ALEP

29

Aboriginal Landcare Education Program

APPLY ANIMAL TRAPPING TECHNIQUES





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CONTENTS

PUBLICATION NOTES

BHP Billiton Iron Ore is proud to support Greening Australia to provide valuable conservation and land management training to communities throughout the Pilbara through the Indigenous Training Program.

This Learning Guide series has been developed as part of our partnership of the program.

Gavin Price, Head of Environment, BHP Billiton Iron Ore

Greening Australia is proud to produce and provide the comprehensive suite of new ALEP Learning Guides. The guides are compatible with the new horticulture and conservation industries training package and are suited to developing skills in Indigenous communities within remote areas of the country where employment opportunities are limited. We would like to thank BHPBIO for their generous support in the development of the guides.

Brendan Foran, National CEO, Greening Australia

The second series of ALEP Guides is aligned with a number of units of competence from the *Training Package AHC10–Agriculture, Horticulture and Conservation and Land Management* (Release 8.0). The units selected are frequently used within Certificates I to III in Horticulture and Conservation and Land Management. As such they cover, where possible, the elements, performance criteria and required skills and knowledge of each unit.

The principal goal of these resources is to support the learning process; the learning activities may complement a trainer's assessment plan. The intent is that they will be used in an interactive manner with learners rather than as self-paced study guides. The structure and sequence have been designed to follow the logical steps of the practical tasks wherever possible. Concepts are introduced and then consolidated with discussion and/or practical activities.

The writers consider that these guides can provide a sound technical foundation but also strongly encourage trainers to complement the guides with additional, authentic resources from relevant industry texts and websites. The guides can be used in part or in their entirety but should always be linked to practical activities to strengthen the teaching and learning.

Genuine consideration was given to the level of language used in the guides. The goal has been to find a balance between simplifying the language to an accessible level and ensuring that the vocational concepts are addressed. The writers contend that with appropriate support these texts can provide an opportunity for students to strengthen their language, literacy and numeracy skills, which may be required for pathway progression.

A number of Aboriginal people have been involved in developing this ALEP Guide, which is considered suitable for use within a program based on Aboriginal pedagogies.

INTRODUCTION

Welcome to *Apply Animal Trapping Techniques*. In this unit you will learn how to use traps for the purposes of scientific study of wildlife or capture of pest animals for culling. This kind of work is generally carried out in a project team comprising several organisations.

Before you begin this unit, it is recommended that you have studied the unit *Recognise fauna* and the knowledge and skills from *Observe and report plants or animals*. There are ALEP Guides for both of these units.

This learner guide does not attempt to cover the use of baits and toxins. In conservation and land management, the most commonly used baits and toxins are classified as schedule 7 poisons. The use of these requires specialised training determined by the poisons Act in each state or territory. If you need to use this kind of poison, you will need to do additional training.

ALEP
Aboriginal Landcare Education Program

Much of the training for this unit should be completed on the job.

EQUIPMENT REQUIRED

To complete this training, you will need the following:

1. Appropriate Personal Protective Equipment (PPE)
2. Trapping equipment suitable for the activity
3. Vehicle and camping equipment suitable for the activity

LEARNING ACTIVITIES

To complete this training you will need the following:

SECTION	ACTIVITY	SATISFACTORY (Y/N)	DATE
RESEARCH ACTIVITIES			
2.3	Learn about the target species		
2.4	Learn about non-target species		
2.9	Legislation and Codes of Practice		
DISCUSSION ACTIVITIES			
2.2	The purpose of the trapping activity		
2.5	Select a site		
2.6	Select the type of trap to use		
2.8	Dos and Don'ts on someone else's property		
PRACTICAL ACTIVITIES			
2.9	Complete travel plans and JSAs		
3.1	Vehicle pre-start check		
PROJECT			
2.9	Create a portfolio of documents relevant to WHS		
5	Participate in trapping activity		
WORKBOOK ACTIVITIES			
1.2	Relevant legislation in your state or territory		
2.7	Plan the timeframe for the trapping activity		
2.8	Get permits and permissions		
3.3	Plan equipment needs for trip		

1 BEFORE YOU START

Animal trapping is often a regular aspect of a ranger's role. Trapping can be used for survey work or controlling the population of a species. There are a number of things you need to think about before you start planning a trapping project.

REMEMBER

A HAZARD is anything that can cause injury or damage to the health of a person or animal.

RISK is the chance of a hazard causing injury.

NOTE

A zoonosis is a disease that can be passed from an animal to a human.

1.1 WORKPLACE HEALTH & SAFETY (WHS)

With every job, you and your work team need to think about the hazards involved and ways to minimise the risk of harm. The things you wear (PPE) and the things you do to minimise risk are called controls.

There are hazards specific to working with traps. These can vary depending on the animals you trap and the kind of traps you use.

You must always follow your workplace Standard Operating Procedures (SOPs) or Safe Work Method Statements (SWMSs).

In *Section 2.9*, we'll look more closely at the SOPs you'll use, and you'll be able to use this information to complete the Job Safety Analysis (JSA) for your project.

HAZARDS	CONTROLS
Animal scratches or bites causing injury and/or infection or exposure to zoonoses	• Learn how to safely handle animals • Disinfect hands after handling animals or scats • Pay special attention to where you are walking • Wear suitable gloves while handling animals if appropriate • Have a well-stocked first aid kit, including dressings and disinfectant
Manual handling	• Follow SOP • Work in pairs
Trips, slips and falls	• Pay special attention to where you are walking, especially when you are looking for tracks and signs
Prescribed burning in your survey area (done by other people)	• Check with local authorities, communities and pastoralists during planning • Take a satellite phone in case of emergency
Working in remote areas	• Do all pre-start checks on vehicles and equipment • Follow SOPs or SWMSs • Work in pairs and keep fit and healthy • Take a satellite phone in case of emergency
Sun exposure	• Follow SOPs • Take regular breaks in shade • Use sunscreen • Drink plenty of water • Wear appropriate PPE

1.2 LEGISLATION

When using traps, there are a lot of laws you need to follow. These are designed to protect you, the animals you capture and the environment. These laws are covered in the ALEP guides shown on the right.

WHS legislation must be followed with all your work. In general, you must accept your duty of care. This means you need to:

- Complete the training provided by your employer and required by law, and follow the processes learnt
- Use and look after PPE and safety equipment as directed
- Follow workplace policies and procedures
- Report any accidents and near misses
- Follow manufacturers' safety instructions on equipment and when using dangerous materials
- Make suggestions as to how to reduce risks in the workplace

Environmental legislation is designed to protect flora, fauna, ecological communities and heritage places that are important in Australia and internationally. Much of the work rangers do increases the effect of these laws.

Animal welfare legislation must be followed when working with any live animal. In particular, these laws are to protect vertebrate animals from cruelty.

There is animal welfare legislation in each state or territory. Breaches of this legislation, such as inhumane treatment of animals, can result in large fines or imprisonment.

There are national model codes of practice on animal welfare. These are specific to working with different species. If your state or territory does not have its own codes of practice, you should use these model ones.

REMEMBER: *A vertebrate is an animal with a spinal column or backbone.*

CAPTURE AND HANDLING ANIMALS

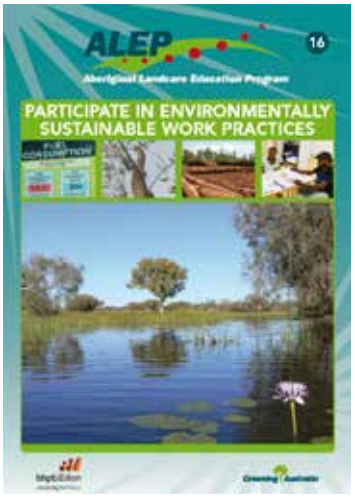
Most states and territories have legislation about trapping and handling animals. In general, this legislation will require the project you are working on to have a permit to trap animals.

There are usually different permits required, depending on your purpose:

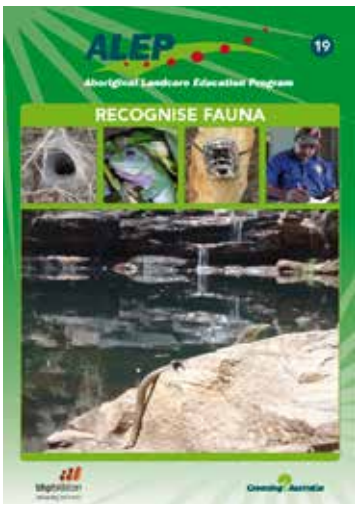
- Capturing native animals for scientific research (including education)
- Capturing feral or invasive species for culling

The relevant information for each state or territory is included in the *Resources* section.

ALEP Guide 15 covers WHS legislation.



ALEP Guide 16 covers environmental legislation.



ALEP Guide 19 covers animal welfare legislation.

R1

See *Resource R1*, page 42

WORKBOOK ACTIVITY

Fill in the following information relevant for your state or territory using:

- The ALEP Guides mentioned on the previous page
- The information in the *Resources* section

R1

See *Resource R1*, page 42

WHS legislation the project team needs to follow:

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Environmental legislation the project team needs to follow:

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Animal welfare legislation the project team needs to follow:

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.....

Legislation about capturing and handling animals the project team needs to follow:

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Name any permits the project team needs to apply for and who will do the application.

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.....

If you need any licensing or permits to participate in the project, how will you apply for these?

.....

.....

2 PLANNING

As always, planning is an important stage of doing the job. With good planning, the job will go more smoothly and safely.

2.1 THE PROJECT TEAM

It is likely that you will be working with other people and organisations in a project team. The project team might include any of the following people:

- Traditional owners and elders
- Researchers from a university
- Staff from state, territory or federal departments
- Volunteers
- Landholders
- Trainers

Each team member will have skills and knowledge to share. Different people will also take on different roles within the team. It is important that everyone is listened to and respected.

NOTE

An inventory is a collection of data. When trapping animals, you will use an inventory to list the species, the number counted and other information about the habitat.

2.2 WHY ARE YOU TRAPPING?

There are three main reasons you might need to use animal traps

- For research
- To manage a species population
- To manage an individual animal

It is important to understand the purpose so you can work out the most suitable trapping technique and get the equipment you need ready.

RESEARCH

Research projects in conservation and land management work are designed to help us learn more about our environment. Researchers document their findings so other people can read the information and apply it to their work.

Researchers often work with ranger groups to learn more about Country and its plant and animal species.

Baseline surveys are done to count the species living in a specific location and provide data to make an inventory. This could be done as part of an environmental impact assessment, which is part of the approval process for new developments such as mining. Among other things, the researcher might look for evidence of protected or endangered species.

A baseline survey could also be done as part of a managing country program.

Monitoring surveys are like follow-up surveys. The data collected can be compared with data in the inventory. This lets us know if a species population is increasing, decreasing or staying the same. There are several different kinds of monitoring surveys.

- Biodiversity surveys look at how large the range of species is in a specific location. The aim of this kind of survey is to find evidence of many different plants and animals. A range of trapping techniques might be required.
- Specific-purpose surveys gather data related to a particular species or group of species. This kind of survey is useful to monitor and assess the impact of development, climate change or particular events such as fire, a decrease in grazing numbers or removal of feral species.

Specific purpose surveys can also be used as part of an environmental impact assessment.

POPULATION MANAGEMENT

Across Australia, feral and introduced animals cause damage to the environment. Damage generally happens while the animals access food and water. Problems arise when they:

- Eat the same food as native species, leaving less food for the native species
- Eat young plants so they don't reach maturity, damaging the habitat of native species
- Eat small or young native animals
- Damage waterholes and riverbanks
- Spread weeds through their droppings

The most common problem species in Australia are:

- Brumbies
- Buffalo
- Cats
- Camels
- Cane toads
- Donkeys
- Feral birds
- Feral fish
- Feral pigs
- Foxes
- Goats
- Rabbits
- Unmanaged cattle
- Wild dogs

To manage the population of a species, after trapping you might cull or relocate the animals.

INDIVIDUAL ANIMAL MANAGEMENT

Sometimes a problem animal, such as a crocodile, presents a safety risk to people. This usually happens in towns or camping spots. The animal is generally captured and relocated. Ranger groups are often asked to do this work.

DISCUSSION ACTIVITY

What is the purpose of the trapping work you will do?

2.3 LEARN ABOUT THE TARGET SPECIES

The target species is the species you want to capture. You might be targeting one species or many different species. You will need to learn about a few aspects of their behaviours, reproductive cycles and preferences. This will help you select the best trapping technique, the best time and the most suitable location for trapping.

You can ask cultural and scientific experts about the animal. You can also read relevant books and internet sites.

You really want to understand the following characteristics of the species:

- Known locations from previous sightings and associated terrain
- Feeding locations and resting locations
- Preferred habitat
- Preferred food source and the season it's available
- Daily behaviour patterns such as nocturnal/diurnal, feeding times
- Behaviours such as inquisitiveness, aggression, shyness, sensitivity to noise
- Regular movement patterns: where to, how often, how far?
- Migratory patterns: time of year, how far?
- Breeding cycles: mating times, nesting times, when are young born?
- Seasonal and lunar influences

If you are targeting a particular animal, you will also need as much local information as you can get about its behaviours and preferred locations.

RESEARCH ACTIVITY

Make notes about the target species. Use the list on the previous page as a guide to the kind of information to include.

You may use the following resources to help:

- Reference books
- Internet searches
- The support of your supervisor and trainer
- Advice from an expert

2.4 LEARN ABOUT NON-TARGET SPECIES

A non-target species is any species that you are not trying to trap.

If you are doing a biodiversity survey, there probably won't be any non-target species. If you are looking for one particular species, there are likely to be many non-target species.

To avoid trapping non-target species, you need to have a good understanding of other fauna species around the site. Detailed information will be needed about species that are of a similar size and with similar behaviours to your target species.

RESEARCH ACTIVITY

Write down a list of all the species living in the broad area where you are planning to trap.

You may use the following resources to help:

- Reference books
- Internet searches
- The support of your supervisor and trainer
- Advice from an expert

LANGUAGE OR COMMON NAME	SCIENTIFIC NAME

2.5 SELECT A SITE

Information about the target and non-target species will help you to work out the best place for trapping.

You need to be able to safely access the site with the equipment. This needs to be done with minimal environmental impact. You also want to minimise the chance of trapping any non-target species.

The survey site might be a relatively small area, or you might work over a large area. You will decide this based on the purpose of the trapping activity, as well as the species' behaviour and regular movement patterns. Reducing the size of the area to very specific habitat can decrease the number of non-target species captured.

If you are working on a survey, the method will help determine the site. On a survey, the location and size of the trapping area will be determined through scientific research methods.

In a culling program, capture points will often be associated with a watering or food point. Sometimes the kill point will be where the trapping happens. Sometimes you will need to transport the animals to another location. To work out the kill point, you need to think about the options you have to transport the animal, for example, a cattle truck. You also need to consider how and where you will dispose of the carcasses.

You also need to think about:

- Preventing the animals from suffering
- Minimising environmental impact

DISCUSSION ACTIVITY

With the project team, work out the best area to carry out the trapping activity. Use a map to locate the area.

Elliot trap

Cage trap, Thomas trap

Soft net trap (Image courtesy of Ecotrap Pty. Ltd.)

Crocodile trap

2.6 SELECT A TRAP

There are a few different kinds of traps. They are designed to leave the animal unharmed. Following is a description of some trapping techniques. You need to consider the terrain of the site. You will need to be able to safely transport the equipment to the site. You also need to be able to prepare and camouflage it.

TRAPS USING LURES

These traps are designed to attract the animal into them. A lure is placed in the trap. This is usually a food mixture enjoyed by the target species. When the animal goes in to eat the food, the trap closes around them.

Elliot traps are made of solid metal sides. They are collapsible, so are fairly easy to carry. They are useful for trapping small marsupials and reptiles. Different lures need to be used for different target species.

Cage traps are made of steel and some are collapsible. They are larger than an Elliot trap, so are more difficult to carry over difficult terrain. They are useful for trapping larger marsupials and reptiles. Different lures need to be used for different target species.

Thomas traps are a variation of the metal cage trap. The sides are made of shade cloth. These are good to use when the target species or non-target species is likely to self-harm in the cage. This is very suitable for macropods.

Soft net traps are good for animals that are unlikely to enter a cage trap. This is because there is very little of the trap visible to the animal. This kind of trap is particularly useful for catching feral cats.

Portable yards with feed and water are an effective way to trap feral goats and horses.

Crocodile traps are large enough to hold a big adult.
They are attached to the river bank and held afloat using drums.

TRAPS USING A MESH FENCE

These traps use a net fence to interrupt the animal's path. The animal then travels along the fence and into the trap.

A pitfall trap uses a piece of 150 mm PVC pipe that is sunk into the ground so the opening is level with the soil. The base is covered in flywire or a hard cap with some small holes in it to allow drainage in case of rain.

The pipe needs to go deep enough into the ground that animals can't jump back out and predators can't reach in. You also need to be able to comfortably reach in to get the animals out.

Put some leaves or small amount of soil at the bottom of the pipe so there is shelter for animals to hide under.

A low drift net made of flywire runs along the ground between a number of pit traps to guide animals into the traps.

This trap is useful for capturing reptiles and invertebrates. Marsupials are less likely to be caught in these, as they are more likely to be attracted to a lure.

You won't be able to use this method in very rocky terrain.

A funnel trap works well in combination with pitfall traps. The pitfall traps are positioned along the low drift net. A funnel trap is positioned at each end of the drift net. This kind of trap is most suitable for reptiles.

A fish trap is suspended in the water. Fish are guided toward the trap by a net strung out from the trap to the bank or shore.

Pitfall trap

Funnel trap

Fish trap

Faunatech Harptrap (Image courtesy of Faunatech Austbat PL)

TRAPS FOR FLYING ANIMALS

Harp traps and mist nets are designed to capture flying animals, including birds and bats. They are positioned on the flight path of the species they are targeting.

A harp trap is made of a series of nylon wires strung vertically within a frame. When the animal flies into the trap they slide down the wires and into a bag that runs along the bottom of the frame. Harp traps are most suitable for capturing bats.

A mist net is a large net strung up between two poles. There are tight lines that run across the net. As birds fly into a section, they fall down into the sagging part between the tight lines. Mist nets need to be monitored continuously so animals can be freed as quickly as possible to avoid injury. The Australian Government Department of the Environment, nationally, restricts the use of mist nets to people with appropriate endorsement as a Level III(A) or Level IV Bander.

Mist net (Image courtesy of Jon Coleman, Queensland wader study group)

Magpie decoy

DECOYS

Decoys are usually imitation birds and can be useful to attract birds toward a trap. Mirrors can also be used as decoys with some species. They are effective for bird species that are likely to be inquisitive about another bird in their territory. The decoy attracts the bird toward the trap, which is then triggered to capture them. Decoys can be used in combination with bird calls.

DISCUSSION & PRACTICAL ACTIVITY

With your work team, discuss the kind of trap(s) you will use and why you have made this choice. If you have access to the traps, you can have a look at these to see how they work.

2.7 WORK OUT THE TIME FRAME

The time frame for the trapping activity will depend on all the other things you have decided so far. There are three parts to working out your overall time for the activity.

- **The travel and set-up time:** Work out how long it will take you to:
  - Travel from your base to the site
  - Set up camp when you get to site
  - Pack up camp when you've finished
  - Travel back to your base
- **The time it takes to set up the traps including travel from the camp:** You'll need to think about the kind of trap(s) you're using, as well as the size of the area you plan to cover.
- **The time you need to have the traps set for:** Animals are often disturbed by the activity associated with the project team coming into the area. It might take 1–2 days for them to settle back into their usual patterns of movement and behaviour. You might not start having success with capturing an animal until then. Following that, it can take several days or nights to maximise the chance of capturing the target species. This will depend on the nature of the species, as well as the purpose of the trapping activity.

Trapping activity is often done over seven or more days in the field.

WORKBOOK ACTIVITY

Think about the amount of time it will take to do each part of the trapping job. Next, work out the total time needed for the whole activity.

ACTIVITY	DAYS
Total travel time	
Total set-up and pack-up time	
Time to set traps	
Number of days/nights needed for trapping	
Total time for trapping activity	

2.8 GET PERMITS & PERMISSION

It is important that you get the right permits and permissions to do the work you have planned.

NOTE

The kinds of permits are different in each state and territory for different purposes. Your supervisor and trainer will be able to help you find the appropriate permit if needed.

PERMITS TO CONDUCT RESEARCH OR CULLING ACTIVITY

You will most likely be working in partnership with a government agency and/or a university for this kind of work. Often the project team members from those organisations will apply for the ethics permit required to conduct research or a cull. Some states and territories require an ethics permit to trap any vertebrate.

PERMITS FOR SPECIFIC ACTIVITY

If you need to use **firearms** to destroy trapped animals, you need to be licensed through your state or territory police department.

If you are using **mist nets** you need to be licensed as a Level III(A) or Level IV Bander. This is done through the Australian Government Department of the Environment.

CULTURAL PERMISSION

It is very important to check if approval is needed from the traditional owners of the site you are visiting. Some sites should not be visited by men, others not by women, or not at particular times of year. Sometimes you will need to take the custodian of that place with you on your trip.

In some Aboriginal cultures, taking parts of certain plants or sharing certain knowledge is forbidden. To show respect, always listen to and follow the instructions given by the custodian about what you are allowed to do.

The chairperson of the local community council can tell you who you need to speak with about a particular area.

WORKBOOK ACTIVITY

What permits are needed to do this trapping job? Who is responsible for applying for these?

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If you need a specific permit to use a firearm or mist net, is there anything you need to do to have it in time for the trip?

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Who will you get cultural permission from? Who is responsible for doing this?

.....

WORKING ON SOMEONE ELSE'S PROPERTY

You will need to get permission from the landholder to access the site. This might be an Aboriginal community, pastoralists, private landowners, a mining company, a government department or local council or shire.

It is important to respect the environment and the needs of the landholder. They will let you know:

- Where you can and can't go
- Dangers you need to be aware of
- Any restrictions, for example, fires
- Any radio requests, for example, the UHF radio schedule
- Other works being done in the area during your stay, for example, cattle mustering
- How to get rid of rubbish (usually you will take it with you when you leave)

DOs & DON'Ts

When travelling to and from the site, be sure to leave gates as you found them. If a gate is open, leave it open. If a gate is shut, close it behind you each time you drive through. This will stop stock from wandering and from being unable to access water.

If you access waterpoints, make sure you leave taps and valves as you found them.

Looking after waterholes:

- Keep vehicles away from the bank
- Use soaps or detergents on land, not in the water body
- Do not wash chemical containers into or near the water body

Stick to existing vehicle tracks as much as possible and follow road condition reports.

Use quads on fragile areas such as dunes and foreshore wetlands. They are less damaging than large vehicles.

DISCUSSION & WORKBOOK ACTIVITY

Which of the above points are relevant in the area where you will be trapping? Are there other guidelines you should follow?

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2.9 MANAGE SAFETY RISKS

All of the information you have gathered so far will help you work out which SOPs you need to follow. You will also be able to do the JSA as the final stage of planning.

STANDARD OPERATING PROCEDURES

Now that you understand where you are going and what you will be doing, you can work out which of your workplace SOPs are relevant to this job.

It is important that you are familiar with your SOPs so that you can follow them at all times.

If you are working with another organisation, such as a university or government department, you might need to follow their SOPs. This will need to be discussed among the team.

You'll probably need to have a SOP for each of the following tasks:

- Working in a remote area
- Doing survey work
- Using different kinds of traps
- Handling and restraining animals
- Transporting and holding animals
- Killing animals humanely (this is likely to be specific to the target species)

RESEARCH ACTIVITY

In the *Resources* section, go to the section marked *Legislation, Codes of Practice and Permits.*

1. Find the legislation and any codes of practice for your state or territory. If there are no relevant codes of practice, use the appropriate ones in the National section. Read through these as a group, make notes and ask questions if you don't understand.
2. With the project team, identify the SOPs you need to follow during the activity. If you don't have the ones you need, search the links for your state or territory departments for something suitable. Read through these with your work team and make sure you understand them.

R1

See *Resource R1*, page 42

JOURNEY PLAN

Your SOP for working in remote areas might ask you to create a Journey Plan. Even if it doesn't, making such a plan is a useful part of the planning process.

The Journey Plan lists where you expect to be, at what time, on which days. This can be used by your colleagues at base or emergency services.

It is useful to include:

- Departure times
- Route of journey
- Expected arrival times
- Planned campsites
- Prearranged call-in times

JOB SAFETY ANALYSIS (JSA)

The JSA is a critical part of planning for the trapping activity. Everyone should contribute to this process. There are a few steps to doing a JSA.

1. Break down the whole activity into tasks
2. Identify the hazards identified with each task
3. Assess the risks
4. Identify controls to minimise the risks associated with each task
5. Re-assess the risks. If the risks are not at a suitable level, then repeat steps 4 and 5.

PRACTICAL ACTIVITY

With the project team, complete a Journey Plan.
If your workplace doesn't have a form, use the one in the *Resources* section.

With the project team, complete a JSA. If your workplace doesn't have a form, use the one in the *Resources* section.

R2 R3

See templates
Resource R2, page 45
Resource R3, page 46

PROJECT

Develop a portfolio of documents to show your understanding of the safety requirements for trapping work. This can include the following:

- Notes you made about relevant legislation
- Relevant Codes of Practice
- Relevant SOPs
- The completed JSA for the trip or each part of the trip
- Your team's Journey Plan

3 ASSESS & PREPARE THE SITE

Once the planning is done, it is easy to get ready by preparing your safety equipment, traps and vehicles before heading to site.

3.1 PREPARE VEHICLES

You need to do a pre-start check on vehicles before you head out. This will ensure the vehicle is reliable and safe to use.

It is a good idea to take spare parts with you if you are travelling in remote and isolated areas with rough terrain.

Follow your workplace SOPs about vehicle preparation and remote area travel.

Recovery gear		Hand tools	
Spare fuel and spare tyres		Spare oil, coolant, parts	

PRACTICAL ACTIVITY

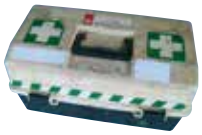
Carry out a pre-start check on the vehicle you will travel in. If you don't have a pre-start check list, use the one in the *Resources* section.

R4

See template *Resource R4*, page 47

3.2 PREPARE & PACK EQUIPMENT

Check the gear as you pack it to make sure it is usable. If it is dirty, you'll need to clean it. If it is broken, you'll need to fix or replace it.

SAFETY EQUIPMENT	
Sunscreen, mosquito repellent	
Personal items, such as medication	
Drinking water	
First aid kit	
Soap and water for hand washings	
Head torch and batteries	
Satellite phone, mobile phone, VHF radio	
GPS, maps	
EPIRB, personalised satellite tracker	
Any other equipment listed in your SOPs	

PPE	
Long-sleeved cotton shirt and trousers	
Safety glasses or sunglasses	
Gloves	
Hat and boots	
REMOTE TRAVEL	
Food and drinks	
Cooking gear	
Solar panel	
Tents, mozzie domes, swags, blankets	
Fridge, esky	

3.3 PREPARE & PACK TRAPPING EQUIPMENT

Follow your SOPs to prepare your trapping and survey or culling equipment.

Before packing, you need to:

- Wash traps with soapy water to get rid of any animal blood, tissue or faeces from previous activity
- Make sure traps are free from sharp edges, protruding wires, clips or other things that could injure an animal
- Make sure the closing mechanism works properly so an animal can't get stuck halfway if it tries to escape
- Wash and disinfect previously used calico or hessian bags, or replace them if they are too dirty to get clean

TRAPPING EQUIPMENT			
Elliott traps, cage traps, Thomas traps		150 mm PVC pipe and drift fence for pit traps	
Mist net		Camera trap	
Harp trap		Lures (baits)	
Decoys		Stock feed	
Data recording sheets		Disinfectant for cleaning	
Portable panels			

SURVEY EQUIPMENT			
Tape measure, ruler		Tongs	
Stickers or tags for specimens		Calico bags	
Notebooks, pens and pencils		Flagging tape	
Bands, tags, trackers		Camera, binoculars	
Spring scales, calipers		Reference books	

CULLING EQUIPMENT			
Firearms and ammunition		Transport	
Garbage bags		Freezer and generator	

WORKBOOK ACTIVITY

Write a list of all the equipment you will need. Show who is responsible for checking and packing each item.

ITEM	PERSON RESPONSIBLE

4 USE TRAPS

The next stage is to travel to the site where you will trap. Here you will start by observing the site and then setting the traps. Finally, you will release animals from the traps.

4.1 REDUCE RISKS TO THE ENVIRONMENT

It is really important to reduce the impact you have on the environment during the trapping activity. Following are some things that you can do to protect the area as much as possible.

PREVENT EROSION

As you approach the site by vehicle, take care not to drive in a way that is likely to cause erosion in the longer term.

NOISE

Remember that animals don't like a lot of loud noise, so you will need to be quiet in your approach or you'll scare them all away.

PROTECT HABITAT

Minimise the disturbance of plants and natural debris around survey sites as you walk and drive; these may be habitat, nesting sites or food sources.

CHEMICALS

Avoid unnecessary chemical contamination of the environment and animals you handle, for example, sunscreen, insect repellent, fuel, detergent.

HYGIENE

Make sure hands and equipment are clean of any hazardous matter such as blood, faeces or chemicals. This minimises disease spread, particularly when working in areas with threatened species.

WEEDS

Make sure you are not carting weed seeds from one place to another on vehicles, clothing or equipment.

RUBBISH

Take all rubbish away with you when you leave.

WATERWAYS

Protect waterways by ensuring soap and repellent don't get into the water source; never tip wastewater back into the water source.

4.2 OBSERVE THE SITE

It is often useful to spend about 48 hours observing the site where you will set the traps. This is called surveillance. This can give time for the local animals to settle down and get back to their usual routines after the disturbance caused by your arrival.

You can also see if there is evidence of the target animal or other non-target animals in the area where you plan to trap. Some methods you can use are:

- Look for signs and scats
- Lay food lures (baits)
- Use non-food lures such as a buoy
- Set up camera traps
- Use decoys to attract animals to the site

Food lure

Camera trap

Signs and scat

Buoy

Camera trap in tree

Photo from camera trap at night

Animal signs

Preparing lures (baits)

4.3 POSITION & SET TRAPS

You will learn how to position and set traps on site, guided by your supervisor or other professional. Different kinds of traps have different methods of operation. Here are some general principles to follow:

- Always remember, the safety of you and your team, along with the welfare of animals, is most important
- Always follow the SOP for the kind of trap you are using, as this will help you follow the legislation
- Do not clear too much vegetation away from the traps, or animals will tend to avoid the area
- Modify your plan if necessary after observations during surveillance
- Check the trigger mechanism on the trap is working properly
- Use food lures (baits) to attract the species
- Camouflage your traps to hide them and provide shade for the animal
- If ants or other invertebrates pose a threat to the captured animal, you could use an approved insecticide or relocate the trap to another site

To avoid trapping non-target species:

- Use the right kind of trap for the target species
- Use the right kind of lure for the target species
- Set traps in sites where the target species has been observed
- Avoid sites where endangered non-target species have been observed

Camouflaging an Elliott trap

Placing turtle traps

Digging holes for pit traps (left) and digging the trench to bury the drift net fence (right)

4.4 CHECK THE TRAPS

Your safety and the welfare of the animals you capture are extremely important. Animals can suffer from the following health issues as a result of being trapped:

- Muscle weakness (capture myopathy)
- Trauma leading to stress
- Scratches and cuts (abrasions)
- Heatstroke caused by high temperature
- Hypothermia caused by low temperature
- Dehydration
- Starvation
- Distress caused by confinement, discomfort, social isolation, separation of mother and young, exposure to predators, ants, etc.

To minimise the chance of these things happening to the animals, you need to:

- Minimise the time they are trapped
- Handle them correctly
- Release them as quickly as possible

TIMING

The amount of time between checking on the traps will vary depending on the kind of trap.

Mist nets should be monitored hourly so that birds and bats are not left hanging in the net.

Harp, **cage**, **soft net**, **funnel**, **Elliott** and **pit traps** must be monitored at first light. If pit traps are left open during the day, they need to be checked again in the afternoon.

Crab pots, **turtle**, **fish** and **crocodile traps** need to be checked daily.

Stockyards need to be checked every 1–2 days depending on the amount of feed and water available for animals.

If the trap has not captured anything, you might need to deactivate it. You need to be shown how to do this safely with the kind of trap you're using. It is usual to take the lures away from land-based traps and leave cage and Elliot traps closed during the day.

NOTE

Non-target species need to be released immediately. You will need to record these if you are doing survey work.

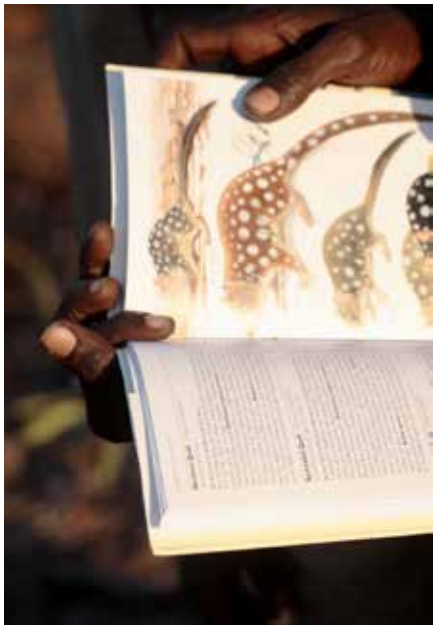
HANDLING ANIMALS & MAKING FIELD NOTES

If there is an animal in the trap, you need to remove it. Handling animals needs to be done in line with the appropriate code of practice. You can learn from your supervisor, trainer or other professional. Your safety and the welfare of the animal are extremely important at all times. Make sure you don't have any sunscreen, cosmetics or insect repellent on your hands.








R5 R6

See template *Resources R5 & R6*, pages 48–50

SURVEYS

You will need to identify the species of each animal and record details of the animal, such as length and weight. Make sure you are trained to do this properly to avoid injury to you and the animal.

You can use calico bags to hold small animals if you need to carry them any distance. Use a separate bag for each animal. Cover cage traps with hessian if carrying them any distance. This can reduce the amount of stress felt by the animal.

It can be useful to work with a partner to record the measurements you make. You will usually release each animal once you have recorded the information you need.

RECORDING INFORMATION

It can be useful to use a GPS logger to record information about the location where an animal was sighted or trapped.

If you are doing a survey, you will need to fill out a data sheet to record details of all animals found in the traps. There is a fauna survey data collection sheet in the *Resources* section.

EUTHANASIA

This means causing the death of an animal to end suffering. If an animal is badly injured, you might need to humanely destroy it. The most appropriate method of euthanasing it will depend on the species and the equipment you have on hand. Speak with your supervisor, if you think this is necessary. You must follow your workplace procedures.

VOUCHERING

Sometimes an animal is humanely killed and taken to the museum as a sample of its species. This is called 'vouchering'. You cannot voucher specimens without training and appropriate permission. You will need to complete documentation to report this.

TRANSPORTING

You might transport live animals to relocate a problem animal or transport them to the kill point if the animals are being culled. Follow the appropriate SOP if you need to transport live animals. This will be written to minimise harm to the animals. The method of transport will depend on the species. Animal welfare is very important, even if the animal will be destroyed.

CULLING

If you are trapping animals to control the species population, you might need to humanely destroy them. You must follow the relevant code of practice for the species you are working with. If you need to use firearms, you need to have the correct licence.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5 FINISH UP

When the trapping activity is finished, it is time to restore the site. You might also need to transport animals or manage the carcasses of dead animals. Finally, you will clean and store all equipment before completing the reporting requirements of the job.

5.1 RESTORE THE SITE

As you remove traps from their locations, you need to restore the site. This means to put it back in its original condition as far as possible. This step makes the site safe for people and animals. It also reduces your environmental impact. For example, you should fill in holes from pit traps and remove any flywire, pegs and marking tape you have used. When you leave, the site should look like when you first arrived. The SOPs you are following might have instructions you need to follow.

You will also need to restore the camp site. Take all the rubbish away with you, including food scraps. Make sure all camp fires are put out.

5.2 CLEAN TRAPS

It is important to clean all traps and trapping equipment according to the SOP you're using.

All traces of blood, faeces, animal tissue or other excreta needs to be cleaned from the traps. Next time you use the traps, if they're not clean, animals can smell these and might shy away from the traps, or diseases can be passed on.

If you use chemicals to clean the equipment, follow the safety instructions on the Safety Data Sheet (SDS), for both use and storage. Use chemicals that are odourless so no smell is left behind that animals will avoid.

The traps need to be free of weed seeds to avoid the spread of pests to other areas.

After cleaning, store traps in a dry place where they won't be damaged or present a hazard.

5.3 TRANSPORT LIVE ANIMALS

If you need to transport live animals you must follow the SOP for the work you are doing. This should cover the following kinds of things:

- The length of the trip
- The use of suitable containers: no sharp edges, clean from contaminants
- Adequate ventilation
- Suitable bedding if required

- The provision of water and food during the trip
- Careful handling of containers

You should follow the SOP at all times. If you have any concerns that the SOP doesn't meet the animal welfare Act for your state or territory, you should talk with your supervisor. You can suggest the SOP be updated.

5.4 MANAGE ANIMAL REMAINS

Depending on the purpose of your trapping activity, you might need to:

- Dispose of animal remains
- Store carcasses for future research

The tasks you need to do will also depend on the species you are working with. You must follow the SOP for the job you are doing.

To preserve the carcass, you might use chemicals. If using chemicals, you must follow the instructions on the SDS. Alternatively, you might freeze the carcass. If you use a freezer, it needs to be a separate freezer from the one where your food items are stored. The freezer will also need to be labelled to identify that it contains animal remains.

SOPs and SDSs are written to ensure you and your colleagues are safe. They also help prevent harm to the environment.

5.5 CLEAN VEHICLES, EQUIPMENT & PPE

You might be working in an area with known pests, such as cane toads or Noogoora Burr. If so, check your vehicle and equipment before leaving site to avoid hitchhikers.

When you get back to your work base, you might also need to clean grass seeds out of the radiator. Also remove grass, mud sticks and weeds from underneath the vehicle and around the engine bay as you wash the vehicle. This will:

- Minimise the chance of spreading disease or weeds
- Give you a chance to check for damage or any maintenance needs
- Help get the vehicle ready for the next time it's needed

Also clean and check the camping gear, and store it in a dry place. Check for missing items such as pegs and guy ropes. Report any lost or damaged items so they can be fixed or replaced before the next trip.

Your PPE needs to be cleaned and stored so it is also ready to use again.

5.6. RECORD & REPORT

There are three main kinds of information to record and report. Some of these are done during the activity, and some are done back at your work base. Reports can be written or given through discussion. This depends on your workplace procedures. The kinds of information you might need to put together are listed below.

VEHICLES AND EQUIPMENT

- Vehicle log sheets
- Maintenance or servicing needed to repair items
- Things that need to be bought to replace damaged items

THE TRAPPING ACTIVITY

- Survey data collection sheets
- GPS logger information downloaded onto the computer
- Record of target and non-target kills
- Log sheets for transport of animals
- Summary report about the activity with a summary of field data

WHS INFORMATION

- Incident or accident forms
- Review and discussion about how to improve safety next time
- Suggestions for improvements to SOPs


CHAIRS

PROJECT

In Sections 1–3 you did all of the planning for the trapping activity. Now you will participate in a trapping exercise.

Your trainer will help you learn how to work with traps. They will then observe you doing the work independently over the course of the trapping activity.

At all times you must follow your workplace SOPs in keeping with animal welfare and WHS legislation and codes of practice. You also need to apply the controls from the JSA.

The things you need to learn to do are:

- Carry out site surveillance before setting traps
- Select and prepare the site
- Set traps using lures, decoys and/or camouflage as required
- Avoid capture of non-target animals
- Check traps at required times
- Identify trapped animals
- Release animals and/or humanely destroy animals and/or prepare animals/carcasses for transport as required
- Record data using data sheets and/or a GPS logger, including any target or non-target kills
- Transport animals if required
- Remove, clean and pack up traps
- Restore the site to its original condition
- Clean and store vehicles, equipment and PPE; report maintenance or purchases that are needed before the next trip

Talk to your supervisor about the kind of reporting you need to do for the work you completed in this unit. Prepare your reporting requirements as directed.

OR

If your workplace does not have a reporting requirement, then prepare a summary report as a group and give a presentation to your trainer or other interested members of your community. You can use the PowerPoint planning template on the opposite page if it is suitable.

SURVEY REPORT

- Survey date
- Location
- Report prepared by

Map of area

- Mark where you did the survey

Overview of survey

- Explain the purpose
- List participants or groups
- Explain timing of survey
- Describe how long it took

Existing information

- Endangered or vulnerable species in survey area
- Pest animals or weeds in the survey area
- Data from previous surveys
- Knowledge gained from other people or books

Survey method(s)

Survey site observations

- Habitat
- Topography
- Soil type
- Weather conditions
- Phase of moon

Species observations

- Use a table to summarise the data
- Add photos
- Show samples

What we learnt

- Your interpretation of the data

RESOURCES

R1 LEGISLATION, CODES OF PRACTICE AND PERMITS

NATIONAL	
Animals – scientific purposes	The National Health and Medical Research Council is responsible for the *Australian code for the care and use of animals for scientific purposes 8th edition (2013)*. This is available from their website, www.nhmrc.gov.au The information for the work you are doing is in the following sections: • Sections 3.2.5–3.2.8: Transport of animals, pp. 56–57 • Sections 3.3.33–3.3.46: Wildlife and field techniques and Humane killing, pp. 64–66
Feral animals	The Australian Government Department of the Environment has developed model codes of practice and SOPs for the humane capture, handling or destruction of feral animals in Australia. These are made available on the PestSmart website, www.pestsmart.org.au, which is managed by the Invasive Animals Cooperative Research Centre. On their site you will find SOPs and codes of practice for managing many species of feral animals.
AUSTRALIAN CAPITAL TERRITORY	
At the time of writing, the *Nature Conservation Act 2014* had not long been implemented, and the *Animal Welfare Act 1992* was being updated accordingly.	
Native species – scientific purposes	Transport Canberra and City Services issue permits for scientific study under the *Nature Conservation Act 2014*. You will need to complete an 'Application for a scientific licence under Chapter 11 of the *Nature Conservation Act 2014*. This is available from the website www.tccs.act.gov.au. The ACT government has authorised the use of the Australian code above to guide decisions in the care and use of animals for scientific purposes.
Feral species	*The Animal Welfare Act 1992* may require you to have a permit to use a trap to catch feral animals. Permits are managed by Transport Canberra and City Services (www.tccs.act.gov.au). At the time of writing, a code of practice for the management of pest animals was being developed by the ACT Animal Welfare Advisory Committee.

NEW SOUTH WALES	
Wildlife – scientific purposes	The Office of Environment and Heritage is responsible for providing licences to carry out 'Native Flora and Fauna Research'. There are several different kinds of licences for different types of research. Find out more from their website, www.environment.nsw.gov.au. The Department of Primary Industries is responsible for administration of the *Animal Research Act 1985*. You will need to discuss your research project with them to see if you need to apply for any ethics approvals. They promote the use of the Australian Code mentioned in the National section.
Pest vertebrates	The Department of Primary Industries is responsible for the management of pest animals in NSW. Information is available on their website, www.dpi.nsw.gov.au. There is quite a lot of detail for each species that falls into this category in NSW.
NORTHERN TERRITORY	
Wildlife – scientific purposes or problem animals	The *Territory Parks and Wildlife Conservation Act* is administered by Parks and Wildlife Commission of the NT. You will need to get a permit to 'take or interfere with wildlife' in NT for scientific research or removal of problem animals. You can get more information from the Parks and Wildlife Commission website, www.parksandwildlife.nt.gov.au.
Feral species	The Department of Primary Industry and Fisheries oversees the management of feral animals in the NT. Their website provides a link to the *Model Code of Practice for the Welfare of Animals: Feral Livestock Animals*. This is available for download from the CSIRO publishing site www.publish.csiro.au. This document is very similar to the codes of practice referred to in the national section above, on the PestSmart website, www.pestsmart.org.au.
SOUTH AUSTRALIA	
Native animals in the wild – scientific purposes	The Department of Environment, Water and Natural Resources is responsible for issuing permits for research of native animals. This is required under the *National Parks and Wildlife Act 1972*. See their website for further information, www.environment.sa.gov.au.
Pest animals	Pest animal management is coordinated by the Department of Primary Industries and Regions SA and by Natural Resource Management Boards. Contact your local NRM office to find further information, www.naturalresources.sa.gov.au.

TASMANIA	
Native fauna – scientific purposes	The Department of Primary Industries, Parks, Water and Environment issues Scientific Permits and Authorities to Collect or Disturb Native Fauna. Additionally, your organisation must be licensed by the Animal Ethics Committee under the *Animal Welfare Act 1993*. Further information is available on their website, www.dpipwe.tas.gov.au.
Invasive species	The Department of Primary Industries, Parks, Water and Environment is responsible for the management of invasive species in Tasmania. Find information about eradication and management programs on their website, www.dpipwe.tas.gov.au.
VICTORIA	
Wildlife – scientific purposes	Parks Victoria is responsible for administration of a number of Acts that relate to capture and interference with native species, including vertebrates and invertebrates. The type of permit required will depend on the nature of the research. See the website for more information, www.parkweb.vic.gov.au.
Invasive animal management	Agriculture Victoria is responsible for the management of invasive pest animals. The use of some traps is restricted, and permission is needed to use them. Check the website for more information, www.agriculture.vic.gov.au.
WESTERN AUSTRALIA	
Wildlife – scientific purposes	The Department of Parks and Wildlife is responsible for the administration of the *Wildlife Conservation Act 1950*. Regulation 17 requires that if you want to take or handle wildlife, you need to get permission from the Department of Parks and Wildlife. You can apply for permission from their website, www.dpaw.wa.gov.au.
Feral animals	The Department of Agriculture and Food has developed the *WA Code of Practice for the Capture and Marketing of Feral Animals in Western Australia*. It also oversees the animal welfare codes of practice. You can download both of these from their website, www.agric.wa.gov.au.

DAILY JOURNEY PLAN

R2

Date:___ ___/___ ___ /___ ___ (A Journey Plan should be done for each vehicle and for each day of the trip)

Driver	
Vehicle Registration	
Accommodation	
Names of people in the vehicle	
Phone	

From time	Until time	Location or route	Activity

CALL IN SCHEDULE

Person who will call		Person who will be called		Time
	will call		at	
	will call		at	
	will call		at	
	will call		at	
	will call		at	
	will call		at	
	will call		at	

JOB SAFETY ANALYSIS

Organisation		
Job	Location	
Procedure developed by	Approved by	Date

Tick the box for the PPE required.

Task Steps in the job	**Hazards Identified** What could cause injury?	**Risk Score**	**Controls** What can be done to minimise the risk of injury?	**Final Risk Score**

PRE-START CHECKLIST – VEHICLES (COMPREHENSIVE)

R4

Completed by: Date:

UNDER BONNET CHECKS	☑	COMMENTS
Engine oil level OK		
Radiator level OK		
Brake fluid level OK		
Clutch fluid level OK		
Power steering fluid level OK		
Windscreen washer tank full and wiper blades OK		
No oil or coolant leaks anywhere under bonnet		
No grass and sticks in the radiator or engine bay		

UNDER VEHICLE CHECKS	☑	COMMENTS
No grass or sticks		
No oil leaks		
No engine oil leaks		
No brake fluid leaks		
No oil leaks from front diff		
No oil leaks from gearbox		
No oil leaks from rear diff		
No leaks from radiator		
No damage to shock absorbers, springs or steering arms		

TYRES	☑	COMMENTS
Front tyre pressure right for the job		30 PSI 35 PSI 40 PSI
Rear tyre pressure right for the job		35 PSI 40 PSI 45 PSI
2 spare tyres with 45 psi cold		

INSIDE VEHICLE	☑	COMMENTS
Jack, wheel brace and jack plate packed safely		
First aid kit refilled and packed		
Satellite phone charged and packed		
Drinking water packed		

NOTES:

NOTES:

Attach details of grid/transect layout

FAUNA SURVEY DATA COLLECTION SHEET

R5

Please use pencil

Collection sheet number_____of _____

	Trap Type	Abbrev.	Dates (day/month) and total number of traps: Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Year	Trap Type	Abbrev.	/	/	/	/	/	/
Survey site	Small cage	SC						
People handling animals								
Person recording data								

Date d/m	Trap type	Trap #	Bag #	Species	Sex*	Implant no. L Ear	Implant no. R Ear	CAPT	Total wt/ Bag wt	Animal wt (g)	Age	Fate* + Note	Head L/W	Pes S/L	Total L	Snout-Valve L	Tail L	Leg L	COMMENTS

***KEY** | **TRAP TYPE:** *see above* | **SEX: M**–male **F**–female | **AGE: A**–adult **S**–subadult **J**–juvenile **I**–infant | **PY**–Pouch Young

CAPT: N–new **R**–recapture, previous survey **RN**–recapture, all new tags **RT**–recapture, during same survey **E**–escaped before ID checked/marked

FATE: RL–released **RC**–casualty, released **RI**–invasive procedure, released **DD**–deceased, discarded **DS**–deceased, specimen **ED**–euthanased, discarded **ES**–euthanased, specimen **JB**–mother + PY left in bag **JT**–PY taped in pouch **LB**–held for captive breeding **LC**–taken to care **LS**–kept as live specimen **LR**–taken for live research **LT**–translocated

FAUNA SURVEY DATA COLLECTION SHEET

Please use pencil.

FAUNA SURVEY DATA COLLECTION SHEET SUPPLEMENT

Collection sheet number_____of _____ Survey site

Date d/m	Trap type	Trap #	Bag #	Species	Sex*	Implant no.		CAPT	Total wt/ Bag wt	Animal wt (g)	Age	Fate* + Note	Head L/W	Pes S/L	Total L	Snout-Valve L	Tail L	Leg L	COMMENTS
						L Ear	R Ear												

*KEY	TRAP TYPE: *see above*	SEX: **M**–male **F**–female	AGE: **A**–adult **S**–subadult **J**–juvenile **I**–infant	**PY**–Pouch Young

CAPT: N–new **R**–recapture, previous survey **RN**–recapture, all new tags **RT**–recapture, during same survey **E**–escaped before ID checked/marked

FATE: RL–released **RC**–casualty, released **RI**–invasive procedure, released **DD**–deceased, discarded **DS**–deceased, specimen **ED**–euthanased, discarded **ES**–euthanased, specimen
JB–mother + PY left in bag **JT**–PY taped in pouch **LB**–held for captive breeding **LC**–taken to care **LS**–kept as live specimen **LR**–taken for live research **LT**–translocated

R6 RESOURCES TO HELP IDENTIFY FAUNA

The field guide to the birds of Australia (ninth edition)
Authors: Graham Pizzey and Frank Knight
Editor: Sarah Pizzey
Publishing info: 2012 HarperCollins Publishers (Australia) Pty Ltd

Atlas of living Australia
www.ala.org.au
An Australian Government initiative to share biodiversity knowledge

BowerBird
www.bowerbird.org.au
Citizen science website recording sightings of flora and fauna

The Michael Morcombe and David Stewart eGuide to the birds of Australia
Authors: Michael Morcombe and David Stewart
An app to assist with bird identification
Publishing info: www.mydigitalearth.com

Field companion to mammals of Australia
Editors: Steve Van Dyck, Ian Gynther and Andrew Baker
Publishing info: 2013 New Holland Publishers

Field guide to Australian birds
Author: Michael Morcombe
Publishing info: 2004 Steve Parish Publishing Pty Ltd

Field guide to the birds of Australia (8th Edition)
Authors: Ken Simpson and Nicholas Day
Publishing info: 2010 Penguin Books Australia

FishBase
www.fishbase.org
A global information system on fishes

NatureMap
www.naturemap.dpaw.wa.gov.au
A WA initiative to share biodiversity knowledge

Reptiles and amphibians of Australia
Author: Harold G. Cogger
Publishing info: 2014 CSIRO Publishing

Swainston's Fishes of Australia: The complete illustrated guide
Author: Roger Swainston
Publishing info: 2011 Viking Australia

The mammals of Australia (third edition)
Editors: Steve Van Dyck and Ronald Strahan
Publishing info: 2008 New Holland Publishers

The Slater field guide to Australian birds (second edition)
Authors: Peter, Pat and Raoul Slater
Publishing info: 2009 New Holland Publishers

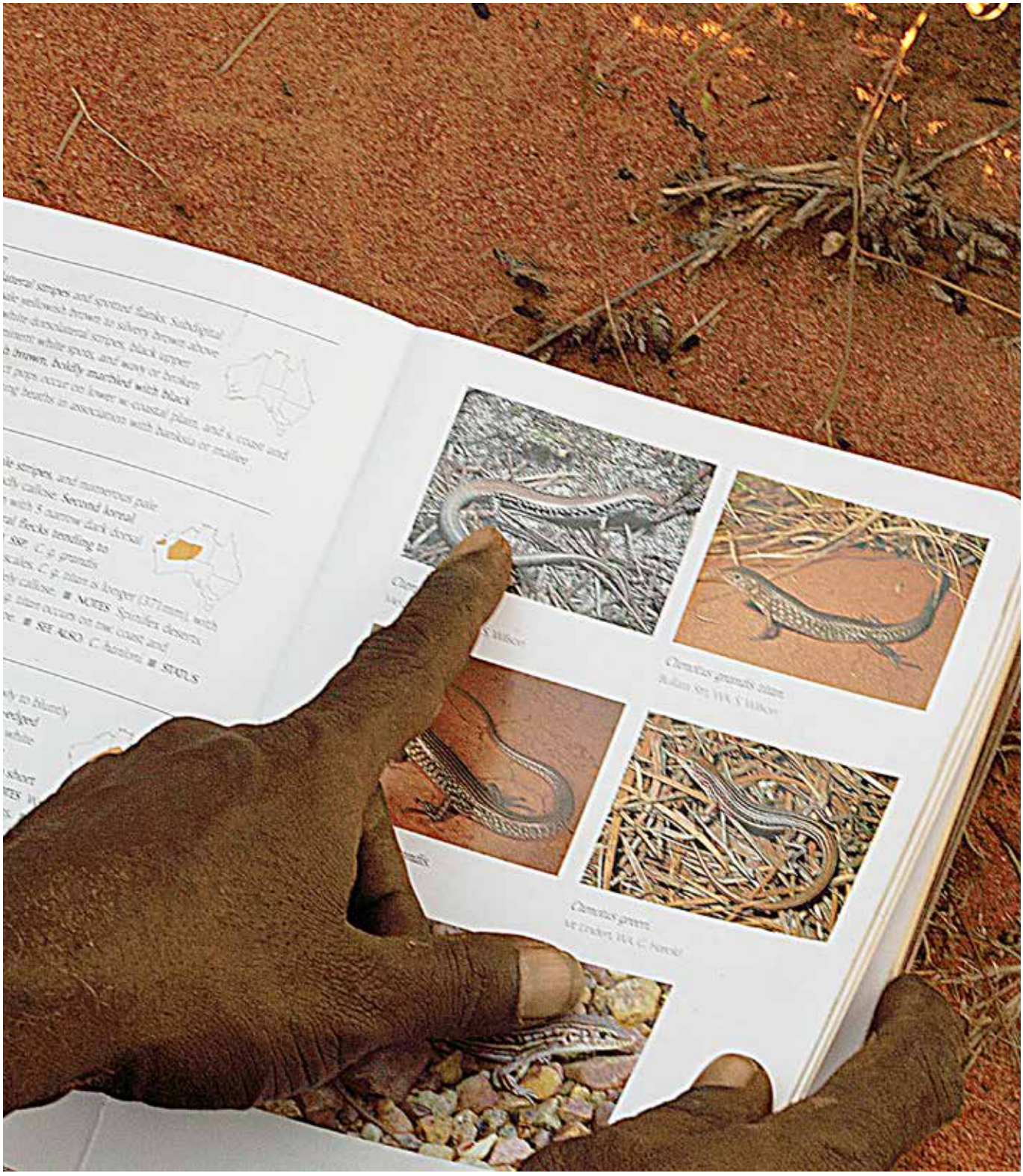
Tracks, scats and other traces: A field guide to Australian mammals (revised edition)
Author: Barbara Triggs
Publishing info: 2004 Oxford University Press Australia

GLOSSARY

WORD	MEANING
Contamination	Contamination is like pollution. Contamination happens when a substance is mixed with another substance, making it hazardous.
Excretions	Excretions are liquid waste from the body, such as mucus, faeces and urine.
Macropod	Macropods are animals in the family Macropodidae. This family includes wallabies and kangaroos. It might help to remember that, in scientific names, macro means large and pod means foot: kangaroos have big feet.
Scat	Scat is another word to refer to animal droppings, i.e. faeces.
Add your own words and meanings here	

REFERENCES

Australian Government, Department of the Environment. Endorsements. http://www.environment.gov.au/node/14422 [website] (Accessed: March 2016)



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Artwork photography: TASWA Training Consultants and Gary Lienert unless otherwise stated
Editing: Gretta Beveridge
Proof: Ruth Davies (centrEditing)
Graphic design: Square Peg Design

ALEP

Aboriginal Landcare Education Program

APPLY ANIMAL TRAPPING TECHNIQUES

This learning guide supports the use of traps during a field activity. This may be for the purposes of scientific study of wildlife or capture of pest animals for culling.

Topics include:

- PLANNING FOR TRAPPING ACTIVITY
- PREPARING EQUIPMENT & VEHICLES
- USING TRAPS
- FINISHING UP

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