

# The Australian Registry of Wildlife Health



## Quarterly Case Summary

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 2004

- Sea eagle update- wild, NSW - Tissues from the two sea eagles that were found dead at Homebush bay reported in September were found to have 60 x the dioxin levels that are considered harmful to birds in general. Thus, these environmental contaminants that can produce central nervous disease and tumours are considered contributory to the loss of these sea eagles that seemed to be otherwise thriving. The toxicological findings were in consultation with the Australian analytical laboratories (4301.1&.2)

### NOVEMBER 2004

- New Guinea Tree Frog - captive, WA - a frog with a prolapsed cloaca was found to have a tumour widespread within the coelomic cavity, probably a mesothelioma. The frog also had scoliosis, which may have been due to previous metabolic bone disease (4415.1).
- Green turtle - submitted by the NPWS - was beached and presented depressed and not eating, and with weakness of the right hind flipper. It was treated supportively for two weeks and died. Necropsy findings were indicative of gastrointestinal stasis and pulmonary disease. Histologically, the brain showed moderate involvement with extra-intestinal stages of a coccidian parasite attributed to a *Caryospora* species. There was also evidence of cerebrovascular fluke worms which may have been contributory. The lungs were involved with pneumonia, most likely bacterial, considered to be a secondary event to the neurological parasitism. (4421.1)

Green turtles - DEC - Two additional green turtles submitted from the Port Stephens areas were found to have systemic coccidiosis, a disease caused by a single celled parasite (*Caryospora cheloniae*). This parasite has been responsible for significant green turtle mortalities in Oct 2002 and Oct 2003, but these are the only 3 known cases for 2004 (4435.1, 4438.1).

### DECEMBER 2004

- Short-tailed shearwaters - wild, NSW - six birds of many from the annual post-migratory mortality of shearwaters. One bird (4447.1) had interesting large intranuclear inclusion bodies in the kidney. It is uncertain whether these represent the presence of an underlying viral infection.
- Tawny frogmouths - wild, NSW - Two birds were examined, representing two groups of wild, ill birds. One group of five sick birds was being hand raised at a wildlife rehabilitation centre.  
The birds appeared thin and stunted, and they regurgitated food.  
At necropsy the birds were very thin and had distended caecae. A direct smear of intestinal contents contained numerous coccidia forms. Histologically a myriad of coccidial forms were evident in a segment of small intestine; other segments of the small intestine had less coccidial forms and caecum and large intestine had few forms.  
Clinical coccidiosis in tawny frogmouth has not been commonly observed. Parasite material from this case was sent to Peter O'Donoghue to identify the specific coccidium.  
Early results indicate a coccidian of the genus *Caryospora*, which is most often a parasite

of reptiles and birds of prey, and further investigation is underway (4451.1 4469.1).

Little Penguin - captive, NSW - On examination for lameness the bird was found to have lytic bone lesions in the right tibiotarsus and was eventually euthanased due to the finding of acid fast organisms in a fine needle biopsy of the affected bone and in an oral plaque, indicative of mycobacteriosis. At necropsy, lungs were consolidated and histologically confirmed as granulomatous pneumonia with acid fast organisms noted in ZN stains. Mycobacterium intracellulare (M. avium group) was isolated from the oral plaque and presumably is the same mycobacteria present in the lung and bone lesions. The liver granulomas, which were not typical of the mycobacterial lesions in other sites in this penguin, were negative for mycobacteria and may have resulted from another cause. (4446.1)

#### JANUARY 2005

- Ringtail possum - wild, NSW - the emaciated and dehydrated possum was submitted dead to a wildlife rehabilitation centre. The animal had very large, granulomatous lesions within the gastric and mesenteric lymph nodes, and a retroperitoneal abscess. Diagnostic testing was undertaken to rule out mycobacteriosis. *E. coli* was isolated in pure culture from the lymph nodes, and no acid fast organisms were evident. Thus, the possum appears to have had coligranulomas. Histopathology was negative for mycobacteriosis (4542.1).
- Long billed Corella - wild, NSW - an emaciated bird that died shortly after being brought to a wildlife clinic. The bird had an unusual enteritis, suggestive of a viral infection, possibly psittacine circovirus infection. Samples from this animal and other SC cockatoos from western NSW will be submitted for molecular testing overseas (4497.1).
- White faced Heron - wild, NSW - Heron found in good body condition after trauma, but with severely injured feathers. New feathers began to re-grow in an abnormal fashion. The bird was found to have a severe, bacterial infection of the preen gland, which may have contributed to unusual feathering (4513.1).
- Koala - wild, NSW - found on a road with head injuries and difficulty breathing. The animal was euthanased after 10 days of treatment and care, but a clinical assessment of blindness and central nervous system disorder resulting in depression and stupor. The koala had traumatic injuries to the nasal sinuses and to the brain (coupe-contre-coupe injury). There was a mass present in the nasal sinus (adenoma), which would probably have been subclinical if not for the added trauma (4525.1).
- Pied currawong - NSW, wild - young bird with unusual feather growth pattern and very soft bones and beak. The bird had metabolic bone disease, systemic single celled parasite infection (*Leucocytozoon species*) and what appear to be *Megabacteria* in the intestinal tract. Further tests are pending to identify the intestinal bacteria, since *Megabacteria* have been associated with poor nutrient absorption resulting in metabolic bone disease and poor feathering in bones. *Megabacteria* sp. in a wild bird would be very unusual.
- Rare specimens submitted from Dr. Ian Beveridge, Melbourne University. The samples represent an unusual skin parasite (*Demodex antechini*) from *Antechinus agilis* that was found and described in 1965. The host species and its parasite are now likely to be extinct (4499.1).