



WA cane toad update



Department of Environment and Conservation



December 2011

Wet to propel unwelcome visitors

Cane toads are on the move as another wet season approaches in the Kimberley. Cane toads have spread past Kununurra, with extensive breeding occurring in irrigation areas surrounding the town.

Throughout the wet season (generally between December and April), DEC will focus on working with farmers, transport companies and tourists to provide information on the identification of cane toads and strategies to reduce the risk of hitchhiker toads reaching new areas.

During the coming years, DEC will be increasing its focus on keeping Kimberley islands free of cane toads and will be

liaising with people who travel to the islands to ensure they are aware of the risks of hitchhiker toads.

DEC will also be reviewing quarantine procedures and evaluating current research into possible control methods for cane toads.

The department will also continue to implement strategies such as erecting signage at boat ramps between Kununurra and Derby and will continue to collaborate with the Department of Agriculture and Food WA (DAFWA) to identify high-risk freight and produce leaving Kununurra.

Cane toad hitches ride from the north-west to Perth

A cane toad that was discovered on a fruit truck in Perth attracted statewide attention in September for being the first hitchhiker toad to be transported from within WA.

The pest was seized at the Canning Vale fresh produce markets after it hitched a ride on a watermelon truck from the Ord Valley in the Kimberley.

DEC and DAFWA officers responded to the report and authorities applauded the quick actions of the driver, who caught the live toad and alerted authorities.

Environment Minister Bill Marmion said the incident was a reminder to people to remain vigilant and check their vehicles, caravans and camping equipment thoroughly when travelling from areas where cane toads are known to live.

"We also advise people to take care when travelling or



DEC's Karen Debski with the hitchhiker toad in Canning Vale.

receiving commercial freight from infested areas," he said.

"Primary producers and freight transport operators in affected areas are asked to raise their pre-transport handling processes off the ground to reduce the risk of cane toad stowaways."



The cane toad found in Bayswater two months later.

In November, DEC also issued an appeal to the public for more information after a cane toad was found in Perth, near the Bayswater Hotel car park by a local resident.

This was the second time a hitchhiker cane toad had been

found in the area. In November 2010, a cane toad was discovered and captured in the front garden of a house just a few streets away.

It is not believed the two incidents are linked.

Paws up for Nifty

Poor health coupled with the intense Kimberley heat have forced the country's first cane toad detector dog into early retirement.

Nifty, a seven-year-old female Belgian Malinois of the short-haired variety, has been based in Kununurra since September 2006.

DEC State Cane Toad Initiative program coordinator Corrin Everitt said the dog was acquired by the department as a proactive measure to reduce the risk of cane toads entering WA.

"Nifty's role as a quarantine tool has been critical, particularly since the invasive species crossed the border into WA in February 2009," she said.

"Over the years, Nifty's health has deteriorated due to arthritis and she has struggled to cope with the hot and humid Kimberley climate, which has reduced her effectiveness.

"It is for this reason that DEC made a decision to retire Nifty to New South Wales, while a suitable replacement is being sought for future quarantine strategies.

"A local vet has recommended that consideration be given to replacing her with a breed better adapted to the Kimberley climate."

Corrin said a DEC officer would liaise with a specialist cane toad dog handler in NSW to identify a suitable breed and training needs for the replacement dog.

"It is anticipated that a new detector dog will be trained by mid-2012 as part of the quarantine program involving farmers, industry and freight companies to reduce the risk of cane toads travelling intrastate and interstate," she said.



Nifty on the job.

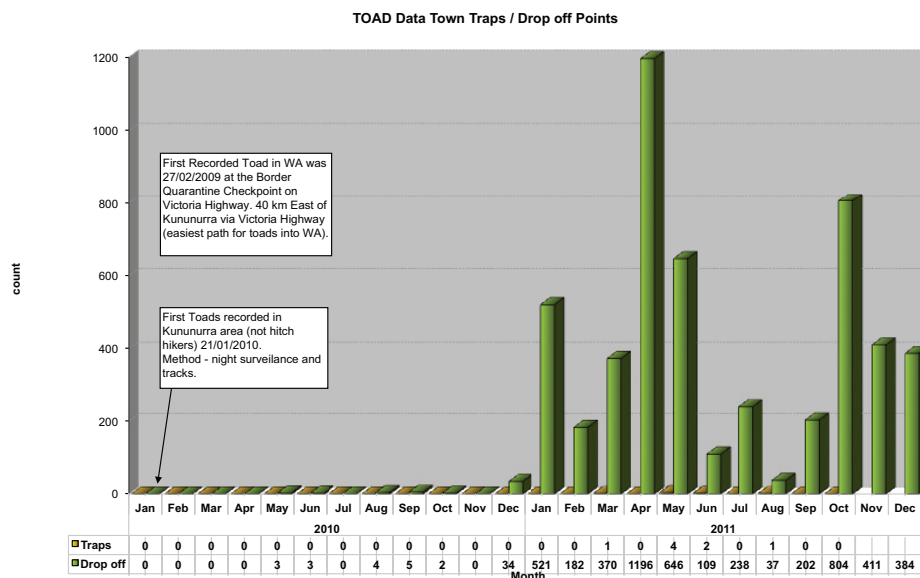
Thousands of toads taken to town collection points

The number of cane toads taken to DEC drop-off points in Kununurra spiked dramatically during the year. DEC's Craig Mills said more than 5,100 toads were transported to the drop-off points by the community.

"The community has been fantastic in helping to proactively manage cane toads in the local area," he said.

Students from Kununurra District High School also took part in a toad hunt on the school premises recently.

The number of cane toads collected at the drop-off points during 2011



Biodiversity surveys record 68 species of native fauna

Biodiversity surveys in the east Kimberley during 2011 continued to monitor the potential impact of cane toads on native fauna.

The surveys, which have been ongoing since 2009, are being carried out at six new conservation parks in the east Kimberley region that are jointly managed by DEC and the Miriungung-Gajjerrong traditional owners.

The parks are located within Packsaddle Swamp and the Ningbing, Weaber, Zimmerman, Livistona, Pincombe and Cave Springs ranges.

The fauna surveys are aimed at measuring changes to the abundance of at-risk species, before and after the arrival of cane toads. They are also focused on implementing protective management to assist with population recovery.

This year, DEC officers used a variety of non-lethal traps to capture animals to record information on native fauna species that currently live in the area.

Bush Ranger cadets, volunteers and work experience students from Kununurra District High School assisted DEC with the program.

Between August and November, more than 660 animals were recorded within an area spanning about 200 hectares. Northern spiny-tailed geckos, common tree snakes, chameleon dragons and frill-necked lizards, striped rocket frogs, common rock rats, western chestnut mice and ningbing antechinus were among the 68 species of native fauna recorded during the surveys.



Corrin Everitt and work experience student Tessa Stevens checking traps.



Recording the length of a northern spiny-tailed gecko.



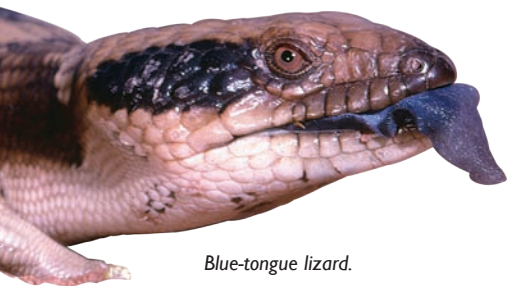
Recording measurements from a common tree snake.

Cane toad baits deter native species

Scientific trials investigating the use of specially designed baits to deter native species from eating cane toads continue to provide encouraging results.

A collaborative study between the University of Sydney and DEC aims to reduce the impact of cane toads on a range of native carnivores.

DEC research scientist Dr David Pearson said the trials involved training species such as the yellow-spotted monitor (*Varanus panoptes*) and the endangered northern quoll (*Dasyurus hallucatus*) to avoid consuming cane toads by feeding them baits containing less toxic parts of the toad and a nausea-inducing chemical.



Blue-tongue lizard.

"The laboratory experiments are being done by University of Sydney researchers, who are using a technique known as conditioned taste aversion," he said.

"The baits are formed into a small sausage which tastes and smells like toads. Pilot studies have shown that water monitors (a type of goanna) and quolls quickly learn to associate toad taste and smell with nausea and subsequently avoid attacking toads.

"These exciting results could lead to the development of a cane toad bait that can be deployed in the field ahead of the invasion front to give predators, such as goannas, an opportunity to learn to avoid toads before they arrive."

Professor Rick Shine from the University of Sydney said while the results were proving successful for some native species, more studies still needed to be done to determine if the baits worked in training the highly susceptible yellow-spotted monitor.

"Sixteen yellow-spotted monitors were collected from the Packsaddle floodplain,



Northern quoll, Photo courtesy Jono Webb.

about six kilometres from Kununurra," he said.

"Half of the goannas were offered aversion baits and half were not. We then attached radio transmitters to each goanna, so they could be located daily once they were released into the wild.

"We will continue to track them to see if they have learnt to avoid ingesting cane toads."

The conditioned taste aversion technique is also being trialled on blue-tongue lizards and trials have been conducted at three locations in the Northern Territory and WA.

The field-based trials are ongoing and to date the research has found that under laboratory conditions blue-tongues have proved capable of learning the technique, with captive animals more likely to avoid the unpalatable toad baits.

Satellite tracking has also gathered fine-scale data on the movement patterns and habitat use of two species of blue-tongues, the northern and centralian blue-tongues.

The research will not only increase scientists' knowledge of these species but will also provide vital information for developing appropriate management strategies.

DEC has also developed a series of posters that presents the collaborative research.

To view the posters, visit www.dec.wa.gov.au/canetoads.



Yellow-spotted monitor.

Boat ramp signs

DEC will install signs at boat ramps between Kununurra and Derby, including on the lower Ord River, reminding boaties to be on the lookout for cane toads that could easily hop onto their boats or hide in their fishing gear and equipment.



For more information contact the DEC cane toad team on 9168 4200 or email corrin.everitt@dec.wa.gov.au.