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## ACTHA News

June—July 2007

Newsletter of the  
ACT Herpetological  
Association Inc.

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15 April 2007

ACTHA members held a display at this yearly event to once again raise public awareness of aspects of reptile pet ownership: page 2.

#### *'Cane toad hitchhikers' and 'Cane toad killer in the shape of a worm'*

Two interesting articles on this pest, page 3.

#### *Broad-shelled Turtles in the Riverland - Rare and threatened, or not?*

Deborah Bower, a PhD student at the University of Canberra's Institute of Applied Ecology, gave an entertaining talk on her study of the distribution of this lovely turtle in the Murray Darling Basin, SA, to help gain an understanding of a river ecosystem: page 4.

#### *Reptile and Amphibian Expo, Sydney, 4-6 May 2007*

Three ACTHA members visited this Expo to glean ideas on any improvements that could be made to our annual *Snakes Alive!* Exhibition, see page 8.

#### *Care of Australian Reptile and Amphibian Conference, Sydney, 5 May 2007*

The CARA Conference provided an ideal opportunity to network with some high profile figures in Australian Herpetology and to keep abreast of reptile viruses such as OPMV. A brief outline and list of Speakers is provided on page 10, and articles on presentations will appear in future Newsletters. A detour to the Gosford Reptile Park on Sunday, on the way home, provided a chance to click the cameras, page 11.

### Your Committee

President:	Dennis Dyer
Vice President:	Ric Longmore
Secretary:	Joe McAuliffe
Treasurer:	Margaret Ning
Newsletter Editor:	Mandy Conway
Public Officer:	John Wombey
Excursion Officer:	Ric Longmore
Committee Members:	Chris Brown Christian Robertson



*A pile of  
Cunningham  
Skinks*

### Diary date

The *bi-monthly* meetings of the Association are held on the *third Tuesday of the month* at 7.30pm, Western Districts Rugby Club, Catchpole Street, Macquarie.

### Upcoming meeting

**Tuesday 19 June 2007**

The meeting will start with a presentation from **Gerard Dwyer, Questacon**. Gerard will highlight the questions and charming statements from children who have visited Questacon and many other reptile exhibitions and shows. Over the three years that Gerard has been involved in these activities, he has seen a near two-fold increase in visitor numbers to such displays.

If you have been to **Peter Child's Canberra Exotics Shop** lately, you will have seen his **Pig-nose Turtles** in their specially built tank. Peter will be talking about these lovely animals in the second half of the meeting. Specifically, how to keep them in captivity and how he designed and built their enclosure.

# Tidbinbilla Extravaganza

*This article by Mandy Conway*

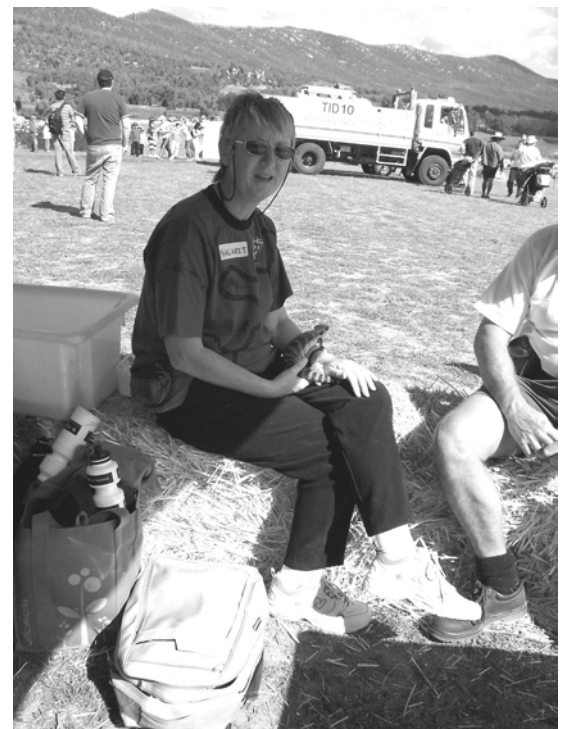
ACTHA was once again well represented at the Tidbinbilla Extravaganza, which was held on Sunday 15 April 2007.



This event is held yearly at the Tidbinbilla Nature Reserve and included live music, some food stalls, and displays by a bushfire brigade and the Police, with a special appearance by Kenny Koala. The sounds of whip cracking and chainsaw and wood chopping demonstrations also filled the air.

Our display tent was shared with RSPCA Wildlife (ACT) and included plenty of reptiles for the public to view, touch and ask questions about.

RSPCA volunteers brought along some Shinglebacks, a Blotched Blue-tongue and a very cute Jacky Lizard, who had recovered from a cat attack. ACTHA members produced a Children's Python, several Blue-tongued Lizards and Timone the Bearded Dragon.



## Innocent victims: don't mistake local frogs for 'hitchhiking' cane toads

*NSW Department of Environment and Conservation, National Parks and Wildlife Service News Release, 5 April 2007*

Following the discovery of a cane toad at Quakers Hill, the National Parks and Wildlife Service (NPWS) is urging people not to confuse the pests with protected native frog species.

NPWS Environment Officer John Dengate said the community needed to be vigilant to help stop southerly incursions of cane toads, which are already well established in the NSW North Coast.

"There's always the possibility of cane toads 'hitchhiking' southwards in vehicles or boxes of agricultural produce, so we certainly want Sydneysiders to be on the lookout for them," he said.

"But at the same time, native frogs—including threatened ones—can be mistaken for cane toads.

"We don't want these native frogs to become the innocent victims of well-meaning people. So the message is, double-check that it really is a cane toad before you do anything drastic."

Mr Dengate said the adult cane toad was easily identified by its size (up to 15cm), warty appearance, large gland behind the ear and pointed boney ridges between the nose and eyes. It also has

a distinctive "purring" call, a bit like an old telephone dial tone.

"But the juvenile cane toad can be harder to identify and can look a bit like natives such as the giant burrowing frog, which is classified as vulnerable. So if the animal you've found is shorter than your thumb, you should take particular care."

Mr Dengate recommended that people should trap the suspect cane toad under an upturned basket or bucket, and double check its identity. Cane toads should be handled carefully, with gloves, because toxins in their bodies can pose a danger to people as well as the environment.

"They're big, they're prolific breeders, they eat almost anything that's smaller than them, and they're toxic enough to kill almost anything that tries to eat them," he said.

The NPWS website at [www.nationalparks.nsw.gov.au](http://www.nationalparks.nsw.gov.au) has good information to help people identify cane toads, including photos of both toads and native frogs and recordings of their calls.

## Cane toad killer in shape of worm

*Herald Sun, 1 May 2007*

Scientists believe they may have found a chink in the armour of the dreaded cane toad.

Sydney researchers have identified a parasitic worm that attacks frogs' and toads' lungs, stunting their growth, and often killing them.

"It's a pretty exciting set of results", says team leader Prof Rick Shine.

"We've known for some time that there is a parasite, a lung-worm, that lives in Australian frogs and they have shifted across to the cane toad.

"They kill a large number of the small toads that we infected (in the laboratory).

"The ones that do survive grow less quickly, eat less and generally the parasites are a huge problem for the toad."

The researchers are part of a group known as Team Bufo, named after the despised cane toad, *Bufo marinus*.

Prof Shine said the parasite was absent from toads along the so called "invasion front", appearing only in those living close to the Queensland coastline.

If toads in regions such as the Northern Territory and northern NSW were infected by the parasite, it could slow their advance dramatically, Prof Shine said.

## Broad-shelled turtles in the Riverland - Rare and threatened, or not?

Deborah Bower, Institute for Applied Ecology,  
University of Canberra, with this article  
by Mandy Conway

We were delighted, literally, to hear all about “these gorgeous animals...” from Deborah Bower, UC, at our ACTHA meeting on Tuesday, 17th April 2007.

Deborah’s presentation started by highlighting the major changes to wetlands along the Murray River system since European settlement. Changes to weirs, locks and dams, and permanent water availability were mentioned, as were unsuitable land practices like aspects of farming, infrastructure and roads, and introduced species. . The lower Murray experiences low rainfall and high evaporation. All of these factors are contributing to the wetlands’ current woes.

The Murray River is a famous icon. It covers five States and Territories, with uses including supplies of drinking water, crop water and tourism.

Dams were built in the early 1900s which effectively stopped flooding of the river to provide a permanent water level: the cycle of drying and wetting has dramatically changed.

The impacts of some man-made changes include:

- changed riparian zones eg the River Red Gum is starting to die off
- changes to flood plains
- lower flow rates and volume of water in the river
- blocked migration routes for fish
- salinity, through unsuitable land use being washed into wetlands
- introduced species like carp who compete with native fish, amongst other things
- many animals living in and along the River Murray are becoming threatened.

Studying sensitive taxa helps gain an understanding of river ecosystems for management and restoration. Reptiles are good to study because they are sensitive to the environment and can reach high densities, be caught and then tracked.

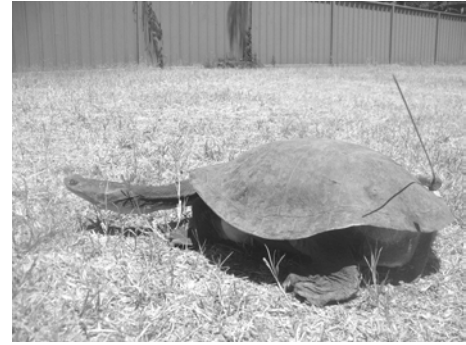
Pleurodiran freshwater turtles are endemic to Australia, PNG and South America. They are semi-aquatic lung breathing, egg laying reptiles who

have varying diets and are capable of moving vast distances.

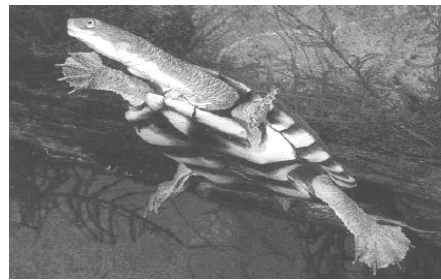
Australian freshwater turtles make an excellent study animal. Hence Deborah’s choice of the Broad-shelled Turtle for her research.

Freshwater turtles in the Murray Darling system include:

**Broad-shelled turtle** - *Chelodina expansa* occurs along coastal rivers from SE Queensland to the Murray Darling Basin and is a threatened species, listed as rare in SA and vulnerable in Vic. It is the largest chelid of which not much is known, as it is not well studied. There is much community support and interest for this animal.



**Long-necked turtle** - *Chelodina longicollis* is often found in ephemeral and shallow water bodies. It can handle high levels of salinity and is predominantly carnivorous.



**Short-neck turtle (Murray River Turtle)**

- *Emydura Macquarii* is highly aquatic. It is sometimes known as “the wahite rat” due to high densities: 50 turtles can be caught within an hour. It is omnivorous, very defensive, scratches, bites...



**What do we already know about Broad-shelled turtles?**

These large turtles have an interesting reproductive cycle. They nest in Autumn following rain, as opposed to nesting in Spring as other turtles do . Eggs undergo a secondary development diapause whilst in the nest which means hatching will

emerge about a year later at the same time other species' eggs hatch, in late Summer.

Broad-shelled turtles are carnivorous and have a specialist feeding mode: their long necks enable them to chase and grab prey and then smash it in their strong jaws.

There are no population estimates for this reptile in South Australia.

### Aims of this study

To study the ecology of the Broad-shelled turtles in South Australian populations to determine:

- (a) Are they rare?
- (b) What are their movement patterns?
- (c) How is the habitat choice and distribution of *C. expansa* related to the available environment?

### Aspects of this project

1. To develop a standard trapping regime in order to access population size with limited effort
2. Correlate habitat variables with population size
3. Study movements to determine home range size, habitat choice etc.

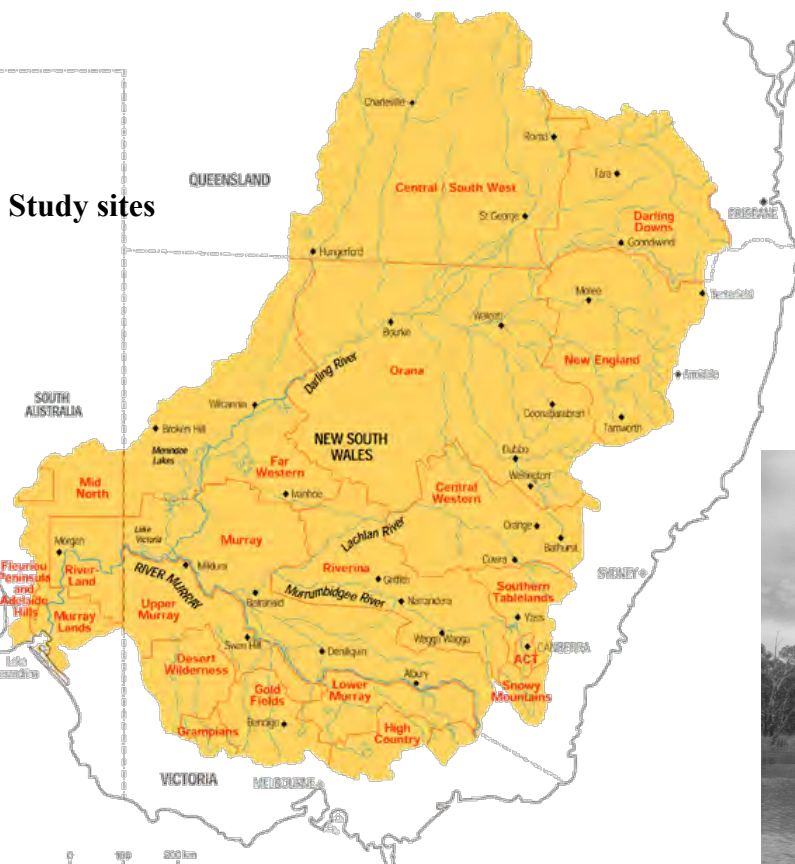
### Who's involved?

The University turtle team includes supervisors and PhD students. Community representatives include local turtle breeders and land owners. Funding partners are involved, and not to forget the volunteers.

### Mark-recapture

Population sizes were compared between areas and between species. Distribution of size classes, growth rates and movement was assessed, as was the large scale of habitat choice.

Turtles were caught in cathedral traps, a net which Deborah brought along to demonstrate. These nets were attached to an overhanging tree so that the 'funnel' section within was submerged. Turtles were attracted to the carp



bait, swimming through the funnel and into the containment sides of the net.

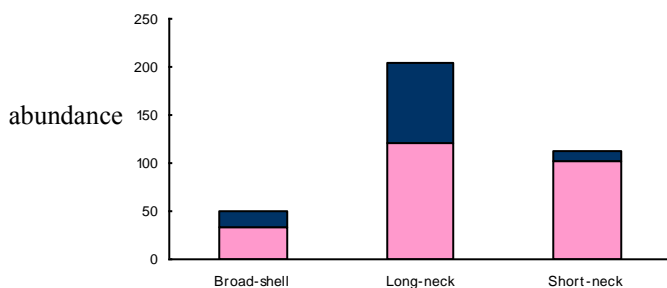
Turtles are then measured, weighed, permanently marked and a DNA sample taken. Release and recapture ensued.

A “fyke” net, which caught turtles as well as fish, tadpoles etc, was briefly mentioned. We got the impression this net was not liked...

## Results

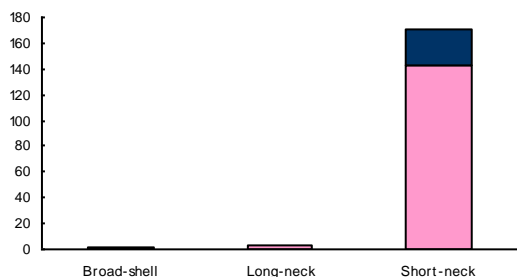
Turtle captures were undertaken among four sites.

**Horseshoe Lagoon:** a permanent water source,

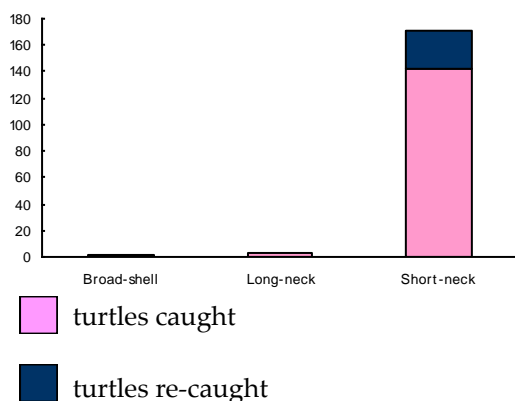


2m deep, 5km long with low salinity, 2 stream access to the river, with a healthy riparian zone including Typha and Red River gums.

**Lake Bonney:** a permanent water source, more than 6m deep, a 13km circumference, very high salinity, one tiny stream access to river, and an

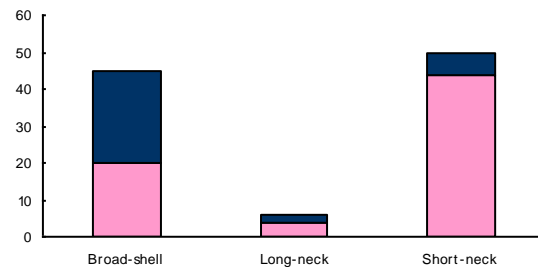


unhealthy riparian zone with dead trees and beaches from salinity. The graph below shows



that 140 Short-necks, 1 Broad-shell and 3 Long-necks were caught.

**Salt Water Creek:** a flooded flood plain, more than 2m deep, long connecting creek, high salinity, circular path (the access to the river), unhealthy riparian zone with dead trees and beaches from salinity, a lot of Typha.



**Main Murray River Channel** was the 4th site: a permanent water body since Weirs, is very deep, has variable salinity (mostly low) and has a variable riparian zone.

## What do the results indicate?

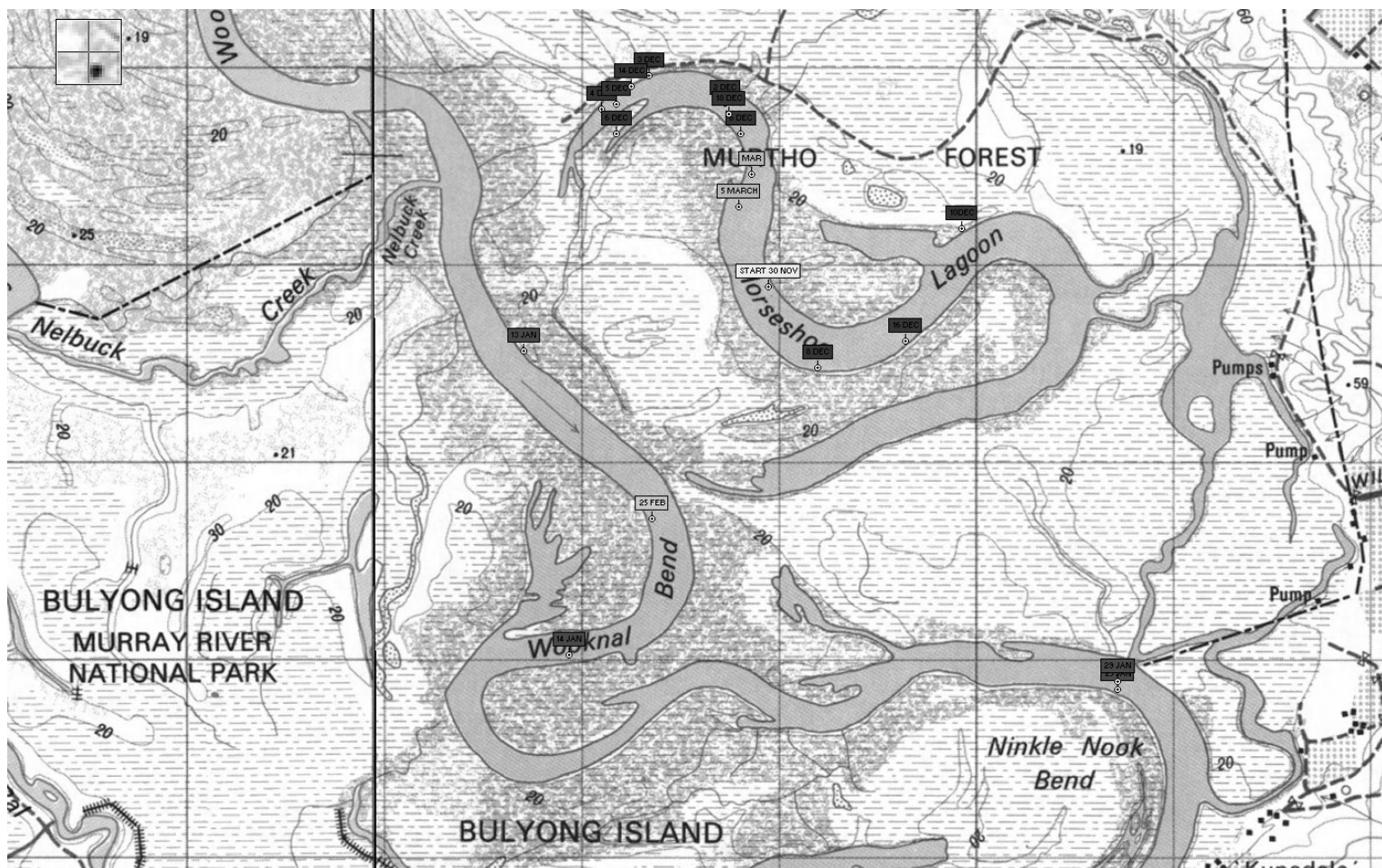
- The ratio of turtle species is not uniform.
- Animals are responding to some environmental variables.
- Targeting trapping in some habitats catches Broad-shells.
- *E. macquarii* is strongly dominant in some areas.

Deborah made the point at this stage that Broad-shell turtle population assessments in South Australia have been based on fish capture surveys. The question must still be asked: are Broad-shell turtles rare?

## Movement and distribution: radio-tracking

Tracking occurred over many months along lagoon and river sites. A receiver was attached to the turtle shell and the animal then released.





The beeping of the transmitter was followed and the locations recorded. This allowed Deborah to measure the distance moved between tracking locations (home range) and the habitat preference/choices of the turtle.

#### Radio-tracking summary

- Males appear to move more and further than females, with one male travelling 20kms in 4 months.
- Many females remained within a 2km patch.
- Some males didn't move as much as others: is there a difference between moving boys and sedentary boys (fitness/age)?

#### Outcomes of the project

This study has provided scientific information on the population size of a threatened species, ie the Broad-shelled turtle.

It has also provided knowledge on environmental variables which are important to a threatened species.

Collaboration among universities, government agencies, the community and turtle breeders are all pluses.

#### Questions from ACTHA members included:

Q: Are males moving to mate or forage?

A: they are mainly active during mating time but answer unknown at this stage.

Q: Do the females remain within a "patch" because it is a good nesting site?

A: possibly, however nesting data is difficult to obtain.



## Reptile and Amphibian Expo and the Care of Australian Reptiles and Amphibian Conference, Sydney 2007

*Mandy Conway, Joe and Jacob McAuliffe*

On Friday the 4th May 2007, Joe and Jacob McAuliffe and Mandy Conway travelled to Sydney to view the Reptile and Amphibian Expo, followed on Saturday by attendance at the Care of Australian Reptiles and Amphibian Conference (CARA), both of which were held at Castle Hill, Sydney.

We arrived at the **Reptile and Amphibian Expo** just after lunch on Friday and were greeted by the sight of a large tent like pavilion which contained quite a number of commercial pet reptile exhibitors, such as our very own Canberra Exotic Pets (ps thanks Pete for the 10% discount!), Kellyvale pets, Mike Swan Herp books, Extreme Pets and the Australian Reptile Park (Gosford), amongst others. Collectively, a



large range of reptile products and information was available for reptile enthusiasts.

As we entered the main marquee, the Kellyvale Pets exhibit drew our attention. Quite a range of new products were available, like textured vinyl back-drop sheets for enclosures. Although we were every impressed with all the exhibitors, it made us appreciate having Canberra Exotic Pets so close to home for quality and advice at the right price. Many other exhibitors were still setting up.

The Mike Swan Herp books stand, although late to start, proved to be very popular with a huge

range of herp related books. It was comforting to note that there were an increasing number of Australian publications available to the public.

Stock was fairly standard across the stalls, but enclosures and prices differed markedly. Most exhibitors had a variety of quality reptiles in their enclosures which made for an appealing display.

The major display of animals was located in two large separate areas. The first was filled with a number of large enclosures predominantly made of wood frames with large



plastic sheeting sides. We thought viewing the animals was a little difficult due to the glare/wavy nature of the plastic. A couple of the Monitors were hard at work finding their way out: sheets of craft wood were being inserted at the base as we left. We also felt the displays were too large for the effective heating and display of reptiles like the frilled lizard. On a positive note, the enclosures were cleverly roped off to ensure the public stood at a distance from each exhibit. Also, the animals on display were obviously well cared for. Jacob's favourite was the huge adult Olive Python, Mandy adored the Murray River Turtle and Joe couldn't decide whether to shove a Monitor or Olive Python up his jumper.

Located in the main area was the Australian Freshwater Turtle Conservation and Research Association (AFTCRA) where Mandy spent quite some time talking to Craig and Gabrielle Latta who had an enviable a wealth of knowledge on all things turtle, especially the Mary River turtle of which a stunning specimen

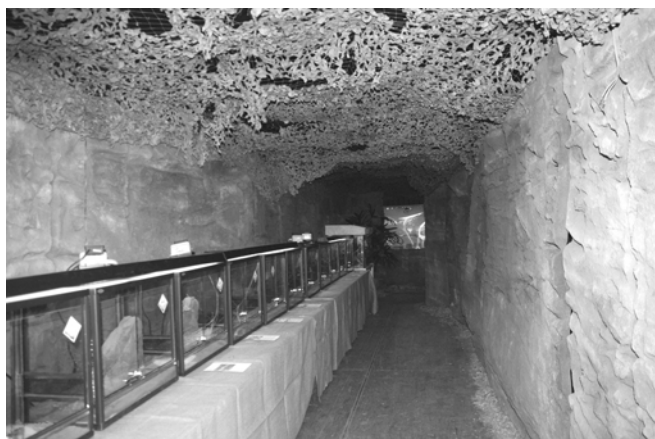


*Jacob McAuliffe with a Mary River Turtle*

was on display. Several baby Mary's were also seen. Many people from the general public, other exhibitors and AFTCRA members discussed the current plight/dismal future of this unique and endangered turtle as a consequence of the planned damming of the Mary River. More info will be forthcoming.

A surprise display was a wire mesh walled enclosure containing a Bearded Dragon, turtles and blue-tongues. Although the display was effective we felt that it was an inappropriate example of an enclosure: 2 bluey's were seen pacing and rubbing their snouts along the wire mesh A Carpet Python was draped over a tree stump just outside this enclosure and was quite happy to just lie there and be admired: its owner close at hand.

Entering the second display section (via the cavern pictured below) we unexpectedly



encountered a very large croc. The reptile was confined within a shipping container fitted out in a naturalistic way, with a large 'rock' land area and deep water section. At this point we ran into Peter Child, who described how he had been 'borrowing' red sand for his display at

2am that morning when he saw bright eyes staring directly into his. He gasped and the eyes disappeared in a whirl of water. The sand was located next to the shipping container and one small section had been left uncovered. Wonder how long the croc had been observing his potential meal? And will Peter ever stop shuddering when he recounts the story?? Junior herp members to note: crime does not pay.

A range of smaller tanks in the same area contained a number of turtle species (we lost Mandy several times at this point) including the remarkable Broad-shell. Further along we came across three long rows of small melamine



(microwave looking) enclosures. These were part of a Best Pet competition which produced some

brilliant entrants (occupants were installed on Saturday, the following day. An entry fee of \$150 was charged, which enabled entrants to take home the enclosure at the end of the Expo.

There were a number of rare animals on display in this area, including an Albino Darwin Carpet and Olive python. A Hypermelanistic Black and an Albino Eastern Blue-tongued Lizard were also on display. These two lizards were being offered as door





prizes, along with a Rough Scaled Python, frog pond set-up and a Mary River Turtle. Mandy wished she could locate more entry slips: that turtle was going to be, had to be, hers. Joe was also looking for more entry slips to try and win the Rough Scaled Python.

Joe purchased a Care of Australian Reptiles book by John Weigel, which came with a personal chin-wag with the author himself. We had an interesting discussion on how reptile associations and clubs may be able to assist in the development of the herp industry. It was interesting to note that Weigel liked the idea of involving reptile clubs and associations in reptile and amphibian ownership. The impression we got was that he was enthusiastic and motivated to increase awareness and conservation of herpetofauna through pet ownership.

At the time we visited the expo (just after lunch to closing time on Friday) most of the animal exhibits lacked any information on the occupants. We agreed that the signage used at our *Snakes Alive!* display was rather excellent. Unfortunately, it was also unclear who owned/ was responsible for most of the enclosures on the first day. By Saturday though, plaques had been attached to most of the exhibits describing the animals being shown. Information given by some volunteers early on was questionable, which made Jacob's explanation of the

distinguishing features of a Northern Blue-tongued Lizard to a gathering crowd quite impressive: something all amateur herpetologists can aspire to. All in all, things were slow to start however the pace picked up considerably over the weekend, including the crowds which apparently totaled 14,000 over the 3 days.

Overall we felt that the reptile display was impressive but perhaps didn't match the quality presentation of our Australian National Botanic Gardens *Snakes Alive!* display. The Reptile and Amphibian Expo wasn't confined to just one building, which we thought enabled better public access and movement. This has given us ideas and an insight into what improvements we may be able to make to *Snakes Alive!* 2008.

#### **Care of Australian Reptile and Amphibian (CARA) Conference, 5 May 2007**

The Saturday spent at the Conference provided us with the opportunity to network with some of the high profile figures in Australian Herpetology, and was a highlight of the weekend. We were treated to a plethora of entertaining and knowledgeable speakers. The topics ranged from basic husbandry needs to in-depth technical advice on things from breeding techniques to OPMV to parasites to educational programs on frog conservation. On the disease front, there was a lot of open discussion on high profile diseases such as OPMV and IBD which highlighted a general lack of understanding amongst herpetologists, both amateur and experienced, of health issues facing reptiles today. The talks covering these topics were highly informative and will be included in future newsletters.

Several speakers highlighted the industry's

#### **Speakers and topics at the CARA Conference included:**

John Weigel	Future directions in Australian herpetoculture
Craig and Gabrielle Latta	Conservation: the Mary River Turtle
Marion Anstis and Prithi Nambiar	Frog Zone: An environmental program for wetland creation
Dr David Kirshner	Breeding large monitors indoors
Steve Comber	The smooth Knob-tailed Gecko, <i>Nephurus leavissimus</i> , in captivity
Peter Comber	Keeping small elapids, with comments on a captive diet
Dr Tony Ross	Reptile viruses
Keiran Aland	Parasites and quarantine
Adrian Hemins	Notes on keeping and breeding the Green Tree Python, <i>Morelia viridis</i>
Brad Walker	Coastal Carpet Python, <i>Morelia spilota</i>
Simon Watharow	The art of snake catching

view that a range of good husbandry techniques is critical in the prevention of viral and other transmittable diseases. An example of this was the recommendation to physically wash hands after handling animals even if a hand disinfectant was used: some disinfectants could take up to 20 minutes after application on the skin to eliminate bugs etc.

The information gained from talks such as this will be highly valuable in determining the hygiene protocols for our next *Snakes Alive!* expo.

Whilst we spent the day absorbing information, Jacob disappeared to help Peter Child at the Expo and that evening he reported that the day indeed proved busy with sales and interest. He offered advice on snakes and bearded dragons on several occasions, quite happy with his efforts.

#### **Visit to the Australian Reptile Park, Gosford**

Traveling home on Sunday, we decided to take a long detour to visit the Australian Reptile Park in Gosford. A bonus was free admission, apparently available to Herpetological Society groups and associations.





### **Some Web sites worth looking at:**

<http://frogs.org.au/>

[www.aussiereptilekeeper.com](http://www.aussiereptilekeeper.com)

[www.mark.org.au](http://www.mark.org.au)

[www.canberraexotics.com.au](http://www.canberraexotics.com.au)

[http://www3.environment.nsw.gov.au/pdfs/hygiene\\_protocol\\_snakes.pdf](http://www3.environment.nsw.gov.au/pdfs/hygiene_protocol_snakes.pdf)

<http://www.cdc.gov/healthypets/animals/reptiles.htm>

### **Has your email address changed lately?**

If so, please notify us when it happens, as we rely on email to send reminders to members about our monthly meetings, the topic, etc. So if you haven't received a couple of emails from Margaret or Joe in the last fortnight about this month's meeting, it is because we no longer have an up-to-date email address for you, and we have the frustration of returned messages. Could you please just drop Joe or I an email with your new address so we can get back on track. If you are not sure, still email us - we don't mind.

Margaret Ning ([margaretning@iprimus.com.au](mailto:margaretning@iprimus.com.au))

Joe McAuliffe ([joe.mcauliffe@deh.gov.au](mailto:joe.mcauliffe@deh.gov.au))

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