

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.

January 2007

- **Metallic Starling (5584.1)** - captive, NSW - This bird was found non-responsive. Veterinary exam revealed an enlarged liver and dyspnea. The liver was large and mottled at necropsy. Histopathologically this bird had multifocal myocardial degeneration and suspected hemochromatosis. Moderate, multifocal, subacute, myocardial degeneration and early fibrosis were diagnosed and heart failure was determined to be the likely cause of the birds presenting signs and dyspnoea.
- **Powerful owl (5591.1)** - wild, NSW - found on bush track unable to fly, weak, dehydrated and emaciated. The owl received some treatment but died later that day. Necropsy showed an airsacculitis and focal granulomas in the liver and kidney. *E. coli* was cultured from the liver.
- **Ringtail Possum (5593.1)** -rehabilitation, NSW - This possum has been in care since found as a baby in September. This possum was steadily gaining weight and thought to be healthy before being found dead with no clinical signs of disease. Necropsy showed severe ventral oedema, severe pleural effusion, mild ascites, chronic passive congestion of the liver and multiple granulomas in both atria of the heart suggesting cause of death due to heart failure. Heart failure subsequent to severe myocardial degeneration and necrosis is the cause of death in this possum.
- **Hawksbill Turtle (5590.1)** - wild, NSW - found on beach in late December and was being treated for 2 ½ weeks before being found dead on 14-1-07. Necropsy revealed ascites, multiple serosal parasite granulomas, and a 60cm long colonic impaction.
- **Spotted Unicornfish (5564.1)** - captive, NSW - This fish presented for necropsy with a history of general tank decline over a 3 day period with the majority of fish dying in 2 days and no obvious water quality change. Necropsy showed hyperaemia and increased mucous around the gills. Histopathology showed numerous ciliated protozoa along the gill lamellae as well as along the skin. These are likely to be *Ichthyophthirius multifiliis* or *Cryptocaryon irritans*.
- **Silver Batfish (5565.1)** - captive, NSW - This fish presented with the same history as 5564.1. This fish was brought over alive but died on-route. Necropsy findings were similar to 5564.1. Skin scrapings and gill clippings showed numerous round ciliated protozoal organisms. Histopathologic diagnosis was protozoal branchitis due to one of the organisms listed above. Incidental cestodes were also present in the stomach lumen.

December 2006

- **Brown Cuckoo-Dove (5528.1)** - captive, NSW - This 19 year old bird in poor body condition was found dead in its exhibit. Necropsy showed oedema in the pericardium and multiple pale areas in the heart muscle. Myocardial degeneration and fibrosis and probable renal dysfunction with urate deposits and acute tubular necrosis were found.

- Rufous Whistler (5530.1) - captive, NSW - This bird was found dead in its aviary. A large multi-lobulated granuloma was found in the left lung. *Aspergillus fumigatus* was cultured and histopathologically there was a necrotizing pneumonia consistent with pulmonary Aspergillosis.
- Tiger Quoll (5178.2) - captive, NSW - Clinically, this Quoll has alopecia and multiple thin-walled cystic cutaneous lesions around the muzzle and shoulders. Biopsy results showed epitrichial sweat gland cystomatosis.
- Northern Snake-necked Turtle (5536.1) - captive, NSW - Clinically this turtle had multiple erythematous and crusted skin lesions on the neck and caudal thighs. Biopsy results showed heterophilic dermatitis with culture positive *Pseudomonas aeruginosa*. This turtle has responded to treatment.
- Bearded Dragon (Coastal) (5539.1) "Orlando" - captive, NSW - This dragon was euthanased due to elevated white cell count (circulating blasts), weight loss and lethargy. Necropsy revealed poor body condition, an enlarged pale spleen, and the liver was firmer than normal. Histopathologically this dragon had multicentric lymphoma as well as leukaemia.
- Little Penguin (5557.1) - wild, NSW - This penguin was found on Whale Beach on Christmas Day fluffed and shivering. The bird was thin, weak and unable to stand. A firm mass was palpated in the coelomic cavity. Necropsy revealed a large 6x7cm hard granuloma associated with the left kidney.
- Ringtail Possum (5534.1) - wild, NSW - This possum was picked up in Cremorne by a member of the public. The possum was in poor body condition, had dilated pupils, and appeared blind. Retinal dysplasia was diagnosed on histopathology. A similar clinical syndrome as been seen in a number of ringtail possums recently. Histopathology testing is pending on the others.
- Tasmanian Devil (5547.1) "Kev" - captive, QLD - Kev was the first of two Tassie devils to die suddenly. Cane toads were found in the enclosures. Necropsy showed multifocal haemorrhages. Histopathology of both devils revealed pulmonary oedema and haemorrhage and multiple haemorrhages in other organs. Cane toad toxicity was suspected.
- Sub-Antarctic Fur Seal (5559.1) "River" - captive, NSW - River was found dead the morning after receiving general anaesthesia to investigate acute weight loss and lethargy. Necropsy revealed severe diffuse peritonitis with a perforated duodenal ulcer.
- Carpet Python (5537.1) - captive, NSW - This snake presented to TZ with a 2 month history of anorexia, emaciation and abnormal righting reflex. Necropsy showed an adult mouse lodged in the oesophagus and the oesophageal wall was thin and friable in that area. Histopathology revealed mild multifocal myocarditis, moderate diffuse hepatic lipidosis, and intranuclear inclusion bodies in the neurons and glial cells of the brain. A viral aetiology is suspected. Other similar cases have been reported but the exact cause is still under investigation.

November 2006

- Gang-gang cockatoo - captive, NSW - Found dead with subacute peritonitis associated with rupture of proventriculus, with no grossly obvious aetiology. *Arcanobacterium haemolyticum* cultured from peritoneum. Histology does not reveal evidence of a pre-existing lesion that can explain the perforation, rather, the presence of another milder lesion in the form of a single focus of mucosal necrosis, ulceration and haemorrhage suggests that the lesions may have had a similar pathogenesis to the stress-related peptic ulcers seen in mammals, and which have been reported in high-strung, stressed psittacines (5496.1).

- Rose-crowned fruit dove - captive, NSW - Presented thin with faded feather colour, euthanasia due to poor prognosis. Post-mortem revealed hepatopathy (5498.1). This is an unusual case. Attempting to find the most parsimonious explanation for the lesions in the liver, pancreas and intestine leads to the conclusion that the marked lymphoplasmacytic infiltrate in these organs is likely the primary problem. There is no obvious infectious aetiology for the lymphoplasmacytic infiltration, and the pattern of infiltration suggests that the cells are indicative of a lymphoproliferative disorder.
- Frilled lizard - captive, NSW - Presented markedly dehydrated and lethargic. Euthanasia after treatment failed to result in clinical improvement. Gross necropsy findings were limited to one very small kidney, the other possibly fibrotic (5499.1). The main histologic findings in this lizard were lesions in the spinal cord, which are sufficiently severe to have resulted in a limited ability to move. The character of the lesion is suggestive of local compression. Sections of right kidney suggest chronic fibrosis and renal atrophy. There is no active inflammation or other changes to suggest a possible aetiology but a previous insult to the kidney is the suspected cause.
- Rufous Whistler - captive, NSW - Found dead. On post mortem the bird had a large multi-lobulated granuloma associated with left lung. Histologic lesions and culture were consistent with lung infection due to *Aspergillus fumigatus* and physical extension of inflammation to the epicardium (5530.1).
- Eastern Barred Bandicoot - captive, NSW - Facial swelling and bleeding from the nostril. Examination under anaesthesia revealed swelling of the left maxilla and enlarged left submandibular lymph nodes. The animal died overnight despite treatment. Histopathology revealed disseminated Cryptococcosis fungal infection of the lung, heart, left maxilla, left submandibular lymph nodes, kidney, spleen, eye and brain (5515.1).
- Australian Pelican - wild, NSW - An increased number of Pelicans were noted to be dying in the main water body at Centennial Park over the last 6 weeks. This animal's death was witnessed by park rangers and the fresh carcass submitted to VQC for investigation. Findings were suggestive of toxicity. There was also an incidental finding of parasitism with larval nematodes (presumed microfilaria). No viral inclusions were noted. The two different parasitic infections in this bird may be secondary and have contributed to the demise of this bird. The bacteria isolated in this case are presumed to be post-mortem overgrowth as histologic lesions were not primary bacterial in nature (5516.1).
- Hawksbill Turtle - wild, NSW - Found beached and not moving at Cronulla. Taken to Cronulla Vet Hospital where the animal died overnight despite treatment. The carcass was brought to Taronga Zoo for post mortem where findings were consistent with pneumonia and hepatitis due to spread of bacteria through the blood stream (5522.1).
- Green Turtle - wild, NSW - The turtle was found dead in the screens at Eraring Power Station at Lake Macquarie on the NSW Central Coast. The turtle died of entrapment. There was, however, an interesting finding of multisystemic intravascular parasite infection (suspect Spirochete trematode ova) in the brain, lung, kidney, stomach, caecum, spleen and pancreas (5523.1).
- Hawksbill Turtle - wild, NSW - Found in a poor condition being tossed in the surf at Bendalong Beach, Ulladulla, NSW - Died shortly after rescue, carcass submitted for post mortem. Grossly the turtle appeared very thin and had a large, 10cm open laceration to right hand caudal thigh with necrotic edges and surface of exposed muscle. The wound extended deep into the underlying tissue to form pockets of debris near the carapace. Histologically the turtle was found to have systemic Spirochete infection (presumptive) and possible fungal dermatitis of the right hind flipper (5521.1).
- Peregrine Falcon - wild, Lake Munmorah, NSW - Found on the ground at Eraring Power Station and taken to a local veterinarian. The bird was then transferred to TZ wildlife clinic via NATF for care. The bird was found to be in fair to poor condition with no other signs of illness. The bird seemed to be recovering well over a 3 week period of rehabilitation

before becoming anorexic and depressed. The bird died under anaesthetic to investigate this onset of unusual behaviour. On post mortem the bird was found to have a severe, extensive *Trichomonas* lesion in pharynx extending up the back of the head and affecting the bone of the skull. *Trichomonas* organisms were seen microscopically via wet mount but unfortunately the lesion was not kept for histopathological examination (5514.1).

- Grey-headed Flying Fox - private, South Penrith, NSW - Tissues submitted for histopathology from a privately owned animal presented in full-term pregnancy and with a large, flattened subcutaneous lump on midline ventral abdomen (8x6cm). Exploratory laparotomy revealed a very fibrous tumour that had tightly adhered to skin and underlying muscle, also some connection with peritoneum. A hysterectomy was performed to deliver the pup which subsequently died. Histopathology of the mass diagnosed a mesothelioma (5509.1), a rare malignant neoplasm that has not been previously reported in the flying fox. In humans, this neoplasm has been associated with exposure to asbestos.