

# Toad of a problem

One of the world's worst invasive species is heading towards Western Australia, but the State government and community are determined to stop this noxious pest in its tracks before it arrives.

by Caris Bailey



The cane toad (*Bufo marinus*) has been nominated by the World Conservation Union as one of the world's 100 worst invasive species, and has been recently listed as a key threatening process under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

All life stages of cane toads are toxic, causing environmental, social and economic impacts. The westward movement of cane toads through the Northern Territory towards WA (see 'Poison in paradise; cane toads hop west', *LANDSCOPE*, Autumn 2003) threatens the Kimberley's biodiversity (see box), as well as its nature-based tourism industry and traditional Indigenous hunting.

The toads were deliberately introduced into Australia in 1935 to try to control beetle damage in Queensland sugar cane crops, even though the beetles lived on the cane stems above the reach of the toads. The beetle larvae did occur in the soil, but again, were inaccessible to cane toads.

Originally from central and South



America, cane toads have spread across much of Queensland, northern New South Wales and the 'top end' of the Northern Territory, where they are now about 200 kilometres from the WA border. The main front line is east of the Victoria River in the Northern Territory, although one population is known to the west of the river near the Victoria River Bridge. WA's strategy is to work with Northern Territory agencies to eliminate this western outpost and keep the cane toads on the other side of the river—no small task given that the Victoria River catchment

covers an area of about 66,000 square kilometres, or roughly the size of Tasmania.

The Department of Conservation and Land Management (CALM) is now responsible for implementing the WA Cane Toad Initiative, building on initial work done by the State's Department of Agriculture. This initiative is being enhanced by the efforts of a number of community-based groups, including the Stop the Toad campaign organised under the umbrella of the Conservation Council of WA, which has received \$500,000 in State government funding.

Cane toad trapping programs in the Northern Territory will be a priority. The traps in use—and the winner of this year's cane toad trap competition run by the Northern Territory—rely on solar-powered lights to attract insects, which in turn attract the toads. In one version, the toads push their way through a slatted door and become trapped on the other side; in another, they come up a ramp to reach the insects, then fall into the box trap. The



**Above** Cane toads were introduced to Queensland in 1935 in a failed attempt to control the cane beetle.  
*Photo – Peter Marsack/Lochman Transparencies*

**Right** Cane toad trapping in the Northern Territory.  
*Photo – Noel Wilson/Department of Agriculture*

**Below** Cane toads have poisonous glands on either side of the neck at the back of the head.  
*Photo – Jiri Lochman*



**Native species believed to be at greatest risk from cane toads**

**Predators**

- Northern quoll (*Dasyurus hallucatus*)
- Red-cheeked dunnart (*Sminthopsis virginiae*)
- Brush-tailed phascogale (*Phascogale tapoatafa*)
- Dingo (*Canis lupus dingo*)
- All varanid lizards (*Varanus* spp.)
- Northern death adder (*Acanthopis praelongis*)
- King brown snake (*Pseudechis australis*)
- Western brown snake (*Pseudonaja nuchalis*)
- Ghost bat (*Macroderma gigas*)
- Common blue-tongued lizard (*Tiliqua scincoides*)
- Black bittern (*Ixobrychus flavicollis*)
- Friilled lizard (*Chlamydosaurus kingii*)
- Aquatic macro-invertebrates

**Prey**

- Beetles (*Coleoptera*)
- Termites (*Isoptera*)
- Ants (*Hymenoptera: Formicidae*)

**Competitors**

Insectivorous reptiles, especially ground-feeding geckos



**Above** Northern quoll.

**Below** King brown snake.  
Photos – Babs and Bert Wells/CALM



**Above background** Victoria River catchment, in the Northern Territory.  
Photo – Col Roberts/Lochman Transparencies

**Left** The giant frog, a native species, is sometimes confused with the cane toad.  
Photo – Dennis Sarson/Lochman Transparencies

**Below** Quarantine check point at the border of WA and NT.  
Photo – Jiri Lochman



traps need to be checked regularly and the toads destroyed humanely.

The WA Cane Toad Initiative, launched in December 2004, has been allocated \$2 million in State government funding and, to date,

\$600,000 has been promised in Commonwealth government funding.

A cane toad surveillance team has been established in Kununurra and is working closely with staff from the Northern Territory Parks and Wildlife

Service. Between February and June this year, the surveillance team covered more than 25,000 kilometres during operations in the Northern Territory, monitoring key locations for the presence of cane toads and helping with cane toad trapping. In the same period, the team also recorded the location of more than 100 waterholes, ponds and swamps, and inspected about half of them looking for cane toads.

As well as surveillance and targeted trapping of cane toads around the Victoria River, WA has increased its border security to keep cane toads from being carried into the State accidentally, and has set up a 24-hour telephone service for anyone who thinks they've seen a cane toad to report it.

Several cane toads have 'hitchhiked' into the State and been detected—for example, in July 2005 a dead toad was found in Perth in a rail freight container carrying boxes of bananas from Queensland. In the first half of 2005 one live and five dead cane toads were found in WA, including a dead toad found in a woman's shoe when she opened her suitcase in the Perth suburb of Morley. This compares with five reported altogether in the period from 2001 to 2004.

As it is important for the community to be vigilant, particularly in the Kimberley, information kits have been prepared and distributed, road signs have been installed on all the main road entries into the State, and an education package for schools is being developed.

While no toads are native to Australia, some native frog species such as the giant frog (*Cyclorana australis*), have been mistakenly reported as cane toads. People are urged to report anything they think is a cane toad so that the species can be confirmed before animals are killed. The 24-hour Cane Toad Report telephone line is 1800 084 881.

Caris Bailey is currently Executive Editor of *LANDSCOPE* and has worked in a variety of roles in CALM since 1990. She can be contacted on (08) 9389 8644 or by email (carisb@calm.wa.gov.au).



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- 3 Contributors and Editor's letter
- 9 Bookmarks  
The best of the South West  
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- 18 Feature park  
D'Entrecasteaux National Park
- 20 Endangered  
Western ringtail possum
- 62 Urban antics  
Lice, mites, ticks and crosses.

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