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With support from

















EXERBUSTING?

TOADMUSTER REPORT.

TOADBUST SCHEDULE

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

## **EDITORIAL**

The wet season is now upon us and toads are on the move again. Whilst control is much more difficult at this time of year small actions now can save lots of work later.

It is much easier to control cane toads at the tadpole stage or as metamorphs, than it is to find and deal with them as adults.

So make sure you do something about any suspicious tadpoles or let FrogWatch know so something can be done.

We have had some previous examples where toad breeding in the Darwin area went un-reported and as a result we have had to remove many hundreds of small toads from those areas in the following year. In other areas we have been able to do some control work early and only a handful of small toads have needed to be removed.

It is also important to realise that small toads pose a risk to a different set of wildlife, especially smaller reptiles, which are not directly threatened by larger toads. This is due to their size and the fact they are active in daylight which means frill necked lizards and other small reptiles find them when looking for food, often with fatal consequences.



Pic Dead Frill-necked lizard killed by eating young cane toads.

So far the small numbers of cane toads found in recent weeks is encouraging as it shows we had the numbers down to really low levels by the end of the dry. We need to be

vigilant to pick up the new arrivals. A wave arrived in the first week of March last wet season, we had an earlier start to the rains this year and with this latest burst of the monsoon means we will need to keep our eyes open.

As mentioned before fencing has the potential to be a major factor in toad control. Just how powerful this may be has been highlighted by the extensive use of the technique during the recent third Great ToadMuster. The fences have made a big difference. A full report is further into the newsletter but a comparison of first night busts in a spot show that if fences were used then the rate of collection was 293 toads per person per hour and if no fences were used it was 139 toads per person per hour. Combining data from the first two nights using fences led to a rate of 226 toads per person per hour and without fence 112 toads per person hour.

Fences also have significant potential to reduce the rate, or possibly halt the movement of toads into an area. Whether this will enable us to develop cane toad management strategies that really work remains to be seen but it looks more promising than any other strategy.

We are using this idea in the Darwin Zero Toads project, which involves the construction of several fence barriers in strategic locations around Darwin. More details later.

A combination of traps, hand collection and fencing may just give us the edge we need. Remember scientists are indicating that we only need to reduce toad numbers a little more to push their numbers backwards.

# NEW LIGHT BREAKTHROUGH FOR TRAPS?

Trials of a new light that may solve our trap problems have led to successful toad captures. Whilst it is still too early to be conclusive, the lights have been made from Black Light UV wavelength light from Light Emitting Diodes (LEDs). The beauty of the lights is that the draw only a fraction of the power used by the other light systems we have trialled.

The LED's draw about 24 milliamps according to the volt meter, whereas the old fluoro's were drawing about 144 milliamps. That is a big saving.

The trial traps are working with just 5 watt solar panels. We are working towards making the lights available but if you have a technical bent the LED's can be purchased from Jaycar.

We will keep you updated on the trials.

# KEEPING THE TOAD OUT OF DARWIN

The local Darwin community has done a great job in helping to keep the Cane Toad out of Darwin and as you may be aware, to further help with this, FrogWatch is establishing a series of fencelines to stop toads getting a toe-hold.

With the assistance of a grant of \$86,000 we are working with Darwin City Council to put up a series of toad-proof deflection fences at strategic locations around Darwin. These fences work by channelling cane toads along the fence into SuperTraps so they can be removed, preventing great numbers from becoming established in the bushland, parkland, gardens and urban areas in and around Darwin.

FrogWatch will continue to organise Toadbusts around Darwin to help mop up any cane toads that sneak through our defences, but the deflection fences should make this job considerably easier. The advantage of being vigilant in keeping cane toad numbers

down in Darwin is more native wildlife and less ugly pests.

As always, it is a good idea to keep checking your yards, gardens and swimming pools for cane toads and their tadpoles.

### WALKING THE LINE.

The new fencing barriers are slowly going up around Darwin and are starting to produce results.

The new fenceline on Amy Johnson avenue has yielded over 650 toads in the first 10 weeks and it is only partly completed. These toads would have moved into the airport area and eventually moved through into the Rapid Creek and Coconut Grove areas. They could also breed in the water on the airport at this time of year.

Not only that but walking the fences at night is interesting as well as good exercise.

So far we have recorded four snake species along the fence, and keelbacks, like the one below photographed eating a toad, are seen almost every night.



Pic – Keelback eating a small toad on the Amy Johnson Fence

It is great to see Keelbacks, Brown Tree snakes, Small-eyed snakes and Orange-naped snakes all alive and well in the middle of Darwin!



Pic – Orange-naped snake on the Amy Johnson Fence.

We are also finding some geckoes like the Zig-Zag Gecko along the

fence at night.



Pic Zig Zag Gecko on the Amy Johnston fence.

Interestingly in over 14 trips to the area only one toad (a dead one) has been seen on the road yet over 650 have been collected along the fenceline. This is further proof that fences hold the toads along the fenceline making them much easier to remove. Without the fence most of those small toads would be moving down the Airport corridor into the Rapid Creek catchment, Nightcliff and Coconut Grove.

#### **EXERBUSTING**

With the word ToadBusting now in the Macquarie dictionary it is time to get a new term up. More important still is getting lots of people doing it.

ExerBusting is building your daily exercise routine into checking places for toads, either at night or before dawn. It is the best time to exercise as it is cooler and it means you can do two things at once in a busy schedule.

Co-ordinator and Darwin Lord Mayor Graeme Sawyer has been doing this for some time although he admits not every night. Basically it involves walking the parklands, fencelines and some other key areas and picking up toads as you go. Good exercise and good for our environment as well.

He even manages to fit in some ExerBusting sessions late at night after meetings! It's a great way to destress after a busy day.

He has also set up his bicycle to allow more areas to be covered in a night. On a recent night a ride from his place, through the Anula parklands, up to the Amy Johnson Drive fence and back through the parklands netted just 5 toads, all from the fence. A 14km round trip, great exercise and a toad survey and a ToadBust all in one night.

All you need is a bright light and FrogWatch can help supply you with those if necessary. It also works well with a buddy as two of you can have even more fun while you do it and can keep each other motivated!

Let us know if you are looking for an area to patrol.

# TOADMUSTER UPDATE

The 2008 Great Toad Muster (GTM) was Stop the Toad Foundation's (STTF) third annual muster on the Whirlwind Plains of Auvergne Cattle Station. The Foundation now has three years of data and toad population statistics from this important feeder area in northern Australia.

A total of 68,325 cane toads were removed from Auvergne Station during a 4 week period from September 20<sup>th</sup> until October 18<sup>th</sup> 2008.

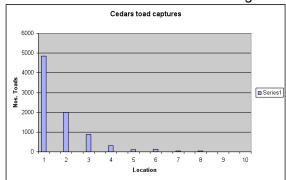
A full report is available from the STTF website http://www.stopthetoad.org.au.

The biggest news from the muster was the use of fencing and the way this made such a huge difference to our ability to eradicate toads.

The use of exclusion barrier fencing on a broad scale for the first time during the 2008 GTM was a feature. This method of cane toad control was found to be an extremely efficient method of collecting and removing cane toads.

The fencing strategy contributed to the high number of cane toads collected and was used on both man made and natural water bodies with equal success.

The example of Cedars Lagoon shows this benefit of fencing.



Pic above shows the capture per night.

In 2006 there were over 6400 toads removed from Cedars by hand collection with no fence ( the site was not completely cleared as 90 toads were collected on the last night).

On the first night in 2006, 6 people spent 4.5 hrs at Cedars and collected 1615 toads at a rate of 60 toads per hour of effort.

In 2008, 8400 toads in total were collectd from the site with a fence being used. On the first night 9 people spent 2.5 hrs at Cedars and collected 4581 toads at a rate of 216 toads per hour of effort.

On the second night in 2006, 2175 toads were collected, by 12 people, in 3.5 hrs at a rate of 52 toads per hour of effort.

In 2008, 1986 toads were collected, by 7 people, in 2 hrs at a rate of 142 toads per hour of effort.

Whilst a full analysis is yet to be completed a preliminary analysis of

the muster shows that when comparing the first night of busting at a site, if fences were used then the rate of collection was 293 toads per person per hour and if no fences were used it was 139 toads per person per hour. Combining data from the first two nights using fences led to a rate of 226 toads per person per hour and without fence 112 toads per person hour.

We are very confident these figures can be improved upon as we learned during the muster we could send even less people to the fenced sites.

With fences, around 80-90% of the entire toad population at a site is removed in 2 nights, without fences this figure drops to 40-50% of the population. Using fences decreases the total number of days needed to achieve actual eradication of the toad population at a site.

We are planning more research and the use of fences to see if this can become a key element in getting Darwin to Zero Toads.

#### FROG SURVEYS!

Are Darwin's frogs disappearing?

Scientists around the world believe that global frog populations are disappearing. Many reasons may be behind this including climate change, pollution, the impact of pest species, and even a debilitating amphibian fungus. Here in the Top End we still believe our frogs to be safe, and for that reason we are collecting more data on our local frogs to help understand how to prevent amphibian declines.

FrogWatch is conducting a study of local frog populations around Darwin so we know what to expect from those populations within a normal year. We are counting the diversity and breeding activity of frogs by identifying them visually and recording the breeding calls of males on different nights throughout the year. So far we are concentrating on Knuckey Lagoon, McMinns Lagoon and Woodfords

Lagoon. Other areas will be visited occasionally where possible.

By collecting data over time we can start to predict trends in these frog populations. Certain frogs are very common around certain wetlands throughout the wet, but some may only be active or breeding for a few weeks leading up to the wet or just after the start of it. In a really wet year there may be an abundance of frogs, but knowing how many frogs are around and where they are breeding will help us to determine the health of our populations.

Volunteers are welcome to assist with this project, if you have a wetland near where you live and you wish to find out what sorts of frogs you have and what they are up to throughout the year.

Contact Graeme (0411881378) or Erin (0438043938) if you are interested in getting involved. The process is fairly easy but needs to be repeated at regular intervals. It involves recording

calls and looking at frogs as well. We can provide all the training and equipment.

# **Yellow Crazy Ants**

An infestation of yellow crazy ants have recently been detected in Darwin. These Introduced ant species are highly invasive and are of real concern for biodiversity in the Territory if they become established.

The community are encouraged to have a look in their yards to see if they think they have the Yellow Crazy Ants and report any findings to NRETAS on 8995 5036. Alternatively, collection kits are available for people to put in their yards to collect specimens for the Wildlife Management team.

To collect a kit or have one mailed out to you phone the Northern Territory Government Wildlife Management Team on 8995 5036 or go to www.nt.gov.au/exoticants

## **UPCOMING TOADBUSTS**

It's ToadBusting time, and FrogWatch is planning a series of Busts over the next few months.

Date	Meeting Point	Coverage
Wednesday 11 <sup>th</sup>	Casuarina Coastal Reserve	Coastal Reserve and
March	Meet at the PowerWater	Hospital areas
	pumping station on Rocklands	
11-	Drive 7.30 pm	
Friday 13 <sup>th</sup> March	Garden's Golf Links car park	Botanic Gardens, Garden's
	Gardens Road Darwin 7.30 pm	Golf Course. Mindil,
		Vestey's Beach area and
416		East point.
Saturday 14 <sup>th</sup>	Meet at gate into Holmes	Holmes Jungle Nature Park.
March	Jungle, 7.30 pm	
Wednesday 18 <sup>th</sup>	Meet at area near Patterson	Leanyer / Lee Point and
March	Street/ Vanderlin Drive	Malak regions
41-	Intersection 7.30 pm	
Friday 20 <sup>th</sup> March	Hidden Valley Speedway just	Hidden Valley and Berrimah
	near the main entrance gate	areas.
	7.30 pm	
Wednesday 25 <sup>th</sup>	Meet near Anglicare, Nemarluk	Ludmilla Creek area
March	Drive 7.30 pm	Richardson Park and East

		Point.
Friday 27 <sup>th</sup> March	Casuarina Coastal Reserve Meet at the PowerWater pumping station on Rocklands Drive 7.30 pm	Coastal Reserve and Hospital areas.
Wednesday 1 <sup>st</sup> April	Meet in Car Park at Marlow's Lagoon at 7.30 pm	Marlow's Lagoon / Palmerston Golf Course
Friday 3 <sup>rd</sup> April	Garden's Golf Links car park Gardens Road Darwin 7.30 pm	Botanic Gardens, Garden's Golf Course. Mindil, Vestey's Beach area and East point.
Wednesday 8 <sup>th</sup> April	Meet at gate at end of Muir Road Pinelands 7.30 pm	PineLands
Friday 10 <sup>th</sup> April	Sanctuary Lakes, Lakeview Dve Palmerston. 7.30 pm	Sanctuary lakes, Gunn and Farrar and nearby Drains
Wednesday 15 <sup>th</sup> April	Meet at area near Patterson Street/ Vanderlin Drive Intersection 7.30 pm	Leanyer / Lee Point and Malak regions

#### SPONSOR A CANE TOAD TRAP



FrogWatch is continuing its appeal to the community and businesses to help fund part of our strategy to stop cane toads overrunning Darwin. We are seeking people and businesses to sponsor cane toad traps and sections of deflection fences to shut off the major corridors cane toads are using to move into areas across the Greater Darwin region. Call 1800243564 or 0411881378 for more details, or email info@frogwatch.org.au.

Darwin is not being overrun by cane toads, as many predicted - with only small numbers of cane toads managing to get through into the Darwin area so far.

Unfortunately even a small number is enough to cause significant damage to our wildlife and ecosystems, especially to animals like quolls and goannas and, in time, green tree frogs and other native animals through displacement. Darwin is the only capital city that has animals like goannas. Our wildlife is a part of our lifestyle and a big part of the spirit of the Territory. We do not want to see cane toads destroy it.

We are confident we can reduce the numbers of cane toads even further by using deflection fences and traps. Our trials, see picture below, have shown that fences and traps combined can block toad movement and increase the effectiveness of the traps.



Picture – Sponsored trap on the Deflection fence at Hidden Valley.

Our plan is to get a series of deflection barriers and traplines set up to protect Darwin's wildlife and lifestyle. To do it we need support in terms of funds and help to install and manage the traplines.

In return, you get your details on the FrogWatch website as a sponsor on the section of the site that shows the numbers of cane toads caught in your trap.

This project is a great way for your business or social club to make a real contribution to keeping Darwin a Zero Toad Zone.

I recognition of your Sponsorship we provide you with a certificate and we will acknowledge you through our website (about 30 000 visits per month) and our newsletter (1200 people). We will also provide a website where the ongoing capture data for your sponsored trap will show and the capture data will be updated regularly. You will be able to link this to your own website if you wish to. As the traps are checked, capture data will be recorded on the website and the tally showing your impact will be there for all to see.

FrogWatch Nth is a not for profit organization focused on raising environmental awareness, especially about issues relating to frogs. FrogWatch has been active in the Northern Territory and the Kimberley region of WA for over 10 years and has developed a very strong public profile across a wide spectrum of the community.



A secure SuperTrap, complete solar system, lights, a controller, batteries, water systems and anchor stake cost 650.00 each. You can sponsor a complete trap or join with others to co-sponsor a trap. Sponsorship is \$600.00 per trap.