ACTHA contact details
PO Box 160
Jamison ACT 2614
E-mail: info@actha.org.au
Website: **www.actha.org.au**

ACTHA Inc. News
Feb - Mar '16

Newsletter of the ACT Herpetological Association Inc.

Your Committee for 2015 - 2016

President	Dennis Dyer
Vice President	**Ric Longmore***
Secretary	Vacant
Treasurer	Margaret Ning
Newsletter Editor	Mandy Conway
Webmaster	Angus Kennedy
Public Officer	**John Wombey ***
Excursion Officer	Mandy Conway
Conservation Officer	Joe McAuliffe
Committee Members	Jason Spurr
	Iris Carter
	Greg Flowers
	Peter Child
	Nicole Hansen
Student Representatives	Vacant

* *Denotes Life Members*

In this issue

Diary date

The *bi-monthly* meetings of the Association are usually held on the **third Tuesday of the month at 7.30pm**. Our usual venue is:

***Belconnen Soccer Club*, Hawker**
(cnr Belconnen Way & Springvale Drive)

Upcoming meeting

Tuesday, 16 February 2016

Stories from Canberra Nature Map: Reptiles

- telling closely related species apart;
- rare sightings in Canberra, are they accurate?
- reptiles and habitat - what fine level mapping tells us;
- some of the exciting findings!

This meeting is all about discovering the ins and outs of the Canberra Nature Map.

We would like to ask members coming along to the meeting to bring their laptops, ipads etc and have a go at using it.

Burrowing into ACTHA's past

By Mandy Conway

Initially...

Having some time on my hands in 2010, I decided to sort through the contents of a four drawer filing cabinet containing old ACTHA material and wow... There was the usual filing, but the more I sifted through the paper the more I realised I was sitting on an enormous wealth of information. So much historical data, eg surveys, that many of our current young researchers would be delighted to have access to. I put good copies in date order and filled in the gaps with Ric Longmore's editions, luckily he kept every copy. That was the beginning.

Next I started to compile a contents list of each edition, which became the '**Index to ACTHA news as at**...' document. It is fairly regularly updated and can be found on our Website.

The next stage

The ACTHA *Apr-May 2010 Newsletter* saw ACTHA's first year included - **1985**. It wasn't much, just a few A4 pages outlining how the group was to operate, and especially their role in conducting surveys.

1985

The *June-July 2010 Newsletter* reproduced how survey information acquired would be presented, in the form of a wildlife atlas, "which would hopefully lead to a better understanding of local reptile distribution".

The year of **1986** saw guest speakers for most months, some of which included:

1986

April - 'Microhabitat occupancy and bushfire survival strategies of reptiles in moist tall open forest in the ACT', Will Osborne;

July - 'Herpetofauna of Hong Kong', M. Lau & 'Reptiles and frogs of the NT', John Wombey;

August - 'The Elapid Atlas of Australian Reptiles reaches completion', Ric Longmore.

Our *Aug-Sept 2010 Newsletter* covered the year **1987**, which saw that year's newsletters start to appear more regularly and included more details of speakers and their topics, some of which included:

1987

February - 'A herpetological survey at Yathong Nature Reserve', Klaus Henle;

March - 'The Warradjan - Australia's most unusual turtle', Arthur Georges;

July - 'Chappell Island Tigers', Ross Bennett;

September - 'The Nullarbor reptiles and other wildlife', David Carter.

Our *Oct-Nov 2010 Newsletter* covered the year **1988**.

1988

The year started slowly and with a bank balance of $210. A trial run allowing members to collect their Newsletters at meetings was deemed a failure; members appeared to rely on receiving a postal reminder of meetings a few days beforehand.

February saw the introduction of short informal talks or 'show and tell' before the main speaker to try and get genuine interest from members.

April's Newsletter grew to five pages:

- Ross Sadlier and Allen Greer at the Australia Museum were contacted for any data they had on ***Tympanocryptis lineata*** in this region. They sent records of 2 individuals from Canberra and 1 from Cooma. Members were asked to look through their field notes for any unusual dragons they may have seen in the past;
- two newspaper articles on venomous snakes hiding in cars: a 1.5m King Brown hiding under the bonnet of a car the NRMA were working on, and a 1.2m copperhead travelling 500km in a Mazda 929 coupe, coiled at the driver's feet. Oh, a further 3 copperheads and 5 fat blue-tongue lizards were also removed from the same vehicle. (Where had this car been parked?!)

July saw Committee positions defined and persuasively filled. Also;

- A **wildlife prosecution** article was a bit disturbing. P & R Robson of Fremantle, WA, were convicted of trying to post **57 reptiles** to Denmark and Germany in January and September 1986: 41 shingle-backs, 2 bearded dragons, 1 blue-tongue, 8 skinks, and 5 geckos, estimated to be worth A$20,000 (US$14,000) on the European market. Fortunately the packages were intercepted before they left the country. Imprisonment was suspended on good behaviour bonds of A$15,000 and a fine of $2,000.

September detailed an excursion by several determined ACTHA members to search for our local legless lizard, ***Aprasia parapulchella*, at Coppins Crossing**. Members searched for an hour and a half, very carefully lifting and replacing rocks, and were amazed to find a total of **11 specimens** of the endangered species.

A newspaper article presented the dire situation of the **Western Swamp Tortoise** which inhabited the once extensive wetlands of Perth, now little more than a muddy pond. The article outlines the efforts by Perth Zoo to breed this tortoise in captivity, with very few eggs being produced, making the task very difficult.

November included a report by Jo Vandermark on the **Bicentennial Herpetological Conference**, held at the Queensland Museum, Brisbane in August 1988. It was attended by a dozen ACTHA members, some of whom presented papers.

1989

The *Dec 2010-Jan 2011 Newsletter* covered the year **1989**. As you can see by the contents list below, the 1989 ACTHA Newsletters exploded in size and content. And not all the articles are mentioned here, I've just plucked out the most interesting titles!

February

- Excursion reports: 'Bathurst district to search for the rare earless dragon *Tympanocryptis lineata*' and 'Ginni Flats in Brindabella Range reptiles and amphibians';
- Around town: Burton's Legless Lizard.

April

- 'Weird weather has the north's nature on the hop', the platypus frog, SMH article Dec '88;
- 'Toadbusters aim to wipe out cane toads within 5 years in Brisbane', SMH article Mar '89.

May

- 'Shingle-backs, genetics & conservation', Steve Sarre, advertised speaker at Mtg.

June

- 'There's a frog in my stomach' by Michael J Tyler, book review by David Carter
- ACTHA field trips advertised: Rosedale, Ballaba, Deua, Behind the scenes at Australia Museum & Taronga Zoo

July

- Historic ACTHA Mtg, 32 members at June AGM for unanimous adoption of a constitution for ACTHA;
- 'Australia's reptiles: a photographic reference to the terrestrial reptiles of Australia', by Stephen K. Wilson & David G. Knowles, book review by Ric Longmore.

August

- Funding for ACTHA Gippsland Water Dragon Project accepted by The Peter Rankin Trust Fund.

September

- 'Herpetofauna of Australia's Top End', Dr R. (Hank) Jenkins, advertised speaker for Mtg;
- ACTHA has a new letterhead, Gippsland Water Dragon drawing by Frank Knight;
- ACTHA Committee Mtg: newly constituted ACTHA to join The Australasian Assoc of Herpetological Societies;
- Small-eyed Snake *Cryptophus nigrescens* 9 specimens found (6 by ACTHA) in the ACT: an unusual occurrence in this region.

October

- 'The Herpetofauna of Australia', Dr Harold Cogger, advertised speaker for Mtg;
- First World Congress of Herpetology, 11-19 Sept '89, UK, Ric Longmore, David Carter and Arthur Georges.

November

- Round Hill Nature Reserve, NSW, ACTHA field trip, 21-22 Oct '89, by Norm Morrison;
- 'Graeme Gow's Complete Guide to Australian Snakes', book review by Ric Longmore;
- ACTHA field trip to Deua to observe goannas;
- <u>Fox predation of Canberra turtles;</u>
- 'Boy swallows pet slider turtle which is removed alive after 2 days', UK newspaper article.

December

- 'First International Symposium on Varanids', Bonn West Germany, 20 - 22 Sept 1989, by David Carter;
- Frog field excursion on lower slopes of Mount Ainslie, Mon 4 Dec, led by John Wombey.

And now!

We have purchased a scanner, and I have started converting all our hardcopy editions into a digital PDF format, which will be uploaded onto our website in stages. The National Library and ACT Environment have also asked ACTHA to provide all newsletters to date.

Rosenberg's Monitor

By Geoff Robertson

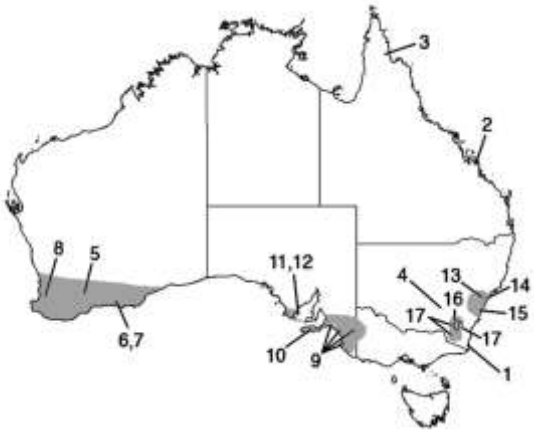
Recently, I came across an interesting article by Warwick Smith, Ian Scott and Scott Keogh on Rosenberg's Monitor in the 20 Nov 2007 issue of Systematics and Biodiversity. The research was performed in 2005, possibly earlier.

The article reports on research on the molecular phylogeography of Rosenberg's Monitor (*Varanus rosenbergi*) and its conservation status in New South Wales. (Phylogeography is the study of genetic differences between populations in different regions.) The research examined the proposition that 'there are several significant morphological and behavioural differences between populations in NSW and those in the rest of Australia and some researchers believe these differences may be great enough to warrant separate taxonomic status'.

The research conducted by Smith el al sequenced DNA from 30 individuals of *V. rosenbergi* drawn from across its range in southern Australia, and also included representatives of two other Varanus species, *V. gouldii* and *V. varius*. The map at right provides a nice summary of the findings and shows the distribution of Rosenberg's Monitor and the haplotype numbers associated with each of those populations. (There is no simple definition of 'haplotype' but we might say that each haplotype is somewhat different genetically from another haplotype.)

The conclusion is that at this time there is not strong enough evidence to raise any of the populations to the status of a separate species. Going back to the traditional concept species, that is that individuals within a species can breed, the writers point out that individuals from different populations are known to breed in captivity. Also differences in apparent size of animals in different populations seem to disappear when animals are held in captivity. The authors point out that genetic differences between populations are possibly less pronounced than overall genetic differences within the species.

The paper also provides a very good discussion of conservation challenges facing Rosenberg's Monitor, particularly the threats to this top order predator, and argues that it should retain its threatened status in this region. This I found very interesting, but possibly of more interest to me was the insight the paper provides to the exciting genetic research currently taking place around us.



2015 ACTHA Christmas Party *By Dennis Dyer*

ACTHA's Christmas Party was held on Tuesday 15 December 2015, once again at the Canberra Reptile Zoo, Gold Creek ACT. Twenty-five attended this most enjoyable event, with a new feature this year being the modelling of various types of feather 'Boas' to coincide with viewing one of the Zoo's newest residents, Titan the Burmese python. [*Image courtesy of Jay Cronan, Canberra Times*]

Much time was spent at the enclosure admiring the size and beauty of the Burmese python whilst Peter informed the group of its history, the lifestyles of the species in their natural environment and how individuals have been bred in captivity and subsequently released into non-urban areas with serious consequences. To date, he and the staff have enjoyed working with this python, which was unable to be taken from its enclosure during this visit due to its commencing to shed.

ACTHA is grateful to Peter Child and the staff at the Reptile Zoo who willingly gave their time by providing an informative guided tour through the Zoo. Apart from the well-known exhibits and Titan, Peter introduced the group to another new resident; Charlie the saltwater crocodile. Peter described the difference between the behaviour of the saltwater and freshwater crocodiles, the former presenting challenging behaviour prior and during feeding as opposed to the more relaxed nature of the latter.

The evening passed quickly and members departed at about 9.30pm.

Above: Three Shingle-back Lizards which were recovering from being attacked by dogs were displayed in a quiet area on behalf of ACT Wildlife.

Snakes Alive! Exhibition 2016

We start with an overview by our President, Dennis Dyer

Snakes Alive! 2016 was conducted over seven days from 18 to 24 January, again at the Crosbie Morrison Building, Australian National Botanic Gardens (ANBG). It was a most successful event which fulfilled one of the Association's aims of educating the general public about the importance of our herpetofauna in the environment. There was no overriding theme apart from the aim of reinforcing the Society's aims both individually and to the audience during the feeding sessions. Overall, the display included **26** reptile and amphibian species, including 7 different members of the carpet python family. As per the previous year, the display included tanks displaying marine species which were provided and manned by members of the Canberra District Aquarium Society. Members who provided their animals for display, feeding and handling are much appreciated.

As previously, the display was set up and dismantled by Peter Child and his assistants and this year occupied the three public rooms at the Crosbie Morrison Building. The main room was arranged with glass enclosures around the perimeter, with turtles and easily handled skinks in the centre. This resulted in a relatively open area in the centre of the main room which allowed visitors space when viewing the feeding sessions or other activities. The intermediate room included Aquarium Society tanks, the freshwater crocodile and frogs, injured turtles and lizards which were part of ACT Wildlife's display, as well as a continuous slide presentation of local herpetofauna.

a

Below: Three venomous species were on display; Desert Death Adder, Red-bellied Black Snake and the Spotted Mulga Snake (Pseudechis butleri).

Once again the small room towards the rear was allocated to **local endangered and threatened** herpetofauna. This included: (a) Striped Legless Lizards (*Delma impar*) from the Australian National University, (b) Grassland Earless Dragon (*Tympanocryptis pinguicolla*) lent by the University of Canberra., (c) the Green and Gold Bell Frog lent by the Ginninderra Catchment Group, (d) Northern Corroboree Frog lent by the ACT Government.

b

The feeding sessions for reptiles and the marine fish which were held each day at 11am and 2pm and at other suitable times throughout the week, with the species to be described and fed prominently displayed on a white board in the main room. These sessions were very successful and well attended

c

The large groups of students and their supervisors from holiday programs, mostly conducted by the YMCA, was very successful and these student groups provided attentive audiences for the feeding and other sessions. It is understood that many of these will also be future attendees.

d

The photos shown throughout this Snakes Alive! Exhibition article were collectively taken by: Mandy Conway, Alison Gee, Michael Jones, Beth Josey and Alisdair Robertson.

(Snakes Alive! cont'd,...)

A ceremony was held on the Monday morning, with WIN Television in attendance, to launch the **Reptile section of the Canberra Nature Map**. Geoff Robertson and ACT Environment staff were on hand to answer questions from interested members of the public after a short virtual presentation by the creator of CNM, Aaron Clausen (*seen at left taking a picture of a Shingle-back Lizard to upload to the site.*)

This year the raffle also went well, with raffle profits and donations to be provided towards Herpetofauna research.

Once again the ANBG was very effective with their publicity, providing the wonderful venue and facilities required for the partnership to be a success. The weather was mild, and the local radio stations 666ABC, Mix106 and 104.7FM provided an opportunity for the display to be advertised and promoted.

The usual Wednesday evening 'Get Together' was held to celebrate what was a most successful *Snakes Alive!* Exhibition.

The Society is also grateful to those members of the Canberra District Aquarium Society who willingly gave their time and effort to provide and man their display and readily joined in to the spirit of the event. Their professional talks and feeding of their charges were much appreciated by both the visitors and Herp Society members.

Mention must also be made of those members who provide their time and energies manning the entrance area to the display and also those manning the shop and selling raffle tickets. It was great to welcome some new enthusiastic *Snakes Alive!* volunteers this year, and it is hoped to see them again next year.

Margaret Ning above and Jake McAuliffe below.

Anam Haque with Lacey above and Dennis Dyer below.

This page - the usual suspects!
On the left we have the reptiles, from the 2nd top, Olive Python, Carpet Python, Children's Python, Diamond Pythons and the Black-headed Python.
Directly below is Precious the Woma, and below right is Bredl's Python.

Lainey Ford above and Peter Roach below.

Now a word from Margaret Ning, our extraordinary Treasurer

Another *Snakes Alive!* has closed its doors for approximately the 15th year in a row. Once again Peter Child and his hard-working team set the display up for us; this is also now a crucial part of putting on a quality display. The configuration of enclosures was tweaked to give us a bit more available floor space for the feeding time crowds.

We fitted a total of 23 enclosures into the main room and a further 13 enclosures in the second. CDAS displayed five threatened species in their tanks (*see next page*), gave well attended afternoon talks and feeds, and their presence in helping to man the display was much appreciated as well. Our small threatened species room with its generously loaned inhabitants is very popular too. There is always an attending volunteer who can show which of those invariably cryptic species can currently be viewed.

Snakes Alive! is a huge responsibility every year. The ANBG puts a lot of effort into securing radio interviews (live with animals, as well as over the phone), publicity in their newspaper advertisements, alerting their concert goers, etc.

The launch of the new Canberra Nature Map iPhone and android reptile apps on the opening Monday would have boosted our numbers for the Tuesday. Tim the Yowie Man very kindly mentioned the dates in his column and TV and newspaper coverage invariably give our numbers a good bounce. It can be disappointing however when the local newspaper visits our display and publishes a comprehensive article, but only after we have closed our doors for the week. I am not sure if there is any way around this disconnect.

Our numbers this year were a bit over 2600 people which was up slightly from just under 2600 last year. (2800 came through in 2014.) Unfortunately, once again the Australia Day holiday was responsible for reduced overall numbers, as significantly more Canberrans left the city than visitors arrived for the potentially very long weekend. Following the very busy Monday and Tuesday, numbers fell and were actually at their lowest on the Saturday, which is unheard of. Of course there is quantity, and there is quality….. Our aim is to educate and lessen fears and prejudice around reptiles and even frogs, so if we reached all who visited us, we cannot ask for more.

On a more positive note, we were very happy with the number of ACTHA and CDAS members who volunteered. We had an average of 14 full-time vollies and 9 part timers **every** day throughout the week, with 8 who were there every day and 36 others who were there for whatever time they could spare. This included some younger members helping us for the first time in the inimitable enthusiastic style

of the young. This is an essential part of running a successful exhibition, along with an interesting, engaging range of display animals. The demands of feeding time, when different species are discussed and fed, means we need an extensive range of animals to feed and handle. Without Peter Child, courtesy of the Canberra Reptile Zoo and Reptiles Inc, the display could not even happen, of course.

Every year we find new people who have never heard of us, and who would love to come to *Snakes Alive!*; we need to find ways to reach these people if the display is to continue. We had nearly 500 children and educators come through as part of a concerted effort to encourage holiday programs to visit for our afternoon (and some morning) feeding times. **But we need to put our thinking caps on for next year, for ways to use social media in our publicity.**

(Snakes Alive! cont'd,...)

Michael Jones tells us how the Canberra and District Aquarium Society (CDAS) fared

"CDAS was again pleased to be involved with the *Snakes Alive!* Exhibition. After much planning, coordination and a lot of work we were able to put on a display of many locally threatened species, as well as some exhibits of noxious pest species. On top of this we had an exhibit showing the difference between Trout and Murray cod.

Species included in this year's display were:
Silver Perch (*Bidyanus bidyanus*)
Murray Cod (*Maccullochella peelii*)
Trout Cod (*Maccullochella macquariensis*)
Southern Pygmy Perch (*Nannoperca australis*)
Eel-tailed Catfish (*Tandanus Tandanus*)
Riffle Shrimp (*Australatya Striolta*)
the yabby (*Cherax Destructor*)
Weather Loache (*Misgurnus anguillicaudatus*),
Redfin (*Perca fluviatilis*)
Gambusia.

The display was well received and a great success with many inquisitive visitors, both young and old coming through the doors and learning something new about our waterways and native fish as well as the impacts of pest species such as Gambusia and the Weather Loache.

Having less animals up our sleeve to feed each day meant having hungry fish for the feeding displays each day was a bit harder for us! However, some hungry *Tandanus Tandanus* and Murray Cod kept things exciting most days, gobbling up small shrimp and yabbies. CDAS hopes to once again be involved in 2017 in bringing an educational message to the public about native and introduced fish species."

The Australian & International Scene

Rare sea snake discovery off WA coast

By Australian Geographic staff, 22 December 2015

Above: A pair of critically endangered short-nose sea snakes photographed on Ningaloo Reef, WA. Image Credit: Grant Griffin, WA Parks and Wildlife Service

Scientists have discovered new populations of two critically endangered species of sea snakes that were, until recently, thought to be extinct.

Previously, the only known population of the short-nosed sea snake (*Aipysurus apraefrontalis*) had been a small area on Ashmore Reef in the Timor Sea – where the species hasn't been seen for more than 15 years.

Then, in April 2013, Grant Griffin, a WA Parks and Wildlife Officer, took a photo of a pair of snakes on Ningaloo Reef and sent it to Blanche D'Anastasi, an ecologist who specialises in threatened marine species at James Cook University in Queensland.

"We were blown away, these potentially extinct snakes were there in plain sight, living on one of Australia's natural icons, Ningaloo Reef," said Blanche, who identified the critically endangered species in the photo.

"What is even more exciting is that they were courting, suggesting they are members of a breeding population," she added.

Second surprise discovery

Below: Critically endangered Leaf-scaled Sea Snake, Image Credit: Blanche D'Anastasi

The researchers also discovered a new population of the rare Leaf-scaled Sea Snake (*Aipysurus foliosquama*) in the seagrass beds of Shark Bay – 1700km south of its only previously known habitat, also on Ashmore Reef.

"We had thought this species of sea snake was only found on tropical coral reefs. Finding them in seagrass beds at Shark Bay was a real surprise," said Blanche.

Dr Vimoksalehi Lukoschek from the Centre of Excellence for Coral Reef Studies said it remains vital to understand why sea snake numbers are declining, as both species' disappearance from Ashmore Reef in the past 15 years remains unexplained.

Scientists trained monitor lizards not to chow down on poisonous toads; and they did it by feeding them smaller and less-poisonous toads

By Erin Blakemore, Smithsonian.com, 7 Jan 2016

Above: This monitor lizard is definitely not thinking of eating poisonous toads. Axel Gomille/Nature Picture Library/Corbis

Cane toads spell big trouble in Australia—not just for humans, who consider them an invasive species, but for greedy, omnivorous monitor lizards, who die when they eat the poisonous toads. Now, reports Rebecca Morelle for the BBC, scientists have come up with an ingenious, if simple, solution for the mass poisonings of one of Australia's most beloved reptiles - train them not to eat poisonous toads by feeding them small, less-poisonous cane toads.

Monitor lizards, which the locals call goanna, have special significance in Australia, where they are a sacred symbol in aboriginal art and culture. Though Australia has a high diversity of goanna, Morelle reports that up to 90 percent of one species, yellow-spotted monitors, have died from eating the toads.

"A goanna only has to mouth a toad for less than 30 seconds and it can kill them," Lead researcher Georgia Ward-Fear tells Morelle. The potent amphibians number in the hundreds of millions, spread in various habitats across northern Australia. And that's a real problem for monitor lizards, which feed on pretty much everything.

Cane toads were imported to Australia in the 1930s as a means of pest control for sugar cane farmers, but with few predators, they quickly began to multiply and spread. These days, they're considered an invasive species, and Australian officials say their biological effects are a "key threatening process" for the continent's environment.

To help monitors fight back against the toads, a team of conservation scientists decided to train the lizards not to eat them. By feeding wild, yellow-spotted monitor lizards smaller, less-potent cane toads, they were able to convince them not to eat toads at all. The small toads were potent enough to make the lizards slightly sick without doing permanent damage, Morelle reports.

"Just one or two toad meals were enough to convince a goanna not to eat another toad," the team notes in a release. The team suggests that conservationists release the small, less-toxic toads into the wild to help lizards gain "an opportunity to learn rather than to die." They recently published their results in the journal *Biological Letters*.

Perhaps Australia's monitor lizards will be inspired to eat fewer toads in 2016—or at least fewer deadly ones.

Fighting Chytrid Fungus

By Karen Zusi, TheScientist, 19 November 2015

Chytridiomycosis, a disease caused by the chytrid fungus *Batrachochytrium dendrobatidis*, threatens amphibian species the world over. But a team of researchers from Spain and the UK has successfully cured a wild population of Mallorcan midwife toads (*Alytes muletensis*), the group reported on 18 Nov in *Biology Letters.*

"This is the first time that chytrid has ever been successfully eliminated from a wild population," said study coauthor Jaime Bosch of Madrid's National Museum of Natural Science in a press release.

The Mallorcan midwife toad is endemic to the island of Mallorca, where chytrid fungus was accidentally introduced in the 1990s. Bosch's team began trying to eliminate the disease in 2009, but while tadpoles treated with itraconazole in the lab were cured, the amphibians were reinfected once returned to their environment—even after their seasonal ponds had dried and refilled with autumn rains.

In 2013, the team removed tadpoles for lab treatments again, but also treated the seasonal pond locations with an industrial disinfectant called Virkon S. "The disinfectant was liberally applied to all rock, gravel, crevice and vegetated areas that surrounded the immediate environs of each breeding site," the authors wrote. "We acknowledge that Virkon S is a controversial chemical to use environmentally and our use of it was driven by the urgency of midwife decline on Mallorca." As the group reported this week, four of five treated ponds have remained fungus-free.

Researchers caution that, while impressive, the study's success is not necessarily applicable to more-complex environments. Karen Lips, a biologist at the University of Maryland who helped discover *B. dendrobatidis*, told *Wired* she doubts the system would be effective in the

The Mallorcan midwife toad is part of an ancient lineage of amphibians, diverging from all others 155 million years ago. First identified from fossils that formed up to 5 million years ago in mainland Europe, this species was believed to have been extinct for over 2,000 years. In 1977 it was discovered in the inaccessible limestone canyons of northern Mallorca – a true "living fossil". Males carry strings of eggs produced by the female wrapped around their hind legs for a month or more prior to hatching. The wild population of this is now increasing due to extensive captive breeding initiatives initiated in 1988. Current threats include non-native species, disease and diminishing water resources.
Image: Richard Griffiths

rainforest of Panama, where she works. "Sterilizing one pond is not going to do it. You'd have to sterilize the entire jungle."

Rock-bottomed ponds on Mallorca made it easier to disinfect the area, and the dry environment meant that no wet leaves would last to harbor the fungus through a season. Still, Lips told Nature, "I think this shows there are certain things you can do."

"Every now and again, [the amphibian science] community needs a win. And this is one of those wins," Brian Gratwicke of the Smithsonian Conservation Biology Institute in Washington, D.C., told *Wired*.

Rosenberg's monitors in courtship mode in 'jungle' of Mt Ainslie

By Ian Warden, 'Gang-gang' The Canberra Times, 5 January 2016

Above: Rosenberg's Monitor, which is being monitored and studied by Matthew Higgins and ACT government ecologist Don Fletcher, Photo: Matthew Higgins

While human Canberra figuratively snoozes in its summer holiday hammock (waiting for God's gift of Summernats to get the year *really* started), wild Canberra remains effervescently busy.

So, for example, January is the mating time for Rosenberg's Monitor (*Varanus rosenbergi*), a substantial (growing to 1.5 metres) and rather beautifully patterned goanna. Matthew Higgins, who with ACT government ecologist Don Fletcher is studying the species, suspects that "Most Canberrans don't even know they exist."

But exist they do, although as Higgins points out Canberrans can be excused for not knowing that they exist since "the species' numbers are evidently quite low, so that any sighting is pretty special".

"These goannas lay their eggs in active termite mounds; the termites repair the hole and so the eggs are incubated inside the mound for several months before the young hatch. It is an amazing piece of animal behaviour and one wonders how on earth did it evolve? The young goannas feed on termites before they leave the mound – not much joy for the termites!

"I've seen the goannas at Googong, in Namadgi and on Mt Ainslie after considerable searching but I think that the paucity of my and others' sightings indicates a very small population."

"These goannas are very well camouflaged," he testifies, "and hard to see even if you're only a metre away; they are also good at staying very still when they want to. This makes finding them that much harder.

"Rosenberg's Monitor is a very beautiful creature and it is wonderful that they continue to live almost in the centre of Australia's national capital."

The species' relationship with and dependence upon termite mounds is, as Higgins says, really remarkable. A famous (among herpetologists) study done on Kangaroo Island between 1991 and 1996, told us a lot of what we know about *V. rosenbergi.* We can infer that all or most of what herpetologists Brian Green, Mike McKelvey and Peggy Rismiller reported of Kangaroo Island is true of the Rosenbergs (lucky Rosenberg to have such a splendid creature named after him!) of Mt Ainslie.

"*V.rosenbergi* mate over a period of about 12 days in January, and in late February/early March the female spends a couple of days digging into a termitarium (a termite mound). After digging about 0.7 metres into the mound she constructs a circular nest chamber ... and lays her eggs [up to 14 of them]. She then backfills the excavation and then within a few days the termites totally reseal the mound."

"Hatchlings first appear in spring... they dig their own way [with a narrow tunnel] out of the termitarium without any adult assistance."

The three scholars found that the canny hatchlings do not emerge from the mound until the outside air temperatures are sufficiently warm. But even when that day temperature is ideal the hatchlings don't frolic away from "home" to seek their fortunes in the wider

world. Instead for several months they come back to the mounds for "overnight refuge".

And OMG they *need* that refuge. They quickly find that it's a jungle out there (strictly, on Mt Ainslie, it is a dry sclerophyll woodland out there). The researchers found the hatchlings "subject to intense predation mainly by corvid birds" (ravens, magpies and related winged monsters). They found that "very few young [Rosenbergs] survive their first year."

And these mites, the hatchlings watched on Kangaroo Island (and surely something similar happens on violent Mt Ainslie), were even sometimes victims of a form of what our US military cousins call collateral damage. Echidnas, in search of toothsome termites and rampaging into the mounds by enlarging the Rosenbergs' exit tunnels, often punctured to death, with powerful claws and spines, Rosenberg hatchlings that got in the way of this feeding frenzy.

And on top of belligerent Nature's decimations of the Rosenbergs, they also suffer habitat loss, get skittled by cars and killed by cats. It is no wonder then that in NSW (they are, too, thinly sprinkled in niches of South Australia and Western Australia) they are classified as "Vulnerable".

We don't yet have a status classification for the ACT's Rosenbergs but they seem to be scarce and we must look after them. Matthew Higgins asks that we never, ever damage a termite mound (it used to be a sport for urchins to poke them with sticks to watch the termites get into frenzies). The mounds, as well as being essential for termites, are literally indispensable for any Rosenbergs thereabouts.

Older Australians (this gnarled columnist is 70) will remember with a shudder of green horror the days when "ant bed" (crushed up termite mounds) was a popular surface for Australian tennis courts. Almost every sacrifice is worth making for tennis, the game they play in Heaven (and in Hell too, although there all they play is social tennis), but one shudders to think what strains those mound-plundering days put on the Rosenbergs and on echidnas, let alone on the termites themselves.

Dr Glenn Shea of the Australian Museum in Sydney informs us that the Rosenberg of the species' name was one Hans Rosenberg of Hamburg in Germany. He was somehow pivotal to herpetology. One imagines he is the same Rosenberg remembered in the scientific and common names of *Hypsiboas rosenbergi*, Rosenberg's Gladiator Treefrog. The species gets the evocative common name "gladiator" from the way in which the males fight one another, like amphibious Russell Crowes.

"By the way, yesterday's article on the Rosenbergs has led to a couple of other recent sightings being reported by staff in the Parks service, one near Glendale (Namadgi) and one at Tidbinbilla, which is good." Matthew Higgins added.

Rosenberg's breeding evidence on Mt Ainslie - at last!

The following updates & photos by Matthew Higgins

18 January 2016

"This evening the project that Don Fletcher and I have been running finally revealed gold. We observed a female Rosenberg's Monitor laying eggs in her excavation chamber in a termite mound. This particular mound is one that I have been watching for over a year, and we have evidence that it is at least the third season that it has been used. There has been no observable activity at this particular mound for nearly twelve months, until today when the excavation suddenly appeared, and this evening when we visited and Rosie was in there. Peggy Rismiller's research on these goannas from Kangaroo Island talks of females going into a 'trance-like' state during egg-laying, and this was certainly observable, as in the attached photo. A great day for the continuation of a species which is 'Vulnerable' in NSW and not often seen in the ACT. Any sighting of a Rosenberg's is special, and breeding behaviour is especially so."

25 January 2016: Big news on the Rosie front!

"Steph and I went up to the Rosie mound this arvo. At the mound I checked the two cams and downloaded a couple of yesterday's 'patrol' shots. We then waited in the hope of seeing her emerge from one of the burrows as the temp gradually increased. I was above the mound and burrows; Steph was slightly above me. After maybe 40 mins I heard a slight movement behind me (uphill); thought it was Steph. It recurred; I looked around and here was Rosie coming downhill and only 3 metres away from me. She walked down to the burrow-mound area and sat in the sun, watching us. I got good video and stills. After half an hour she became very alert and did lots of tongue-flicking, then moved into the fallen timber nearby."

"I then saw another monitor there! They greeted each other peacefully; the new one was much bigger. I am assuming from the behaviour and size difference that the new monitor is her male partner. According to Rismiller's work on KI the male partners assist with guarding duties from time to time. So, meet Rex (yes, as in the big T). What's more, I checked his face closely against the monitor I saw on the hill on 7 December and it is definitely the same animal.

We got excellent views and images of the two of them. After another 15 mins, with them watching us, we left them to it and descended the hill. A large echidna was feeding just down slope as well. Just how rich is Mt Ainslie?!"

Above: a photo of Rosie and Rex greeting one another; the size difference is readily apparent.

Monitoring Australia Day

Article & image by Matthew Higgins

The recent Australia Day holiday offered Rex and Rosie ample opportunity to enjoy the festivities from their eerie high up the slopes of Mt Ainslie. From there they undoubtedly could have heard Jimmy Barnes belting out 'Flame Trees' the night before, or the softer tones of David Morrison's Australian of the Year acceptance speech as it drifted across the lake and up the hill to Ainslie. Then the Aussie Day breakfast in Commonwealth Park, with sausages sizzling courtesy of ActewAGL, would no doubt have sent up rising aromas tantalising the nostrils of any carnivore. This was followed by the inspiring speeches accompanying the Citizenship awards, a time of reflection and enjoyment of what Australia means to new arrivals.

But no! Rosie and Rex, being of a species that has been here in Oz for a little longer than most of us - ie a few million years - decided to ignore the human hoopla and just enjoy their own company. Soaking up the Australia Day arvo's warm sunshine, which would have brought happiness to the heart of any self-respecting reptile, they evinced their own special brand of reptilian smooching, as the photo shows. By the way, that's Rosie on top. Meanwhile, just a metre or so away, thanks to their own efforts and those of a few thousand hard-working termites, the proud parents' newly laid eggs continued the early days of their long incubation inside the termite mound. If undisturbed, the eggs will hopefully result in a new generation of monitors hatching forth around September. Oh wondrous day that that will be! (And, anthropomorphism aside, the local kookaburras will probably have a field day... Such is life.)

Skink spotting

'I usually associate Cunningham Skinks with my bushwalks in Namadgi National Park, but they can also be found closer to Canberra. This colony lives in a large log on Mt Ainslie and I have been enjoying watching them for several years. There's usually one large adult with a number of smaller juveniles for company.'

Image: Matthew Higgins

Woman finds deadly pregnant snake under her fridge in South Australia

By Chris Paine, The Huffington Post, 19 Jan 2016

Above image by Snake Catchers Adelaide

Australia is a modern, sophisticated, cosmopolitan country. We invented wi-fi, Sydney is a truly global city and we're a member nation of the G20.

But sometimes Australia is just Australia. The massive-crocodiles-fighting, kangaroos-having sex-in-the-Outback, giant-spiders-in-the-lounge room Australia.

In the case of this story, Australia is definitely just Australia.

A Facebook post by Snake Catchers Adelaide has gone viral after a woman discovered a deadly brown snake just chilling under her fridge.

This is not something you see everyday - An eastern brown snake with her eggs.

This snake was removed from under a fridge at Moana a few days ago and thinking she may be gravid we have kept her in a safe, warm place and today she laid around 14 eggs.

Snake catcher shares photos of carpet python eating king parrot

By Kate Higgins, ABC News, 14 December 2015

A series of photos show a large carpet python constricting and swallowing a king parrot as it hangs from the roof of a house.

Image: Snake catcher Stuart McKenzie was sent this picture of a carpet python consuming a king parrot on the Sunshine Coast (Supplied: Stuart McKenzie).

The photos, taken at Agnes Water in Central Queensland, were sent to snake catcher Stuart McKenzie by one of his Facebook followers.

"Often if one of my followers sees a snake consuming a wild animal they'll snap a photo and send it to me," he said.

"This is the coolest one of the season so far."

Mr McKenzie said it was nearly impossible to tell the snake's age, but guessed it could be five or six years old.

"It's hard to tell the age with reptiles because they grow based on the temperature of their environment," he said.

"Going off the size of the king parrot — they're a decent-sized bird — I'd say [the snake was] between 1.5 and two metres long."

King parrots can reach more than 40 centimetres in length.

Mr McKenzie, who works on the Sunshine Coast, said he had had a busy few months and was currently averaging about two call-outs a day.

"Today I've already had five call-outs," he said, adding that he had so far only encountered non-venomous pythons.

"It's hectic. I'm expecting more in the afternoon.

"Normally if we've had a bit of rain and it's a nice sunny day, you expect snakes to be out and about because the frogs will be out and the snakes will be chasing the frogs.

"In the absolute heat of the day, you won't expect them on the move because it's too hot."

Snake spotting
This image was taken near the south-western corner of the Mt Rogers path, late on the morning of 4 December 2015. It appears the snake was in the process of organising its lunch! *Image: Ian Pollard*

Skink spotting
Here's a beautiful little Copper-tailed skink at the Australian National Botanic Gardens, taken 31 Dec 2015. *Image: Matthew Higgins*

Below: "Look at the blue tongue that's moved in with my white crested blacks!" Sent in by Jill Scheetz

Above: Picture relating to ID query sent to ACTHA's website

From Chris Pearson: "Hi, I found this outside our front door in Carwoola juts over the border. I contacted Wires and based on their advice ended up releasing it in nearby national park bush. The picture is taken of it in a standard size bucket. It was fairly aggressive in the circumstances attempting numerous strikes. It was not a snake I could readily identify so was wondering if you could help."

Gus: It looks like a baby Eastern Brown Snake.

Chris: "Wow, how positive are you roughly re. that? Glad I took care but knowing this (as I did not think it was a brown) I would have taken even greater care. How bad would a bite from a baby one be - assuming pretty bad? Then saw two browns in one day - the other was much bigger."

Gus: Pretty positive - have a look here (link supplied) for the huge variety of colouration in eastern brown juveniles, it's quite incredible! And yep, you'd want to get to a hospital quick smart, a juvenile can still deliver more than the necessary amount of venom.

On the bright side they are very active and tend to keep moving - if you leave them, they are usually long gone within the day.

Where do they go when we release them?

By J. Wild

You may often wonder what happens to the reptiles that turn up injured, are treated and released back to the wild. When released, do they survive? Where do they go? Do they stay near where we release them? Or do they go wandering, perhaps in search of their previous home range?

This is a case report of one adult Eastern Blue-tongue Lizard (*Tiliqua scincoides*) that couldn't be released exactly where it was found because of unsuitable local environment, so was let go in good habitat a few kilometres away. Did it survive? Where did it go?

10th November 2012: After treatment and care one adult Blue-tongue Lizard was fit for release. Its weight 535g; Body Condition Score 3.5/5. It had recently completed a shed. Digits checked and all had shed OK. Identifying features: tip of tail regrown: tail total length = 12.5cm of which the end 1.5 to 2cm was older regrowth.

Also missing P2 (2nd phalange) & P3 (3rd phalange) off #2 digit Left Hind foot. This digit ends about level with end of digit #1.

It was released between rocks in granite outcrop in dry sclerophyll woodland, not grazed and with good understorey vegetation, upper footslopes of low hills south of Wagga Wagga, NSW.

12th December 2015: Found within 60m NW of release site in vegetation under tree. Identified uniquely by shortened digit on LH leg, and regrown tip of tail. Its behaviour was slightly tame, not highly stressed by handling. Also now missing rostral half of edge of upper right eyelid. Eye is fine and functional. Small tick removed off left latero-dorsal thorax. Its weight 466g; Body Condition Score 3/5.

Conclusion: So this lizard, at least, in three years had moved 60 metres, lost a bit of condition and weight, gained a few scars, but otherwise survived.

Come to the great opening of exhibition
"The Black Mountain Nature Reserve: A Special Place" by Dr Rosemary Purdie

Time:4.30pm

Date Friday 19th February 2016

This amazing exhibition has been created by the Park Care group Friends of Black Mountain together with Molonglo Catchment Group, and supported with funding made available by the ACT Government under the ACT Heritage Grants Program.

It features a series of panels displaying beautiful photographs and up to date information about this special place.

ACTHA News
PO Box 160
Jamison ACT 2614