

# Animal

## ROUNDABOUT



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Produced for people with an interest in the exhibition of animals in zoos, circuses, mobile farms, fauna and wildlife parks in NSW.

### Hind Limb Paralysis



Photos courtesy of Linnell Andrews

Hind limb paralysis resulting from nutritional osteodystrophy (abnormal bone development) is relatively common in some carnivorous marsupials, such as quolls, and some possums, particularly sugar gliders. It is generally due to calcium deficiency as a result of a diet deficient in calcium, an incorrect dietary ratio of calcium to phosphorous (which should be approximately 1.5:1 to 2:1) or insufficient vitamin D<sub>3</sub>.

Signs of nutritional osteodystrophy include growth defects, lameness in gait or posture, and the dragging of limbs in extreme cases. X-rays of the vertebral, pelvic and long bones that show low bone density provide confirmation of the disease. If identified early enough the animals may respond to a high calcium, high vitamin D<sub>3</sub> diet and strict cage rest. In order to prevent this disease it is very important that animals fed only meat

are given additional calcium in the form of calcium carbonate. As carnivorous marsupials and sugar gliders are also nocturnal it may be necessary to provide supplementary vitamin D<sub>3</sub> (especially if they are not regularly exposed to natural sunlight). The provision of calcium from natural sources is preferable and can include whole dead mice, chickens and rats for quolls and a variety of insects for sugar gliders.



## Highly pathogenic avian influenza - "Bird Flu"

Exhibitors who find birds in their collections that are showing respiratory distress or other unusual signs of illness, or which have died suddenly, should immediately seek the advice of their veterinarian and notify the NSW Department of Primary Industries. Australia's domestic poultry flocks are currently considered to be free of highly pathogenic avian influenza, commonly known as bird flu, but there have been five outbreaks in Australia over the past 20 years, the most recent in 1997 at Tamworth in NSW. Wild birds were implicated as the probable source of infection however this was not proven. Waterfowl, including migratory

species, are thought to carry the bird flu viruses. The sporadic outbreaks in domestic poultry may have been due to a spill-over from wild birds under certain environmental conditions. At least two outbreaks in Australia have followed prolonged dry spells when water sources dried up and water birds congregated on dams supplying poultry farms. Maintaining clean water and feed supplies is a key strategy in preventing disease. Since 2003, several outbreaks have occurred in South East Asia. Bird flu mainly affects chickens and turkeys, causing severe illness and death, but ratites and some other bird groups may be susceptible. The H5N1 strain of



Photo: Stephen Jackson

virus currently active in some countries has also been found in a number of humans who have become ill after being exposed to infected birds.

## Looze Lipz



### Carnivore Standards

A new version of the Standards for Exhibiting Carnivores in NSW has been finalised and can be found on the web at: [www.agric.nsw.gov.au/reader/aw-exhibited](http://www.agric.nsw.gov.au/reader/aw-exhibited)

### Conviction of Exhibitor

Exhibitor Mr Brad McDonald pleaded guilty to four offences under the Exhibited Animals Protection Act including the failure to maintain records and not being available to contact a veterinarian. He was ordered to pay fines and costs of \$3865. Mr McDonald's authorities to exhibit animals had already been cancelled by the Department and his animals had been seized by the RSPCA and the Department of Environment and Conservation at the time of the offence.

### Draft Standards

Draft Standards for the Exhibition of Animals at Mobile Establishments and Standards for the Temporary Removal of Animals are currently being circulated. Your feedback on these would be most appreciated.

### International Zoo Congress

The 2nd International Congress of Zookeepers is to be held on the Gold Coast, Queensland from the 7th - 11th May 2006. The ICZ will help you build a worldwide network among zookeepers and other professionals in the field of wildlife care and conservation. More information can be found at [www.icz.org](http://www.icz.org).



Photo: Stephen Jackson

## Featherdale Wildlife Park's Ghost Bat and Bilby Exhibit Wins Award

The opportunity in mid 2004 to acquire a colony of ghost bats allowed the staff at Featherdale Wildlife Park to fulfill a long term goal to display ghost bats, which were anticipated to be displayed with bilbies. These unique species inspired us to create a nocturnal exhibit that would be a new concept for the park.

The first impression, once your eyes adjust to the darkness, is of looking into a cave. Visitors view the exhibit through a

large glass panel. Mock rock extends into the public walkway to visually draw visitors into the themed habitat. A mock rock ledge at the bottom of the glass panel encourages the bilbies up to the glass to enhance viewing opportunities. The combination of the mock-rock, strategic positioning of perching materials and effective lighting ensure fantastic viewing for visitors.

The bats enter and exit the cave via a side opening that provides access to the larger space of the main exhibit. This was purposely designed to provide a visual barrier between bats if they required it, but not from the public. The bilbies cannot access the cave entry as it is located approximately 1.5m above the floor. The entry to the cave, which is roughly the size of a basketball, has a vertical slide that is controlled from the staff access room by a rope and pulley system. This slide allows staff to secure the bats in either side of the exhibit for ease of routine maintenance or management. Staff access to the bat cave is via a small back door.

The area of the enclosure is 5.9m wide by 4.4m deep and 2.7m high, and was designed specifically to allow the replication of both species habitats. Approximately 75% of the exhibit walls are mock rocked to allow perching for the ghost bats. The exhibit depicts a valley with the entry of a mineshaft constructed into one wall. The back wall has a mural of a full moon silhouetting the surrounding landscape.

The bat cave's climate is thermostatically controlled by ceramic heat lamps. The main exhibit's temperature is controlled using a reverse cycle air conditioner. This combines exhaust fans and whirly birds to circulate air through the exhibit. Drainage points drilled into the existing concrete floors allow the entire exhibit to be flushed out as required. Winning the ASZK Institutional Award for the ghost bat exhibit was an honour. The finished exhibit has proven very popular with visitors and staff alike.

**Rick Webb**  
*Park Manager*



## Hand Rearing Animals Protocol

The temporary removal of exhibit collection animals from the premises of a licensed animal display establishment by employees for hand rearing must only occur after the exhibitor makes an application with a temporary removal form and approval has been granted. The application must indicate the circumstances that require the animal to be hand reared and the estimated time it will take to complete the hand rearing. All exhibit collection animals being temporarily removed from the animal display establishment for hand rearing must be listed on the establishment animal record book and their fate must be recorded in the animal record book.

Animal display establishments can temporarily accept sick, injured or orphaned native animals from members of the public to assist in transferring them to licensed wildlife rehabilitators (under Section 101 of the National Parks and Wildlife Act 1974). However an animal display establishment must pass any

such animals onto an appropriately licensed wildlife rehabilitator within seven days, unless the animal display establishment licence holder is licensed under Section 120 of the National Parks and Wildlife Act 1974 by the Department of Environment and Conservation to keep the animals for rehabilitation.

If a native animal from the exhibit collection is to be hand reared off the licensed animal display establishment premises by a non employee of the animal display establishment, then that person must have an appropriate license issued by the Department of Environment and Conservation under the National Parks and Wildlife Act 1974. In this case the transfer



Photo courtesy of Peggy Rismiller

to the non-employee cannot be treated as a temporary removal as the recipient is not part of the licensed exhibiting organisation. Instead, it is treated as a disposal of the animal to the recipient and this must not occur until the exhibitor's application to dispose of the animal has been approved by the Department of Primary Industries.

## The Australian Registry of Wildlife Health



The Australian Registry of Wildlife Health is currently celebrating its 20th year. The Registry is a diagnostic and resource centre that improves Australia's ability to detect and diagnose endemic, emerging and exotic diseases of wildlife, which could have impacts on Australia's trade/economy,

biodiversity, tourism and human health. The Registry is also involved in investigating outbreaks of sudden death or disease on behalf of wildlife managers, conservation departments, wildlife rehabilitation groups, the RSPCA, and zoos. Veterinary pathologist Dr Karrie Rose is the current Registrar.

The Australian Registry of Wildlife Health recently published the "Wildlife Health Investigation Manual". This

manual was created to assist animal exhibitors, biologists, wildlife rehabilitators and veterinarians in their efforts to investigate and better understand wildlife health. Wildlife can be an important indicator of emerging diseases as exotic diseases in wildlife could manifest in unexpected ways. The manual is aimed at improving disease observation, recognition, notification and diagnosis in wildlife.

The Registry has also recently produced a dynamic and interactive website [www.ARWHL.org](http://www.ARWHL.org) to allow online access to Registry resources. The site will be an interactive medium where people are encouraged to add their own interesting cases and browse through existing case reports. The website is still in its infancy and new information is constantly being made available. An order form for the Wildlife Health Investigation Manual can be obtained at this site.



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### Animal Roundabout is complimentary

*The information contained in this publication is based on knowledge and understanding at the time of writing (February 2006). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check currency of the information with the appropriate officer of NSW Department of Primary Industries or the user's independent adviser.*



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