



Zoological Parks Board
of New South Wales

Australian Registry of Wildlife Pathology

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.

JUNE 1999

- Yellow footed rock wallaby - captive hybrid. Ruptured bladder secondary to bacterial prostatitis and obstruction of the urethra.
- Koala juvenile being hand raised - found to have severe oxalate nephrosis
- Spiny cheeked honeyeater - 22 year old bird euthanased due to lameness. A very large kidney tumour (nephroblastoma) was identified on post mortem examination. This tumour would have compressed the nerves leading to the limb, resulting in the lameness.
- Brown rat - trapped in Sydney - found to have severe infection with *Angiostrongylus cantonensis*. 82 of the parasites were harvested from the pulmonary arteries and donated to researchers at Westmead Hospital. These researchers now have the parasite growing in culture in lab rats and slugs, which will allow them to continue with the development of serological testing for human *A. cantonensis* infection.
- Brushtail possum - wild in Sydney - euthanased due to paralysis of one hind limb. Found to have *Angiostrongylus* parasites migrating through the lumbar spinal cord.
- Red Fox - feral in Western NSW - Distemper virus infection and concurrent Toxoplasmosis or Neosporosis. This combination of pathogens is common in wild mammals overseas. The distemper virus seems to cause immunosuppression, which allows activation of dormant protozoal cysts.

JULY 1999

- Star Finch - captive - died with severe exertional myopathy of the pectoral musculature after being trapped in a drop floor feeder.
- Ringtail possum - captive, used for education purposes - died with acute pneumonia caused by inhalation of ingesta.
- Short beaked echidna - captive - died after several days of lethargy and anorexia. Post mortem examination revealed mycotic and bacterial gastritis, and disseminated coccidiosis. Large numbers of coccidial shizonts were evident throughout the pulmonary microvasculature.
- Neophema parrot - multisystemic round cell tumour (most consistent with a plasma cell tumour).
- Musk Lorikeet that had markedly thickened, nodular, featherless skin over much of the head and neck. Found to have large numbers of mites residing within cystic structures in the subcutaneous tissues. Mites were identified by Lee Skerratt as *Harpyrhynchus rosellasinus*.
- Macquarie turtle presented with a prolapsed rectum presumed due to a large mass attached to the colonic serosa. Found to have a large multiloculated abscess caused by pigmented fungus.
- Rainbow Lorikeet (2) with severe bacterial enteritis (*E. coli* and *Clostridia perfringens* isolated).
- Australian Fur Seal - Jervis Bay Colony - gunshot wound.
- Yellow-tailed black cockatoo - Ingleburn - gunshot wound through the pectoral muscles and left wing, an air rifle pellet was also lodged in the jaw bone.
- Loggerhead Turtle - stranded juvenile - severe intestinal trematodiasis with multifocal parasitic granulomas within the intestinal muscularis. Parasites forwarded to Dr. Ian Beveridge for identification.
- Red necked wallaby -captive - Toxoplasmosis
- Humpback Whale neonate - washed up on Stockton Beach 16-7-99 after several days of rough seas. Post mortem examination was requested by NSW NPWS. The neonate had not nursed and

had acute pneumonia. Two neonatal humpback whales were reported stranded on Fraser Island within several days of this incident.

- Cassowary (2) - Histopathology conducted for the Cassowary recovery group - two adult birds that were euthanased after sustaining leg fractures
- Little Penguin, chicks (2) - being raised by parents in a captive environment. Both chicks had atrophy of the lymphoid tissue and one of the chicks had oral Trichomoniasis.
- Freshwater crocodile - captive juvenile - stomatitis caused by a mixture of bacteria and *Fusarium* sp.
- Bilby - captive - found to have a highly malignant sarcoma in the brachial region
- Budgie - malignant lymphoma
- Kowari - captive - oral squamous cell carcinoma
- Eastern Grey Kangaroo - juvenile being hand raised - proliferative mass on forearm. Pox lesions
- Yellow bellied sea snakes (2) - thin and with many barnacles, both snakes were euthanased due to severe infection of the tip of the mandible.
- Common Wombat - wild - euthanased due to severe sarcoptic mange
- Short-beaked echidna - captive - bacterial pneumonia and hepatic lipidosis
- Short-beaked echidna - captive - fungal pneumonia and hepatic lipidosis

AUGUST 1999

- Boobook that presented with inability to stand and poor motor function of the legs was found to have a bone spicule embedded in the spinal cord associated with significant malacia.
- Kookaburra - wild in Sydney - euthanased due to blindness. Found to have a gunshot wound that penetrated the brain and one eye.
- Black Browed Albatross - had been caught on a long-line died suddenly due to urate nephrosis and visceral gout.
- Australian pratincole - urate nephrosis and visceral gout
- Channel Bill Cuckoo - large oral abscess and systemic bacterial infection with *Pseudomonas aeruginosa*
- Red-tailed phascogale - cloacal or mammary squamous cell carcinoma
- New Zealand Fur Seal - stranded juvenile - euthanased due to a full thickness tissue defect in the flipper. The wound was most likely inflicted by a small shark.
- Sub-Antarctic Fur Seal - stranded juvenile - with an old rupture of one eye, and a subdural haematoma.
- Investigated an outbreak of sudden onset of neurological signs in a group of 10 Parma wallabies. The wallabies were all maintained in a single pen within a fauna park near the NSW/Victoria Border. Microscopic examination of tissues from one of the animals revealed lesions consistent with plant toxicity, most likely due to ingestion of *Phalaris* sp. Further consultation has been undertaken with the local veterinarian to attempt to identify the source of the plants and prevent further exposure.
- Freshwater crocodile - captive juvenile - sepsis (*Providencia ruttgeri*). One of several young animals in the clutch to die. Septicaemia was suspected in the other cases, but this reptile was the first fresh one that warranted microbiological testing.
- Oiled fauna - examined six cormorants, a silver gull, an Australian darter, and a Sydney sea horse that had been contaminated with petrochemicals during the Sydney Harbour oil spill. Through contacts with the petrochemical laboratory of the California Fish & Game Dept. we are working with a commercial toxicology lab to establish protocols for the detection of petroleum based chemicals within internal organs and in the plumage of potentially oiled birds. Gas chromatography will be used to develop a "fingerprint", which can be compared with the crude oil directly from the spill site. The results of petrochemical testing will be used in the prosecution of the spiller and to determine whether the little penguin chicks at the Manly colony were exposed to oil during the spill.