

Background

Feral cats prey upon a wide range of mammals, birds, reptiles, amphibians and insects. In some areas of Australia, especially many of the offshore islands, feral cats represent a significant threat to vulnerable and endangered native fauna. They may also have an indirect adverse impact on wildlife and livestock through the transmission of diseases such as toxoplasmosis and sarcosporidiosis. A variety of control methods have been used including shooting, trapping, poison baiting and exclusion fencing. Although trapping is considered an ineffective tool for large areas, it may be useful in urban/residential areas where domestic cats are present, or in areas where populations have already been reduced and individual cats need to be targeted.

Live trapping followed by euthanasia is one of the main methods of control currently used. In urban/residential areas, cage traps are preferred over leg hold traps as fewer injuries are sustained, non-target animals can be released unharmed and trapped feral cats can be transported away from the area for euthanasia. Refer to *CAT002 Trapping of Feral Cats using Cage Traps*. Leg-hold (padded-jaw) traps should only be used at sites where the animal can be destroyed by shooting whilst still held in the trap. Leg-hold traps may be more effective than cage traps for hard-to-catch cats that have had minimal exposure to humans.

This standard operating procedure (SOP) is a guide only; it does not replace or override the legislation that applies in the relevant State or Territory jurisdiction. The SOP should only be used subject to the applicable legal requirements (including OH&S) operating in the relevant jurisdiction.

Application

- Trapping is time-consuming and labour intensive and is therefore an inefficient method for large-scale feral cat control in Australia.
- Trapping in non-urban areas should be restricted to late autumn and early winter when food availability is generally low and capture of non-target species is reduced.
- Traps have the potential to cause significant injuries, suffering and distress so should only be used when there is no suitable alternative.
- Humane and successful trapping requires extensive training and experience.
- Selection of appropriate traps and trap sites will maximise the chance of capture and minimise the distress caused to target and non-target animals.
- Every effort must be made to avoid target and non-target deaths from factors such as exposure, shock, capture myopathy and predation.
- Before euthanasing a trapped cat, first establish that it is a feral cat, rather than a domestic pet or stray cat. Trapped cats that appear to be domesticated/owned i.e. wearing a collar or have a friendly temperament, should be taken to the

nearest council pound for assessment. It is recommended that the public be notified before commencement of a feral cat trapping program.

- Once trapped, feral cats are euthanased by shooting whilst still held by the trap.
- Traps must be used in accordance with relevant State and Territory legislation (*see Appendix 1*). In some States, for example, Western Australia, a permit may be required to trap within certain municipalities.
- Shooting of feral cats should only be performed by skilled operators who have the necessary experience with firearms and who hold the appropriate licences and accreditation. Storage and transportation of firearms and ammunition must comply with relevant legislation requirements.

Animal Welfare Considerations

Impact on target animals

- Leg-hold traps cause pain and distress in two ways; pressure of the trap jaws on the captured limb and restraint of the animal. Padded –jaw traps cause less trauma than unpadded traps but injuries will inevitably occur to some cats. These range from swelling of the foot and lacerations to dislocations and fractures.
- To reduce capture distress, trapped feral cats must be destroyed as quickly and humanely as possible following capture.
- Traps must be inspected daily to prevent suffering and possible death from exposure, thirst, starvation and/or shock.
- It is preferable to set up traps at sites where vegetation can provide shade and shelter. However, sites should be avoided where there is a risk of the trapped animal becoming entangled in understorey vegetation, which could result in dislocation of the limb.
- Where possible, trapping should be avoided when adverse weather conditions threaten the welfare of trapped animals.
- Captured animals must be approached carefully and quietly to reduce panic, further stress and risk of injury.
- To minimise the animal welfare implications of leaving dependant kittens to die a slow death from starvation, it is preferable not to undertake trapping when females are lactating e.g. September to March in non-urban habitats. There is a high probability that any female cat over six months old that is caught during this time will be pregnant or lactating.
- If lactating females are caught in a trap, efforts should be made to find dependent kittens and kill them quickly and humanely. Litters may be found near to the trap site in the base of hollow tree trunks, among boulders etc.

Impact on non-target animals

- Traps are not target specific, so a wide range of non-target species may be caught. These can include birds (eg. ravens, magpies, pied currawongs), kangaroos, wallabies, rabbits, hares, echidnas, goannas, wombats, possums, bandicoots, bilbies, quolls and sheep.
- Different groups of non-target animals suffer different levels of injury and distress. For example:

- Wallabies often experience serious injuries eg. dislocations, due to the morphology of their limbs and because they become very agitated when restrained.
- Goannas eg. Lace monitors also suffer from dislocations and can die from hyperthermia.
- Birds, rabbits and hares can be preyed upon by foxes, cats and wild dogs while caught in traps.
- Traps must not be set near areas such as waterholes or gully crossings that are regularly frequented by non-target species.
- Non-target animals caught in traps must be examined for injuries and signs of illness or distress and dealt with as follows:
 - Animals which are unharmed or have only received minimal injuries such as minor cuts or abrasions should be immediately released at the site of capture.
 - Animals which have more severe injuries or which are suffering from thermal stress should receive appropriate attention. An animal suffering from thermal stress can initially be placed in a suitable quiet holding area which provides warmth or shade to allow recovery before release. Animals with treatable injuries that cannot be immediately released or those failing to recover from thermal stress should be presented to a veterinarian or a registered wildlife carer for treatment.
 - Animals that have injuries which are untreatable or which would compromise their survival in the wild should be euthanased using a technique that is suitable for the species. For more information on euthanasia techniques refer to ***GEN001 Methods of Euthanasia***.
- If a domestic pet is caught, it should be taken to the nearest animal shelter, council pound or veterinarian where it can be examined for injuries, scanned for a microchip and the owner contacted, or assessed for suitability for re-homing.
- If wild dogs or foxes are caught in the trap they must be euthanased quickly and humanely by a shot to the brain using an appropriate firearm (refer to ***DOG001 Trapping of wild dogs using padded-jaw traps and FOX005 Trapping of foxes using padded-jaw traps***).

Health and Safety Considerations

- Trapped cats can be dangerous to handle. They will be nervous and aggressive and can inflict serious injuries with teeth and claws. If feral cats are killed at the site of capture, there should be no need to handle them directly. However, if handling is necessary, leather gloves and a catching pole should be used. Operators must be protected by tetanus immunisation in case of infection of scratches and bites. Bite wounds often result in serious infections and should be treated by a doctor.
- Care must be taken when handling feral cat carcasses as they may carry diseases such as toxoplasmosis, ringworm and sarcosporidiosis that can affect humans and other animals. Routinely wash hands after handling all carcasses.
- Operators should be wary of the risks of injury when placing and setting traps. Protective clothing, boots and leather gloves may help prevent injuries from shovels, hammers and trap jaws.

- Firearms are potentially hazardous. All people should stand well behind the shooter when an animal is being shot. The line of fire must be chosen to prevent accidents or injury from stray bullets or ricochets.

Equipment Required

Traps

- Approved padded-jaw traps suitable for catching feral cats must be used eg. Victor Soft-Catch® trap no.1½. It is illegal to use steel-jawed traps in most States and they are not recommended for use in any circumstances on animal welfare grounds.
- Traps must have the following characteristics:
 - The jaws have no teeth.
 - The jaws are offset to increase the space between them when closed. (ie. a distance of 6-8mm remains when the jaws are closed).
 - Each jaw has a rubber-like pad to cushion the impact of the jaws on the limb and to prevent the limb sliding out. The padding fills the offset gap when the jaws are closed.
- Traps should also have:
 - A spring placed in the anchor chain to act as a shock absorber, reducing the chance of dislocation of the captured limb. Swivels are located on both ends of the anchor chain allowing the trap to twist as the animal struggles to escape.
 - Adjustable pan tension so that an appropriate force is required to depress the pan and trigger the trap. This minimises the chance of non-target animals setting off the trap.

Lures

- A variety of olfactory, visual or auditory stimuli may be used to lure cats into trap sets. Olfactory lures include synthetic fermented egg, catnip, tuna oil, cat urine and anal gland preparation and also soiled cat litter from a cattery. Visual lures such as bird feathers and cotton wool can be used, although these may not be needed if the trap is clearly visible or the meat bait has a strong odour. Cat calling machines or 'felid attraction phonic' devices, which emit a cat meowing sound, can also be used as a lure.
- The attractiveness of lures will vary with season and location.

Meat baits

- A handful of meat bait is placed near the trap. Rabbit, chicken, beef, fish, lamb, kangaroo, tinned cat food, sardines and tuna have all been used as bait.
- Capture efficiency may be improved by using bait that reflects the cat's staple prey for the area rather than being novel.
- Attractiveness and palatability of the bait will vary with season and location.

Firearms and ammunition

- Smaller calibre rifles such as a .22 rimfire or .22 magnum rimfire with hollow/soft-point ammunition are recommended.
- 12 gauge shotguns with shot sizes of BB or AAA may also be used.

- The accuracy and precision of firearms should be tested against inanimate targets prior to the commencement of any shooting operation.

Procedures

Selection of trap sites

- Traps should be set in areas where cats are known to be active and may be placed under bushes, beside vehicle tracks and at rabbit warrens. They can be set at the entrance to fallen hollow logs so as to provide cover for the trapped cat and also to allow the bait to be hidden from view of non-target bird species. Do not set traps near fences and other objects such as small trees, bushes etc. in which the trapped cat may become entangled.
- The location of all trap sites must be accurately recorded and marked. This information should be readily available to others in case the trapper is unable to return to check the traps.

Setting of traps

- It is preferable to set traps at the end of each day and check early each morning. If traps are left set during the day, they should be checked again in late afternoon.
- Before setting each trap ensure that it is functioning properly.
- Traps should only be anchored to stakes or fixed objects if there is a shock absorbing device such as a spring fitted to the anchor chain and a swivel attaching the chain to the trap. It is recommended to use a short length of chain (approx. 50 cm). Alternatively the trap can be tied to 'drags', objects such as rocks, solid pieces of steel or small logs that will move when the cat pulls against the trap.
- Set the trap and place into position in the hole in the ground. Ensure that surrounding shrubs or debris will not interfere with the spring mechanism.
- Carefully camouflage the area around the trap with leaves, grass debris etc. but leave a slightly cleared area (10-15 cm) over the area of the plate.
- Place the meat bait approximately 10-15 cm behind the plate of the trap. Lures should be placed in suitable positions around the trap.

Identification of feral cats

- Feral cats are similar in appearance to domestic cats; however when in good physical condition, the feral cat has increased overall muscle development, which is especially noticeable around the head, neck and shoulders, giving the animal a more robust appearance.
- Feral cats are predominately short-haired with coat colours ranging between ginger, tabby, tortoiseshell, grey and black. White markings may be present, particularly on the chest, paws and abdomen, but completely white cats are very rare. Ginger cats are more likely to be found in semi-arid and desert areas, while grey and black cats are found in scrub and forests.
- Unlike domestic cats, feral cats do not bury their scats, but leave them exposed at prominent sites to warn other cats of its territorial boundary.

Shooting of feral cats

- Trapped feral cats should be euthanased by shooting whilst still held by the trap.
- It can be difficult to shoot feral cats humanely as they become very nervous and agitated when restrained and in the presence of people. Unnecessary people should keep away from the area. The shooter should approach the animal in a calm and quiet manner.
- Never fire when the cat is moving its head, be patient and wait until the cat is motionless before shooting. Accuracy is important to achieve a humane death. One shot to the head should ensure instantaneous loss of consciousness and rapid death without resumption of consciousness.
- To maximise the impact of the shot and to minimise the risk of misdirection the range should be as short as possible eg. 10-25 cm from the head if using a rifle, or 1–2 metres if using a shotgun.
- Effectiveness of shooting is dependent upon the destruction of major centres at the back of the brain near the spinal cord. This can be achieved by one of the following methods (*see diagrams in Appendix 2*):

Frontal position (front view)

The firearm is aimed at the centre of the head slightly below a line drawn midway between the ears.

Temporal position (side view)

Shoot from the side aiming behind the ear so that the shot will pass through the brain towards the opposite eye.

- Death of shot animals should always be confirmed by observing the following:
 - Absence of rhythmic, respiratory movements;
 - Absence of eye protection reflex (corneal reflex) or ‘blink’;
 - A fixed, glazed expression in the eyes; and
 - Loss of colour in mucous membranes (become mottled and pale without refill after pressure is applied).

If death cannot be verified, a second shot to the head should be taken immediately.

Further Information

Contact the relevant Commonwealth, State or Territory government agency from the following list of websites:

Commonwealth	Department of Environment and Heritage http://www.deh.gov.au/
ACT	Environment ACT http://www.environment.act.gov.au/
NSW	NSW Agriculture www.agric.nsw.gov.au
NT	Parks & Wildlife Commission www.nt.gov.au/ipe/pwcnt/
QLD	Department of Natural Resources and Mines www.nrm.qld.gov.au
SA	Animal & Plant Control Commission http://sustainableresources.pir.sa.gov.au
TAS	Department of Primary Industries, Water & Environment www.dpiwe.tas.gov.au
VIC	Department of Primary Industries, Agriculture & Food www.dpi.vic.gov.au
WA	Agriculture WA www.agric.wa.gov.au

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Appendix 1: Relevant State and Territory animal welfare and related legislation relevant to the use of traps

- **New South Wales**
Prevention of Cruelty to Animals Act 1979
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps, cage traps and treadle snares is permitted.
- **Queensland**
Animal Care and Protection Act 2001
Steel-jaw traps are *not* prohibited traps.
- **Australian Capital Territory**
Animal Welfare Act 1992
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps, cage traps and treadle snares is permitted.
- **Northern Territory**
Animal Welfare Act 2000
Use of steel-jaw traps is prohibited. Trapping with padded-jaw traps is permitted.
- **Tasmania**
Animal Welfare Act 1993
Leg-hold traps and snares are prohibited.
- **South Australia**
Prevention of Cruelty to Animals Act 1985
Small steel-jaw traps are prohibited. Large steel-jaw traps are prohibited in most areas except for wild dog control along the dingo fence and for research purposes. The large steel-jaw traps are required to be bound with cloth soaked strychnine or modified.
- **Victoria**
Prevention of Cruelty to Animals Act 1986
Large steel-jaw traps and neck snares are prohibited, with exceptions for wild dog control in some areas. Snares and padded-jaw traps are permitted, and small steel-jaw traps are permitted for rabbit control.
- **Western Australia**
Animal Welfare Act 2002
Agriculture and Related Resources Protection (Traps) Regulations 1982
Steel-jaw traps are permitted for wild dog control. The jaws must be bound with a cloth soaked in strychnine. Only padded steel-jawed traps are permitted for fox control and use in research programs. Permits are required to set traps in metropolitan areas. Neck snares are illegal.

Appendix 2: Recommended aiming points for shooting

Recommended shot placements - Feral cat

Diagram 1

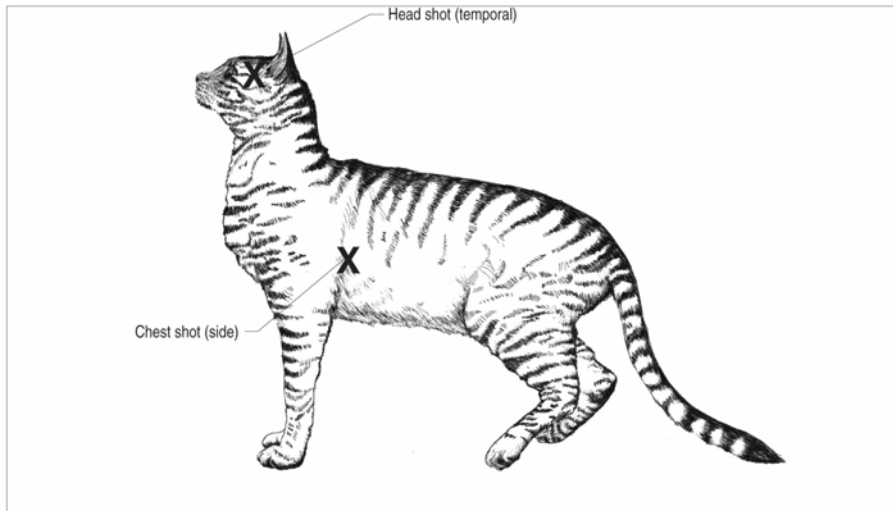


Diagram 2 - Side view (skeleton)

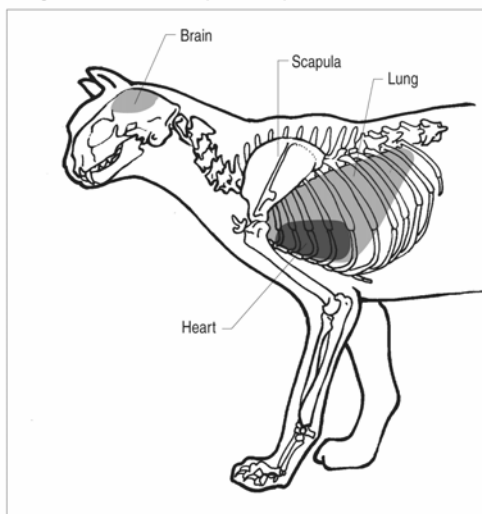
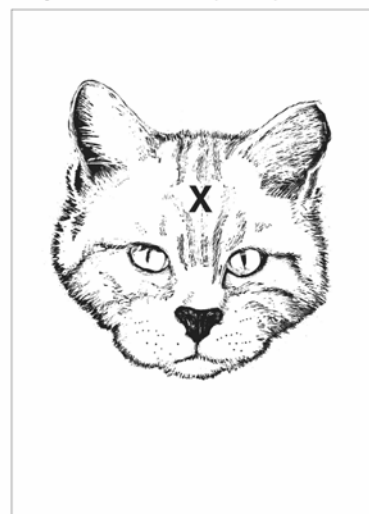


Diagram 3 - Head shot (frontal)



Note: Head shots (temporal or frontal) should be used for shooting feral cats caught in traps. See text for details.