



NSWFOX SOP6

Trapping of foxes using cage traps

Background

The introduced European red fox (*Vulpes vulpes*) has a significant impact on native fauna and agricultural production. Trapping may be useful for the control of nuisance animals but is not effective as a general fox control method. Cage traps are used to capture problem foxes in urban/residential areas and other areas where it is unacceptable or undesirable to use 1080 or foot-hold traps. Animals trapped in a cage can be transported away from the area for euthanasia. Padded-jaw, foot-hold traps can only be used at sites where the animal can be killed by shooting while still held in the trap. Refer to *NSWFOX SOP5 Trapping of foxes using padded-jaw traps*. From an animal welfare perspective, cage traps are preferred over foot-hold traps as fewer injuries are sustained and non-target animals can be released unharmed.

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

Individual SOPs should be read in conjunction with the overarching Code of Practice for that species to help ensure that the most appropriate control techniques are selected and that they are deployed in a strategic way, usually in combination with other control techniques, to achieve rapid and sustained reduction of pest animal populations and impacts.

Application

- Trapping is time-consuming and labour intensive and is therefore an inefficient method for large-scale fox control.
- Cage traps are generally not effective in rural environments where foxes are more suspicious of man-made structures.
- 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.
- Selection of appropriate traps and trap sites will maximise 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.

- Once trapped, foxes are either euthanased by shooting at the site of capture or taken to an appropriate site away from residential areas to be shot whilst still in the cage or killed with a lethal injection by an authorised person.
- Traps must be used in accordance with relevant legislation (*see Prevention of Cruelty to Animals Act 1979*). Use of steel-jaw traps is prohibited in NSW, but trapping with padded-jaw traps, cage traps and treadle snares is permitted.
- 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.

Animal welfare implications

Target animals

- Foxes are likely to suffer distress from being confined in a cage trap and they can sometimes be injured while trying to escape, although the potential for injury is less than that for foot-hold traps.
- Cage traps can cause extensive injuries to the teeth and mouth of trapped foxes; this is minimised by using a small mesh size (50mm is recommended).
- 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.
- Shade cloth or hessian can be used for protection during extremes of weather. In hot weather, water should be provided and in cold weather bedding should be available inside the cage. 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.
- Trapped foxes must be euthanased as quickly and humanely as possible.
- If transporting a trapped fox away from the capture site to be euthanased, the cage should be covered with hessian or a blanket to provide shelter from direct sunlight, wind and rain and to minimise stress from visual threats.
- To minimise the animal welfare implications of orphaning dependant cubs, it is preferable not to undertake trapping when vixens are lactating.
- If lactating vixens are trapped and 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 NSWFOX SOP4 *Fumigation of fox dens with carbon monoxide*).

Non-target animals

- Traps must not be set near areas that are regularly frequented by non-target species.

- Traps are not target specific; therefore, other species such as birds and reptiles may be caught.
- Non-target animals caught in traps must be examined for injuries and signs of illness or distress and dealt with as follows:
 - Animals that are unharmed or have only received minimal injuries such as minor cuts or abrasions should be immediately released at the site of capture
 - Animals that have more severe injuries or 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 that 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 that 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 wild dogs or feral cats are caught in the trap they must be euthanased quickly and humanely by a shot to the brain using an appropriate firearm (refer to *NSWCAT SOP2* Trapping of feral cats using cage traps and *NSWDOG SOP2* Trapping of wild dogs using cage traps).
- If a domestic pet is caught, it should be taken to the nearest animal shelter, council pound or veterinarian where it can be scanned for a microchip and the owner contacted or assessed as to suitability for re-homing.

Workplace health and safety considerations

- Trapped foxes are dangerous to handle and can inflict serious bites. If these foxes are killed while still in the cage, 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 bite infection.
- Firearms are hazardous. All people should stand well behind the shooter when a fox is being shot. The line of fire must be chosen to prevent accidents or injury from stray bullets or ricochets. The shooter and others in the immediate vicinity should wear adequate hearing protection to prevent irreversible hearing damage, and safety glasses to protect eyes from gases, metal fragments and other particles.
- Care must be taken when handling fox carcasses as they may carry parasites which cause diseases such as toxoplasmosis, 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.

Equipment required

Traps

- Wire mesh cage traps are used. These can be obtained from commercial suppliers and are available in a variety of sizes (e.g., a fox size cage is 90cm x 45cm x 45cm and made of 2.5 mm welded wire with a mesh size of 50mm). The traps have a spring door that is activated either by a treadle plate or a hook mechanism.

Lures

- Olfactory stimuli such as fox faeces or urine (or a mixture of both) or a commercially prepared lure (e.g., synthetic fermented egg) may be used to lure foxes into the trap.
- The attractiveness of lures will vary with season and location.

Meat baits

- A handful of meat bait is placed inside the cage trap. Rabbit, lamb, chicken, and kangaroo have all been used as bait.
- Attractiveness and palatability of the bait will vary with season and location.

Firearms and ammunition

- Smaller calibre rifles such as a .22 rimfire with hollow or soft-point ammunition, are suitable for euthanasia at short range (from 5-25cm away).
- 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 fences, tracks and trails or areas frequented by foxes for example, scent pads, scratch points, holes in fences, around carcasses.
- The location of all trap sites must be accurately recorded. This information should be readily available to others in case the trapper is unable to return to check traps.
- Do not place in areas where the traps may be interfered with/damaged by large stock or humans.

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.

- Where possible place the traps parallel to objects such as fences, logs or sheds with the rear of the cage against an obstruction to prevent foxes taking the main bait without going into the trap.
- Cage traps should be set squarely on the ground and the doors of the trap bent upward to increase the openness of the trap space.
- Place the meat bait at the rear of the trap, attached to the hook mechanism if present. A second piece of meat is placed at the mouth of the trap.
- Cover the floor of the trap with 3-5cm of soil.
- If using lures place them in suitable positions inside and outside the trap.
- The trap should be pegged to the ground to prevent the animal from tipping it over and injuring itself and/or releasing the trap door.

Euthanasia of foxes

Trapped foxes can be killed humanely using one of the following methods.

Shooting of foxes

- Trapped live foxes should be destroyed by shooting whilst still inside the cage 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, that is, 5-20 cm from the head. When shooting, the barrel should be just inside the cage.
- 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 to the head 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 also Figure 3).

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)

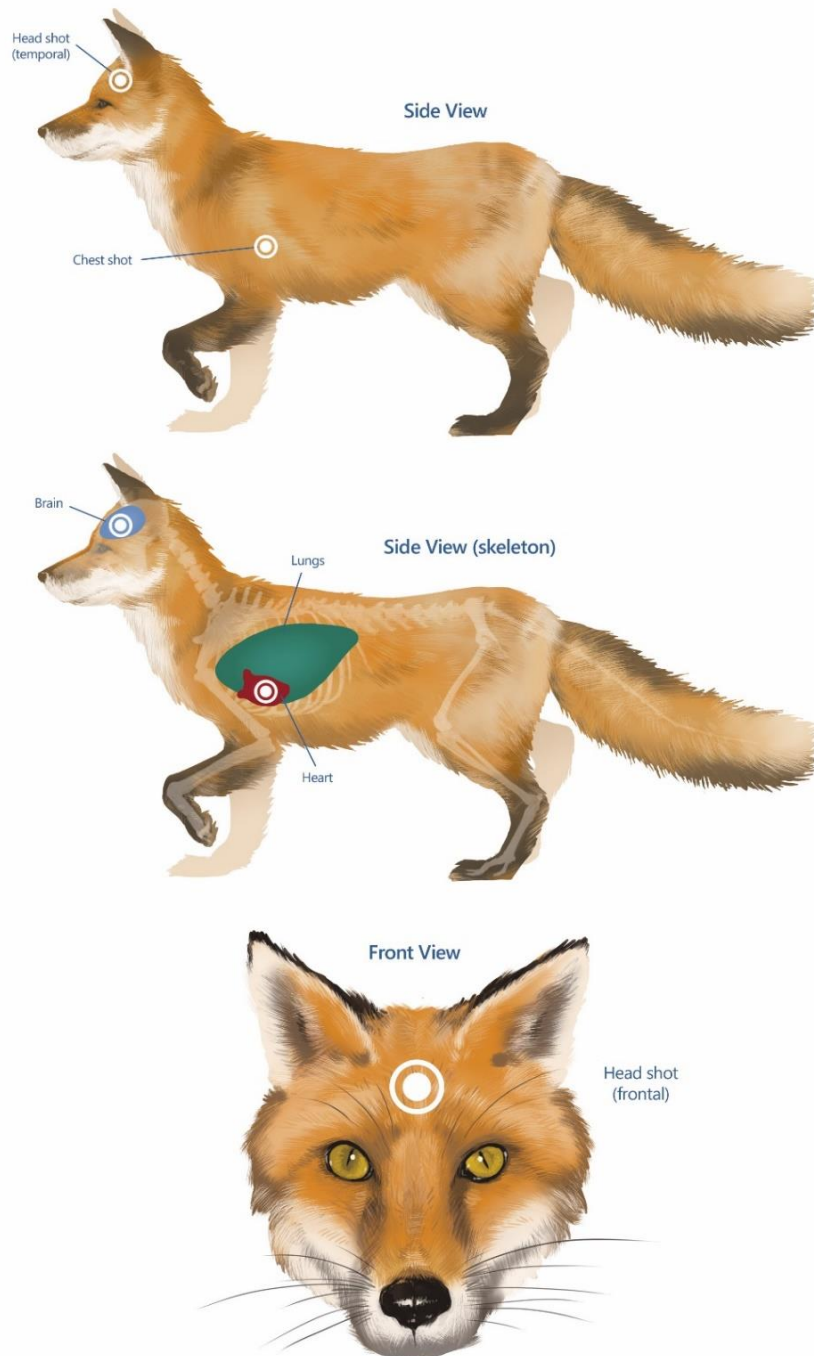
- The firearm is aimed horizontally at the side of the head at a point midway between the eye and the base of the ear.
- Death of shot animals can be confirmed by observing a combination of the following:
 - no heartbeat
 - no breathing
 - no corneal reflex (no blinking when the eyeball is touched)

- o no response to a toe pinch (a firm squeeze of the pad on the large toe).
- If death cannot be verified, a second shot to the head should be taken immediately.

Overdose of barbiturate

- These procedures can only be performed by, or under the direction of, a veterinarian or other authorised person.
- An intramuscular (neck or back-leg muscles) or subcutaneous injection of a sedative (e.g., xylazine at 1-2 mg/kg) is usually necessary to restrain the animal before euthanasing. The injection can be administered through the wire mesh without the fox being handled using an extendable pole syringe (or 'jabstick'). A cage with a 'crush' or 'squeeze-back' is also useful to restrain the fox at one end of the cage.
- Once the fox is sedated it is euthanased with an intravenous or intraperitoneal injection of pentobarbitone sodium (approximately 150mg/kg).

Figure 3: Shot placement for foxes



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

Note that shooting an animal from above or below the horizontal level as depicted here will influence the direction of the bullet through the body. Adjustment to the point of aim on the external surface of the body may need to be made to ensure that the angled bullet path causes extensive (and therefore fatal) damage to the main organs in the target areas.

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