

This Standard Operating Procedure (SOP) is applicable to all USQ Research Workers who care for and use Animals for Scientific Purposes. The procedure must only be performed by those persons who have been deemed competent and who believe they remain competent to do so. Access to supervision by suitably qualified staff whilst undertaking this procedure is encouraged, where required.

### Species

- *Rhinella marina* (cane toads)

### Purpose

The purpose of this SOP is to provide information to people considering handling cane toads, particularly as part of surveying and research on wildlife, specifically why they are handled and how to handle them.

Cane toads are introduced vertebrate pest species and have well-described negative impacts on Australian wildlife as competitors (e.g. to native frogs), predators (of a wide range of native species of invertebrates and vertebrates, e.g. frogs) and by killing a wide range of native species that attempt to eat cane toads and are subsequently poisoned. Furthermore, cane toads are still dispersing across Australia.

Cane toads are frequently caught in a pitfall, and Elliott traps as part of surveys and research on wildlife, and because of their poison glands and skin, the risk to people involved requires an understanding of how to handle them.

Cane toads are used as live specimens for physiology teaching practicals and as dead specimens for teaching about vertebrate and, specifically, amphibian anatomy and physiology.

Cane toads are used as surrogates as a 'model' for research in place of native Australian frogs (e.g. the effect of climate change on frogs) and to study their diet by examination of the stomach contents of euthanised animals (e.g. to determine the invertebrate community in that location available to both cane toads and frogs).

### Definitions

Not applicable
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### Linked SOPs

SOP ID number	SOP title
WL005	Removing amphibians from pitfall traps
WL009	Microchipping cane toads
WL011	Euthanasia of cane toads
WL012	Dry pitfall trapping

### Potential Hazard to Research Workers

USQ Risk Management Plan ID number	USQ Risk Management Plan title
RMP_2020_4960	Wildlife research and teaching fieldwork

### Personal Protective Equipment required

- Disposable examination gloves – various sizes
- Eye protection – Safety glasses
- Long sleeved shirt

### Animal wellbeing considerations

Perceived stressors	Management strategy
Disease risk	Handlers must wash hands thoroughly before and after handling cane toads.
Placement of cane toad into a plastic bag	This procedure must be performed by an experienced operator wearing disposable gloves.
Stress from a prolonged process	Handlers must be sufficiently trained prior to starting work on cane toads so that the process is quick.
Heat or cold stress	Collection should not be undertaken if an animal is likely to be exposed to temperature extremes.

The overall perceived level of risk to an animal undergoing this procedure is:

☐ High
 ☐ Medium
 ☒ Low

### Substances to be administered

Substance	Dose	Route	Purpose
Not applicable			

### Equipment/ materials required

- Datasheet
- Zip-lock bags
- Permanent marker pen
- Bucket – for collecting cane toads

### Site specification or location requirements

At locations/fields outlined in a USQ AEC approved application that includes the use of this SOP.

### Procedure

1. Put on disposable examination gloves and eye protection.
2. Capture the cane toad by holding it around the pelvis such that the pelvis and back legs are held within your hand. Care should be taken to avoid touching or applying pressure to the large parotid glands on the cane toad shoulders.
3. Place the cane toad into the bucket if hand-collecting multiple specimens (no more than five toads per bucket) or into a labelled zip-lock bag and zip-lock the bag closed if the intention is to euthanise the cane toad. Do not reuse the zip-lock bag.
4. Do not add water to collection buckets as cane toads will rapidly pollute this water and pose a risk to other cane toads.

### Training, qualifications or competencies required

Researchers with relevant experience or qualification can only undertake this SOP to complete the procedures required.

Student researchers must receive appropriate training and supervision from USQ research supervisors or qualified individuals prior to undertaking procedures.

### References

SHARP, T., LOTHIAN, A., MUNN, A. & SAUNDERS, G. (2011). CAN001. Methods for the field euthanasia of cane toads. <https://www.environment.gov.au/biodiversity/invasive-species/publications/can001-methods-field-euthanasia-cane-toads>.

## Licences and permits

- Scientific Purposes Permit

## SOP approval and review history

Date	Version	Review pathway	Notes
17 December 2020	0.0	<b>3/12/2020</b> USQ AEC "Subject to Modifications." <b>17/12/2020</b> Reviewed and approved by the USQ AEC Executive.	N/A
23 June 2021	0.1	<b>23/06/2021</b> Added under "Licences and permits", the words: "Any required licences and/or permits to undertake the procedure(s) under this SOP must be obtained before undertaking this SOP."	N/A