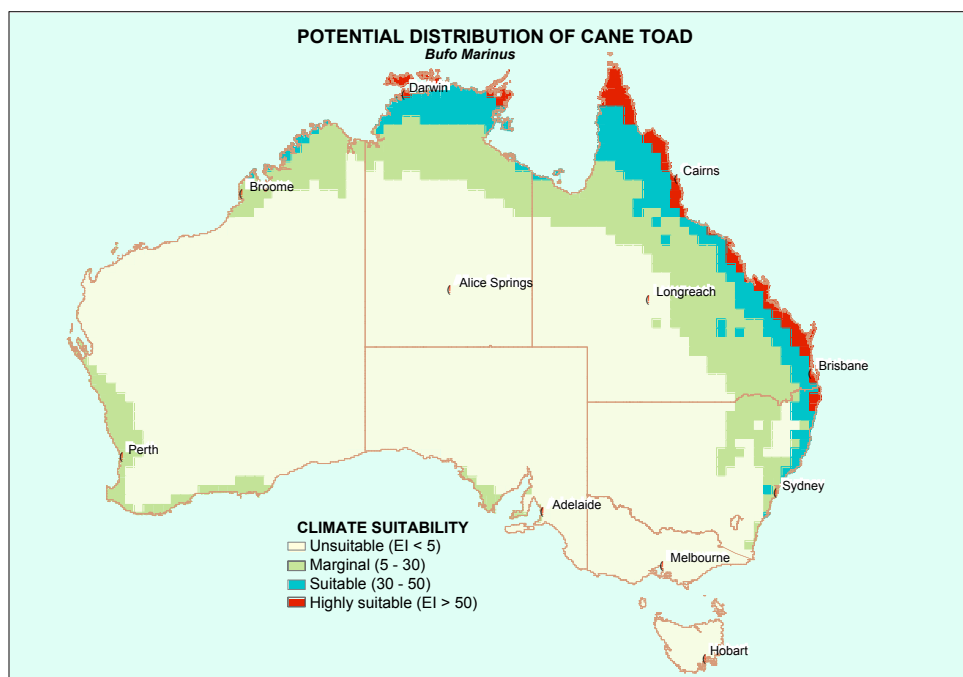


CANE TOADS

Threatening our Northern Species

CANE TOAD FACTS

- Cane toads are expanding their range across Northern Australia faster than ever expected, and have been recorded moving up to 20km in just a few weeks.
- They have reached the western part of the Northern Territory, and without intervention, are expected to reach the east Kimberley region of Western Australia in one to three years time.
- Cane toads need water to survive. With only a relatively narrow band of non-arid country between the eastern Kimberley and the Top End of the Northern Territory, suitable cane toad habitat funnels down to such a relatively small 'land bridge' that there is a unique opportunity to slow and hopefully halt their march westwards across Northern Australia.



TOADS VERSUS NATIVE SPECIES

- Cane toads reach extremely high densities in suitable habitat (over 2000 per hectare), and by sheer weight of numbers have a massive impact on their surrounding environment.
- They have a voracious appetite and will eat virtually anything that fits in their mouth - including a multitude of native insects, frogs, small reptiles, mammals and birds.
- Cane toads compete with native species for food and shelter.
- All stages of the cane toad's life cycle (eggs, tadpoles, toadlets and adult toads) are poisonous to native species that eat them, mistaking them for native frogs.
- Cane toads add an extra pressure to species that are already threatened, and also result in the decline of non-threatened species.

BIRDS

Many birds eat native frogs. These birds mistake cane toads for native frogs and are poisoned when they eat them. Cane toads also eat birds, especially chicks. A study of ground-nesting rainbow bee-eaters conducted last year found

that cane toads destroyed 33% of all nest attempts by blocking the nest entrance or by eating fledglings and eggs.



Rainbow bee-eater *Merops ornatus*
Credit: B&B Wells

FROGS

Cane toad tadpoles compete with native tadpoles for food, and adult cane toads compete with adult native frogs. Additionally, adult cane toads eat native frogs. A study of frog calls at Roper River Valley (NT) showed a marked decrease in the number of frog species calling between pre- and post- cane toad invasion. At least seven of the 20 frog species monitored showed substantial declines. Studies have shown that cane toad tadpoles out-compete ornate burrowing frog tadpoles.



Ornate burrowing frog *Limnodynastes ornatus*
Credit: Frogwatch



Northern quoll *Dasyurus hallucatus*
Credit: Scott Burnett

MAMMALS

Cane toads eat small native mammals like the red-cheeked dunnart. Some mammals that feed on frogs will also eat toads, resulting in them being poisoned. One such species is the northern quoll.

As cane toads have marched across northern Queensland to the Top End of the Northern Territory over the last 10 years, northern quolls have been almost entirely lost from all the areas that cane toads have invaded. Over the next 10 years, the rest of the mainland Top End population is expected to disappear along with much of the Kimberley mainland population. This will result in approximately 95% of northern quoll's population disappearing by 2010.

REPTILES

Studies show that 59% of Australia's dragons, 85% of monitors, both crocodile species, and all freshwater turtles are potentially at risk from cane toads. This has been devastating for reptiles across Queensland and the Top End, and potentially for native reptiles in the Kimberley.



Freshwater crocodile *Crocodylus johnsonii* Credit: A. Colyer

A Queensland study showed more than a 50% decline in Gould's goanna numbers over a seven month period coincident with the arrival and build up of cane toad numbers. A fauna survey in Kakadu showed that Gilbert's dragon and all goanna species significantly declined following cane toad invasion.

Frog-eating snakes in general are susceptible to impacts. These include the northern death adder, western brown snake and red-bellied black snake. There are also numerous reports of freshwater crocodiles dying after eating cane toads in northern Queensland and the Northern Territory.

WHERE TO FROM HERE?

Further research into the short and long term impacts, and how to manage these impacts, is a priority. In the meantime, our best bet is to try to slow cane toads down as much as possible and keep them out of uninvaded areas. The most urgent short term action is to implement and refine control measures such as trapping. While some important and encouraging research has already been done into effective trapping, there is still much that we need to learn.

Between the eastern Kimberley and the Top End of the Northern Territory, suitable cane toad habitat narrows such that there is a unique opportunity to attempt a trapping program over this distance. Once the toads are through this bottleneck their available habitat will widen again, making it almost impossible to stop them spreading throughout the entire Kimberley region. Action is needed now - by the end of 2006 it may be too late.

Trapping isn't the entire answer - it is a way to protect our precious Kimberley wildlife while we are searching for a more permanent solution. Ongoing research into biological control methods is vital to controlling this species in the longer term.

For more information about what you can do to help, contact the Threatened Species Network in Perth on (08) 9387 6444 or in Darwin on (08) 8941 7554. References of the studies discussed in this factsheet are available upon request.

