

TOAD



NEWS

Twentieth Edition

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frogwatch.org.au

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REPTILEWATCH

LAUNCH



UPDATE ON THE TOAD
FIGHT



NIMBY WEEK UPDATE



NEW TOADBUSTING
PLANS



THE LITORIA ???
STORY.

**Yes We
Can Stop
the
impact of
Toads-
and we
must!**

EDITORIAL

REPTILEWATCH LAUNCHED

FrogWatch was launched back in 1991 due to concerns about native frog populations. Whilst massive declines in native frogs were being reported around the world, these were not seen in the NT and fortunately we have not found any Chytrid fungus in the NT frog populations.

Sadly we are now seeing very rapid declines in reptile numbers and on October 1st 2010 ReptileWatch (reptilewatch.org.au) was launched to raise awareness about these issues and also to encourage people to try to do something about it.

What has been obvious to many of us for some time is now being shown by research, namely that we have been witnessing massive declines in wildlife partly due to changes in our environments, changed management techniques, and partly due to feral problems like cane toads.

More details are included in the newsletter.

We are looking for people to volunteer and help with the workload. If you can help, contact Graeme on 0411881378 or email info@frogwatch.org.au. We need people to help us with a range of tasks from day to day trap and fence checks, organizing toadBusts, report and submission writing and working on the website.

So if you have some time to spare or are looking for a place to put some energy let us know. It will be very rewarding and it will make a difference.

ARE WE MAKING PROGRESS TOWARDS STOPPING TOADS?

Reptiles are vanishing across north Australia, partly due to the impact of Cane Toads, We have seen species such as *Varanus panoptes* (Yellow-spotted Monitor) and *Pseudechis australis* (King Brown Snakes) that were common, vanish from large areas of the NT in just a few years.

We have serious concerns about a range of reptile species right across northern Australia. Animals that were common just a few years ago are now being nominated as vulnerable, or worse under threatened species legislation.

As a move towards solving this problem we have set up a project called ReptileWatch which we launched formally on Friday October 1st at the Museum Theatre in Darwin.



Pic King Brown killed by a cane toad.

ReptileWatch is designed to provide a focus point for community concern about reptile populations in the northern regions of the NT. It will provide a community education function through its website and related activities and advocate for better research and preventative management activity by the community and by our wildlife authorities. We will also advocate for solutions to these problems.

Sept 7th 2010 was National Threatened Species day, a day promoted to raise awareness about the destruction of wildlife populations, and a disheartening report, *Into Oblivion: The disappearing native mammals of northern Australia* <http://www.publish.csiro.au/paper/WR09125.htm>, has shown we are suffering a wave of mammal declines in the tropical North, even in places like our supposedly pristine National Parks such as Kakadu.

It is fascinating for me to listen to scientists make warnings about this yet some of those very same scientists have been complacent in the face of the cane toad invasion and have said not to worry about it or even actively discouraged and prevented cane toad control activity.

Our previous federal Minister for the Environment actually withdrew cane toad

control from the list for funding under Caring for our Country in 2010.

What we find most alarming is that we do not know what is driving all of this and yet the indicators are that we are well on the way to creating a similar situation with our reptile fauna across the top end and yet we are doing little about it.

In recent years we have seen populations of many reptile species dramatically decline to the point of localised extinctions and they may well have been pushed into the “ecologically extinct” basket, a place where small populations struggle along but their ecological role in the ecosystem ceases and ultimately their viability fails because their numbers are too low to survive.

Researchers are not doing any serious work that will indicate the scale or nature of the problem in the reptile domain or what the mechanisms may be to reverse that. The one or two researchers who are looking are struggling to find research funding to support ongoing work.

It is obvious the problem is complex and multi faceted and it makes me actually wonder whether the Western Scientific approach can actually find a solution at all, but more about that at another time.

So what to do? We need to continue to build a strong community feeling that will lead to a solution and generate the goodwill and energy in our community, political and scientific circles to do something about it.

UNUSUAL FROG FROM EAST ARNHEM REGION.



During a wildlife survey trip to the western shores of Buckingham Bay in NE Arnhem Land in late June 2007, an unusual member of the Rocket Frog group was encountered living in exposed sedgeland adjacent to a freshwater drainage system at a place called Gamarrwa by the Yolŋu

people of that region. This remote & almost inaccessible area of the Napier Peninsula falls under the custodianship of the Djambarrpuyŋu Clan.

Map



Napier Peninsula forms the geological base of the Wessel Island chain – a sandstone formation which projects NE a further 100 kms into the Arafura Sea. Underlying sandstones are covered by a thin lateritic layer & are exposed on the eastern side of the Peninsula.

The frogs came to our attention as Kym Brennan*, Goyma Gōŋdarra* & myself* were looking at a range of insectivorous plants growing in the waterlogged soils adjacent to the coast. They were sitting in the open on damp, shallow sandy soils amongst tussocks & were obviously daylight active. The sandstone rock strata was evident at the surface, covered only by light, skeletal soils which were mostly waterlogged by seepage from a nearby aquifer. The frogs were all found within a few hundred meters of a permanent freshwater supply. On a subsequent trip to the site in August '10, a more extensive search of the region was carried out & the above was clearly the preferred habitat of this species. They are locally abundant & may be found in similar circumstances in nearby parts of the Wessel Islands.

Specific habitat pic.



They differed from nearby populations of *L. wotjulumensis* & *L. nasuta* by their smaller size, bold markings & unusual behaviour. The most noticeable difference between *L. wotjulumensis* & this species is its docile behaviour – easily approachable & relatively easy to capture. By comparison, *L. wotjulumensis* was only found beside deeper waterbodies & launched itself into the water on approach & hid beneath stones on the bottom. Similar behavior was also seen by both species at night. These frogs appear to be in semi-active feeding mode both day & night at this time of year.

New Species pic showing thigh colouration



At night, when the frogs seemed more active, they were frequently found perching on dead sticks, tree roots & other vantage points well away from the main creeklines, whereas *L. wotjulumensis* continued to occupy the streamsides.

As it was dry season, there was no frog breeding activity taking place & no calls were heard of any species. Once collected, these frogs frequently make a chattering communication call when paced together. An effort will be made to record the calls in the wild next wet season, in an effort to distinguish them from *L. wotjulumensis*.

Graeme Sawyer looking at collected specimens



On the initial survey of the site, no cane toads were recorded, but they were moderately abundant in August '10. There would be now direct competition between toads & this species for breeding sites, as they both prefer similar circumstances.

The Djambarrpuyngu have no specific name for this frog in circulation today, other than the generic terms 'Garkman' & 'Wokara'. Further inquiries are under way amongst the Yolngu people to determine a suitable descriptive name for the species from the Djambarrpuyngu language.

***Brennan**, Kym, Biodiversity Unit, NRETAS.

* **Gondarra**, Goyma, budding naturalist & member of the Golumala Clan, Elcho Is.

***Morris**, Ian, PO Box 189, NOONANAH NT

NEIGHBOURHOOD SQUADS.

We are looking for people to do some toad checks in certain areas and report their findings to us. Perhaps you already do this but do not report it to us?

Being out and about is good for you and it is often a great way to meet new people in your area. It is also amazing just how much impact these semi-regular checks of an area can have on toad numbers.

We are looking for people to regularly check a given area and report their captures through the website or email so we can develop a better awareness of the impact we are having on toads as we try to get to Zero toads.

Some particular areas are Jingili Water Gardens, Rapid Creek corridor, Coconut Grove, Botanic Gardens, Bayview, Casuarina Coastal Reserve, Lee point and the East Point area

There are many others as well. Email us at info@frogwatch.org.au. To let us know if you can help and where you might be able to help.

TOAD TRAPS

One of the many mysteries of the toad scene is just what it is that makes cane toad traps work.



Pic Cane toad trap in the field.

The capture rate is certainly not consistent and we do not really know what it is that triggers toads to go into the traps. The assumption is that it is the insects attracted to the lights or other bait in the trap.

Traps can sit in a location and catch a few toads and then in one night they can catch lots, like in the example below

“Hi Graeme

Thought you might like to see this photo of 80 toads caught in one night at Batchelor Sewerage Ponds last Thursday. Previously this year we had a total of about 50 toads all up at the site. Interestingly the council had mown the pond surrounds the previous day and this may have stirred them up!”



We have also seen examples where a trap has caught hundreds of toads in a week, in fact our very first field trial at Bonrook station a trial trap, in Dec 2004 - Jan 2005, captured 224 in the first week and 543 in total over 6 weeks. This was a single Supertrap (3 door).

Trials with sound devices and other baits have shown some promise in attracting toads but no research has identified the best solution.

One of our focuses for the next year is to try and solve this mystery so we are asking people to share their experiences and strategies as we work through some formal trials to see if we can work out how to maximise our impact on toads.

Other things we know that make toad traps more effective include placing them on a barrier like a toad proof fence and setting them close to water and other toad congregation points.

Attractants

On a number of occasions field observations have recorded large concentrations of cane toads around dead animal carcasses as seen in the picture below. This gave rise to speculation that dead animals may provide a successful attractant to lure cane toads into traps



On Thursday July 17th we put the hind legs from a dead pig into a cane toad trap at the Ringwood research area and turned off the trap light, so that the pig carcass was the only attractant in the trap.

When we checked the trap on Monday night 28th July we found 69 cane toads in the trap. 25 males, 34 females and 10 Sub-adults were captured.

This capture rate is significant and warrants further research to determine if the effectiveness of the traps can be enhanced by using such an attractant in the traps.

A research project in 2009-10, using dead cane toads as the smell attractant, failed to show any statistically significant attraction effect.

Lights

Lights, especially black light UV wavelength, attract toads into traps and these can be easily rigged using a battery and a sensor switch such as the ones used to switch on garden lights. The sensors trigger when it gets dark and activate the attached lights. With an appropriate LED (Light Emitting Diode) light you can leave the battery 10 days or more between recharges.

NIMBY UPDATE

What has happened in your life in the past 10 years? In that time research shows we have lost 70% of mammals from our top-end environments and the story with our reptiles looks even worse!

Whilst we do not have the same level of detail in the research relating to reptiles

we do have is that the reptile worse.

Dr Sean Doody has shown a in some species in the first invasion and local extinction in the following years.

es have been added to the species list or are currently due to the impact of cane odplains Monitor (*Varanus* Mitchell's Monitor (*Varanus* ng Brown Snake (*Pseudecis* Northern Death Adder (*Prasiniphys* *praelongus*), the Common (*Tiliqua* *scincoides*), ll (*Dasyurus* *hallucatus*) are here is also a lot of concern archers, ecologists and land

managers for other species of reptiles, especially the monitor group.

The NT's biodiversity is under threat as never before. Right now we are experiencing the greatest rate of decline in many native species since Europeans arrived in this country.

This year we have seen research published by Dr Mike Letnic showing the fence barriers we developed can be used to completely eradicate toads in some habitats. The work we have done around Darwin has shown toads can be managed and that many species of reptiles benefit from this control work if applied in time.

We are asking for your help to build a solution to this problem and to continue to do what we can. The record wet season has seen toads move into many areas and it is time to get rid of them before the rains return and they breed.

NIMBY week is a part of a broad strategy to minimise the damage cane toads are causing to our wildlife and our biodiversity. Our strategy is to remove all the toads during the dry season and to try to minimise their numbers each wet season.

By removing the toads from an area you minimise the risk of toads breeding in that area once the rains return. No breeding means no small toads, and it is small toads that kill many of our lizards and goannas.

It is vital to stop these small toads getting into our suburbs as they will kill the frill-necked lizards and smaller goannas in our parks and yards.

NIMBY TOADBUSTS

Monday June 6th 7.15 pm , Meet at area near Patterson Street/ Vanderlin Drive Intersection, Leanyer side near the Waterpark

Tuesday June 7th 7.15 pm, Meet at Jingili Water Gardens

Wednesday June 8th 7.15 pm, Double Bust Palmerston Meet in Car Park at Marlow's Lagoon at 7 pm or the Sanctuary Lakes, Lakeview Dve Palmerston.

Thursday June 9th 7.15 pm, Lee Point Car Park Lee Point Road. Lee Point - Buffalo Creek Area

Friday June 10th 7.15 pm, Meet at Garden's Golf Links car park Gardens

Road Darwin. Golf Links, Gardens, Mindil and Vestey's area.

Saturday June 11th 7.00 pm,. Meet Bunnings Carpark Bagot Road. Airport Corridor, RAAF Golf Course, Ludmilla Creek.

Sunday June 12th 7.00 pm Meet at 7.15, Meet at Power Water pumping station on Rocklands Drive

See website <http://www.frogwatch.org.au> for details or call 1800243564