

# 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!

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## KIMBERLEY SPECIALISTS

Caring for the Kimberley



We need to stop burning the Kimberley  
We must stop the Cane Toad

2003 winner of the Bird Conservation Research Award.  
2003 recipient of the Brumby Gold 50th award.  
2004 finalist in the Australian Conservation Awards of WA State Toad Busters.

## KIMBERLEY TOAD BUSTERS NEWSLETTER No.23

13/04/2008

By Lee Scott-Virtue (Founder, President, Field and Administrative Coordinator of KTBs) and Sandy Boulter (Coordinator and Founder of the Perth based Friends of the Kimberley Toad Busters)



[WWW.CANE TOADS.COM.AU](http://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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**WHO SAID THIS?** *“This is an incredible breakthrough and if we could confirm that the native frog species responsible for passing on this lungworm were also present at the very frontline areas there is the possibility we could drop infected toads into these areas without any adverse impacts on native species. This would significantly hasten the adverse impact of the lungworm on the cane toad and might result in a massive reduction in numbers and resilience of toads in any given area”...*

**Read on to find out....**

"It is important to recognise that the pristine terrestrial and aquatic habitat systems of the Kimberley are already under threat. Current land-care and resource management policies undertaken by land and resource managers have had a detrimental impact on Kimberley bio diversity. Most of our plant and animal bio diversity is in a fragile state. The impact of the cane toad, if allowed to happen, literally will destroy one of the last unique biodiversity wilderness frontiers in Australia," Lee Scott-Virtue, Kimberley Specialists).

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### Where is the Western Edge of the Front line?

As at 10 April 2008, the cane toads are essentially at the Keep River, **25 kms from the WA/NT border** in the Victoria Highway. As at 8 April, the major breeding colony in this corridor still appears to be at the Saddle Creek Billabong system (73kms from the border) with minor breeding located in Tinsed Dam 20 km east of the Keep River.

Aerial reconnaissance of the Bullo River Station corridor has indicated the toads are now around the Paperbark Creek area with significant breeding in water holes around the Bullo River Homestead.

Until the waters of this very late and heavy wet season recede, we will not have a clear understanding of how far the cane toads have progressed in the other corridors, which will deliver them into the Ord River system, the Bungles and Lake Argyle from the south edges of the western front.

### Cane Toad Front Line: What does it really mean?

The cane toad 'front line' is actually very complex and the use of this term does not really explain:

- how the toads are moving; or
- where they actually are (realistically).

Essentially, when the KTBs talk of the cane toad *front* now, they mean the six corridors that have been identified as the main '*geographically identified corridors*', which the toads are using to make their way into Western Australia (and this information is thanks to the amazing reconnaissance work undertaken by **Dave Woods** and his team).

Initially, the KTBs identified around 10 main cane toad 'corridors' but these were reduced to 6 when some of the 'corridors' joined up. Essentially, this meant that in some of the areas, such as Bulitta, and the Victoria River Downs and Humbert River Station areas, the 'cane toad fronts' are quite widespread geographically. Areas to the north on Bradshaw Military Base complicate the scenario even further as it now appears that the whole of Bradshaw Military base, which is Commonwealth land, is now infested with cane toads.

At present, the KTB identified main frontline corridors are on:

- Bullo River Station (where toads have crossed the Victoria River from Bradshaw military base near the Baines River and Victoria River intersection. At this point it does not appear that toads have crossed the river further downstream of the Victoria River ;
- Newry Station (essentially from the highway through the Saddle Creek system);
- The Humbert River and
- The Wickham River systems on the Victoria River and Humbert River Stations (and within this geographic zone are fronts that are travelling due south through Top Springs as well as those coming in from the East from areas infested initially in Katherine and Mataranka);
- Bulitta Station; and
- Kildirk Station (Just north of Amanbidgi) 63 kms south of the Victoria Highway on the West Baines River between the Gregory National Park and the Duncan Highway (which closely follows the WA/NT border south from the Victoria Highway).

Cane Toads on Kildirk Station are a real worry to the KTBs because this brings the cane toads into the watershed area of many of the river systems that feed downhill into the Ord River and Lake Argyle catchment area.

The problem of actually identifying where the front line begins is when you try and work out how many 'corridors' have been used to bring the toads into what is being termed '*frontline*'. The Bulitta Station and Kildirk Station areas (as well as the Victoria River Downs Station) are classic examples of where toads have moved both west and south using various creek and river systems until they meet and create a '*convergence*' of *corridors*' making a super corridor.

**Frontline** really means an area that has been identified as seeing the first arrival of advance cane toads. The complication is then identifying how and where the toads have come from and what aquatic systems are being used for breeding.

**KTB Recognition Box: Trevor Dutoit**



Trevor Dutoit has been a *toadbuster extraordinaire*.

Nothing has been too tough for Trevor to tackle at the frontline. Trevor toadbusts by himself, or as a leader, or teacher.

Trevor is leaving Kununurra for the SW of WA to follow his passion for horses, which is not readily indulged in Kununurra. Trevor's strength, courage, independence and just GET ON AND DO IT, will be missed by the toadbusters who all wish him well in his travels south.

Trevor says that thing he will miss most in the Kimberley is toadbusting, because he has seen the difference that it has made. Trevor threatens that he is planning to drag his mates up toadbusting – so we watch eagerly for his return



**Photos:** Trevor Dutoit supervising junior toadbusters processing cane toads and waist deep in a billabong with toadbusters catching cane toad tadpoles and juveniles

### Cane Toad Science on the Brink

**KTBs Dutch Research Student finds Lungworm *Rhabdias cf hylae* in Cane Toads at the Western Colonising Front!!**



*“This is an incredible breakthrough. If we could confirm that the native frog species responsible for passing on this lungworm were also present at the very frontline areas, there is the possibility we could drop infected toads into these areas without any adverse impacts on native species. This would significantly hasten the impact of the lungworm on the cane toad and could result in a massive reduction in numbers and resilience of toads in any given area”*, Jordy Groffen.

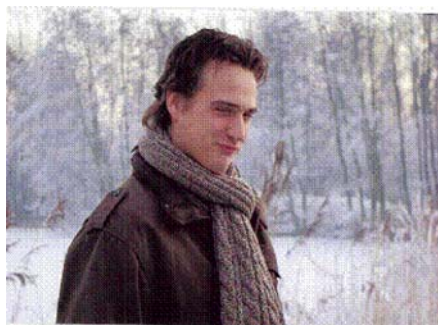
**Photo by Jordy Groffen:**

Lungworm *Rhabdias cf hylae* buried in colonising cane toad lung tissue

### How Did This Discovery Happen?

TAKE Delft University in Netherlands + Dutch student keen to study and adventure with the toadbusters, and improve his English + KTB website [www.canetoads.com.au](http://www.canetoads.com.au) (averaging 700 hits a day one of which was our Dutch student) + one Visa to study with toadbusters (just imagine explaining that one to immigration! - thanks to KTB volunteer Ade Meredith for this) + KTBs willing to sponsor student + lots of busted colonising toads + makeshift laboratory

= Discovery of lungworm in front line colonising cane toads



Jordy at home in Netherlands' snow country



Jordy, out in the field with the Kimberley Toad Busters

**What is the Discovery?** The Lungworm *Rhabdias cf hylae* infects native frogs. Native frogs pass the lungworm onto cane toads. Lungworms make cane toads sick and adversely impact on the cane toads' breeding ability, making the lungworm a potential weapon in the fight to stop the cane toad. As the KTBs understand the situation, it has been believed by cane toad research scientists that lungworms are not present in the colonising front line cane toads and that lungworms are well behind the frontline toads by up to a twenty years catch-up period.

**Why is this discovery important?** It is known that Australian native frogs and cane toads in Queensland have been harmed and diminished by the lungworm. The lungworm kills small and immature cane toads, and metamorphs. *Cane toads infected with parasites are unlikely to travel!* Until the recent KTB discovery, there had been insufficient research on whether this lungworm might/or might not be present in toads and native frogs at colonising cane toad 'fronts', such as the front moving towards the WA East Kimberley from the NT. *“Understanding where, when and how lung worms infect toads may lead us to a control mechanism for cane toads, and this gives us cause for hope”*, said [Lee Scott-Virtue](#).

In his ground breaking research, Jordy has also found other parasites in the cane toads he has autopsied. [Dr Di Barton](#), one of Australia 's leading frog parasitologists has recently been helping the KTBs and has told the KTBs that,

*“No-one had taken a “whole host” point of view before I did – which was to list ALL the parasites found from a host species ... the actual parasite fauna of most of Australia’s frogs is unknown”;*

and

*“The toads should be infected with other things – especially nematodes in the intestinal tract as these are almost everywhere. The only way that you can say for sure that the parasites came from local frogs is to dissect some,” adds [Dr Barton](#).*

*“The KTBs have sent a letter to the DEC asking for help in obtaining permits to dissect selected native frogs and while any other mechanism would be preferable, this is so important that we will grit our teeth in the name of this critical science, trust that the State government will share out view and give us the permits we need as a matter of urgency”, said [Lee Scott-Virtue](#).*

*“Only about 50% of frogs have been recorded as a host for anything and most of those have never been subject to an intensive survey for their parasite fauna”, [Dr Barton](#).*

*“Everything that we learn about cane toads and the things that infect them takes us closer to an eradication mechanism for cane toads that is safe for Australian fauna,” said [Sarah Brett](#) , Kununurra veterinarian and Vice President of the KTBs.*



Jordy Groffen with the Derby Ranger team who recently travelled to Kununurra and then onto the cane toad colonising front to toad bust with the KTBs

[Jordy Groffen](#) is a tertiary student in the third year of his degree course in Animal Husbandry in The Netherlands, Inholland Delft. Jordy wanted something different for his research. In quite limited English – far better than our Dutch- Jordy emailed the KTBs asking us to sponsor his project. This proved to be a unique visa permit, which took some time for Jordy and the KTBs to acquire. Jordy’s Australian supervisor is KTB president, [Lee Scott-Virtue](#). Jordy’s supervisor in Holland is [Suzan Kole](#).

All 6’7” of Jordy fell headlong off a plane from Holland into a hot and humid Kimberley wet season, the hardest season for a Kimberley novice. Despite an initial inability to breathe or walk quickly, Jordy took to toad busting with a vengeance in the most trying of Kimberley wet season conditions. Jordy’s aptitude for the toad bust now sees him supervising toad busting volunteer teams in the field. He has even toad busted with our WA Minister for the Environment, the [Hon. David Templeman](#) .

Jordy Groffen’s project asks the specific scientific question:

[Is the lungworm \*Rhabdias cf hylae\* present in cane toads at the cane toad front moving towards the WA/NT border?](#)

### **Jordy’s Groundbreaking Discovery**

After less than 2 months in the field [Jordy](#) has conclusively determined that the lungworm is present in 80% of toads less than 2 years behind the front. *“I now expect to find cane toads infected even closer to the frontline colonisers”* said Jordy. He added, *“This is an incredible breakthrough and if we could confirm that the native frog species responsible for passing on this lungworm were also present at the very frontline areas there is the possibility we could drop infected toads into these areas without any adverse impacts on native species. This would significantly hasten the adverse impact of the lungworm on the cane toad and might result in a massive reduction in numbers and resilience of toads in any given area”.*

[Jordy](#) confirmed that there is an urgent need to determine how many species of native Kimberley frogs had the lungworm before any infected toads could be dropped into frontline areas. He went on to state that, *“Infected toads would also need to be ‘tagged’ and monitored to ensure toad busting teams did not remove them during a bust”.*

[Dr Diane Barton](#) , one of Australia 's leading Australian frog parasitologists has confirmed Jordy’s lungworm discoveries. Jordy’s research project will also develop an inventory of parasite species identified in colonising Cane Toads.

## **TOADS ARE HEADING INTO LAKE EYRE !**

### **Where is the National Cane Toad Invasion Management Plan?**

It is important to remember that there are many of us around Australia feeling sad and frustrated about the cane toad invasion and the unwillingness of governments to unite together to properly manage the cane toad invasion, which is especially galling given that the cane toad has been formally recognised as a national threat to Australia’s biodiversity by the federal government since April 2005.

The KTBs ask, *“Where is the National Cane Toad Invasion Management Plan given that the Federal government formally declared that the cane toad is a threat to the Australian nation under federal environmental legislation over 2 years ago?”*

**Scientist at the Lake Eyre southern invasion front: [Dr David Peacock](#)**



*"It is important to remember that most Australian biologists and conservationists share the concern of the KTBs about cane toads and the loss of native species. Their movement into the increasingly arid inland river systems in SW QLD is being monitored, and will hopefully be researched in detail in the near future. It is hoped that in better understanding the survival, impact and spread of these arid zone toads will better enable their control", says Dr David Peacock.*

Dr David Peacock is a *Research Officer* at the Animal and Plant Control Group in the Department of Water, Land and Biodiversity Conservation in South Australia . He contacted the KTBs recently for permission to use some of our photos for a departmental cane toad seminar.

With regard to the personal anguish we often feel towards the environmental decay and destruction that we see, and the perception that we alone see it or are doing anything, David passed on a quote he saw recently:

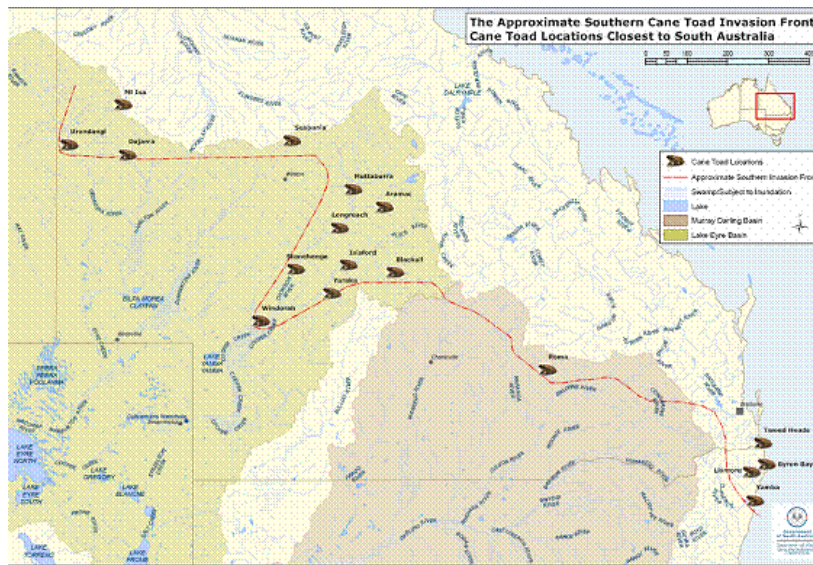
*"One of the penalties of an ecological education is that one lives alone in a world of wounds," Aldo Leopold, 1953.*

**From David to the KTBs,**

*" We have concerns here in SA about the toads surviving at Longreach in SW QLD and now establishing further down the Thomson and Barcoo Rivers way outside their recognised bioclimatic zone, with isolated toads reported at Windorah (see map following). We therefore have a cane toad response plan being developed by Rural Solutions SA for the South Australian Arid Lands NRM Board.*

*"I guess we often feel alone, with our ecological peers, in a generally ignorant and perhaps ambivalent society. Too few of us consider a goanna or quoll so much cooler than the latest flat screen TV or double decaf latt é with a lemon twist !"*

David provided the following map showing the cane toads' invasion of southwest QLD into the Lake Eyre Basin and towards NE SA.



**MEDIA**

Media is very important for spreading education about the threat cane toads pose to Australian biodiversity, keeping the defeatist elements of our governments on their toes and thereby hopefully generating support for the KTB campaign and all volunteer cane toad campaigns around Australia , and for more research funding. If you see a report anywhere about cane toads or the KTBs, please let us know. The following extracts from our media releases generated articles in the Sunday Times and Kimberley Echo; four radio interviews and two television news items (GWN and ABC).

**Cane Toad Killing Spree Looms Over LAKE ARGYLE AND THE BUNGLES**

**THESE AUSTRALIAN ICONS FACE DECIMATION FROM CANE TOADS**

**The Toads took KAKADU**

**... AND NOW IT'S INTO THE (WET) TRENCHES ON THE WESTERN FRONT**

**A VERY LATE VERY WET SEASON MEANS TOADS ARE CLOSING FAST ...**

**Imagine a river or billabong long brimming with turtles. Great tourism or simply good bush tucker!**



**Photo: Craig Mills' photo of one of themany dead turtles killed by cane toads**



Imagine coming to back to that beloved place to find the banks strewn with turtle shells and not a live turtle to be found.

### ***The cane toads have moved in!***



Photo: Meertens Monitor Lizard fatally takes a cane toad



Photo: Freshwater Crocodile eats cane toads, drags itself out of water, and dies in its tracks half way out of the river...



KTB autopsy revealed a belly full of cane toads



Photo: Head of this dead straw necked Ibis lies on its wing after eating little cane toad metamorphs. Metamorphs were thriving all around its body...



Photo: Gould Lizards are quick to eat cane toads. Then the Goulds' Lizards will just die and disappear...



*Lake Argyle is south of Kuminurra and the Bungles are south of the Lake . It is now a short cane toad hop over the last watershed between the Victoria River catchment and the Ord River catchment. The toads will come through the Stirling Creek, the Negri and the Forrest Creek systems across the Duncan Highway into WA ,” says Lee Scott-Virtue, KTB president, Field Coordinator. “This southerly side of the western toad invasion front will deliver the cane toads into the Bungles (our World Heritage listed Purnululu National Park ) and Lake Argyle ( Australia ’s largest inland freshwater sea and home to abundant bird life) through the back door where roads are few. The greater the toads move southwards to widen the western front, the*



*bigger the toadbusting challenge. Once the cane toads reach the minor catchments that make up the greater Ord River catchment their movement west will be downhill, that is swimming and hopping with the flow of the water rather than uphill against it - as they have moved up to now. Then their progress may be faster”, Lee adds.*



Photo: Lee teaching junior toadbuster the finer elements of toadbusting

*“The cane toad research base and depot recently established at Nicholson Station at the southern end of the Duncan Highway is critically placed to toadbust this southern section of the western front of the cane toad invasion”, says Dean Goodgame from Nicholson Station, volunteer, KTB maintenance and toadbuster.*



Photo: Dean Goodgame tying down quad bike for return to Kununurra after heavy night's duty toadbusting

Until the flooding from the recent late and heavy rains recedes, it is unclear how far the toads' invasion has progressed south and south west but a call to the KTBs this week from Amanbidji (Kildirk Station) on the West Baines River suggests they have finally arrived there.

*“The KTBs stand against the cane toads at this widening western front is in its most critical year”* says Sharon McLachlan, toadbuster, long standing KTB volunteer, community education, KTB award nomination author, and KTB market and supermarket stall organiser.



Photo: Sharon McLachlan heading out on wet season toad reconnaissance and toadbust by Robinson 22 helicopter

*“This is our last chance to buy more time and to make sure that our Kimberley Community is ready for the toad”,* says Dave Woods, KTBs interim employed field coordinator, toadbuster, speleologist and KTB field reconnaissance expert.

*“The KTBs have armed the Kimberley Community with awareness, knowledge and fighting toad skills, by engagement of the locals in 30 months of weekly toadbusting,”* says Del Collins, community nurse, KTB volunteer, cane toad euthanasing leader and volunteer safety officer, *“and we are ready for them!”*



Photo: Del Collins - dripping wet in the rain - toadbusting on Victoria Highway in the NT

*“All the toadbusting has been undertaken on the pastoral stations, National Parks and waterways of the Northern Territory with absolutely NO support from the Northern Territory government. Indeed in the early days the NT government insisted that we obtain a permit for killing toads in NT National Parks, and the NT government has threatened tour operators catching cane toads in National Parks with loss of their licence to take tours into these NT National Parks. The KTBs overcame that frustration with a great deal of effort”,* says Sandy Boulter, toadbuster, volunteer, Coordinator of the Perth based Friends of the KTBs.

#### **WHAT CAN GOVERNMENTS DO AT THE WESTERN FRONT??**

**Support KTB volunteers who are in the field, support KTB administration needs, support appropriate scientific research into short and medium control solutions and catching methods, support KTB community education initiatives, support remote aboriginal communities to undertake biodiversity reconnaissance ahead of the front, audit effectiveness of dollars spent to date, help KTBs develop management plans for minimising the impact of cane toads reaching these WA icons**

*“This year's toad busting is absolutely critical for delaying the toads' arrival in WA and reducing the numbers actually getting here, thereby minimising the risk of cane toad caused species extinctions,”* says Ade Meredith, KTB scientific liaison, data collator, KTB secretary, and toadbuster.



Photo: Sarah Brett collecting toad statistics in the field

*“The WA government has finally provided some support to the KTBs after over two and half years of volunteer effort. The KTBs look forward to further WA government support in the field and in the KTB administration. This will foster increased cane toad catching and community education,”* Sarah Brett, KTB vice President, toadbuster, KTB community education, Kununurra veterinarian and leader of Kimberley Wildlife Rescue.

*“Over one third of the Kununurra community is now armed and dangerous to cane toads as a result of the KTB campaign,”* says Juju Wilson, aboriginal elder and KTB toadbuster leader, seen pictured above training one of our junior toadbusters



As a volunteer ENVIRONMENTAL ARMY the KTBs have no EQUAL. *“With well placed significant Government support for the KTBs, the biodiversity of the Kimberley can be protected from the cane toad. That is why we started our campaign in the first place,”* adds Lee.

**KTB MEDIA RELEASE 11 March 2008**

**Helicopter Reconnaissance Program**



Helicopter reconnaissance gives the KTBs a good overview of where the water is and what it has done over the Wet Season. This then translates into understanding how the cane toads might have moved and bred through the season. Thus toadbusting is best targeted and planned long before road access is possible into these colonising corridors.



**KTB Helicopter reconnaissance is planned for the following.**

**Bullo River Station**

- To Check Paperbark Ck and upper Bullo River for presence of toads
- To Check edge of Vic River North of Bullo River for presence of toads

**Amanbidji Community and Waterloo Homestead**

- To Check presence of toads at community and various water systems running north, west and south of the community.

**Auvergne Station**

- To Check and bust ox bow lakes on the northern side of Baines River

**Newry Station**

- To Check Saddle Ck Dam and Other dams or turkeys nest in the Keep River Catchment on northern side of highway.

**Gregory National Park**

- To Check Upper East Baines River for presence of toads
- To Check toad population at Bullita Outstation

**Victoria River Downs Station**

- To Check upper Humbert River and Peter Ck to verify new frontline
- To Check Upper Wickham River , Depot Ck and Gibbie Ck
- To Check Pidgeon Hole area on Victoria River , Camfield River

**RECOGNISING CANE TOAD TADPOLES and their early metamorphing stages**

Cane toad tadpoles are black, with tails the same length of the body and generally ‘cluster’ together at the edge of waterholes so they are easy to recognise. If you lay them on their sides in the palm of your hand you will detect a transparent ‘fin’ along either side of the tail. Native tadpoles have tails longer than their body and are generally lighter in color and much larger.

Here is a collage of six KTB tadpole and tadpoles’ metamorphing photos taken from the Western colonising front to help you identify cane toad tadpoles in the field.







For more information contact:

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