

4. Identifying Cane Toads

While many people attending this training course may feel confident identifying a cane toad, it is important to become absolutely certain about your identification skills. You will also be buddied up with more experienced cane toad collectors on your first few toad hunts to get on the job training, which is invaluable.

We will cover this section thoroughly during the training course and also in the field so here are some reminders for you to review after the course. Thank you to both the Kimberley Toadbusters (KTB) and the Stop The Toad Foundation (STTF) for allowing the use of their images and content in places.

4.1 Is it a Cane Toad?

If in doubt, leave it be - the golden rule of toading. I always say to people that if you are not sure, it is probably not a cane toad. When you see one for the first time, you will know what I mean.

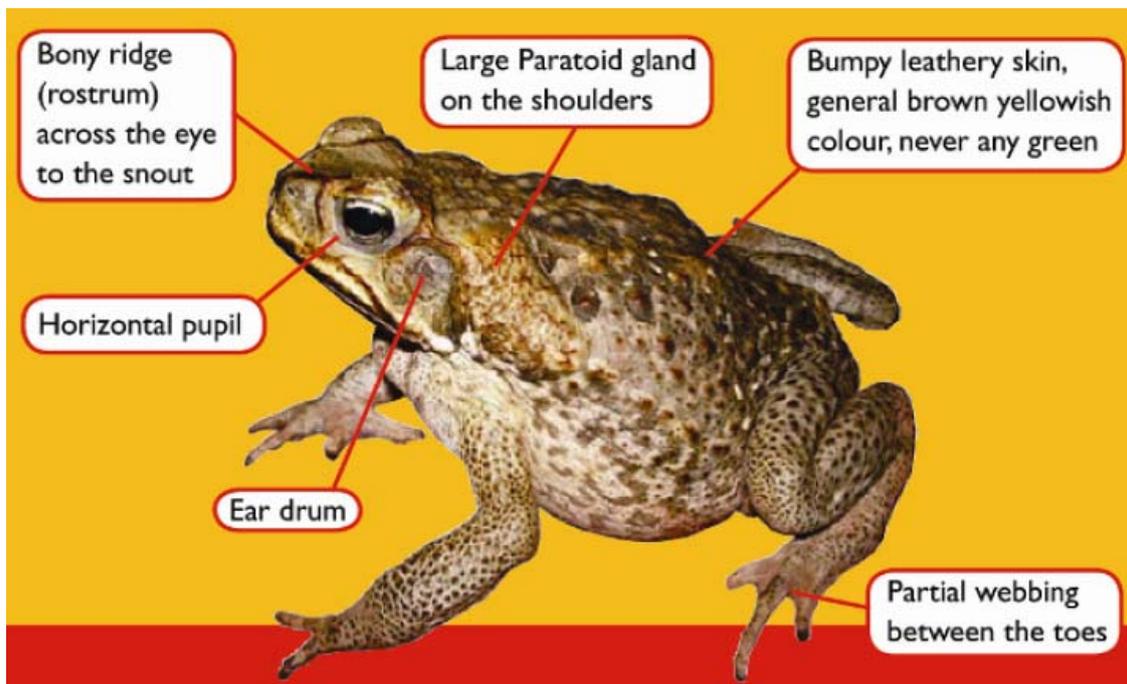


Figure 5 – the most common distinguishing features of a cane toad.
Image from the STTF Volunteer Induction Manual

Some of the most distinguishing characteristics of a cane toad when “in the hand” are shown in Figure 5 and include:

- A bony ridge that runs from the eye to the nose (see Figure 6)
- Dry, warty skin
- Large poison (paratoid) glands behind the ear
- A visible tympanum or external ear drum (but NB that some native frogs also have a visible ear drum)
- No webbing on front toes and only partial webbing on back toes
- A horizontal pupil (also not exclusive to cane toads) but the eye is not perfectly round like most native frogs (see Figure 7)



Figure 6 – Check out that bony ridge. Image from the KTB website



Figure 7 – Note the “not round” eye socket with prominent eye socket ridges. Image from the KTB website

Some field tips for distinguishing a cane toad from a native frog include:

- The posture. Cane toads generally sit quite upright in the field (see Figure 8).
- They are a lazy, cumbersome animal that cannot leap far. Unless very warm, they are quite easy to catch as they cannot jump far. An animal that hops over 1 metre in a single bound is NOT a cane toad.



Figure 8 – Note the upright posture. Image from NPWS.

The KTB website www.canetoads.com.au has an extensive area dedicated to the features of a cane toad compared to native frogs accompanied by many photos so check it out for more details (click on cane toad comparative chart).

4.2 Spawn

It is very easy to distinguish cane toad spawn from native frog spawn for the simple fact that Australia has NO native toads. The cane toad is the only toad in Australia. Our native frogs lay the frothy mass and dots we are used to seeing in the fish pond. Cane toads lay a very distinctive jelly-like strand of spawn with black dots (eggs) running along it.



Figure 9 – Cane toad spawn in long strands. Image from NPWS.



Figure 10 – When picked up, the spawn can be seen in jelly-like long strands. Image from KTB website.

If seen, cane toad spawn should be dragged from the water and left on the grass to dessicate. Each female can lay up to 30,000 eggs so that is a great win for the environment if spawn is removed.

4.3 Tadpoles

With practice, cane toad tadpoles are also quite easy to distinguish from our native frog tadpoles. They tend to have the following characteristics:

- They are jet black and have very few areas of translucency, like our native tadpoles
- They tend to mass together on the edges of waterbodies
- They are relatively large, about the size of your fingernail
- Some people describe them as having a pointy snout



Figure 11 – Cane toad tadpoles are jet black and relatively large. Image from NPWS.



Figure 12 – Cane toad tadpoles tend to congregate or clump together at the edge of waterbodies during the day. Image from KTB website.



Figure 13 – Cane toad tadpoles have very little translucency and are often described as having a pointy snout. Image from KTB website.

If cane toad tadpoles are found, and generally they can be observed in daylight hours, they can be scooped from the water and left to desiccate on the ground at least 2 metres from the waterbody.

4.4 Metamorphs

When the cane toad leaves the water, it is called a metamorph. These tiny toads can be seen during the day swarming from the breeding site. The STTF manual classifies a metamorph as 10 – 38 mm in size.



Figure 14 – Cane toad metamorphs are about the size of your little fingernail. Image from NPWS.

Collecting metamorphs can be very difficult as they are so numerous and small. Some new methods will be trialled this season so stay tuned for the results.

4.5 Juveniles

Juveniles look like tiny cane toads in every respect and are poisonous as well. This is the time when it can be most difficult to determine a cane toad from a native frog. Remember to look for the dry, warty skin. If in doubt, leave it. Preferably, ask a more experienced toad buster.



Figure 15 – Juvenile cane toads can sometimes have small red spots on their back. Image from STTF manual.

It is not possible to sex juvenile cane toads as they all bear the distinctive female markings until approximately 8 – 9 months of age. The STTF Manual classifies juveniles as 39 – 89 mm (I have not distinguished between juveniles and sub-adults).

4.6 Adult Males

The male cane toad tends to lose the blotches distinctive of a juvenile and become a solid yellow colour (see Figure 16). This is not always the case, but they are generally a more even colour. Be mindful that as amphibians, they can change their colouration slightly during breeding and when subjected to trapping or bagging. We have seen a bag of males go quite dark in the bag.



Figure 16 – A classic male cane toad – an even yellow colour on the back. Image from the West Australian.



Figure 17 – The male is on the right while the female is on the left side of the image. Image from the STTF Manual.

4.6 Adult Females

The female cane toad often has what I call a “goth” pattern on her back. Compared to the male, she is generally darker, browner and has a series of dark blotches along the back.



Figure 18 – Female colouration is similar to juvenile cane toads. Photo from STTF Manual.



Figure 19 – Note the dark blotches on the back of this female. Photo from the internet.



Figure 20 – The majority of these toads are females, but can you see a few males? Photo taken by CIA member David Cole.

4.8 Similar Looking Local Native Frogs

It is very sad when a native frog is mistakenly killed by a well meaning member of the public. Luckily, the promotion and education by NPWS in the Clarence Valley ensures that most people will bring a suspect into the office to confirm identification. Some of the common brown, blotchy frogs found in the Clarence Valley are pictured here, but this is by no means a comprehensive list.



Ornate Burrowing Frog
Opisthodon ornatus



Great Barred Frog
Mixophyes fasciolatus



Common Eastern Froglet
Crinia signifera



Spotted Marsh Frog
Limnodynastes tasmanensis



Wallum Frog
Litoria freycineti



Northern Banjo Frog
Limnodynastes terraereginae

All of the frog images have been taken from the internet – sorry for not properly crediting them – it's all for a good cause!!

The best way to determine the presence of cane toads is by their calls. Males call loudly during breeding season from the sides of waterbodies. Native frogs are highly variable in their colouration often making

identification difficult. However, their calls are unique to species so take some time to try and learn a new one each month.

NPWS have also produced an excellent fridge card "Frog or Toad" which shows the most commonly mis-identified native frog species. These are available for CIA members to hand out to members of the public. The DECCW website also has a comparison game where you can listen to the calls of native frogs versus the cane toad call.