

ACTHA Inc. News

October-November 2022

Newsletter of the ACT Herpetological Association Inc



In this issue

The local scene

Some local snake sightings this season - page 2

Goanna News – page 4

Bridge issue at local reptile viewing area – page 6

The Australian and International scene

Black-headed python spotted at Wooleen Station,
400km south of usual habitat – page 9

Landmark study finds snow skinks can change sex
before birth – page 10

ACTHA Committee for 2021-2022

President: Luke Dunn

Vice President: Liam Thornton

Secretary: Dennis Dyer

Treasurer: Margaret Ning

Newsletter Editor: Fiona Halloran

Webmaster: Angus Kennedy

Public Officer: John Wombey*

Committee members: Iris Carter, Roy
Chamberlain, Peter Child, Hank Jenkins and Jason
Spurr

**denotes life member*

Former Vice President Ric Longmore OAM is also a
life member.

Last chance to renew your membership for 2022-23:

\$20 for an individual, couple or family;

\$10 for current students (including university);

Bank account details for direct deposit:

ACT Herpetological Association Inc.

Account Number: 486822880

BSB: 112-908

Please make sure you record the date of payment
and receipt number for your direct deposit on the
membership form, so the Treasurer can match the
two.

- **Have your say to the new Newsletter editor**, and let us know how much content and of what type you would like to see in the newsletter.
- The Treasurer thanks members who have renewed in the last month. **The cutoff date for renewals is Sun 30 Oct. After that you're non-financial.**

WWW.ACTHA.org.au

ACTHA Contact details:

PO Box 440 Jamison ACT 2614

E-mail: **info@actha.org.au**

**Our next bi-monthly meeting will be our
Christmas Party 6pm Friday 16 December
2022, at the Canberra Reptile Zoo.**

Come celebrate the end of the year, the
opportunity to gather together again, and let's
give some thought to **planning Snakes Alive for 9 -
15 January 2023.**

It's back!!!!

Snakes Alive, 9-15 January 2023

We are really pleased to announce that Snakes Alive, the major annual public and educational event of ACTHA, will be on again in January 2023. It's conditional of course on 'all things being equal with COVID'.

The dates are a little earlier than normal, from **Monday 9 January to Sunday 15 January**, so please put these in your diary, and maybe even start thinking as to what animals you could provide for display and/or feeding times, as well as possible times you may be able to help us out by volunteering your time there.

We shall have the main display in the Crosbie Morrison Building, and feeding displays in the Banks Building. We plan to have our venomous snakes as the theme for the display, but this still requires thought and work. But get **excited!**

Early season snake sightings

It has been an exciting start to the season with Friends of Grasslands' activities turning up more than its normal share of snake sightings.

First, an eastern brown snake (*Pseudonaja textilis*) raised its head at Hall Cemetery woodland during the Friends of Grasslands' (FOG) working bee on Saturday 1st October. Sadly, another eastern brown snake was found dead in the mowing tracks inside the cemetery itself.



Eastern brown snake (Pseudonaja textilis) at Hall Cemetery by Andrew Zelnik

Secondly, a Tiger Snake (*Notechis scutatus*) was spotted at Sweeneys TSR near Bungendore on 16th October. Photos below by Andrew Zelnik.



Goanna News

1. Not one, but TWO Lace Monitors (*Varanus varius*) together high up in a tree, photographed by Matthew Higgins.

Matthew has been observing these animals for some time and has described them to us as “George” and “Newby”. These two individuals apparently shared the same brumation site over our last chilly winter period.

Please also take some time to follow this link to an education video Matthew has put together: <https://youtu.be/Go9Vm2j-5IA>



2. Goanna survey on Mt Ainslie-Majura N.R.

Many ACTHA members helped with the goanna survey on Mt Ainslie in February last year, and the organiser, Don Fletcher, is asking for our help again with a similar survey in 2022/23. This will be a bigger survey, not only because it covers Mt Majura as well as Mt Ainslie, but also because the small goanna population requires a longer running survey for a good estimate of the population size. So, they would really value our help.

Weekly visits are needed to replace baits, memory cards and batteries in the camera traps. There will be a total of 11 visits: 4 before Christmas and 7 after in January and February. There is an offer of free training on Sundays 6th, 13th and 20th Nov, for those interested. Training will cover maintaining camera traps; how to process trail camera images; using mapping apps on smartphones to record termite mounds, goanna nests, and goanna burrows; radio tracking goannas and explanation of how goannas are trapped and processed. The training will be indoors and outdoors at the Namadgi Visitor Centre. Bring your own food, drink and rain protection.

Registration for the survey is via the link below. People confident in their skills can arrange with Don to do their part of the survey on a different day, if Sunday mornings are not convenient.

It's ideal if you can go to the same site(s) on every one of the eleven visits, but single day visits also work well if there are enough volunteers. A key requirement for participants is to be able to find the camera site using the GPS in a mapping app on your smart phone. (Don provides the GPS coordinates of the cameras).



Goanna "Rex" in Ainslie-Majura Nature Reserve. Photo by Matt Higgins in 2015

Last year they found that a novice volunteer (or a couple or family) could attend the site briefing then walk in and service two camera sites and hand over the resulting cards etc, in 2 to 4 hours. The time can be reduced if the walk is shortened by driving to the optimal start point, but many people were doing the activity because of interest in the walking. Others preferred to take responsibility for a particular set of cameras, and visit them throughout the survey on a different day of the week to the main session. That can be arranged separately with Don.



Goanna 'Rosie' is a good mum. But she needs our best support for her babies to survive in Ainslie-Majura Nature Reserve



*Female goanna in the process of laying eggs in a termite mound in Mount Ainslie N. R.
(Photo: Matt Higgins)*

Booking opportunities are in the Sign Up Genius app at:

<https://www.signupgenius.com/go/10C0D4EA5AC2CA2FEC70-ainsliemajura1>

On each of the 11 dates there 20 opportunities for people to put their names. That means a volunteer would do two trail cameras on that date.

For any questions, contact Don Fletcher on 0428 48 9990 or by email on don.fletcher@emailme.com.au.

Bridge issue at local reptile viewing area

Caroline Wenger, Umbagog Landcare Group

Umbagog District Park in Latham is home to many interesting reptiles, and “The Rocky Outcrop Bridge” (Bridge 1193) is a well-known spot to observe them. It has healthy populations of Cunningham skinks (*Egernia cunninghami*), Gippsland Water Dragons (*Physignathus lesueurii howittii*), and at least one brown snake. A local hobby among park visitors is to count how many Cunningham’s skinks they see each time they walk the bridge.

Covered in native raspberry, the outcrop also has many other interesting plants, remnants from when the climate was wetter. Above a deep, permanent pool, surrounded by reeds, reed warblers call in Spring and Summer when they arrive to breed. Rakali, turtles, moorhens and cormorants swim and fish there. A swamp wallaby sometimes shyly appears from behind a tree. It is an idyllic spot, lovely to stop and watch the wildlife; “Our own little Kakadu” as a visitor once said to me.

Unfortunately, our lovely wooden bridge has come to the end of its life. A new one is to be built.

Margaret Ning of the ACT Herpetological Association recently met up with Umbagog Landcare Group members to inspect the site. They have two main issues with the design of the proposed new bridge. Firstly, the size and location of a proposed new viewing platform. Secondly, the potential impact of the bridge footings on reptile habitat.

The new bridge is planned to be more lightweight than the existing one. However, the current proposal has more than twice the number of posts and footings as the existing bridge (design spacing means the existing footings cannot be re-used). The existing footings are mostly bolted directly into the rock and concrete was only used where this was not possible. The Development Application (DA) for the new bridge advises that each new post will be set in plinths of concrete between 600mm and 1000mm square. At a spacing of 1.8m, this indicates a large area of rock under the bridge, currently lizard habitat, will be covered in concrete. This is likely to have an impact on the lizard population. The Rocky Outcrop is an isolated site. There is nowhere else for the lizards to go.

Another problem is the design of the proposed viewing platform. A small viewing platform was proposed because new safety standards for cyclists mean bridge railings have to be raised to 1.4m. The viewing platform can have lower 1.2m railings, easier to lean on to take in the view, watch wildlife and chat to strangers.



Margaret Ning at the Rocky Outcrop Bridge (Bridge 1193) with a Cunningham's skink on the rock outcrop to the left of the photo. (Photo: Caroline Wenger)

Unfortunately, the bridge designers were overly generous with enlarging the viewing platform and instead of a modest 2-4 person platform, the proposed one will be roughly 7m long by 2.5m wide (in addition to the width of the bridge). This is unfortunately way out of scale for the site. It is also not consistent with the minimal impact / small footprint recommendation of the EIS which advised that the new bridge stick would to its original alignment. Sometimes smaller is better!

The proposed location of the new viewing platform is also an issue. It is directly on top of a rock platform used by the lizards as a basking area. Not only would the platform shade the rock platform but it would cover it in concrete footings.

Umbagog Landcare Group, in its response to the DA, advised the platform should be more modest in size to reduce its impact, and also that it should be positioned over an adjacent grassy gully that has nothing but non-native weeds. This would also mean people could see the lizards instead of standing over where they (once) were.

Oddly, the DA decision did not address at all the impact of the proposed viewing platform on reptiles. In response to the Landcare group's suggestion that the proposed viewing platform be repositioned over the grassy gully, the Directorate's reply was:

“Suggest locating Bridge 1193 to grassy gully

The proposed new bridges will be on the same location following the same alignment of existing bridges to limit impact on the ecological values.”

This suggests that no viewing platform is allowable at all, as it would change the existing alignment of the bridge. Wherever the proposed viewing platform is located, whether over the rock platform or the grassy gully, it would change the current bridge footprint and alignment as no viewing platform currently exists.

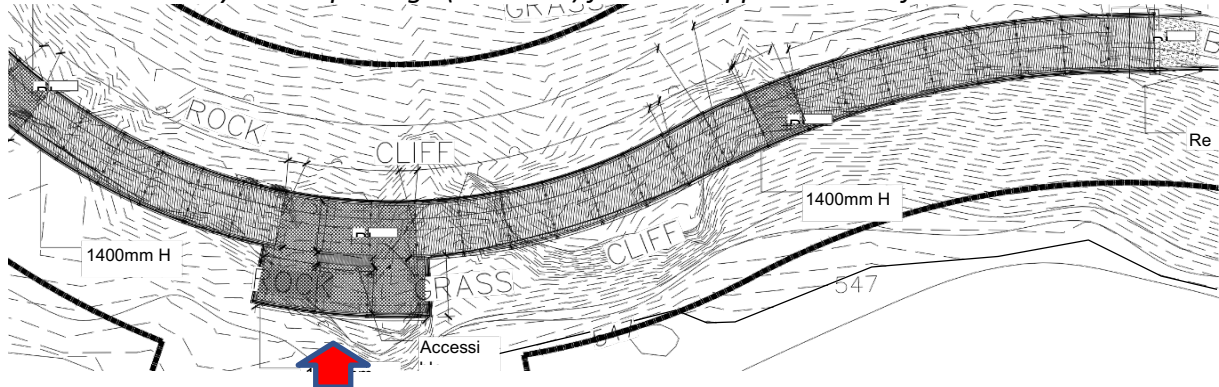


Left: A Cunningham's skink (Egernia cunninghami) residing near the Rocky Outcrop bridge

It would be lovely if bridge designers could meet with park volunteers to resolve these issues and ensure a bridge that does not adversely affect the site or its lizards.



Above: The Rocky Outcrop Bridge (No. 1193) from the opposite side of Ginninderra Creek.



Above: Design drawing of the Rocky Outcrop bridge. Red arrows show the proposed location of the viewing platform directly over lizard basking platform. Umbagong Landcare Group argues that over the grassy gully to the right would have less impact.

To view the Umbagong Landcare Group's submission (including wildlife photos at the end), go to the [Umbagong Landcare page](https://ginninderralandcare.org.au/wp-content/uploads/2022/10/Umbagong-Landcare-Group-Bridges-submission-revision-16Aug2022.pdf) or click directly onto the pdf of their submission:

<https://ginninderralandcare.org.au/wp-content/uploads/2022/10/Umbagong-Landcare-Group-Bridges-submission-revision-16Aug2022.pdf>

The DA and the ACT Planning Directorate's "Notice of Decision" (18th document down) is at:

<https://www.planning.act.gov.au/development-applications-assessments/development-applications/da-details?da-number=202240445>

Margaret Ning adds:

The ACT Govt is avoiding any further consultation over the bridge design so a member of ACTHA has approached a local MLA.

Black-headed python spotted at Wooleen Station, 400km south of its usual habitat

Hinako Shiraishi, Louise Mirolin and Andrew Collins (*ABC News*, September 2022)

The sighting of a black-headed python at Wooleen Station has meant a change in locality data for the species in Western Australia.

The python was spotted by Wooleen Station owners, Frances and David Pollock. during a tour of their land on Wajarri Yamatji Country, around 300km north-east of Geraldton in WA's Murchison region.

The couple had noticed some unusual tracks at the mouth of a cave a few days earlier.

This week the couple finally saw what was making the markings.

They were from a creature the couple had never seen on the station property before: a black-headed python.

According to experts, black-headed pythons are usually found across Australia's north, making this latest find the furthest south the snake has been formally sighted in the wild.



Left: Wooleen Station owner Dave Pollock, keeping his hands well out of the way, inspects the black-headed python (Photo: Frances Pollock)

"I was blown away because the only other python we know of, that exists on the property is a pygmy python and they are tiny ... this guy was at least two metres long, and [had] very distinct markings like the black head and the stripes," Ms Pollock said.

Ms Pollock said there were several theories as to how the snake could have wandered hundreds of kilometres outside of its usual range.

"One theory ... is that it got tangled up in someone's engine bay, but the location is actually not a place accessible to the public ... unless they're accompanied by Dave and I," she said.

Brian Bush has worked as a herpetology consultant for the past 35 years, and put the snake almost 400 kilometres south of its last known sighting.

"It's terrific to know [black-headed pythons] occur that far down south," he said.

Mr Bush said although this was the first sighting of the snake in the area, it did not necessarily mean the snake was new to the area.

"Our knowledge of the distribution of these animals is based on formally recorded individuals ... a lot of people will see something briefly but you couldn't confirm it as a record," he said.

"We've had them in Perth, but we know they're escapees, but the country's so vast (around the Murchison area) you just don't know what occurs.

"They're active at night in the warm weather. In the cooler months, they're active in the daytime, so they're often seen around this time of the year."

The herpetology expert said people should not panic if they came across a snake on a bush trail. "The smart thing is to leave them alone ... most of our snakes are venomous and this time of the year they will be ramping up on their activity as these spring days progress."

As for the Pollocks, they hope to spot more black-headed pythons on Wooleen Station.

Landmark study finds snow skinks can change sex before birth

Alexandra Alvaro, ABC News (Aug 2022)

You may have seen them around — small spotted skinks that scatter out from rocks underfoot as you enjoy a hike on a hot day on Tasmania's east coast.

They are the spotted snow skink, *Carinascincus ocellatus*, and they're only found in Tasmania.

After years of speculation, scientists at the University of Tasmania have finally been able to confirm the skinks can perform an interesting trick before they are born. They found the skinks could change sex during gestation, depending on the temperature the mother experienced during pregnancy.

"During cooler temperatures in this species, the female genotype will develop as a male," molecular ecologist Dr Peta Hill, said.

But so far, scientists have only been able to prove the sex reversal goes one way — from female to male in cooler temperatures.

"In the individuals in warmer temperatures, there was no sex reversal, or very minimal reversal. So, the majority of the sex-reversed offspring were found in the cooler temperatures," she said.

This is the first live-bearing reptile to display sex reversal. There are a few egg-laying reptiles, including the bearded dragon, that can also do this.

The finding came after some interesting field work. Dr Hill went out to Ben Lomond National Park and had to "fish" for pregnant lizards.

She put mealworms on the end of a line of cotton as bait. The lizards would bite the bait and be pulled into a bucket.



Left: In cooler temperatures, females of the spotted snow skink Carinascincus ocellatus will develop as males, but it is yet to be discovered if the reverse is true. (Photo: Peta Hill)

"We brought females in from the wild, just after they emerged from hibernation, so they were only just pregnant, and we incubated them at certain temperatures during their entire pregnancy," Dr Hill said.

The quirk has everything to do with what temperature will be favoured by the unborn skink. Male skinks tend to cope better in the cold, and female skinks in the heat.

But the finding raises interesting questions with respect to climate change.

"Climate change is not just about climate warming, it's about the climate becoming more variable and so that's going to affect the distribution of this species across Tasmania," Dr Hill said.

Colder winters could mean more male offspring, while warmer temperatures could mean more female offspring.

"As climate becomes more unpredictable, and also warmer, it's going to affect the distribution of the species, and the sex ratio could play into that quite strongly."

The study saw only female-to-male reversals in cooler temperatures but, while sex reversals the opposite way did not occur during the study, that does not mean it does not happen.

"We know in warm years we get an overproduction of daughters, female offspring. So, we're yet to fully explain that," Dr Hill's supervisor, ecologist Dr Erik Wapstra said.

"Females are more important to population growth, so we're not convinced that a warming climate is therefore negative to the species. It might even increase population size in the short term."

But, he said, it could mean populations struggle in the long run.

"If climate drives a population to be biased, invariably there will be a negative impact on the populations at some point, because you need a male and a female to make offspring. So, you generally have equal sex ratios of adults," Dr Wapstra said.

"Climate change could absolutely affect that and there's quite a lot of work on things like crocodiles and turtles to suggest this is an important and major impact of climate change now and down the track."

Dr Hill agreed, adding that scientists are not sure exactly how many animals display the phenomenon.

"I do think it's much more prevalent than we currently understand ... there are other species that it's been inferred it might be playing a part.

"It is definitely a concern for reptiles," she said.

"When sex ratios of populations are consistently biased toward one sex, then that can limit their population health, most definitely."

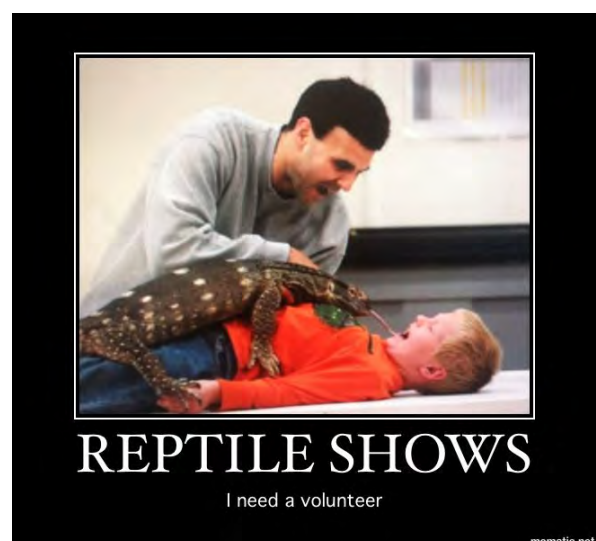
And a reminder:

Our next bi-monthly meeting will be our Christmas Party on Friday 16 December 2022, 6pm, at the Canberra Reptile Zoo.

Come celebrate the end of the year, enjoy the opportunity to gather together again, and let's give some thought to **planning Snakes Alive for 9 - 15 Jan 2023.**

Do you like the newsletter?

Feedback always helps improve it. We have a new Newsletter Editor, so feel welcome to let us know what content you would like to see.



And talking of reptile shows, this is how NOT to call for volunteers.