

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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Tom Young
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2003 winner of the
Bird-Captions
Regional
Achievement Award.

2003 recipient of
the Bronwyn Gold
Blyth
award.

2004 finalist in the
category of
the WA State
Toad Busters Awards.

KIMBERLEY TOAD BUSTERS NEWSLETTER No. 27

03/12/2008

By Lee Scott-Virtue President & founder of the KTBs & Sandy Boulter Administrative Coordinator KTBs & coordinator & founder of Perth based Friends of Kimberly Toad Busters



Queen MaryG
KTB Patron
ORIC photo

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

Declared by the Federal Government 12 April 2005

WE NEED A NATIONAL CANE TOAD THREAT ABATEMENT PLAN!

KTBs NEED RESEARCH SPONSORS!

This 26 th 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 and supporting cane toad scientific research. KTBs are a tax deductible entity. Please see our website for direct donation facility.

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

kimberleytoadbusters@canetoads.com.au
www.kimberleyspecialists.com.au
kimberleyspecialists@westnet.com.au
Friendsktb@westnet.com.au

A KTB BIODIVERSITY KTB Special Newsletter

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Report by KTB Biodiversity Officer - Katrina Nissen

The Launch – Saturday 24 th January at the Kununurra Community Library

Kimberley Toad Busters (KTB) held a successful launch of their “What’s in Your Backyard?” at the Kununurra Community Library on Saturday the 24 th January 2009. This project will take a unique biodiversity snapshot under the KTB Kimberley Biodiversity program.



A special thanks to Kerry Douglas and her team at the library for allowing us to use the great venue and for accepting the KTB’s fauna reference collection and finding a space in a very occupied and busy library. You won’t miss them with a KTB label and the cute little “froggies” on the spine.



Thank you to all the other people that contributed to our launch: bringing live animals, insect collections, sharing their knowledge, providing fauna licences, great photos, cooking the snags, binding and laminating, distributing educational information, and highlighting the differences between our native frogs and the feral cane toads.

Lastly but not least, thank you to all the people supported the event, some even turned up on a push bike with tadpoles. Thanks everyone.



Outside on the Kununurra Community Library verandah with the sausages sizzling, we got up close and personal with an olive python, northern blue tongue, northern brown bandicoots (a crowd pleaser), northern red-faced turtles, agile wallaby, antilopline wallaroo and a little red kangaroo; giant burrowing frogs (large and small, green and brown), native tadpoles, caterpillars and macro invertebrates (small water creatures).



Juvenile Giant Burrowing Frog



Antilopine Wallaroo Joey



Northern Blue Tongue



Inside we had the new KTB fauna reference collection books to explore.

On display were information on Biodiversity, Frogs, Cane Toads, Fish, Birds, Mammals and Invertebrates. You could see giant toe biters and giant stick insects, and slideshows that included birds singing and frogs calling.

KTBs encourage you to visit the library as the display will remain up for the next few weeks. Other venues that will have information about how to participate in the “What’s In Your Backyard?” project include the local shire and visitors centre.

Other education information that was available on the day, but now can be supplied on request from KTBs include: 2009 Frog Calendar, Desk Top Frog Species Identification cards, Frog ‘n’ Toad Playing cards.

Why do we want to know “What’s in Your Backyard?”

The “What’s in Your Backyard?” biodiversity program is a Kimberley Specialists in Research and Kimberley Toad Busters’ initiative to engage people of or in the Kimberley in identifying all our fauna. KTB educational tools and resources will assist in identifying what you find so you can tell us what it is you have found. Everyone can all participate in the survey “What’s in Your Backyard?” just by recording what you see in your backyard and letting us know about it.

This snapshot is a unique opportunity to help us understand cane toad impacts. As each day goes by the cane toads are hoping closer and pose an immense threat to WA’s biodiversity. We want to know what is here and now and monitor the progress of our biodiversity as the cane toads hops west.

Let’s not mistake native frogs for cane toads – all our toadbusters had to work this out early and they have made a great chart to help you. We can provide a copy on request but it is on our website [click here to view](#).



KTB tools to help you identify what you have found include:

- New Fauna Reference Collection of Books at the Kununurra Community Library
- Frog Id Calendar and Native Frog Cane Toad differences table.
- Frog Species Identification Cards
- Frog 'N' Toad Playing Cards
- More educational material for each animal species type.
- A new look Internet Web page www.canetoads.com.au with links to the biodiversity information, great photos and species identification tables (your photo could end up on the web!). Check it out!

Online biodiversity survey data card

-
- With more to come....

What Can You Do To Join In KTBs What's In Your Backyard? now?

Pick up a KTB Biodiversity Survey Data Card from

Kununurra: Coles, Visitors Centre, Library, Shire

Wyndham: Shire & Joorook Ngarni,

Halls Creek: Language Centre, Shire

- Fill out as many cards as you can, and return the data card to a drop off location.
- Take photos of the animals you see and send them into photo@canetoads.com.au
- Use your mobile phone to record the frog calls, KTB's Biodiversity Officer will identify them for you.
- You can contact KTB for the educational material
- You can contact KTB and go "Toad Busting" with us

For further information or feedback, please contact us at

Phone: 08 9168 2576

Postal Mail:



Kimberley Toad Busters
PO Box 1188
Kununurra WA 6743













Email: kimberleytoadbusters@canetoads.com.au













NATIVE FROG OR CANE TOAD?









Find the following KTB definitive table on line at

<http://www.canetoads.com.au/toadfrog.htm>

Feature	Native Frog Features (generally but with exceptions)	Cane Toad Features
Size	 <p>Generally smaller than cane toads, up to 11cm long.</p>	 <p>Mature adult larger than most native frogs; average size adult length, nose to tail, 10 - 17.5 cm (at western colonising front).</p>

<p>Habit</p>	<p>Variety of habits.</p> 	<p>Adults are nocturnal, cannot jump relative distances that native frogs jump, will eat almost every animate object they can catch; cane toads average activity one night in three or four, but sometimes out consecutive nights; does not drink but absorbs water through its soft belly skin; adults can survive in up to 40% sea water.</p>
<p>Colour, Markings and Appearance</p>	<p>Some frogs very similar colouring to cane toads;</p>  <p>others have distinct bright colours, stripes; often cute and appealing.</p>	 <p>Grey, yellowish, olive-brown or reddish-brown backs; bellies often paler with darker mottling.</p>
<p>Skin</p>	 <p>Often smoother more slippery skin.</p>	 <p>Away from water, skin on legs and back dry, extremely warty and leathery; males' skin over spine rough, females' spine skin smoother.</p>
<p>Face and Head Bones</p>	 <p>Various appearances</p> 	 <p>Has distinct bony ridges starting above the eyes and meeting above the top lip in single distinct ridge; laterally directed nostrils.</p>
<p>Eyes</p>	 <p>Constricted pupil shape helps identify frog species. Horizontal or vertical constricted pupil? Generally smooth round eye socket.</p>	 <p>Has horizontal pupil; not perfectly round eye socket or eye shape. Set in warty bony socket with prominent front and top eye socket ridges.</p>
<p>Ears</p>		

	<p>External ear (tympanum) on native frogs can be obvious or hard to see, or maybe absent; in photo ear hard to see - just visible under skin fold.</p>	<p>Has clearly visible dry looking distinct external ear tympanum.</p>
<p>Toes</p>	<div style="display: flex; justify-content: space-around;">   </div> <p>Often have discs/adhesion pads on toes' tip; male frogs often have nuptial pads on first and sometimes front foot second finger.</p>	<div style="display: flex; justify-content: space-around;">   </div> <p>Does NOT have discs or adhesion pads on end of fingers or toes; males have dark nuptial pads on first fingers when breeding (to help grip female in amplexing action).</p>
<p>Webbing</p>	 <p>Webbing between toes on many frogs; less common between fingers.</p>	<div style="display: flex; justify-content: space-around;">   </div> <p>Does not have webbing between front feet fingers; has leathery webbing between toes of hind feet at least half length of toes.</p>
<p>Poison Gland</p>	 <p>All frogs have glands in skin that secrete chemicals; some frogs have venom glands; glands found on various parts of body, including parotoid glands on shoulders but not prominent like on cane toad.</p> <p><i>"Some of the [frog] secretions are toxic, e.g. those of Litoria rubella kills other frogs kept in the same collecting bag", pers. comment Mike Tyler.</i></p>	<div style="display: flex; justify-content: space-around;">   </div> <p>Has obvious large irregular oval - sometimes flat, sometimes bulging - poison gland (on its shoulder area behind the external ear tympanum), which may exude or more rarely squirt poison if squeezed or if the toad is stressed; skin over poison gland has pin pricked appearance; minute poison glands all over skin on cane toad's back.</p>
<p>Posture</p>	 <p>Frog postures commonly hunched and/or crouching; some frogs sometimes sit up proud see Giant Burrowing Frog.</p>	 <p>Commonly, but not always, has a sitting up on its haunches, proud posture.</p>
<p>Call</p>	<p>Many varied calls by males.</p>	<p>Males call, females lay pheromone trail; male mating call is long loud single note purring low decibel trill; see www.canetoads.com.au for male call.</p>
<p>Catchability</p>		

	 <p>Often spring away fast and quickly, and very difficult to catch by hand.</p> <p>Generally more bouncy, quick and flighty than a cane toad. Generally more easily scared than a cane toad.</p>	 <p>CAN catch more easily because it cannot jump high, fast or far. It has a distinct hopping, relatively slowish gait.</p>
<p>Eggs, breeding cycle</p>	 <p>Single mass, smaller clumps, chains or individually in jelly or foam nests; in water, moist litter or soil or under sand surface. Frogs generally lay one to a few hundred eggs at a time.</p>	 <p>Sites include ponds, dams, slow flowing shallow streams and billabongs. Long strings of gelatinous transparent jelly enclosing double rows of black eggs, which hang off rocks or fringing vegetation in ropey strands. Mature females can lay 35,000 eggs twice a year. Eggs can survive in fresh or brackish water.</p>
<p>Tadpole</p>	 <p>Variety of colours, very few are black, and generally have different shape from cane toad tadpoles.</p>	 <p>Shiny black top and plain dark belly with short thin tail, short stumpy tadpole, disproportionately large head. Can form vast shoals.</p>
<p>Juvenile</p>	 <p>Juvenile frogs' usually similar to adult form.</p> <p>Some frogs have white line on back, similar to juvenile toad.</p>	 <p>Juvenile's greyer with red warty bumps can have white line down centre of back.</p>

KTB up-date on where the toads are now?

KTBs toadbust all year around - every week. Why this is important is described on our web site at KTB Fact Sheet Number 3, which can be found at <http://www.canetoads.com.au/factsheethome.htm>

Sadly in terms of cane toads travelling westwards, we are having a very big wet season. Here is the latest from the KTB wet season toadbusting.

January 2009 Cane Toad Field Report from KTBs: prepared by KTB President & Field Coordinator Lee Scott-Virtue

Cane toads have not yet invaded WA and the only toads found in WA - so far - have been hitchhikers. Behind the WA/NT cane toad frontline Darwin based toadbuster, Graham Sawyer recently aired his opinion in the media that cane toads had already invaded WA of their own accord. KTB volunteers and DEC are at the front lines in the field undertaking weekly reconnaissance, and have rejected this statement as unfounded speculation. This statement in the media has alarmed many non-toadbusting Kimberley residents. Furthermore, as a result of this speculation, Kimberley Toad Buster leaders are receiving calls from concerned Kimberley community members – who have not yet toadbusted with the KTBs to learn the difference between toads and native frogs - who are convinced they have found cane toads in Kununurra. In fact, they have even mistakenly killed our native giant burrowing frogs, which to the

uninitiated can look like cane toads. Please make sure you look at the new definitive table showing the difference between a native frog and a cane toad on the www.canetoads.com.au

KTBs would like to assure Kimberley residents that cane toads have not yet arrived in WA, and that DEC and the KTBs will alert the community when they do get here. We are now quite sure that toad numbers, if they reach WA this wet season, will be minimal and diligent toad busting by the community in any potential incursion area, as well as continual busting into the NT during the next dry season will ensure toads do not gain a real foothold during 2009.

Thanks to Steve and Charlie Sharpe, long term tour operators and residents of Lake Argyle, KTBs are adapting their KTB Cane Toad management Plan to put Lake Argyle management strategy measures in place, which will provide both an early cane toad alert system and will also help to facilitate more efficient toad busting techniques when toads arrive in this area. Other operators on Lake Argyle have also offered their assistance to the KTBs in the fight to prevent toads gaining a foothold on Lake Argyle and related creek and river systems.

1. Legune Station

Legune Station has joined in the fight to try and hold back and mitigate the impact of the cane toad corridor making its way through this area.

A recent helicopter reconnaissance onto Legune Station by KTB volunteer Cam Mackie of Triple J Tours has indicated that for the moment there is not a great deal of concern in this area, and that some of the sightings have in fact been mistaken identity – but we are very pleased that station owners are being so vigilant and willing to facilitate and assist KTB efforts to slow down the advance of toads towards WA.

Cam Mackie will continue to liaise and work with Legune and inform KTBs when we will need to toad bust. Lyall Grieve (Scientist and Researcher to look at Pygmy Crocodiles) and team of 3 will fly onto Legune in February 2009. Traps and a toad busting kit will be dropped off at Legune Station when the research teams go to Napp Springs in February. Further helicopter reconnaissance is planned for this area if vehicle access continues to be a problem and if the station managers alert us to any concerns about evidence of toad breeding.

2. Amanbidgi (Old Kildirk Station)

A reconnaissance survey and toad bust in early January 2009 indicated that the main corridor of toads had established itself in the McTavers dam and turkey nest system just north east of the Amanbidgi Aboriginal Community. Random toads were being found in the Community and slightly further south in the West Baines. KTB's Indigenous Coordinator Maryanne Winton undertook several cane toad educational training sessions with the community in December 2008 with the outcome that a number of members in the community have become diligent volunteer toad busters. KTBs will send a cane toad team in as soon as the road becomes accessible.

If access by road remains difficult KTBs will helicopter a team into this area towards the end of February. Cane toad traps will be dropped off at the community as soon as the road is open. A toad busting kit and nets have already been left with elder, Aunty Rose who is coordinating the community toad busting.

3. Victoria Highway east of the WA/NT Border

The Victoria Highway is being consistently hit most nights and every weekend with teams concentrating on the areas between Dingo Springs and the West Baines River. All water bodies close to the highway, including highway culverts, are being systematically checked for toads and breeding.

While Highway field busting efforts by both the DEC team and KTB indicate that very low numbers of random toads (predominantly male) are being picked up as close as the Dingo Creek system, the main breeding area is still back at the Keep River, and some of the turkey nests and other aquatic systems located in and around Newry Homestead. KTBs have continued to net tadpoles and spray metamorphs in all breeding zones with positive results.

KTBs will continue to survey all creeks, rivers and other aquatic systems located along the highway between the West Baines and the WA/NT border. Daytime reconnaissance will include netting and spraying any tadpoles and metamorphs in an attempt to knock the cane toad breeding cycle. Night-time toad busting will continue every weekend and during week nights.

4. Newry Station

Newry Station Managers Joe and Catherine Atkins and family as well as staff have joined the KTBs in the fight to try and reduce and slow down the movement of toads on Newry Station. Newry Station has provided two small cottages as a base for KTB volunteers and researchers.

KTBs will focus teams every weekend in this general area to ensure that any evidence of new breeding is wiped out and all adult toads are taken out of the system. Reconnaissance surveys using quad bikes and Kubota's will be undertaken wherever wet season access is possible to ensure that we are tracking the movement of and busting toads across Newry Station.

5. Duncan Road

KTB Indigenous Field Coordinator Maryanne Winton has undertaken cane toad educational training sessions with all the Duncan Road Communities and toad busting kits have been left with those communities most likely to see toads first. Various stations along the Duncan have also been contacted and educational material as well as toad busting kits will be dropped into each station as soon as wet season access is possible. All creeks and river systems are being checked on a regular basis by KTB



teams. A small number of toads have been picked up at Glenarra Bore by DEC and KTB members but no sign of breeding has been observed. 1 toad was removed from Dingo Creek by the DEC team but no further evidence of toads have been found in this system during recent night reconnaissance trips by KTBs. KTBs will continue to monitor the Duncan on a regular basis.

6. Lake Argyle 2009

KTBs have recently begun to undertake boat reconnaissance surveys along the eastern section of Lake Argyle and into the Hicks and Matilda Creek systems. KTBs plan to undertake regular boat reconnaissance trips along all creek and river systems running into Lake Argyle from the main eastern watershed area, which is the region from which cane toads are most likely to invade Lake Argyle. KTBs propose to begin placing traps and toad calling device along all the main feeder creek and river systems as soon as the main wet season rains have stopped.

7. Keep River National Park (in the Northern Territory north of the Victoria Highway and adjacent to the WA/NT Border) 2009

KTBs have liaised with the Keep River Park chief Ranger and hope to commence field work in the area in February. T.O. permission has been granted for KTBs to work anywhere in the park. The NT government has kindly enacted specific KTB regulations under their Act to ensure that KTBs can toadbus anywhere in NT National Parks. DEC have removed a small number of toads from the Cockatoo Lagoon and general area but no breeding has been observed as yet.

8. Wickham and Humbert Rivers catchments 2009.

A KTB helicopter reconnaissance of this area will be undertaken as soon as the main wet season rains have stopped. KTBs will be focussing on this area during the next dry season.

WE NEED 200 FRONTLINE LIVERS & 10 FRONTLINE HEARTS!

“This request from Professor Grant Morahan at the University of Western Australia for 200 livers and 10 hearts from front line cane toads became just another toadbus for the Kimberley Toad Busters,” Sandy Boulter.

“KTBs are uniquely placed to assist any researchers with any request and this one, which took place on the recent Australia Day weekend meant the KTB toadbusters celebrated their Australian Day weekend in a different way from most Australians,” Lee Scott-Virtue.

“Having never been on a toad busting trip or even seen a cane toad before I was initially a little nervous. However, the KTB volunteers soon put my mind at rest”, Jemma Berry.

The volunteers on the heart and liver toadbus including Kununurra hospital doctors and nurses collected the 200 toads, from which Jemma collected all 200 livers and 10 hearts, to take back to Perth.

“A big thank you has to go to Lee Scott Virtue and Sandy Boulter, who organised the trip for me and who put together such a great toad busting team. Thankyou Ben Scott-Virtue for driving me around and teaching me how to catch toads, and to Del Collins for telling me all about toads and showing me things I never thought I’d see”, Jemma.



Photo: Toadbusters on route to the cane toad frontlines rescue a Frilled Necked lizard. These lizards are very hard to find once the cane toads have moved through their homes. Ben Scott-Virtue, who used to find lots of these lizards on his Kakadu tours - before toads - is pleased to help this one from the road to safety and hopes that it does not eat a toad once they arrive.



Photo: Toadbuster team leader and snake expert, Ben Scott-Virtue, moving a python away from some nervous toadbusters, and hopefully well away from the toads.



Photo: Toadbusters with KTB volunteer leader, Del Collins, helping Jemma extract toad livers and hearts, at Newry Station KTB toadbusting base.

Jemma is also very grateful to volunteers Andrew, Jane, Mary and Brenda who helped her dissect out all the necessary bits.

“I had a fantastic, if hot and dirty, time busting toads and hopefully the samples I collected will help in finding a way to stop the progression of cane toads across Australia,” Jemma.

WHY FRONTLINE HEARTS AND LIVERS YOU MIGHT ASK?



From Jemma:

“From our preliminary sequencing of the toad genome we have identified some areas of DNA which are likely to be very useful as genetic markers. Analysing these regions in the DNA extracted from each of the 200 toad livers will assist us in establishing a genetic map of the Cane Toad. This genetic map will help us to get in order the entire 4 billion bases of toad genome. The genome assembly will then allow biologists to identify toad-specific targets for biological control measures. These genetic markers will also be used very soon by conservation biologists who can assess how quickly these regions are changing as the toads invade further across the country.”

The Western Australian Monoclonal Antibody Facility at WAIMR has raised some monoclonal antibodies to Cane toad proteins, which are involved in stopping the cane toad’s toxin penetrating their own cells. The hearts I collected will be used to test whether the antibodies raised by the MAb Facility bind the correct proteins and, therefore, potentially be used as a biological control to allow toxin into the cane toad’s own cells.”

Thank you Jemma for use of her photos for this news letter.

Photo: Jemma on her first toad bust

For more information contact:

Lee Scott-Virtue: KTB Founder & President based in Kununurra & Nicholson Station 9168 7080

Sandy Boulter : KTB CEO: 0427 508 582

Ben Scott-Virtue: 9168 2576

MaryAnne Winton: Aboriginal Field Coordinator 0488 693 642

Dr Jemma Berry : 08 9224 0340

