Charles Darwin University Animal Ethics Committee

Standard Operating Procedure:

Funnel Trapping for Capture of Terrestrial Vertebrates (WA DBCA)

Version No:	1.3
Date of Approval:	04/12/2024
Date for Review:	04/12/2027

Please note:

This SOP has been developed for animal use in WA. Consideration should be taken to the specific conditions of the region in which your work is being conducted, and modifications to procedures made accordingly to ensure the best welfare of the animal and safety of the project participants. Any modifications required should be outlined in the project application. Consideration should particularly be given to the weather conditions of the Northern Territory and the presence of extreme hazards such as crocodiles.

The CDU AEC approves the following SOP with the below amendments/conditions:

Section 6.3 Checking of traps:

- In addition to this SOP, animals should be released as soon as possible after capture.
- The time of animal holding and release must be specified in the project application, and this must be justified.
- For traps open overnight, traps must be checked within 2 hours of sunrise.

CHARLES DARWIN UNIVERSITY AUSTRALIA

Standard Operating Procedure

SC24-01 FUNNEL TRAPS FOR CAPTURE OF TERRESTRIAL VERTEBRATES

Animal welfare is the responsibility of all personnel involved in the care and use of animals for scientific purposes.

Personnel involved in an Animal Ethics Committee approved project should read and understand their obligations under the *Australian code for the care and use of animals for scientific purposes*.

Version 1.3

August 2024

GOVERNMENT OF WESTERN AUSTRALIA

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Revision History Log

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1.0	17/05/2013	Final draft	R. Bloomfield		May 2013
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1.2	05/04/2022	Revision of content & clarification of procedures	N. Willers, A. Robey and L. Povh	M. Dziminski	August 2022
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Approvals: Version 1.3

Approved by the DBCA Animal Ethics Committee:

Dr Jacqui Richards
Chairperson, Animal Ethics Committee
Department of Biodiversity, Conservation and Attractions

Contents

1 Acknowledgements

This standard operating procedure was originally developed by Christine Freegard and Vanessa Richter, with contributions from Teagan Johnston, Manda Page, Mark Cowan and Mike Bamford.

2 Purpose

Funnel traps function as a confusion trap, by making it difficult for animals to find their way out once they have entered. They are effective for trapping some reptiles and to a lesser extent, amphibians, invertebrates and mammals. Funnel traps can be useful for trapping some species not readily caught in pitfall traps, or in situations that prevent the use of pitfall traps, such as areas with shallow or rocky soil (Jenkins *et al*., 2003).

This Standard Operating Procedure (SOP) provides advice on the use of funnel traps for non-lethal trapping of terrestrial vertebrate fauna.

3 Scope

This SOP has been written specifically for scientific and education purposes, and approved by the Department of Biodiversity, Conservation and Attractions' (DBCA) Animal Ethics Committee (AEC). However, this SOP may also be appropriate for other situations.

This SOP applies to all fauna survey and monitoring activities involving the use of funnel traps undertaken across Western Australia by DBCA (hereafter department) personnel. It may also be used to guide fauna related activities, undertaken by Natural Resource Management groups, consultants, researchers and any other individuals or organisations. All department personnel involved in funnel trapping, should be familiar with the content of this document.

This SOP complements the *Australian code of practice for the care and use of animals for scientific purposes* (The Code). The Code provides the ethical framework and governing principles to guide decisions and actions of all those involved in the care and use of animals for scientific purposes, and should be referred to for all AEC approved projects. A copy of the code may be viewed by visiting the National Health and Medical Research Council website (https://www.nhmrc.gov.au/about-us/publications/australian-code-care-and-use-animals-scientific-purposes).

4 Animal Welfare Considerations

To reduce the level of impact of funnel trapping on the welfare of animals, personnel must consider, address and plan for the range of welfare impacts that may be encountered. Strategies to reduce impacts should be identified during the planning stage, to ensure that they can be readily implemented during trap set up and checking contingencies for managing welfare issues have been identified. Ensure that all personnel involved in the project are aware of the range of issues that they may encounter, the options that are available for reducing impacts and improving animal welfare, and the process for managing adverse events.

Department projects involving funnel trapping will require approval from the department's AEC.

Key animal welfare considerations that should be considered when funnel trapping, are listed below and highlighted throughout the document.

4.1 Injury and unexpected deaths

If adverse events including injury, unexpected deaths or unplanned requirement for euthanasia occur, then it is essential to consider the possible causes and take action to prevent further issues. Adhering to the guidance in this SOP will assist in minimising the likelihood of adverse events. For projects approved by the department's AEC, adverse events must be reported in writing to the AEC Executive Officer as soon as possible after the event by completing an *Adverse Event Form*. Guidance on first aid for animals and field euthanasia procedures is described in the department SOPs for *First Aid for Animals* and *Euthanasia of Animals Under Field Conditions*. Where infectious disease is suspected, refer to the department SOP for *Managing Disease Risk and Biosecurity in Wildlife Management* for further guidance.

4.2 Level of impact

Funnel trapping generally has a low to moderate level of impact on animals. However, in extreme weather conditions and/or where amphibians are present the impact can be very high. Funnel traps are most effective in warm conditions, due to the nature of the species commonly targeted. Ground temperature can be significantly higher than the ambient temperature and careful planning must be undertaken prior to field work, to ensure animal welfare risks are fully mitigated.

Potential animal welfare impacts of funnel trapping include:

- Hyperthermia.
- Hypothermia.
- Stress or injury as a result of extended period in confinement.
- Trauma (e.g., accidental injuries inflicted during hand capture as some species can be difficult to remove from funnel traps).
- Dehydration or desiccation (particularly of concern where amphibians are likely to be caught).
- Distress (e.g., exposure to predators etc.).
- Stress or mortality as result of interspecific or intraspecific interaction in trap (e.g., predation, ants).

If funnel traps are monitored by people with appropriate skills and experience, and preventative actions are in place, particularly during warm weather conditions, the impact should be low and only short term.

5 Approved Trap Types

The funnel trap most commonly used for terrestrial surveys in Western Australia is the double-ended funnel trap (Figure 1).

The size of funnel traps can vary but in general they are approximately 750 mm x 180 mm x 180 mm with an internal funnel entrance diameter of 40 mm. They fold up for transporting and storage, are constructed of shade cloth, have an internal spring and wire frame to

maintain shape when open and have a near full length zipper for removing captured fauna. Traps with shorter zippers can make animal extraction difficult.

Figure 1 A double-ended funnel trap opened and folded up for transportation. Photo: Mark Cowan (DBCA).

6 Procedure Outline

6.1 Setting and positioning traps

(a) The location and configuration of trap placement as well as the number of traps will be determined by the purpose of the study and should be planned before commencing the survey. Consider the target species' likely use of habitat and home range, and welfare implications of trap placement when designing trap configuration and layout. Vegetation and habitat mapping may assist in survey design.

ANIMAL WELFARE: In determining the duration and frequency of trapping you should consider the purpose of your study and the potential welfare impacts. Identify the duration and frequency that will allow the goal of the activity to be achieved with the minimal impact on animals.

ANIMAL WELFARE: Avoid placing funnel traps on or in the vicinity of ant nests or ant lines. Ants are known to distress and kill trapped occupants of funnel traps.

(b) Trap locations must be marked to ensure that none are missed when checking or closing traps. A GPS reading for each line (or trap point, if required) is strongly recommended. The location information for permanent monitoring transects and their trap points should be recorded on datasheets and in a database.

(c) Funnel traps are usually (but not always) used in conjunction with a drift fence (approx. 25 cm high once partially buried). Drift fences increase the probability of capturing animals. Drift fences are usually constructed from aluminium fly-wire mesh, nylon fly-wire mesh or other suitable material. Aluminium flywire fence is preferable to nylon as it

is more resilient and does not require supporting pegs when constructed correctly. Run the drift fence along the transect. The length of the drift fence will be determined by the purpose of the study, noting that the length of the drift fence and number of traps can greatly affect results (Greenberg et al., 1994; Blomberg and Shine, 2006).

(d) Place the funnel traps (generally one on each side of the drift fence) at the trap locations (Figure 2A) making sure the traps are placed tightly against the drift fence and the ground so that no gaps exist (Jenkins et al., 2003). The clasps used to hold the funnel traps closed should be positioned so that they do not push the funnel trap away from the drift fence.

(e) The number of funnel traps placed along the drift fence and at what intervals will be determined by the purpose of the study. Alternative arrangements include placing a single trap between lengths of drift fence (fence abutting both ends of the trap), a single trap at the end of a drift fence or alternating traps either side of a drift fence.

(f) Funnel traps should be placed so that they are flush to the ground at both ends. Clearing debris from under the trap will assist with this. The transition from the substrate into the trap should be as smooth as possible. Use soil, leaf litter or even flat rocks to form a ramp into the trap entrances (Figure 2B). Note that traps can become disfigured during folded storage and may need adjusting upon placement. Ensure the funnel part is tensioned within the trap and open.

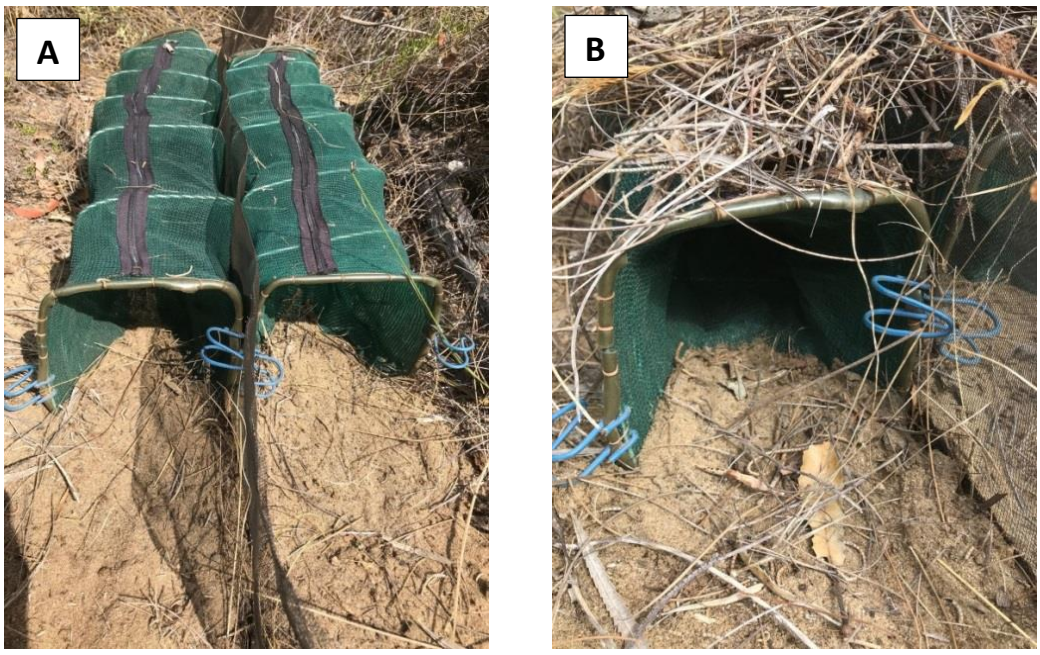

Figure 2 (A) Two funnel traps sit flush with the drift fence and the ground (clasps positioned inwards to allow trap to sit flush with the drift fence). (B) soil ramped into the opening of the funnel trap.

(g) Cover traps with thick hessian sacks or reflective insulating material to provide shelter for captured animals. Hessian should overlap onto ground either side of the traps. Ensure that covers are anchored or weighed down with soil, rocks or branches to prevent them being blown off (Figure 3A). If shade cloth is used, additional vegetation cover is needed in warm to hot conditions (Figure 3B).

ANIMAL WELFARE: Good cover is critical for funnel traps to provide insulation and protection to animals in traps. Shade is vitally important in warm to hot weather to reduce the temperature inside. Funnel traps must never be exposed to full sunlight as animals can easily die of heat stress. It is essential that all funnel traps be protected by an adequate shade cover, such as hessian sacks, and if possible be positioned to take full advantage of natural shading and vegetated areas at the site.

Operators of funnel traps should carefully consider the passage of the sun during the day and minimise total exposure of the trap. Where possible, place funnel traps on the southern side of vegetation. If the cover is not large enough to provide shade at both ends of the funnel trap, ensure that at least one end and as much as possible of the rest of the trap is completely covered. Using vegetation such as leaves, or Spinifex can also be an effective shade cover but must be anchored by branches or sticks so that it is not blown off by wind.

Temperature-logging devices (e.g. i-Buttons) can be useful tools to monitor in-trap temperatures, which can help in understanding potential animal welfare impacts.

Traps must not be deployed at a site during any period of flood risk.

Figure 3 (A) Two funnel traps sit flush with the drift fence and covered with thick hessian. (B) Two funnel traps with additional vegetation cover.

(h) A long-wet sponge inside the trap or a wet hessian under the trap may be used to provide moisture where amphibians are likely to be caught (Jenkins et al., 2003). Consideration should however be given to the risk of this attracting ants in hot environments.

(i) Baiting funnel traps is not standard practice. If using bait in funnel traps, consider the risks of attracting ants and/or rodents which may injure and/or kill animals that have been caught in the trap.

(j) All traps must be accounted for every day of deployment and upon ending the trapping session.

6.2 Opening traps

(a) As identified above, ensure traps are protected from direct sunlight and heat by taking advantage of natural shading and vegetation in the landscape in addition to trap covers.

ANIMAL WELFARE: Avoid trapping or close traps in extreme weather conditions. The combination of rain and cool temperatures, or low humidity and high temperatures can lead to poor welfare outcomes, so decisions should be made based on expected conditions and the physiology of animals likely to be captured. Trap temperature can be much higher than ambient temperatures. Close funnel traps if there is excessive rain or heavy rain is forecast. Plan and monitor long-range and daily weather forecasts.

(b) Before the trap is left, it is important to check that it is all set up correctly and secured.

6.3 Checking traps

ANIMAL WELFARE: Rainfall events in a normally dry weather period can result in a number of species becoming active that may not normally be trapped (e.g., amphibians and some species of ants and other invertebrates). It is essential that personnel monitor and manage these often large 'emergence' events to ensure that welfare of animals is not compromised. Modifications of trap set up and increased trap checking may be required when large numbers of adult and metamorph amphibians appear; personnel should ensure appropriate moisture is provided in traps and discourage increased predation by ants.

(a) Timing of trap checking:

ANIMAL WELFARE: The timing and frequency of trap checking and clearing should be determined by considering the behaviour and biology of the species being targeted (and potential by-catch species) in association with the environmental conditions at the site. The timing and frequency of trap checking should be reviewed and adapted when and if conditions change or adverse events occur. Traps may need to be checked more frequently throughout the day and/or night if prolonged trap confinement or environmental conditions are likely to increase the impact on animal welfare and affect survivorship.

For funnel trapping, traps need to be checked more frequently if weather conditions are of concern for captured species, capture rate is high, or the combination of species trapped results in unacceptable trap deaths through predation or attack.

Traps must be cleared early morning within 3 hours of sunrise. In hot conditions, traps may need to be checked again late morning.

If it is necessary to operate traps during the day in extreme conditions (i.e. summer months in the semi-arid to arid parts of the state) and adequate protection and insulation from radiant heat cannot be provided, traps must be closed after the morning check and only re-opened in the late afternoon (EPA & DEC 2010).

(b) Venomous snakes and invertebrates may be captured in funnel traps. A job safety analysis that plans for the removal and handling for such species should be undertaken

before trapping commences. People with the appropriate skills and expertise must be available to assist with removing dangerous animals from the traps.

(c) It is vital that extreme care is taken when checking funnel traps as venomous animals may be able to bite or sting handlers through the trap material. Verify what type of animal/s are inside (check particularly for venomous snakes and invertebrates) before picking up the trap or deciding how to remove the animal. Gloves, padded tongs or long forceps can be used when removing potentially harmful animals, however, particular care needs to be taken not to injure them due to reduced dexterity (Blomberg and Shine, 2006).

(d) Traps must be thoroughly inspected to ensure all animals are removed. Small animals, particularly small skinks and geckos, can easily be overlooked in folds and dark corners. Animals can also be pinned between the internal wire frame and mesh. Funnel traps must be picked up for thorough checking; examining in situ on the ground is not acceptable. When picking the trap up, care should be taken in preventing ramped soil tipping in to the trap by folding the ends down and shaking initially. Hold the funnel trap up to the sky and rotate several times examining all areas of the trap. Lastly and importantly, the trap should be fully unzipped and inspected inside.

(e) With funnel trap unzipped and upside down with the zip facing the ground, shake out the funnel trap after checking to double-check that all animals have been removed.

(f) Carry a range of appropriate handling bags and equipment (i.e., long forceps, gloves) when checking traps (refer to the department's SOPs for *Hand Capture of Wildlife*, *Animal Handling and Restraint using Soft Containment* and *Hand Restraint of Wildlife*).

(g) All traps must be accounted for during each day of trapping. The person in charge at the specified location on the day, ideally the Chief Investigator of the project, or an animal handler operating under their direction, is responsible for ensuring that all traps are inspected, cleared and/or collected.

(h) The presence of ants in the trapping area can lead to detrimental impacts on captured animals. A small amount of surface insecticide (e.g., a liquid-based permethrin product such as Coopex) can be applied, as a continuous barrier around traps to discourage ants. Extreme care must be taken to ensure that no free-standing liquid droplets remain when using liquid-based permethrin as absorption/ingestion can be lethal to frogs and reptiles. Consider alternatives in areas with a high likelihood of capturing amphibians or reptiles or where conservation significant amphibians or reptiles are known to occur. Always read the Safety Data Sheet (SDS) of chemicals before use. If ants become highly attracted to the trapping area, remove and relocate the traps to a more suitable position.

ANIMAL WELFARE: If moderate to high numbers of ants are identified at a trap site, or if small numbers of ants cause welfare issues, then the trap must be removed or moved to another location.

6.4 Removing animals from traps

All animal handling must be done by (or under the direct supervision of) trained and competent personnel. Personnel must have adequate skills to capture, restrain and remove any species likely to be caught, including those that have potential to cause harm.

(a) Use handling bags appropriate for the species and length of containment as advised in the department SOP for *Animal Handling and Restraint using Soft Containment*.

ANIMAL WELFARE: All handling bags and equipment should be kept clean to minimise risk of disease, contamination, etc. Refer to the department SOP for *Managing Disease Risk and Biosecurity in Wildlife Management* for further guidance.

(b) Techniques for removing animals from funnel traps vary depending on the species of invertebrate, mammal, reptile or frog involved and the experience and skills of the personnel. Particular care is required when removing small reptiles that may autotomise (lose) their tails (see below).

If venomous snakes don't require handling, then opening the zip with long forceps and stepping back quietly is safer and less stressful for the animal compared with attempting to handle it.

General advice on capture and handling of animals is contained in the department's SOPs for *Hand Capture of Wildlife*, *Animal Handling and Restraint using Soft Containment* and *Hand Restraint of Wildlife*.

(c) Removal must be as quick and efficient as possible, with the least amount of stress inflicted on captured animals. Small and fast animals such as diurnal skinks (eg. *Ctenotus* sp.) can be difficult to catch within a funnel trap as they move more quickly and with more flexibility than a person's arm and hand in the trap. This can lead to inappropriate handling and injury (eg. dropped tails) or escape. In these circumstances, consider whether handling is required. If species identification can be made without handling, do this then unzip the trap to allow the animal to exit. If handling is required, a useful method can be to appropriately and carefully pin the animal from the outside of the trap using a pinching technique while the trap is zipped up. The other hand then opens the trap and retrieves the restrained animal.

(d) Personnel undertaking trapping should be equipped with a trapping field kit and animals should be processed and released as quickly and efficiently as possible, ensuring stress is kept to a minimum.

ANIMAL WELFARE: To ensure minimal stress to the animals, animals should only be handled for as long as required to identify them, undertake a brief assessment for any signs of injury, and to collect any necessary measurements (usually no more than five minutes).

(e) If an animal is injured during trapping or handling treat any superficial wounds (refer to the department SOP for *First Aid for Animals*).

(f) If an animal is seriously injured, refer to the department SOP for *Euthanasia of Animals Under Field Conditions* to aid decision making and determine if euthanasia or veterinary care is required. A euthanasia action plan should be developed before undertaking field work.

ANIMAL WELFARE: Repeatedly recapturing individuals, particularly over a short timeframe, may increase the impact on their welfare. Consideration should be given to temporary marking individuals where (semi)permanent marking is not necessary to meet the objectives

of a given project. This will aid animal handlers in understanding recapture rates. Recaptured animals should be released immediately when their data are not required. In cases where the same individual is being caught repeatedly, animal handlers should consider if sufficient data have been collected and close the site/trap.

(g) Record trapping data on an appropriate trapping datasheet and database.

(h) Release animals at point of capture at an appropriate distance away from the funnel trap; generally, a few metres for small fossorial species with increasing distances of up to ten metres or more for more mobile species (larger reptiles and mammals). Consideration should always be given to the mobility of the species being released, the likelihood of the animal re-encountering the drift fence, and appropriate species-specific refuge. Re-entering a trap shortly after release can result in the animal's death as it is then exposed to the maximum heat of the day, as well as having greater exposure to predatory species, including ants. It is therefore critically important to make informed decisions on both the distance at which a species is released and the appropriateness and adequacy of shelter at release points to minimise the likelihood of this occurring. It may be beneficial in some situations, depending on the environment and availability of cover, to release mammals (or some reptiles) off the end of pit trap lines to reduce the likelihood of encountering traps if they immediately move from the point of release. Animals should be released as soon as possible and at an appropriate time. Animals must be released, or reach an alternate endpoint approved by the department's AEC. Animals should be released into good shelter and caution taken to reduce exposure to risks such as predation.

6.5 Identification

The taxonomy of many of the species captured by funnel traps is not static. Some species may not be found in (or not be fully described in) field guides and can be difficult to identify. Personnel should stay up to date with taxonomic revisions for species they are likely to be encountering (the WA Museum vertebrate taxonomic checklist is updated annually and provides information on recent taxonomic changes). If trapping in new or poorly surveyed areas, personnel should contact the WA Museum to check if new specimens are required. If required by the WA Museum, any trap deaths involving these species should be retained and provided to the museum.

6.6 Removing funnel traps

(a) All traps must be counted out upon deployment and counted in when collected. Personnel undertaking the trapping should keep tallies of traps to ensure that no traps are left behind.

(b) Funnel traps should be checked especially carefully before folding for storage. Traps should be emptied by unzipping and shaking out any loose material (particularly seeds and faecal material) before folding and transporting. If wet faecal matter is caught in the mesh cleaning with a disinfectant is required. Refer to the department SOP for *Managing Disease Risk and Biosecurity in Wildlife Management* for further guidance.

(c) Remove flagging tape etc from area.

7 Trap hygiene and maintenance

(a) Traps must be maintained in good working order. Ensure the zip opens and closes smoothly before each use. Dirt and dust easily clogs the zipper and can lead to it seizing and breaking. Maintenance should include hosing with water, allowing to dry, and lubricating with a suitable product such as WD-40.

(b) Funnel traps are prone to developing holes along seam lines and small rodents and marsupials readily chew holes through the shade cloth. Check traps carefully for holes before use. Animals will attempt to squeeze through a suitably sized hole, but when the hole is slightly too small they can become stuck. Any funnel trap that has a hole should be immediately removed from trapping.

(c) Damaged funnel traps should be marked and either replaced or repaired before re-use.

(d) Consider weeds and pathogens when using the equipment, ensure funnel traps are cleaned and dried thoroughly before storage as they are susceptible to mould.

8 Competencies

A person who is competent has the knowledge, skills, and experiences that allow them to capture and handle animals successfully, and appropriately manage adverse events as required. Department personnel, and other external parties covered by the department's Animal Ethics Committee, undertaking projects involving funnel traps require approval from the committee and will need to satisfy the competency requirements detailed in Table 1. Other groups, organisations or individuals using this SOP to guide their funnel trapping activities are encouraged to also meet these competency requirements as well as their animal welfare legislative obligations.

It should be noted that sampling design details such as intensity and scope of the project being undertaken will determine the level of competency required and Table 1 provides advice for standard monitoring only.

Table 1 Competency requirements for Animal Handlers of projects using funnel traps to capture terrestrial fauna

Competency category	Competency requirement	Competency assessment
Knowledge	Broad understanding of the framework governing the use of animals in research and environmental studies in Western Australia	Training (e.g., DBCA Fauna Management Course or equivalent training or experience). In applications, provide details on the course provider, course name and year.
	Understanding species biology and ecology	Personnel should be able to correctly identify the likely species to be encountered in funnel traps for the site(s) being studied and understand the species' biology and

		ecology. This knowledge may be gained through sufficient field experience and consultation of field guides and other literature.
	Understanding environmental conditions	Personnel should be aware of the environmental and seasonal conditions that may be expected on the project and understand location-specific animal welfare considerations. In applications, provide details of time spent undertaking similar work in similar locations.
Fauna survey and capture skills/experience required	Experience setting and checking funnel traps	Personnel should be familiar with the animal welfare principles of funnel trapping (e.g., appropriate locations for trap installation, frequency of trap checking depending on climatic conditions, considerations for trap closure). In applications, provide details on the longevity, frequency & recency of experience.
Animal handling and processing skills/experience required	Experience handling terrestrial fauna	Personnel should be experienced at retrieving fauna from funnel traps and restraint of the range of species likely to be captured. This experience is best obtained under supervision of more experienced personnel. In applications, provide details on experience relating to the expected species or species groups.
	Experience managing disease risk and biosecurity in wildlife management	Personnel should be familiar with hygiene procedures. This knowledge may be gained through sufficient field experience and consultation of literature.

In conjunction with possessing the required understanding and knowledge of funnel trapping procedures and animal welfare requirements, a guide to the experience and skill requirements for an animal handler to be considered competent to capture and handle animals is as follows: (noting that some personnel with experience may still require initial supervision in unfamiliar locations or with species that they have not encountered previously):

- Total time in field: minimum 3-6 weeks undertaking funnel trapping or similar animal handling, at different biogeographic locations and under varying climatic conditions.
- Recency of time in field: within the past 5 years.
- Minimum 30 individuals of a variety of species handled.
- Minimum 2 weeks undertaking similar activity in similar environments.

9 Approvals

In Western Australia any person using animals for scientific purposes must be covered by a licence issued under the *Animal Welfare Act 2002*, which is administered by the Department of Primary Industries and Regional Development.

Projects involving wildlife may also require a licence/authorisation under the *Biodiversity Conservation Act 2016* (examples below). Personnel should consult the department's Wildlife Licensing Section for further guidance. It is your responsibility to ensure you comply with the requirements of all applicable legislation.

- Fauna taking (scientific or other purposes) licence (Reg 25)
- Fauna taking (biological assessment) licence (Reg 27)
- Fauna taking (relocation) licence (Reg 28)
- Section 40 Ministerial Authorisation to take or disturb threatened species

10 Occupational Health and Safety

The following departmental SOPs for wildlife survey and monitoring activities are relevant to occupational health and safety:

- SOP *Managing Disease Risk and Biosecurity in Wildlife Management*
- SOP *Hand Restraint of Wildlife*

Departmental personnel, contractors and volunteers have duties and responsibilities under the *Occupational Safety and Health Act 1984* and Occupational Safety and Health Regulations 1996 to ensure the health and safety of all involved. Fieldwork is to be undertaken in line with the department's corporate guidelines, policies and standard operating procedures, including but not limited to, risk management and job safety analyses. Further information can be found at https://dpaw.sharepoint.com/Divisions/corporate/people-services/HS/SitePages/SOPs.aspx

If department personnel or volunteers are injured, please refer to the departmental Health, Safety and Wellbeing Section's 'Reporting Hazards, Near-misses and Incidents' intranet page, which can be found at https://dpaw.sharepoint.com/Divisions/corporate/people-services/HS/SitePages/Reporting-Hazards,-Near-Misses-and-Incidents.aspx

11 Further Reading

The following SOPs have been mentioned in this advice and it is recommended that they are consulted when proposing to capture wildlife with funnel traps:

- Department SOP *Hand Capture of Wildlife*
- Department SOP *Hand Restraint of Wildlife*

- Department SOP *Animal Handling and Restraint using Soft Containment*
- Department SOP *First Aid for Animals*
- Department SOP *Managing Disease Risk and Biosecurity in Wildlife Management*
- Department SOP *Euthanasia of Animals Under Field Conditions*

For further advice refer also to:

Environmental Protection Authority and Department of Environment and Conservation (2020) Technical Guidance - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment, EPA, Western Australia.

National Health and Medical Research Council (2013) *Australian code for the care and use of animals for scientific purposes*, 8th edition. Canberra: National Health and Medical Research Council.

12 References

Environmental Protection Authority and Department of Environment and Conservation (2010) *Technical Guide - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (Eds. B.M. Hyder, J. Dell and M.A Cowan). Perth, WA.

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Blomberg, S., and Shine, R. (2006) In W. Sutherland (2nd ed.) Ecological Census Techniques: A Handbook (pp. 297-307) Cambridge University Press.

13 Glossary of Terms

Animal handler: A person listed on an application to the department's Animal Ethics Committee who will be responsible for handling animals during the project.

Drift fence: A length of short fence which runs along the trap line, guiding the animals to the trap.

Funnel trap: A confusion trap in which the animal enters through a funnel entrance and cannot find its way out. The trap can be single or double ended and are often used with drift fences.