



NEWS

First Edition

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A project of



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Welcome to the first ToadBuster News

Editor's Note

This publication is devoted entirely to the efforts now underway to reduce the impact of the invasive cane toad on our local environment. Everything we do is aimed at that single outcome – to minimize cane toads in the Top End of the Northern Territory. We would prefer to talk about eliminating toads, but we are a practical and realistic group and accept that, for the time being at least, there is no way to eliminate them completely. We will have done well if we can prevent them entering our Top End cities of Darwin and Palmerston and succeed in saving local wildlife. We will certainly attempt to push the toad-front back and, pun intended, down the track we hope to clean out some areas that the toads have already colonized. We are optimists, but we are hard headed. We know that this is a fight that will last many years – perhaps forever if researchers cannot come up with a total toad solution. Our task is to hold the line – night after night, month after

month, year after year – until one day perhaps, the final solution is applied successfully. We won't sit back and wait for that. We won't watch Territory wildlife poisoned and displaced and do nothing. We believe that most Territorians agree with that position and we know it will be a community and government effort to succeed. Our worst enemy is complacency and defeatism – the view that the fight is pointless, that the toad will 'settle into' the local environment and in a few years time people won't notice the difference. People didn't notice the difference in Queensland because people grew up with the cane toad. The damage was done before people knew what they had lost. In the Territory it is different. We know what we stand to lose. Many of the Territory's unique reptiles including goannas and frill-necks will suffer localized extinction. Many other species of bird, mammal, amphibian, even insect life, are endangered. Perhaps there is nothing that can be done in the wide open spaces, even in our national parks. But we know that where there are enough people we can succeed if we have the will to do it. Join the fight. **Some things are worth saving!**



Congratulations to FrogWatch Coordinator, Ian James Morris, on the award of the Medal of the Award of Australia (OAM) for services to environmental education and to the Indigenous communities of Northern Australia.

The Cane Toad Forum Kimberley, March 2005

The community-organised Cane Toad Forum in Kununurra in March was an eye-opener for Darwin-based FrogWatch (North) representatives for at least two reasons.

First was the fact that the Forum was organised and funded mostly by Kimberley Tourism businesses, determined to do what they can to stop the toad reaching the Kimberley.

That stands in stark contrast to the laissez-faire attitude of Territory tourism ventures, which, with few exceptions, have accepted the (scientific and government-sponsored) argument that there is nothing that can be done in the field to prevent the toad overwhelming northern Australia.

Second was the realisation that the Territory now stands alongside Queensland in Western Australian eyes for 'doing nothing' as the toad scourge swept across the continent.

While it is true that there has been no organised toad defence in the Territory until the pest has reached within a few kilometres of the northern population centres of Darwin and Palmerston, Territorians are used to pointing the finger at Queensland authorities for 'doing nothing' to halt the spread.

However, despite the current effort in the western Top End to tackle the toad through trapping and 'ToadMusters', Western Australians are correct in perceiving that Territory authorities, from the Commonwealth's Parks North, which administers Kakadu, to successive Territory Governments since the toad invasion from the early 1980s, have accepted the view that there is nothing that can be done in the field and it's a waste of money trying.



A CALM Ranger checks a traveller's car for toad 'hitch-hikers' at the WA border.

Both the Commonwealth, Territory and State Governments have put their faith and money into CSIRO efforts to find a toad cure through introduced toad-specific disease, genetic manipulation and other laboratory-based research – so far amounting to spectacularly expensive and failed attempts in toad-control techniques.

Until the beginning of 2005 no Government had put real money into toad control 'on the ground' meaning that while the scientists

evaluated their research and reported failure, while a few dedicated field researchers reported local extinctions in the path of the toad (of northern quolls and sand goannas in particular), the toad itself was allowed free range to colonise with only the speed it can travel and climatic conditions imposing limits.

Darwin and Palmerston together constitute about half of the Territory's total population. Other central Territory towns, Alice Springs and Tennant Creek, are beyond the toad's climatic range. Thus, so far, only the relatively small towns of Borroloola, Nhulunbuy, Jabiru, Pine Creek and Katherine have had the required human population density to put up real resistance to the toad's advance – and in those places any on-the-ground effort was conducted by individuals collecting and disposing of toads in their immediate environs.

As Top FM Radio host, Daryl Manzie, said last year while discussing the toad invasion, the trouble is that an individual may go out at night and collect 40 toads and pop them in the freezer, and may go out and do it again a second and third night, but it isn't long before the freezer is full and the individual is disheartened.

While there are still some individuals in Territory toad-infested areas doing what they can each night, there is no doubt that organisation and pooling of community effort will be the only effective way of putting a spike in the toad's progress across the country.

Thus the Kununurra Forum, the community support it helped engender and the government inertia that it may have helped end, will be vital to any success in

restricting the range and population size of the toad in WA.

The Forum's call-to-arms was a declaration 'not to wait for Federal and State Government decisions on what to do to about the cane toad threat' and stating: 'We, the Kununurra community, have decided to try and come up with strategies that will stop, or at best slow down and minimise the cane toad impact in the Kimberley'.

The Forum's final communiqué called for an increase in community awareness, education and participation in dealing with the Cane Toad problem, identification of high risk pathways from the NT into the Kimberley, and an 'action plan' of effective strategies to 'stop, or at best delay and minimise the Cane Toad invasion in the Kimberley'.

Additionally the Forum called for:

- The identification of areas of urgent scientific research and determination of 'fast track' methods for actioning this.
- The identification of areas of high biodiversity values in the Kimberley that could be relatively easily protected to keep out Cane Toads.
- The listing of the Cane Toad threat to the Kimberley as a Threatening Process under the Environmental Protection and Biodiversity Act. (*A recommendation now adopted by Commonwealth Environment Minister, Senator Campbell.*) and
- The establishment of a Kimberley Cane Toad Website providing an online discussion forum for public and academic comment. (*See www.canetoads.com.au*)

Highlights (and Lowlights) of the Kimberley Cane Toad Forum.

The Kakadu escarpment did not act as a barrier to cane toads, as predicted by some. (A lesson for those who believe the rugged escarpment country of the Victoria River region, near the Western Australian border, will be a natural toad barrier.)

- Dave Walden,
Department of Environment and Heritage

Varanus Panoptes (the yellow spotted or sand goanna) and Merton's water monitor have totally disappeared in parts of Arnhemland according to Aboriginal residents and Kakadu Park rangers.

- Ian Morris,
FrogWatch (North) Coordinator

If 90% of cane toad tadpoles in a waterway are eliminated (through human intervention) then the remaining 10% will be stronger colonisers (through reduced competition). Thus the effort must be to get rid of adult toads.

- Ross Alford
James Cook University Townsville

While cane toads will dehydrate and die after three days without water, a toad can rehydrate in slightly moist sand or in cattle dung.

- Ross Alford
James Cook University Townsville

'Mark and recapture' suveys in Townsville show that toad populations stabilise once they have colonised an area – reports that numbers 'decline' after a few years are due to human perception and memory fallibilities.

- Ross Alford
James Cook University Townsville

There has been a 30% decline in freshwater crocodiles (at a site at the McKinlay River catchment) in 18 months, following cane toad invasion.

Adam Britton
Crocodylus Park

"Beautiful one day, Queensland the next"

One of Australia's top novelists, Tim Winton, has joined the campaign to stop cane toads colonising northern Australia.

"It's a struggle to imagine what it would be like with cane toads," he says, "...just massive local extinctions of native animals, total loss of bush tucker."

Winton was a guest at the Kununurra Cane Toad Forum in March, telling the attendant scientists, professors, environmentalists, business operators and public servants that there had been 'a strange fatalism' among Australia's leaders on the cane toad – 'no sense of political urgency'.

He said that the lack of scientific knowledge and the consequent lack of public knowledge meant there was less pressure for government action and urged the forum to disseminate public information to generate political will and the 'sweet and satisfying sound of a few fingers being pulled out.'



WA Author,
Tim Winton
– time off to
tackle the
toad menace

Winton warns people in southern Western Australia: "Once they (cane toads) get down into everybody's place at Eagle Bay, and the Leeuwin Concert and people are spreading their blankets out and there's toads about them, and people are having the Skyshow and there's toads on the Perth foreshore, it'll be too late...it could be beautiful one day, Queensland the next." Winton says: "Trapping is the go."

Describing the one-way-door, cage, field trap developed by FrogWatch in the Northern Territory Winton points out the traps humane features. With water provided and the night time light to attract insects captured toads can even get fatter whilst being kept captive until collection.

He says it is time that real money was put into cane toad control.

"For \$1.5million you could get ten teams of people out there in the Victoria River region of the Northern

Territory, working for three months during that period (September to November) trapping and monitoring."

"You're getting basically a Maginot Line, if you like, against the toad. There's no guarantee it'll work, but it's a damn sight better than what's been done before, which is nothing."

(From ABC Radio Report)

WA STATE BUDGET FINDS \$900,000 MORE

Western Australia's 'war on cane toads' has been bolstered by a further \$900,000 allocation in the WA State Budget.

Environment Minister Dr Judy Edwards told the Perth Cane Toad Public Forum that the new money brought to \$1.5million the State Government commitment to the fight against cane toads since December.

She said the money showed the State Government's commitment to tackle the environmental, agricultural and social threats posed by cane toads – 'one of the most successful invasive species the world has seen'.

"WA is the only State to have actively begun control and monitoring operations ahead of cane toads invading the State, and we are committed to keeping them out of WA for as long as possible," she said.

Speakers at the Forum included author, Tim Winton, FrogWatch coordinator, Graeme Sawyer, Northern Habitat's Russell Gueho and Allan Thompson from Save Endangered East Kimberley Species (SEEKS).

The minister said that the 'Cane Toad Initiative' was focused on five main components - advance trapping, quarantine and control, biodiversity asset protection, public

awareness and education, and State-wide co-ordination.

Measures under the Cane Toad Initiative included:

- developing and implementing a pre-emptive trapping program in the Northern Territory, including further trials and development of trap designs;
- significantly strengthening quarantine arrangements on the WA/NT border to capture hitch-hiking toads;
- mapping the NT distribution and key dry season refuges that can be the focus of control efforts;
- identifying east Kimberley biodiversity hotspot assets at risk from toads; and
- producing information material for the broad community to raise awareness of the looming cane toad menace.

The funding follows the WA Government allocation of \$600,000 for cane toad management in December, 2004 and the Minister adds that: "We look forward to the Commonwealth Government honouring its commitment to match State contributions."

TOAD SNIFFING DOGS

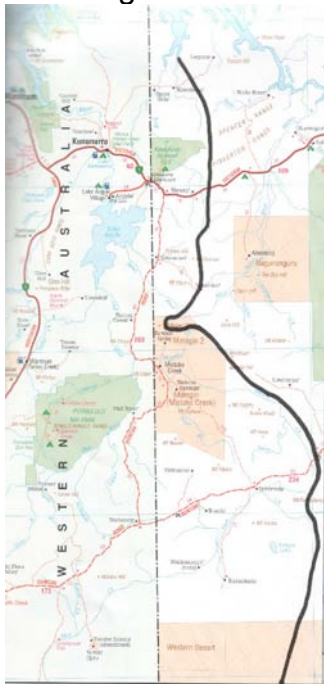
The Western Australian Government is exploring thinking of using 'sniffer dogs' to find toads.

"Dogs have been used in Queensland to find the introduced red eared slider turtle that escaped from aquariums and into the wild," WA Environment Minister Dr Judy Edwards says.

"We see little reason why dogs could not be trained to track cane toads."

WA TEAM SURVEYS NT

A five person cane toad surveillance and control team based in Kununurra is undertaking surveillance, control and investigation of cane toad reports in the East Kimberley and Victoria River region of the NT.



The 'line in the sand' – Western Australian defensive line, east of the NT-WA border. Traps and other control methods are being put in place by CALM.

Areas monitored for the presence of toads by the team include border cattle stations in the Territory and settlements such as Kalkarijin and Amanbji. Most reports of toads to date have been false alarms.

The surveillance team has so far travelled approximately 25,000km and identified 120 waterholes, ponds and swamps that have been GPS-marked and have inspected approximately 55 waterways.

The surveillance team is working closely with Territory Parks and Wildlife and FrogWatch (North) to test a range of toad traps and has conducted trapping trials at

Coolibah Station. The traps caught large numbers of toads.

'ALBINO' TADPOLE COULD HELP SCIENTISTS

A white tadpole that failed to turn into a frog is having its genes examined at CSIRO Canberra.

FrogWatch worker, Dave Wilson, owner manager of AquaGreen, a water plant, fish and frog business, says the tadpole was a *Litoria Rothi* or Roth's Tree Frog, but failed to metamorphose on schedule.

"It was very old for a tadpole and has shown no signs of metamorphosing after its siblings all hopped away as frogs last December and January.



The white tadpole that failed to develop

With the assistance of 'the excellent staff at Berrimah Veterinary Laboratory' the tadpole was deep frozen and couriered to CSIRO Canberra for examination. Tony Robinson of CSIRO, Canberra, reported that the tadpole had arrived safely.

"A rock solid, large white taddy arrived this morning plus documentation. We will add it to our collection," he emailed David.

"Let us all hope that one day its genetic material may help in the fight against toads," says David.

THE 'GREAT TOP END CANE TOAD ROUND-UP'

Monday August 1 2005, Darwin C up Day, has been nominated by FrogWatch (North) as the night everyone in Darwin, Palmerston and surrounds should check their backyards, streets, local parks, wetlands and even road drains for cane toads.

"If we can get everyone to check their locale on the same night and report any sightings we could be pretty sure of identifying every toad colony or individual toad that has reached Darwin and Palmerston – and take out this pest before it overwhelms us and the native wildlife," says FrogWatch coordinator, Graeme Sawyer.

The date for the 'Great Top End Toad Round-Up' has been chosen because it falls near the middle of the dry season – meaning that cane toads will be at their most vulnerable.

"It's a time of the year when insect life is reduced, toads start getting hungry and thirsty, when smaller billabongs have dried up and there is little water lying around to sustain them, a time they will have either stayed close to waterways or taken up residence in well-watered gardens.

"Toads can go about three days without water – thus they must stay within hopping distance of water or dessicate and die.

"By the beginning of August any toads in the bush will have either perished or moved to available water. That makes them easier to find."

FrogWatch (North) hopes to promote the Toad Round-Up

through local media – and is offering cash prizes for the largest toad, the ugliest toad and the most northerly toad found on the night.

Although toads have not reached urban areas in numbers recent reported sightings include an adult female at the corner of Freshwater and Ada Street, Jingili, a male at Bayview Haven and several toads at a trucking depot in Berrimah.

"These may have been 'hitchhikers' – but there's a good chance that some are the advance guards of the front line of the toad invasion," says Graeme.

"The Round-Up would have the effect of pushing the toad line back – meaning we can confront the full-on invasion of the next 'Wet' knowing that there are no 'insurgents' behind our lines.

"Community effort will be everything in this fight to preserve native wildlife and lifestyle in the Top End from the toxic toad," he says.

TRAP SUBSIDY WELCOMED



FrogWatch coordinator, Graeme Sawyer believes the \$30 subsidy the Territory Government is offering to people buying cane toad traps will make a significant difference to the community toad-trapping effort.

"One of the hesitations about installing a trap is the cost – it makes people put the decision off until the next wet. But getting the

traps in place ahead of the toads is a key part of our strategy,” he says. “If people wait until we are overrun with toads before putting traps in, we’ll be fighting from behind – with every breeding event multiplying the problem by hundreds of thousands.

“The initiative is welcome and well targeted at prevention rather than cure.

“It continues the community-government partnership in the fight against the toad and targets a critical issue, that of getting traps into people’s back yards.

“We’re working on raising public awareness of the need for people to trap their own yards and join with neighbours to trap in public areas, nearby wetlands and their surrounds.

“Cost is always a factor in people’s commitment and this means that some 3000 residents will have the financial cost of joining the fight against the toad reduced – since the funds are capped it will be on a first-in, first-served basis.

“We may have to lift production to meet the demand but that’s good too.”

Traps are now on sale at NT General Store, Howard Springs Humpty Doo and Berry Springs Hardware, Hibiscus Pet Shop, and Palmerston Pets.

MARBLED FROGS ON THE ‘HITLIST’



Marbled frogs can be moved from the ‘possible’ to ‘probable’ column in the ever-growing list of species poisoned by eating cane toads.

A marbled frog in captive display at the recent Freds Pass Show swallowed a juvenile toad and died within hours.

FrogWatch coordinator Graeme Sawyer says the marbled frog and several juvenile toads had been sharing accommodation for weeks and were regularly fed “but the show must have made her hungry.” He says that the Supervising Scientist’s report on risk assessment of toads in Kakadu put marbled frogs in the ‘possible’ victims category, alongside green tree frogs. But the death at Freds Pass suggested the species’ ‘degree of susceptibility’ needed upgrading.

“The good news is that two frogs that we know can eat toads with some impunity include some of the Top Ends’ most prevalent species – the woodlands Giant Frog and wetlands Dahl’s Frog.

“However this isn’t about what can eat what fastest – it’s about breeding numbers that overwhelm the local ecology, predating, competing, and poisoning along the way.”

Tree frogs are considered less threatened than some other

species because the toad is ground dwelling and other frogs are not a food staple..

But says Sawyer any frog may scoop up a relatively slow-moving juvenile toad, particularly if they are thick on the ground – “which they will be if we don’t act as a community to stop these toads breeding in Palmerston and Darwin waterways, drains and gardens.”

TOAD INVASION - A LINE IN THE WETLANDS

Top End LandCare and community environment groups are drawing ‘a line in the wetlands’ against the cane toad to the east of Darwin and Palmerston, setting up a chain of supertraps in the lower catchment areas of the Howard, Adelaide and Elizabeth Rivers.

FrogWatch coordinator, Graeme Sawyer said the chain of supertraps – which are to be set up at key sites, including Lambells, McMinns, Giraween, and Knuckey lagoons, in the wetlands of Woodside Reserve and the Holtze billabongs - were on the ‘eastern front’ of the toad invasion.

Volunteer organizations to set up, monitor and clear the traps of captured toads include LandCare, school and residential groups near the lagoons and wetland sites.

“The commitment of these volunteer groups is terrific - but it will still take the participation of hundreds of block owners in rural Darwin to hold the line.

“We’ve got Commonwealth Envirofunding to support the supertrap installation effort – but the key here is to get the traps in before the toads start to colonise. That means putting traps in now – before the next breeding cycle.”

Mr Sawyer said toad migratory behaviour was for the first arrivals, generally strong males, to occupy a breeding site then call the females in.

“If we can trap those first arrivals, we may be able to slow the whole process – minimise toad numbers and give the wildlife a chance of survival,” he said.

COMMUNITY RALLIES

As toads begin to overrun rural Darwin (Acacia Hills, Darwin River Dam, Litchfield Park, easterly Humpty Doo, Lambells Lagoon, Fogg Dam) the community is rallying around efforts to trap, isolate and pinpoint the toad’s advance.

FrogWatch now gets up to 50 calls a week from Top Enders reporting toads and suspect toads, wanting to buy traps and to get information on protecting pets and wildlife.

As yet most suspect toads in town turn out to be marbled frogs but the calls mean that people’s environmental awareness has lifted.

The toad makes people conscious of the reptiles, frogs and other creatures that live alongside us – it’s the toad’s only plus. The big minus is that many of these species may no longer exist after the toad’s arrival.

In the rural area unfortunately most toad reports turn out to be toads.

FrogWatch is working with LandCare and other environment groups to install toad traps at major lagoons and wetlands to the south and east of Darwin. The plan is to catch the newly arriving adults before they breed.

But where breeding has already occurred the immediate strategy through the ‘dry’ is to wait for the land to dry out, meaning toads will

gather near remaining water sources.

"When the toads are vulnerable – that is gathered near remaining water and hungry – then we'll send in the 'ToadMuster' patrols," says FrogWatch coordinator, Graeme Sawyer.

Interstate and international interest in the Top End effort to fend off the toad is growing, evidenced by trap sales into Queensland and northern NSW, media and internet interest.

FrogWatch coordinator, Ian Morris, read about local member, David Tollner's suggestions that toads should be killed humanely with clubs rather than freezing while visiting the U.S.A. – an indication of the level of interest in cane toads, as well as the worldwide interest in club wielding politicians.

MINING COMPANIES TO BE ASKED TO JOIN FIGHT

Mining companies across the north of the Territory are to be asked to join the 'ToadBusting' trapping effort and help minimize cane toads on their mine sites and surrounds.

"Till now there simply hasn't been an effective way for mining companies, or others, to tackle the cane toad invasion," says FrogWatch North Coordinator, Graeme Sawyer.

"But successful field tests of trapping shows the way for these companies. Near Katherine and at Ringwood and Bonrook Stations traps have caught large numbers of toads, almost eliminating local toad populations.

"The cost of the traps is not great (about \$1500 for a solar powered field trap or as low as \$150 for smaller traps with cable or battery power) and we hope that the

mining company effort could create local extinctions of the toxic pest.

"Toads like disturbed environments such as you find on a mine site and lighting at night brings them in from the bush. We believe the mining companies could play a big role in helping to clear toads out of areas of operation."

Sawyer says it is also hoped that mining companies will back the toad control effort with cash and by sponsoring traps in other locations.

"We know that some mining companies were actively seeking advice on cane toad control measures as the pest invaded their sites but, like everyone else, they discovered there was little information to guide their efforts.

"That's changed now. Trapping is definitely the way to go to reduce, even eliminate, toads in an area. Contact with some key Territory mining companies have shown that the companies are willing, even keen, to join the effort to reduce toad numbers.

"Some of these mine sites are located near environments that have, or will, become ideal toad breeding grounds.

"Joining the toad control effort also wins companies environmental credits," Sawyer says.