



Zoological Parks Board  
of New South Wales

## Australian Registry of Wildlife Health

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.

### APRIL 2002

- Grey-headed flying foxes - update from cases reported in January 2002. Juvenile flying foxes submitted by NSW National Parks & Wildlife Service. 6/34 young flying foxes being maintained in a pre-release crèche in Kuringai died within a 36 hour period. Three additional flying foxes in the crèche concurrently developed respiratory illness and dysphagia. No known exposure to toxins. No significant bacterial or viral agents identified in various forms of culture. Viral culture included passages through insect cell lines to increase the likelihood of isolating an Orbivirus. Additional viral culture attempts did not identify the presence of any viruses. (2649.1, 2649.2)
- Lorikeet - captive, SA - Multisystemic lymphosarcoma (2757.1)
- Bearded Dragon - captive, Northern Territory - Viral infection in the liver, most likely adenovirus. This condition has rarely been reported in Bearded Dragons in New Zealand and this is the first known report in Australia. Drs. Katie Reid and Julia Lucas have conducted these investigations and kindly submitted material to the Registry (2756.1).
- Diamond and Painted Firetail Finches - captive in Perth, Victoria and Sydney - combination of proventricular cryptosporidiosis +/-, fungal infection in the ventriculus. Proventricular cryptosporidiosis has been reported previously by Dr. Shane Raidal as a cause of emaciation in captive finches (Australian AAV proceedings) (2754.1).
- Brushtail possum - wild, NSW - bacterial infection (*Pseudomonas aeruginosa*) in the discs in the spinal column (2786.1).
- Long-nosed bandicoot - captive, NSW - Euthanasia due to severe respiratory distress. A tumour (squamous cell carcinoma) was obstructing the larynx, and had probably led to a secondary bacterial infection (*Nocardia* sp) in the lungs.
- Green and golden bell frog - Multisystemic mycobacteriosis (2768.1).

### MAY 2002

- Leopard Seals - Antarctic - tissues submitted from 2 seals that died under anaesthesia during field work. The seals had mild to moderate ulcerative lesions in the small intestine, associated with a large cestode infection. A small number of nematode parasites were evident in the lungs (2810).
- Bearded Dragon - captive, ACT - Coelomic granuloma containing fungi. Severe colitis and coccidiosis (2852.1).
- Purple-neck rock wallaby - captive, NSW - Hand raised animal that lost significant weight when integrated into a mob, associated with coccidiosis, severe intestinal nematodiasis, and hepatic trematodiasis (flukes). (2847.1)
- Leopard ray - captive, NSW - systemic bacterial infection (*Vibrio fluvialis*, *Vibrio damsela*) probably stemming from colitis and inflammation of the rectal gland (2846.1).
- Ringtail possum - we have had several reports this month of multiple mortalities of ringtail possums in the Northern Beaches area of Sydney. Only two animals were brought in for

examination. Both had haemorrhagic enteritis with *E. coli* isolated in pure culture from the intestinal tract (2814.1).

- Tawny frogmouth - Wild, Sydney - Euthanased due to severe ataxia, head tilt and intention tremor. Nematode parasites found migrating through the cerebellum (probable *Angiostrongylus cantonensis*). This parasite is now well established in the Sydney region (2827.1).
- Green tree frog - captive, SA - Necrotic skin lesion probably associated with the presence of the fungus *Mucor amphibiorum*. (2809.1)
- Magpie Lark - rehab, SA - Mass surrounding the shoulder joint. The lesion seems consistent with a sarcoma of the joint capsule (2805.1).
- Budgerigar - captive, SA - Pituitary adenoma (2800.1).
- Brushtail possum - wild, SA - inflammation throughout the abdominal cavity probably secondary to rupture of an underlying intestinal carcinoma. (2802.1)
- Tree skink - captive, SA - squamous cell carcinoma in the soft tissues and invading the bone of the head (2808.1).
- Yellow-bellied glider - captive, NSW - Chronic suppurative sinusitis associated with a broad range of bacteria including *Pasteurella multocida*, *Staphylococcus* sp., and various anaerobic bacilli (2825).
- Gouldian finch - severe mycotic ventriculitis with secondary systemic spread of the yeast (*Candida albicans* isolated also in liver and lung), severe hepatic amyloidosis. (2829.1)

#### JUNE 2002

- Galahs - wild, ACT - Tissues submitted by Will Andrew, from two emaciated wild galahs. There are ongoing reports of emaciation and death in young galahs in the ACT. Microscopic examination of the tissues revealed severe single cell necrosis and degeneration of hepatocytes in association with eosinophilic intranuclear inclusion bodies, suggestive of a viral infection. The lesions in these birds are similar to those of other wild cockatoos that have been submitted from western NSW, but inclusions in these previous cases were quite rare. Tissues from the galahs were submitted to NSW Agriculture for electron microscopy to further characterise the hepatocellular inclusions. No viral particles were identified.
- Brown Cuckoo Doves - captive, NSW - Two birds drown in their aviary pool within a few days of each other. Microscopic examination of the liver of each bird revealed severe single cell necrosis and degeneration in association with large, basophilic intranuclear inclusion bodies, suggestive of an active viral infection. Tissues were sent to NSW Agriculture for electron microscopy to further characterise the inclusions. Adenovirus was identified. The infection may have originated from wild pigeons/doves (2912.1, 2916.1).
- Brushtail phascogale - captive, NSW - died suddenly with haemorrhagic enteritis caused by a bacterial infection (combination of *Serratia* sp. and *Proteus* sp.). (2907.1)
- Nuie sea snake - captive, NSW - Multisystemic bacterial granulomas. Small numbers of copepod parasites present in the lungs. Small numbers of unusual parasites (copepods) were present in the lung. These parasites are most likely exotic to Australia, but there seems to be no one in Australia to assist with their identification (2901.1).

#### JULY 2002

- Eastern long-necked turtle - Hawkesbury City Council. A fire in a chemical plant resulted in contaminated water reaching the stormwater drains and a creek. Twenty turtles were treated for chemical burns throughout their gastrointestinal tracts. The chemicals spilled had a very basic pH (creek water after the fire was pH 12), which likely caused a contact "burn" of the oral

and gastrointestinal tract. Turtles died from secondary systemic bacterial infections (predominantly *Aeromonas hydrophila*). (2963.1)

- Silver gulls - Sydney Water - Ten silver gulls were observed to die suddenly on the middle of Prospect water reservoir by a group of Sydney Water technicians. The birds were examined to rule out the possibility of a zoonotic infection. The birds died from a combined infection with bacteria (*Pseudomonas fluorescens*), and severe underlying granulomatous hepatitis caused by parasitic fluke (schistosomes). Both of these organisms are not uncommon in an aquatic environment and individually they do not usually cause disease. Interaction among the two infectious agents most likely resulted in the death of these birds. Avian influenza and Newcastle's disease serology were negative (2959.1 - 10).
- Little Penguin - penguin oiled in a spill near Jervis Bay, NSW. The penguin was emaciated and dehydrated, most likely associated with lack of fluid administration and repeated daily washings over a 7 day period (2992.1)
- Leopard Seal - Emaciated seal found on the NSW coast. Marked bacterial and parasitic infection in the intestinal tract. Possibly upset of the intestinal flora associated with being emaciated and then suddenly eating again? Marked, yet probably incidental cestode burden in the intestinal tract. (2972.1)
- NZ fur seal - NSW, wild - euthanasia due to severe emaciation and a deep open wound that nearly penetrated the shoulder joint. The seal also had a fish hook within the stomach. (2987.1)
- Eastern barred bandicoot - captive, NSW - euthanased after a biopsy of a toe wound revealed an aggressive fibrous tissue tumour that was growing into the bone and creeping up the fascial planes of the foot (2883.1).
- Greater sticknest rat - captive, NSW - died after surgery to replace a rectal prolapse. The rat had a severe, subacute 15 cm long intestinal intussusception (2922.1).