

Animal ROUNDAABOUT



ISSUE No. 16, Winter 2005

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

Devil Facial Tumour Disease

It is estimated that the wild Tasmanian devil *Sarcophilus harrisii* population has suffered a reduction of at least 20 per cent over the last 10 years because of Devil Facial Tumour Disease (DFTD). This disease was first recorded in 1996 in a photo of a hideously disfigured animal from Mount Williams National Park. It took several more years to recognise that this wasn't just a one-off case. Eighteen months ago a major response to the disease was established involving disease investigation in the laboratory, survey and monitoring of wild populations, and development of management options to respond to the disease threat.

Intensive monitoring of the disease has now identified DFTD across 60 per

cent of Tasmania with local population declines of up to 74 per cent in some areas. Investigations are under way to understand how the disease is transmitted. At first a virus was suspected but intensive investigation has not yet identified such a virus. Researchers found the genetic make-up of the cancers to be identical across the State which is very unusual. So now they are investigating whether the identical nature of the cancers is due to direct transmission of tumour cells between animals when biting each other at feeding sites. The disease typically starts off as raspberry-like lesions on the gums, palate and tongue, but within weeks these greatly expand. Ultimately the devil becomes so incapaci-

tated that it cannot feed anymore, resulting in death. Management actions include taking juveniles from areas where there is no record of the disease and placing them in a specially developed pre-export quarantine program with the hope that they will become part of mainland captive breeding programs to assist in maintaining the genetic diversity of the captive population. Other measures are also being looked at to assist in protecting wild populations that have no record of the disease.



Photo courtesy of DPIWE Tasmania.

The Standards for Exhibiting Australian Mammals in NSW are now in the process of being approved by NSW DPI. So look out for your copy which will be posted to you in the near future.



Construction noise and exhibited animals

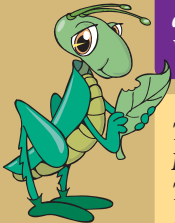


The Sydney Aquarium is currently carrying out major development work close to the existing aquarium. With any construction works comes the possibility of noise affecting display animals and patrons.

The first step we took to avoid problems was to create simple animal management plans for all of the more vulnerable species. These plans included constant keeper monitoring, additional sound attenuation plans, alternate relocation plans and altered construction methods.

The aquarium adopted an approach with the construction work to reduce noise and vibration levels as far as possible by researching construction methods and specifying to the builder on a cost-benefit basis the quietest methods. One example was the use of grout injected drilled land piles rather than hammered piles which are noisy and cheap. An arrangement was also put in place with the project team to immediately stop any work affecting the animals or patrons adversely. At that point our animal management plans would then be activated.

The Draft Standards for the Exhibition of Animals During Mobile Displays in NSW and the Draft Standards for the Exhibition of Animals During Temporary Removals, Educational Talks, Promotions and Photo Opportunities in NSW (notice that these two standards have now been split) have now been updated using comments on the last draft. The revised drafts are now available for comment from the Animal Welfare Branch of NSW DPI.



The revised Standards for Exhibiting Carnivores in NSW were approved by NSW DPI on 13 May 2005. These standards are now being used by the Exhibited Animals team to assess applications and facilities.

The Standards for Exhibiting Reptiles in NSW are currently available for comment.

A gentle reminder to all exhibitors to make sure they have their licence and permit certificates on display at their animal display establishment or approval and permits on display while conducting mobile displays.

The animals at most risk of stress-related problems on our site were the seals, penguins and sharks, all of which were located relatively close to the construction work. The animal management decisions made for these species were to move the seals off site, relocate the penguins to a more remote area away from the construction and to monitor the sharks while any potentially noisy work was being carried out. Large sharks are very difficult to handle and the risk of compromising their welfare when attempting to move them is great. Fortunately the construction period that had the greatest potential to affect the sharks, the in-water piling, passed with little or no signs of stress shown by these animals. We found this four step plan helped to secure an uneventful construction programme with respect to our exhibited animals and patrons:

1. Plan ahead with the builder.
2. Create basic animal management plans.
3. Constant animal monitoring during construction.
4. Act on the animal management plan.

Article and photo by Craig Sowden, General Manager, Life Sciences

The Australian Wildlife Health Network



Established in 2002 to coordinate Australian wildlife health surveillance and information systems into a single national database, the Australian Wildlife Health Network (AWHN) has proved an invaluable tool in the investigation and management of diseases affecting native species.

Prior to the establishment of the AWHN a number of disease outbreaks and mass mortalities in wild fauna indicated the risk of such events to Australia's biodiversity and also potential threats to agriculture, aquaculture, human health and trade.

Despite substantial efforts to improve preparedness for disease emergencies in domestic livestock, consultation with a wide variety of stakeholders having an interest in native fauna and feral species revealed deficiencies in preparedness for diseases affecting these animals. This included feral

species susceptible to the same exotic diseases that might threaten agricultural industries. There was a need for national coordination of disease surveillance and diagnostic information to complement the existing animal disease information system for livestock and recognise the increasing value placed on management of wildlife for the maintenance of biodiversity and support of related commercial activities such as eco-tourism.

The AWHN includes Commonwealth, State and Territory Departments of Primary Industry and Agriculture and environmental wildlife and conservation organisations. Since the establishment of the Network members have been involved in the investigation of endangered green turtle deaths on the east coast of Australia, wildlife disease incursions in the Northern Territory and South Australia and the Devil Facial Tumour disease affecting Tasma-



nian devils (see the article on DFT disease elsewhere in this issue). A database has been developed, linkages have been established with experts in the field of wildlife health and management and a website is being constructed.

For more information on the AWHN
e-mail: awhn@zoo.nsw.gov.au

Volunteer program at the Australian Reptile Park

Around 4 million Australians make a difference in their local community by volunteering each year. People volunteer for many reasons including:

- gaining experience for job applications,
- thriving on a new challenge,
- enjoying the connection with other people,
- developing new skills and experience, and
- increasing confidence and self-esteem.

The volunteer program at the Australian Reptile Park is quite sophisticated and meets the needs of people who want to gain experience as animal keepers.

The program is popular and once an application form has been filled out and assessed, selected volunteers undergo an interview screen and compete for the limited number of openings available. Each volunteer applicant must be able to commit one day (the same day) a week. Applicants must be over 18 years of age and those who

are currently studying zoo keeping or planning to study in a related discipline are given preference.

At the Australian Reptile Park, there are three sections that a volunteer can participate in. These include the reptile section, mammal/bird section and the spider section. Volunteers work side-by-side with keepers who are knowledgeable and experienced in their relevant discipline. Volunteers are given training sheets and are coached through their tasks by their supervising keeper. Volunteers only perform tasks in which they have been trained and signed off on. There are four classes of training for the volunteers, which include Class 1 Orientation, Class 2 Routines, Class 3 Husbandry and Class 4 Advanced Activities. These layers ensure that volunteers are strategically trained and signed off in general keeping tasks. Some tasks can be physical and volunteers must be able to work outside in all weather conditions.

Volunteers make up a characteristic part

of zoo life at the Australian Reptile Park. Many of the volunteers that started at the park have furthered their experience at other zoological institutions. It's always a pleasure to see ex-volunteers in exciting roles and know that we have contributed to their early development and interest in zoo keeping.

Article and photo by Al Mucci,
General Manager



Symbio takes on a new look!



Winning the ASZK Institutional Award 2005 for our freshwater crocodile exhibit marks Symbio Wildlife Garden's commitment to rebuild not only the park, but its image and profile.

The pond was built to emulate the natural variation of depth that would be found in river beds and the freeform flow has been built around existing sandstone outcrops. The sandstone has been meticulously hand cut to create grooves and give a naturalistic appearance, allowing the concrete to bond and finish flush with the existing sandstone face.

The circulation pattern is designed to keep all of the water in the pond moving. There are three pumps running the system (filtration, solar heating & fountain) and these pumps all return water to complement the circular flow of the pond. The circular flow directs all the water towards the skimming point, which is made up of three 100mm diameter pipes that run in a straight line to a collection pit in the plant room and two suction lines that draw water from a depression in the deepest point in the pond. The suction lines are covered by one square metre of river gravel to act as a pre-filter. In the unlikely event that they become blocked the water flow can be reversed, to free blockages, with a simple valve change.

There are no elbows in any of the suc-

tion lines below ground; they are either straight or large radius curves. This eliminates any underground blockages and costly maintenance. The filtration system is designed to turnover the entire pond volume in approximately one hour. The automatic pool cleaning systems keeps all of the fine debris, silt and organic material in suspension so that it can be removed by the filter.

The pool has a solar heating system of sufficient capacity to maintain constant temperature for approximately eight months of the year. A gas heater that can maintain the water temperature all year round provides a back up. In the event of a power failure the basic filtration, heating and chemical maintenance are all connected to a portable generator to maintain constant supply. The chlorine and pH are maintained automatically.

The outcome of this project has been:

- 1) the pond remains crystal clear,
- 2) no need to drain or clean the pond,
- 3) no need to vacuum the pond,
- 4) no blocked or restricted pipes,
- 5) easy maintenance and testing via the plant room,
- 6) crystal clear water, and
- 7) only need to backwash once per week.

Building a better future for the wildlife, the park and its visitors are Symbio Wildlife Gardens key priorities.

Article and photo by Matthew Radnidge, Park Manager.



Conviction of Naish Hogan under the Exhibited Animals Protection Act 1986

Mr Naish Hogan, former Director of Waratah Park Pty Ltd, was convicted under the Exhibited Animals Protection Act at the Downing Centre Local Court on 8 March 2005.

Mr Hogan plead guilty to two counts of knowingly authorising his company to exhibit animals without his company holding an animal display establishment licence or a permit to exhibit prescribed species.

Magistrate Maloney found that the defendant had not taken effective steps to remedy the inadequacies identified by Department staff in relation to the maintenance of the park and referred to issues such as inadequate staffing, lack of veterinary treatment, inadequate food for the animals, insufficient shading for birds, insufficient labelling of animals and failure to obtain a mate for the dingo. Magistrate Maloney accepted that the breaches by the defendant were flagrant breaches in light of warnings given to the defendant by the Department.

The defendant was therefore fined as follows:

- The sum of \$1,000.00 for each offence.
- The sum of \$6,000.00 in costs for each offence.



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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 (July 2005). 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.



NSW DEPARTMENT OF
PRIMARY INDUSTRIES