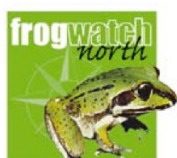


The following web resources are particularly useful guides to cane toad tadpole identification.

| | |
|---------------------------|---|
| ToadWatch | http://www.frogwatch.org.au/index.cfm?action=cms.page&p=465&m=102&sm=194&section=1 |
| NT Government | https://nt.gov.au/environment/animals/feral-animals/cane-toads/how-to-identify-a-cane-toad |
| WA Government | https://www.dpaw.wa.gov.au/plants-and-animals/animals/cane-toads |
| QLD Government | https://www.daf.qld.gov.au/_data/assets/pdf_file/0005/77360/IPA-Cane-Toad-PA21.pdf |
| NSW School Project | http://www.dorroughby-e.schools.nsw.edu.au/documents/27596342/27598947/lifecyclecanetoad.pdf |
| FrogWatch | http://www.frogwatch.org.au/index.cfm?action=medialib.download&pid=172 |



Cane Toad Tadpole Identification Fact Sheet.

A combination of tail length, colour, size, and eye position should allow you to positively identify a cane toad tadpole. Tadpoles are very dark and look black, they have a tail that looks thin and is relatively short and the eyes are towards the top of the head rather than the sides. Cane toad tadpoles are also quite small, only about 22 - 30mm including the tail, when they get legs.

Colour

Cane toad tadpoles are very dark, they look quite black. Most native tadpoles are brown or grey. The native Marbled Frog tadpole, see below, is black also but it has a long ribbon like tail with a pointed tip, which is also black.

Body shape and Size

The body is noticeably broad across the gill region just behind the eyes and the nostrils are obvious. The eyes are more on top of the head than on the sides. The entire tadpole, including the tail is only about (TL)20 - 30mm when the back legs appear. Many native species are much bigger.

Cane Toad *Bufo marinus*



Dorsal (top of body)

Ventral (underside of body)

The underbelly (ventral surface) of the cane toad tadpole is also black around the abdomen. With most native species the underbelly is either clear, silvery white with copper sheen, or densely speckled with copper.

Tail

The fins along the tail of the cane toad tadpole are clear while the muscle in the tail is black. This makes the tadpole look like it has a small fine tail. The Marbled Frog tadpole has bigger, dark fins and looks like it has a wide, 'ribbon-like tail'. Many native species have more colour in the fins, even if just the veins are pigmented.

Tail Length

The length of the tail is a key difference. The cane toad tadpole tail is one to one and a half times the length of the body. Native tadpoles generally have longer tails usually from two to three and a half times longer than the body.

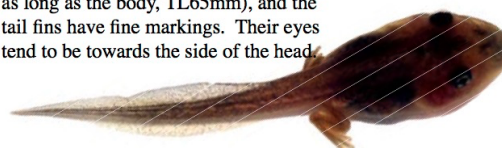
Marbled Frog *Limnodynastes convexiusculus*



The Marbled frog tadpoles are also black but are much larger than toads (TL75mm+) and the tail is two and a half times the length of the body. Also the tail fins are pigmented and not clear.

Green Tree Frog *Litoria caerulea*

Tree frogs are generally brown rather than black, they have tails 1.5 to 2 times as long as the body, TL65mm), and the tail fins have fine markings. Their eyes tend to be towards the side of the head.




Feralscan


(<https://www.feralscan.org.au/docs/Is%20it%20a%20cane%20toad%20Identifying%20toads.pdf>)

Eggs

The egg masses (spawn) of cane toads are unlike those of most native frogs. Toads produce chains of black eggs about one millimetre in diameter enclosed in a thick transparent, gelatinous cover, forming long strands about three millimetres thick.



Cane toad eggs.




Native frog species eggs.


Identifying toads

Native tadpoles and the cane toad tadpole shown at same size. Note position of eyes in each tadpole, and relative length of tail in relation to body.

Rocket frog (small one)




Cane toad (jet black)



Cane toad tadpole has bigger nostrils and wide body across gills (behind eyes).

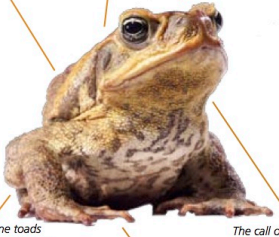
Northern dwarf tree frog



5mm

Is it a cane toad?

Up to two-thirds of suspected toads turn out to be harmless native frogs, so it is important to correctly identify them.



The big glands on the cane toad's shoulder release a poisonous milky substance when the toad feels threatened.

Cane toads have a very distinctive bony 'm'-shaped ridge over their nose. These ridges meet in the middle.

Cane toad skin is dry and warty, rather than moist and slippery like many native frogs, and usually a dull, brownish colour.

Adult cane toads are heavily built, and average between 100mm and 150mm in length.

Cane toad feet don't have suckers on the end of the toes.

The call of a male toad is like a guttural trill.

Tadpoles

Cane toad tadpoles are different from native species; toad tadpoles are jet black and reach a maximum of about 30 millimetres long from head to tail. They have non-transparent abdomen skin, and their tails are nearly the same length as their body. The tail has a jet black central muscle with totally transparent fins with no spots or pigment. The tadpoles of native frogs can be very dark (but not jet black) with lighter or transparent abdomen skin and longer tails.

Toad tadpoles form large, slow-moving groups that do not rise to the surface to 'breathe'. In contrast, tadpoles of native frogs do rise to the surface, having developed lungs sooner.

Juvenile toads

Newly formed toads (metamorphs) are small in size (nine to 11 millimetres) compared to adults, and can be identified by their large numbers and daytime activity near watery breeding sites.

For more information and assistance contact:

For Kimberley residents and visitors please call DEC's Kununurra office on (08) 9168 4200.

For all other areas of WA please call 1800 084 881.

www.dec.wa.gov.au/canetoads

QLD Frog Society

(http://www.qldfrogs.asn.au/wp-content/uploads/2015/07/be_toadally_sure_QFS_FA_web_1.2.pdf)

Toad Spawn, Tadpoles & Juveniles

It is important to recognise cane toad spawn (eggs), tadpoles and juveniles as the early stages of development are when cane toads are most easily controlled.

Cane toads deposit their eggs in long strands of clear jelly. The black eggs form a dotted line within these strands. No native Australian frog produces spawn like this.

Toads prefer to breed in areas of still, shallow open water around dams, ponds, flooded paddocks and drainage ditches. Strands of eggs are laid in shallow water, often wrapped around grass stems and submerged twigs and branches.



Toad tadpoles are small (less than 3 cm in length), dark-bodied and commonly found swarming in still, shallow open water (e.g., around the margins of ponds and dams).

Young cane toads are active by day and night, and large numbers may be seen hopping around the margins of dams, ponds and flooded paddocks in full sunlight.



Controlling Cane Toads in Australia

Cane Toads were introduced (from Brazil) to Queensland in 1935, in an unsuccessful program to control the cane beetle, which was damaging the sugar industry at the time. The toad rapidly adapted to local conditions. Its resilience and robustness allowed it to spread throughout QLD and into NSW, the NT, and now WA.

Cane Toads have prominent, paired glands behind their eyes, extending along the back of their heads. These so-called parotoid glands secrete toxins which are potent enough to kill most predators that ingest, or even just mouth them. As a result, the Cane Toad's spread across Australia has seen a decline in populations of our carnivorous native wildlife, such as quolls, some birds, blue-tongued lizards, snakes and even crocodiles. Despite this, no extinctions have yet been linked directly to the Cane Toad.

Regardless, the cane toad does not belong here. Though complete eradication of toads is unlikely, control measures can significantly reduce the number of toads occurring locally. This is simply done by scooping spawn and tadpoles from the water. The easiest and most humane method for controlling juveniles and adults is by bagging them and placing in the fridge for several hours, before transferring to the freezer for several days. The toad is unable to perceive pain as the brain cools and freezes at the same rate as the body¹.

¹Shine, R., Amiel, J., Munn, A.J., Stewart, M., Vysotski, A.I., and Lesku, J.A. (2015) Is "cooling then freezing" a humane way to kill amphibians and reptiles? Biology Open (2015) 00, 1-4



Your guide to identifying Cane Toads



Campaign idea by FroggingAround.com
Endorsed and funded by the QLD Frog Society Inc.