

Background

The introduced European red fox (*Vulpes vulpes*) has a significant impact on native fauna and agricultural production. Fox control methods include lethal baiting, trapping, shooting, den fumigation, den destruction and exclusion fencing.

Trapping of foxes is undertaken in areas where poison baiting is unacceptable and other methods cannot be used e.g. semi-rural and urban/residential areas. Trapping may be useful for the control of nuisance animals but is not effective as a general fox control method. 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 foxes can be transported away from the area for euthanasia. Refer to **FOX006 Trapping of foxes using cage traps**. Leg-hold, padded-jaw traps should only be used at sites where the animal can be killed by shooting whilst still held in the trap.

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 fox control in Australia.
- Traps have the potential to cause significant suffering and distress so should only be used when there is no suitable alternative.
- Humane and successful trapping requires extensive training and experience. Trapping by inexperienced operators can result in 'trap-shy' foxes that are difficult to catch because they have previously escaped from a carelessly prepared and presented trap.
- Selection of appropriate traps and trap sites will minimise the damage, pain and distress caused to target and non-target animals.
- Every effort must be made to avoid animal deaths from factors such as exposure, shock, capture myopathy and predation.
- Once trapped, foxes are euthanased by shooting at the site of capture.
- 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 foxes 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.

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. Injuries will inevitably occur to some animals, especially when they struggle to escape the trap. These range from swelling of the foot and lacerations to dislocations and fractures. Foxes may also inflict injuries to their feet and legs by chewing on the captured limb, and to their teeth, lips and gums by chewing at the trap jaws. To reduce capture distress, trapped foxes must be destroyed as quickly and humanely as possible.
- Traps must be inspected daily to prevent prolonged suffering 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 or fences, 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 orphaning dependant cubs, it is preferable not to undertake trapping when vixens are lactating i.e. August/September.
- If lactating vixens are shot, reasonable efforts should be made to find dependent cubs and kill them quickly and humanely by either shooting (with a single shot to the brain) or by fumigation of the den with carbon monoxide (refer to **FOX004 Fumigation of fox dens with carbon monoxide**).

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, 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 whilst caught in traps.
- Traps must not be set near areas such as waterholes or gully crossings that are regularly frequented by non-target species.
- Live 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 dog or a cat is caught in the trap, it should be taken to the nearest council pound for assessment. In some States this is a legal requirement.

Health and Safety Considerations

- Firearms are 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.
- Care must be taken when handling fox carcasses as they may carry diseases such as hydatidosis and sarcoptic mange that can affect humans and other animals. A fox with obvious mange should only be handled while wearing gloves. Routinely wash hands after handling all fox 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.

Equipment Required

Traps

- Approved padded-jaw traps suitable for catching foxes must be used eg. Victor Soft-Catch trap no.1½ or no.3. 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 should be located on both ends of the anchor chain to allow 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

- Olfactory stimuli such as fox faeces and/or urine or a commercially prepared lure eg. synthetic fermented egg may be used to lure foxes into the trap set.
- The attractiveness of lures will vary with season and location.

Meat baits

- A handful of meat bait is placed near the trap. Beef heart, liver rabbit, lamb, chicken, and kangaroo have all been used as bait. The bait can be covered with a light dusting of soil to reduce foraging by corvids and to mimic food cached by a fox.
- 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 along tracks and trails or other areas frequented by foxes eg. scent pads, scratch points and around carcasses. Do not set traps near fences and other objects such as trees, bushes etc. in which the trapped fox 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 traps.

Placing and setting the trap

- 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 fox 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 (10-15cm) over the area of the plate.

- Place the meat bait and/or lure a suitable distance away so that the fox is likely to step on the trap to smell it eg. on a slightly elevated clump of grass, stick or rock behind the trap.

Shooting of foxes

- Trapped live foxes should be euthanased by shooting whilst still held by the trap.
- Unnecessary people should keep away from the area to allow the fox to become less agitated. The shooter should approach the animal in a calm and quiet manner.
- To maximise the impact of the shot and to minimise the risk of misdirection the range should be as short as possible eg. 5-20 cm from the head if using a rifle, 1–2 metres if using a shotgun.
- Never fire when the fox is moving its head, be patient and wait until the fox is motionless before shooting. Accuracy is important to achieve a humane death. One shot should ensure instantaneous loss of consciousness and rapid death without resumption of consciousness.
- Shots must be aimed to destroy the 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 a point midway between the level of the eyes and the base of the ears, but slightly off to one side so as to miss the bony ridge that runs down the middle of the skull. The aim should be slightly across the centreline of the skull and towards the spine.

Temporal position (side view)

The firearm is aimed horizontally at the side of the head at a point midway between the eye and the base of the ear.

- 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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<http://www.furbearermgmt.org/03ecbmp.pdf>
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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 - Fox

Diagram 1

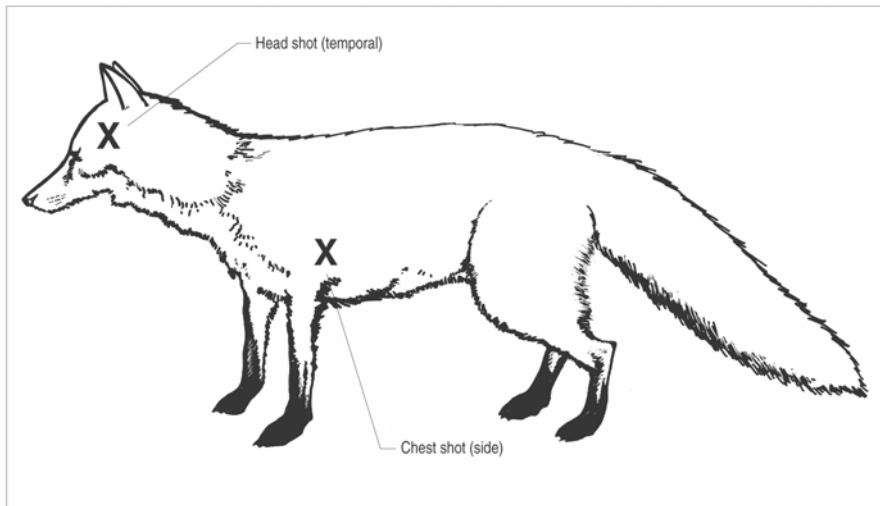


Diagram 2 - Side view (skeleton)

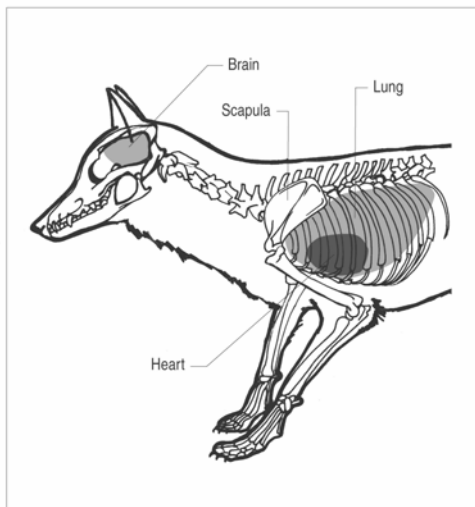


Diagram 3 - Head shot (frontal)



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