitis and septicaemia due to *Pseudomonas aeruginosa* and *Klebsiella oxytoca*. The septicaemia was probably secondary to the dermatitis which in turn was likely a reflection of infection/bacterial overgrowth in, the pouch (5388.1).
- **Major Mitchell's Cockatoo** – Captive, NSW - Euthanasia due to severe trauma to base of beak, likely from another cockatoo. Microscopic examination revealed severe suppurative infection of the traumatised soft tissue, bone and adjacent sinuses (5391.1).
- **Feather-tailed gliders** – captive – NSW - Six gliders euthanased for investigation into eye problems. All had varying degrees of corneal opacity grossly consistent with lipid keratopathy, and all had elevated serum cholesterol levels, suggestive of a dietary excess of cholesterol (5393.1-5393.6).
- **Rose-crowned fruit dove** – captive, NSW - Noted to possibly be getting picked on by cage mates, later found dead. Severe septicaemia with large numbers of pleomorphic filamentous bacteria in blood vessels and phagocytes in multiple organs. Special stains reveal the abundant bacteria throughout capillaries and in macrophages to be large gram positive rods, inconsistent with the *Bacterioides spp.* (gram negative) obtained in bacterial culture (5398.1).
- **Brush-tailed phascogale** – captive, NSW - One aged animal found to have mycobacterial pneumonia and mesenteric lymphadenopathy. Three other older phascogales from the exhibit euthanased found to have minor mycobacterial infections of the lungs/mesenteric lymph node (5402.1, 5423.1-5423.2).
- **Little penguin** – captive, NSW - On eggs but euthanased due to poor body condition and opacities noted in lungs. Extensive chronic *Aspergillus* lesions found in air sacs and lungs at necropsy (5403.1).
- **Yellow-bellied glider** – captive, NSW – Young adult presented very weak in the hind end and anaemic, died despite supportive treatment. Histology reveals a leukocytic cancer primarily involving bone marrow and impinging on the spinal canal (5417.1).

- **Squirrel gliders** – captive, NSW – Adult gliders died within three days of one another due to peracute *Pasteurella multocida* septicaemia (5419.1-5419.3).
- **Brush-tailed possum** – wild, NSW - Found dead on zoo grounds with severe necrotising bronchopneumonia and pyothorax due to a beta-haemolytic *Streptococcus* (5390.1).
- **Short-beaked Echidna** – captive, NSW - Found unable to use hind legs, with no improvement over a few days in hospital, therefore euthanased. Luxation of upper thoracolumbar vertebral column that was suspected clinically confirmed on necropsy (5400.1).
- **Australian raven** – wild, NSW - Found on zoo grounds with possible neurological signs, clinically appeared to perhaps be a case of suspected viral infection as seen in wild birds in NSW earlier this year. Necropsy revealed extensive overt haemorrhage into body cavities, intestine, suggestive of anticoagulant rodenticide toxicity (5415.1).
- **Carpet python** – captive, NSW - Euthanasia due to neurological signs. Microscopic examination of the brain revealed severe leukoencephalomalacia primarily involving the brainstem. This lesion, with or without inclusion bodies, seems to be fairly common in snakes with neurological signs, and many cases are suspected to have a viral aetiology, although this is currently very difficult to confirm (5395.1).
- **Mallee and painted dragons** – wild, NSW - Researcher requested assistance with mortality investigation involving recently captured dragons. Gross necropsies inconclusive. On histology section there is evidence of probable suppurative enteritis, however, autolysis is precluding definitive diagnosis. (5428.1-5428.5).

AUGUST 2006

- **Red kangaroo** – Female, juvenile, hand raised/captive, NSW - Found dead with severe haemorrhage and necrosis of mucosa of stomach and upper small intestine. The lesion was suggestive of either ischaemia or possibly clostridial enterotoxaemia, both of which are difficult to confirm (5351.1).
- **Yellow bellied glider** – captive, NSW - Found dead due to haemorrhage into the abdomen stemming from an abnormally enlarged multicystic left ovary (5352.1).
- **Water rat** – captive, NSW - Died during anaesthesia for examination of subacute illness. Necropsy and histology revealed heart failure with severe suppurative myocarditis suggestive of encephalomyocarditis virus. However, encephalomyocarditis virus serology and virus isolation at the time of death negative (5354.1)
- **Red-browed finches** – captive/quarantine, NSW - There have been a few deaths in this species in the past two months, primarily in thin, poor-doing birds, with no post-mortem findings of concern. One bird, however, had gross and histological lesions suggestive of chlamydophilosis (attempts at confirmation are pending) (5374.1). Two birds housed with the bird tested positive for antibodies to *Chlamydophila* and were euthanased. Both birds were in good body condition and grossly normal, with antigen tests on their livers negative (5418.1, 5418.2). A thin seronegative bird housed with the suspect was found dead, also tested negative for *Chlamydophila* antigen (5420.1).

- **Rainbow bee-eater** – Died due to haemorrhage from injured wing, also had a large nasal cyst at base of beak causing dyspnea and mild disseminated mycobacteriosis (5373.1).
- **Australian fur seal** – Captive, NSW - died during anaesthesia, with only notable post-mortem findings being bilateral large colloid goiter. Fur seals in captivity appear to develop this lesion, which is attributed in domestic species to a period of thyroid hyperplasia with subsequent resolution, as they age. This animal's blood level of thyroid hormone was in the low normal range (5379.1).
- **Stick-nest rats** – captive, NSW - A few rats have died with severe candidiasis of the oesophagus and stomach, and one rat also had concurrent infection with a different yeast, *Cryptococcus neoformans*, in the lung (5381.1).
- **Two magpies, one black duck** – wild, NSW Central Coast - Several birds of each species found dead in a park, three carcasses submitted by NPWS for pathology. Gross and histological examination of tissues did not reveal any abnormalities, which is suggestive of intoxication under the circumstances. Tissues sent for avian influenza and Newcastle disease exclusion as a routine in wild bird die-offs in which an alternate diagnosis hasn't been made returned negative results (5369.1-5369.3).
- **Black swan** – cygnet found alone in wild, died after a few days in rehab with severe bronchopneumonia due to *Staphylococcus intermedius*.