## Cane toads

A heartfelt cry from the Kununurra Community to the Nation.

## We will Stop the Cane Toads getting into WA!



The aim of this website is to document the Kimberley Toad Busters fight to stop the cane toad crossing into Western Australia and to provide the Western Australian Community some understanding of the enormous efforts (and contributions) that can be made by unpaid volunteers!



## KIMBERLEY TOAD BUSTERS NEWSLETTER No.18

27/07/2007

By Sandy Boulter (Volunteer Cane Toad Educator and Coordinator of the Perth based Friends of the Kimberley Toad Busters) and Lee Scott-Virtue (President and Volunteer Field Coordinator for the Kimberley Toad Busters)



## WWW.CANE TOADS.COM.AU

The Cane Toad is a Key Threatening Process to the Australian Nation

Declared by the Federal Government 12 April 2005

This Newsletter is produced by Kimberley Specialists In Research Inc in conjunction with Kimberley Toad Buster Inc. Kimberley Specialists, a founding member of the Kimberley Toad Busters, continues to support the campaign against the cane toad by raising funds. KSR and KTB are tax deductible entities.

# IF EVERYONE WAS A TOADBUSTER THE TOADS WOULD BE BUSTED!

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Newsflashes!

• Kimberley Toad Busters were awarded Banksia Environment Community of the Year for 2007. The winners of the Banksia Awards, in which the KTBs were finalists in four categories, were announced in Sydney 20 July. The KTBs were represented by Sharon

McLachlan and Sandy Boulter. Sharon 's work in pulling all the written work of Lee and Sandy together for these nominations has been critical in the KTBs being finalists in four categories of these prestigious national awards

- All donations to the KTBs are tax deductible
- 6 Vietnam Vets and their partners busted cane toads every night for four weeks day after day, night after night, up to their necks in mud
- Thanks to the Vietnam Vets efforts in the field our total tally has now been raised to a total of 117,821 mature breeding cane toads taken from the colonising fronts by the KTBs
- August the 18 th marks the anniversary of the introduction of cane toads into Australia by CSIRO.
- Our website is averaging 700 hits a day!
- KTBs are sending 500 cane toads back to Queensland
- Raffle tickets for the fabulous pearl pendant are available
- New sophisticated GPS recorders helping in the field

#### If everyone was a toad buster, the toad would be busted!

## From President and Founding member of Kimberley Toad Busters Lee Scott-Virtue

The unexpected late rains have moved the volunteer cane toad operations up a notch or two. Prior to the rains the toads had stopped moving, were showing no signs of major breeding and appeared to be present in much reduced numbers at the colonising fronts. This Newsletter No.18 brings us up to date with what has been happening at the cane toad front and with our remarkable KTBs generally over the last month. Some recent public statements coming from the some cane toad researchers are not supported by the KTB field results and observations. Our response is produced in this Newsletter, if for no other reason than to generate open healthy dialogue with others working in the field.

KTB toadbuster leader and speleologist, Dave Woods has recently met with the DEC cane toad team. This will further improve our ability to reduce the workload by carefully allocating areas so there is no double up. Dave also is grateful for the new KTB GPS recorders which he says, "...will enable his team to accurately record their data in the field, and easily transfer and exchange information with the DEC team."

Thank you to everyone who continues to participate in and grow this remarkable campaign!



Here is another abnormality photo for our scientists and amateur cane toad sleuths – what is this on the toad and does it show us anything???

## Vietnam Veterans and partners are Heroes and Heroines!



Six WA Vietnam Veterans and their partners have driven over 3,500 kms, from Bunbury in the South West of WA to Kununurra in the far north, to become Kimberley Toad Busters.

This intrepid team lead by Peter Chapman was introduced to the KTBs by a presentation from Sandy Boulter of the Perth based Friends who travelled to Bunbury to talk to the group last year. They then set about planning their very adventurous road trip.

After leadership and toad busting training by the KTBs, the Vets established a permanent camp on one of the lagoon systems on Auvergne Station. This central location enabled the vets to toadbust several front line locations every night and day for four weeks. They recorded their data, autopsied toads, took lots of photos and caught thousands of toads. They were supported in the field by the KTB volunteers.

The amazing benefits of their *busting* presence are just now being realised weeks after their departure. There has been no further westwards advance of the cane toads beyond the West Baines system and there is no breeding at this region of the front line. Since the Vets left, the KTBs have picked up only 5 cane toads on these frontline lagoons and only 2 cane toads from Duck Hole bore next to Snake Creek (7-8 kms from the West Baines). This is a wonderful result, which contributes significantly to slowing the advance of the cane toads. Clearly army strategy training is perfect undergraduate training for toadbusting!

See on our website, the rather political Ode to toadbusting written by the Vets! Pollies take note...

KTBs are Sending Cane Toads back to Queensland!

Pictured: Cane Toad exuding poison toxic to our Kimberley invertebrates, birds, fish, reptiles and mammals

The KTBs have been requested to supply 500 dead frozen cane toads from the colonising front to a research scientist Dr. R. Andrew Hayes, based at the Centre for Molecular Biodiversity, Institute for Molecular Bioscience, The University of Queensland, St Lucia QLD.



## Dr Hayes says,

"While the invasive nature of the cane toad is well known, what is not well understood is how toads use chemicals such as pheromones to communicate with each other. We are studying the chemical ecology of the cane toad, to develop a species-specific, environmentally benign control strategy for this invasive pest. The basis of this is to employ the toad's own chemical communication (pheromones) to disrupt mating and recruitment of the next generation to control the spread of this pest species. This sort of technique is, by its very nature, highly specific within a species, and will have no impact on native frog populations.

"As part of this study we need to compare the chemistry of the toad at the invasion front to that in well-established populations in Queensland . We know there are differences in these populations in leg-length and parasites, but are there differences in their chemistry?"

## As far as helping the Kimberley Toad Busters in the field with this research, Dr Hayes says,

"In addition, we are studying the toxins in the cane toad secretions. What are the components that are so toxic, and how do they vary? Are toads at the invasion front more or less toxic than those in Queensland? Some of these toxins occur in very low concentrations, and we need a large number of toads to collect enough material to test this toxicity and to identify them chemically. The excellent work of the Kimberly Toad Busters is removing hundreds of toads each week, many more animals than we can access in Brisbane.

"Using pheromones to attract toads may see increased trapping success in traps baited with the odours. Depending on the nature of the pheromones we might also be able to repel toads from ecologically important water bodies. If we were to inoculate a specific waterway with a pheromone to keep toads away, it is possible that we might find a way to use this information to safeguard sensitive streams, rivers, lakes etc."

The KTBs are working through the logistics of collecting and forwarding the frozen dead toads on dry ice. The Friends have made sponsorship requests for transporting the cane toads. Anyone who can help with this important project can contact Sandy on 0427 508 582 or Lee on 91682576.. We wish Andrew well with his research.

## KTBs win Banksia Environment Community of the Year for 2007 Award!

"Only in Australia could you win an environmental award for killing something!" ... overheard (in an American drawl), at the prestigious Banksia Environmental Awards Dinner last Friday night...

The categories in which we were finalists were the Banksia Community Award and Banksia Landcare & Biodiversity Award. In addition to the above, Kimberley Toad Busters were one of the nine finalists (out of 49) in the running for the 2007 Banksia People's Choice Award and were finalists in the Banksia Gold Award.



Over 1,650 registered KTB volunteers from the Kununurra and environs community who are the essential cog in the Kimberley Toad Busters education and field campaign against the invasion of the Kimberley by the killing toad were awarded high accolade by the Banksia Environmental Foundation as **Community of the YEAR 2007** in a glittering awards ceremony held at the Sydney Convention Centre on Darling Harbour last Friday night, far far from the muddy billabongs where we work in the NT desert wetlands presently being invaded by the toad colonising front. KTBs were also fourth runner up from nine **finalists** in the People's Choice Award. This Community Award acknowledges the KTBs', "leadership, commitment and excellence in protecting and enhancing the Australian environment."

Pictured: Sandy, Paige and Sharon with Mark Stone, CEO Parks Victoria who we thank for sponsoring this Award

KTBs thank Chief Patron of the Banksia Environmental Awards, our Prime Minister, the Hon. John Howard MP, the Board and Staff of the Banksia Environment Awards and Parks Victoria for sponsoring the Community Award, and congratulate the distinguished company of our fellow finalists and winners, including **Arnold Schwarzenegger!** We have a close connection with one of our fellow finalists, Conservation Volunteers Australia, who supported us with a group of hardy volunteers to help our toadbusting. KTBs thank toadbusters Sharon McLachlan and Sandy Boulter, and junior toadbuster warrior Paige McLachlan, who represented us at the awards ceremony. Words of support from Olympians Ian Thorpe and Alicia Camplin for the Banksia work were welcomed by all the finalists.

See: www.banksiafdn.com for more information and photos

## TO RECAP:

Through our own unique partnerships with the indigenous and non- indigenous men, women, teenagers and children working "on country", the hardy and committed KTB volunteers have:

- toadbusted almost every weekend since 20 September 2005 up to 450 kms from home, at night often in the most appalling conditions;
- dispatched over 118,000 mature breeding toads from the colonising front and thereby slowed the colonisation and mitigated its impact on the flora and fauna of the invaded ecosystems;
- formed a unique understanding of a cane toad colonising front from our analysis and record of nearly everyone of our KTB dispatched toads; and

• reaped enormous social dividends through the partnerships formed in the Kununurra community and wider environs, including the Wyndham Prison Camp, TAFE, CDEP, Schools, Shire of Wyndham East Kimberley, WA Department of Environment and Conservation, Vietnam Veterans, Conservation Volunteers Australia, Triple J Tours, Nina's Jewellery, Diversion Gallery Kununurra, Coles Kununurra, NT aboriginal communities at and around the colonising front, NT Parks and Wildlife, Kimberley Specialists in Research, Biodiversity Protection WA, speleologist groups, and many more...



Pictured: Kimberley habitat that provides refuge and safety for cane toads bent on breeding and colonising our land from our Viet Vets

In April 2005 the federal government, represented at the Banksia Awards last Friday night by the Honourable Malcolm Turnbull MP, declared *Bufo Marinus* (the cane toad) to be *a national threat to Australia 's biodiversity*. Recent modelling shows that every mainland capital city of Australia and most of our coastline could sustain the cane toad, which has now spread from the cane fields of Queensland (where they were introduced from Hawaii 71 years ago) to 83 kms from the WA/NT border and just north of Sydney. In urban societies, the toad will also kill our pets, and pollute our fresh water supplies and swimming pools.

So very well done to all our 1,650 registered volunteers and supporters who are out catching cane toads who each share part of this accolade!!!

## Response to Scientific Statements About Cane Toad Cannibalism



Pictured: All colours in male cane toads caught by our Viet Vet toadbusters. Do you know who to tell the difference between a male and female cane toad?

In response to recently aired/published scientific comment about cane toad cannibalism, the Kimberley Toad Busters, who have been toadbusting at the colonising front every weekend since 20 September 2005 (nearly two years!) wish to reiterate some of our field observations published in our earlier newsletters and media releases:

- We have caught, by hand, nearly 118,000 mature breeding cane toads (around 59,000 kgs of cane toad biomass, and around 29,000 kg male cane toad biomass from the ecosystem) not to mention hundreds of thousands of eggs, tadpoles and metamorphs.
- We have recorded the weight, gender and length of nearly each one of these toads, along with the place and circumstances of their capture and disposal
- We have observed only 5 instances of cannibalism in two years, one of which was a mature female cane toad with a cane toad toadlet in her mouth
- The DEC, who are also in the field at the front, confirm that sightings of cannibalism are rare at the colonising front
- · We have not yet supplied any cane toads from the colonising front that is moving towards the WA border from the NT to scientists
- Our observations reveal that one mechanism of colonisation is that the males move the colonising front forward (often in their hundreds/ sometimes thousands) as a single sex advance without females (although there may be the odd female in this male advance). Once they are settled safely and ready to breed, we see the males calling up the females. (Furthermore, we have noted several instances where in the previous year we removed all the males from such a place before the females were called and they have not returned to that place the following year, and so there is no breeding in the busted places this year)
- Females, if they are present anywhere near the male colonizing front are located well away from the male population. Autopsies undertaken by KTBs on those females found away from colonizing males indicate that their eggs are still immature and the question now being addressed (by KTBs) is 'what stimulates the maturation of the eggs and is there a 'message' sent that 'brings' the females to the colonizing male front 'calling' for the females.
- If we left the males and missed just one mature female, she has the capacity to lay up to 35,000 eggs in one mating
- The males poison and kill our wildlife, use up food resources and destroy our waterways just as effectively as female cane toads.

Our field evidence and observations leads us to believe that there is as yet no valid scientific reason to leave the males at this colonising front, and so we will keep catching, killing and burying, male and female cane toads.

## Cane Toads and Burning

The KTBs rather gruesome discovery of a badly burned and disfigured but living cane toad has revealed again what we continue to observe in the field: the most amazing **resilience** of the cane toad.

The toad was scarred and burned from a fire but still surviving albeit rather emaciated. We think that the fire was at least 6 weeks prior to catching this toad, which had survived at least all that time. We sent the photo around to our research scientists for their interest and comment. Dr Ben Phillips responded as follows,



"This toad may have been burnt, but I suspect that the majority of its facial injuries are the result of a predator attack. We have had many of our radio tracked toads killed by predators that attack the eyes and the underside of the head. Note on your toad the broken jaw bone, right eye driven through into the oral cavity and the completely missing throat skin (and left lower jaw?).

"We suspect that both birds (particularly night herons) and rats (particularly water rats) may be responsible for these attacks on toads.

Thank you for your insights Ben and taking time out to forward your comments to us. This interaction is important for increasing our understanding of cane toads and their behaviour at the colonising front.

## Cave Systems, Cane Toads and Troglobytic Fauna



Our fearless cane toad leader and reconnaissance expert, speleologist, Dave Woods has reported that he has been advised by a group of NSW speleologists that they found three adult cane toads down a cave 200-300 metres from the entrance. These hardy visitors were in the Gregory National Park in the NT exploring Australia 's longest explored cave system, the Bullita Cave system . The toads appeared to be refuging in the damp environment away from the heat. This means that cane toads may also be threatening the invertebrate and vertebrate troglobytic fauna, often rare and endangered, that inhabit caves. We have many similar cave systems in the Kimberley where Bill Humphreys from the WA Museum has discovered many unique troglobytic species. These will also be threatened if the cane toads make it to WA. Our intrepid NSW speleologists busted the toads and reported back to Dave. Dave and his team planning to explore the cave for cane toads and will let us know what they find.

Pictured: Toadbuster, Chris Shaw on federally funded Quad Bike. Chris is often out toadbusting with Dave Wood's team.

## **Funding**

The WA State government has decided to undertake a review its cane toad operations. The review is being undertaken by an independent expert Professor Tony Peacock from the University of Canberra based Invasive Animals Cooperative Research Centre. The CRC motto is particularly apt to Toad Busting:

Together, create and apply solutions

Professor Peacock visited Kununurra and went toadbusting with the KTBs. DEC Perth held a cane toad forum while Professor Peacock was in Perth . Friends of the KTB members Paddy and John Weaver, and Michael Boulter attended the forum to represent the KTBs. It was at this forum that the theories about cane toad cannibalism were presented and postulated that it might be better to leave male cane toads in the field (see above for the KTB response).

While this cane toad review has been taking place, Minister Templeman has decided to provide interim funding of \$36,000 to the KTBs to assist them financially during the course of this review. These funds will primarily fund the recurrent weekly costs of toadbusting which have risen to be as high as \$5,000 a weekend. Clearly, now that we have over 1,650 volunteers registered for toadbusting and have several colonising corridors over an area of over 120,000 square kms - this is almost like a military exercise and it is very costly, notwithstanding the fact that we are all volunteers.

#### Friends of the Kimberley Toad Busters Up-date

The Friends keep up their support from Perth for the field work of the KTBs by making presentations to schools, rotary club, Probus club and 4WD clubs. The Friends continue to draft media releases, assist with newsletters, liaise with government and ministerial offices in Perth, and write funding applications. Perth Friends can be contacted for KTB presentations in Perth and the South West of WA on phone 0427 508 582. The Friends have just submitted a Lotterywest application for the KTBs.

## **Raffle Tickets**



The KTBs now have their raffle licence and tickets are just \$5 each to have a chance at winning this fabulous pearl from Nina's Jewellery. If you can sell tickets or want to buy some please contact Lee or Dean.

IF EVERYONE BECAME A TOAD BUSTER

THE TOADS WOULD BE BUSTED!

ALL DONATIONS ARE TAX DEDUCTIBLE

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