

HANDBOOK

WILDLIFE FIRST RESPONSE *for* NSW FIREFIGHTERS



TARONGA
CONSERVATION SOCIETY AUSTRALIA

For the Wild



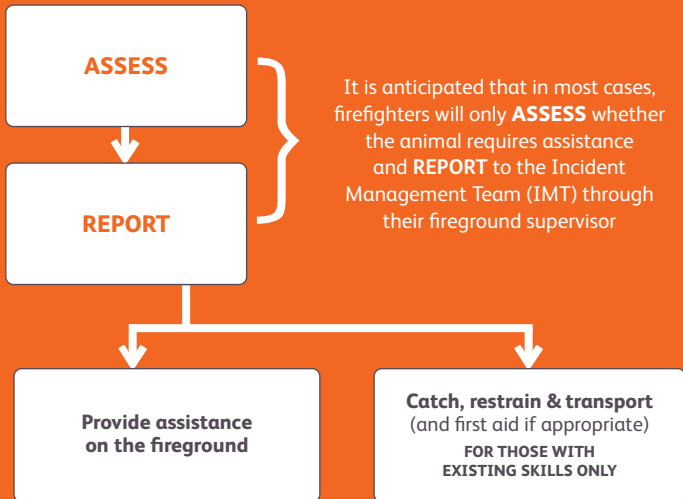
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The NSW Government acknowledges the Traditional Custodians of the lands where we work and live. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal peoples have with the native wildlife on the lands and waters of NSW.



INTRODUCTION



Assess the following to guide your next steps

- What is the **identification** and **behaviour** of the animal?
- Does the animal require assistance?
- What is the fireground situation?

The signs of injury include:

- Singed fur, feathers or whiskers
- Reluctance to move when approached
- Inability to stand, run or fly away
- Dehydration – sunken eyes, dry nose
- Favouring a limb, moving tentatively



DECISION TREE

This decision tree presents the options available after **ASSESSING** wildlife. A verbal **REPORT** of injured wildlife should then be submitted to the IMT through the fireground supervisor.

ASSESS
injured wildlife

APPROVAL of Incident Controller (IC) through fireground supervisor is required

Leave wildlife

- Fireground situation is unsafe
- Animal is dead
- Animal is sheltering and doesn't appear injured or orphaned

I **DON'T** have the:

- approval
- skills
- equipment

to **catch, restrain & transport** wildlife

Provide assistance on the fireground and leave wildlife

I **DON'T** have the:

- approval
- skills
- equipment

to **catch, restrain & transport** wildlife

Pouch check dead marsupial and leave live joey in pouch

I **DON'T** have the:

- approval
- equipment

to **retrieve & transport** a live joey

Pouch check dead marsupial and assist live joey

I **DO** have the:

- approval
- equipment

to **retrieve & transport** a live joey

Catch, restrain & transport wildlife (first aid if possible)

I **DO** have the:

- approval
- skills
- equipment
- assistance

to **catch, restrain & transport** wildlife

REPORT **REPORT**



SAFETY FIRST

WHAT TO DO IF YOU ENCOUNTER INJURED WILDLIFE PUT YOUR OWN SAFETY FIRST



Be aware of **ongoing danger** from fire, embers, downed power lines, or trees



Use a towel or gloves to prevent injury to yourself when picking up an injured animal



Do not handle! Bats/flying foxes unless vaccinated or snakes, monitors, emus, large kangaroos unless trained to do so



Only assist wildlife when it is safe to do so and when following your fireground supervisor's instructions.

Use **PPE for all animal encounters** eg. gloves, long sleeves, eye protection.

Practice strict hygiene washing hands/sanitising as soon as possible after animal encounters and before drinking and eating.



Bites, scratches and kicks can be inflicted by most animals. Wash all wounds with soap and water and apply antiseptic.

Infectious wildlife diseases can be transmitted through direct contact, bites, scratches or through their waste. Appropriate PPE, personal hygiene, catching and handling techniques are essential to reduce the risk of disease and injury. Ensure appropriate vaccinations are up to date.

PROVIDING ASSISTANCE ON THE FIREGROUND



IF SAFE, ANIMALS CAN BE ASSISTED BY

- removing immediate threats eg. burnt branches, smoking embers
- providing shade/shelter by leaning unburnt branches with leaves over animal
- providing water in a dish

POUCH CHECKING

- Dead marsupials can have young alive in the pouch
- Examine pouch on outside for bulge or movement
- Wear gloves/use a plastic bag when putting your hand inside the pouch
- If joey is inside and you don't have IC approval to retrieve, report to IMT through fireground supervisor – assistance needs to be provided to the joey as soon as possible
- If no joey/joey is dead, spray paint (if available) dead mother with a cross



WATER & FOOD



DO NOT give water from bottle or pour into mouth as this can lead to pneumonia – **if required, offer water from dish**

.....

DO NOT provide water if unsure of the animal and its normal behaviours

.....



DO NOT provide food – incorrect diet can cause further injury, food can attract predators





REPORTING PROCESS TO THE IMT



RADIO – Report an encounter with injured wildlife to the IMT via your fireground supervisor using the below checklist as a prompt.

PHOTOS, VIDEOS, VOICE RECORDINGS – Provide recordings of your assessment if time permits and phone service is available. Share with your fireground supervisor via your phone.



CATCH, RESTRAIN & TRANSPORT

MUST NOT be conducted without approval of the IC through your fireground supervisor

DO NOT directly assist injured wildlife unless you have:



PPE – gloves, long sleeves, eye protection



Rescue and transport equipment – towels, blankets, boxes, sacks

NOTE: refer to respective page for specific animal requirements

REPORTING CHECKLIST

This checklist is for any NSW firefighter that encounters potentially injured wildlife.

- Time of encounter/capture**
- Encounter location** – GPS where possible (eg. closest cross roads, landmark)
- Environment/landscape** (eg. river bed, open plain, next to road)
- Fireground situation** (eg. active fire, smoking embers, dangerous trees)
- Animal type/species** if possible (eg. Eastern grey kangaroo)
- Number of animals affected**
- Age of animal if possible** (eg. juvenile, adult, joey)
- Assessment of injured wildlife** (eg. obvious injuries, uneven gait, listless)
- Water offered if any** (was any water drunk)
- First aid/treatment given** (if any)
- Was **catch, restraint & transport** conducted?
- If **catch, restraint & transport** was/is being conducted, where was/is the animal being taken?





EQUIPMENT

BELOW IS A RECOMMENDED EQUIPMENT LIST FOR ASSESSING AND ASSISTING INJURED WILDLIFE

ASSESSMENT

- GPS – for exact location of rescue
- Binoculars
- Torch (or head torch)
- Method of recording information
eg. pen and notepad, electronic device

ASSISTANCE ON THE FIREGROUND

- PPE (gloves, long sleeves, eye protection)
- Towels, blankets
- Wire cutters, scissors, pliers
(for fence entanglement)
- Spray paint – to mark dead animals with a cross
- Water, collapsible water bucket, water dish

WILDLIFE FIRST AID

- Bandages
- Gauze swabs
- Saline (eye flush)
- Water for flushing burns

CATCH, RESTRAIN & TRANSPORT

- PPE (gloves, long sleeves, eye protection)
- Towels, blankets
- Soft/plastic pet carry cages, cardboard boxes – flat packed
- Pillowcases, large canvas/strong cotton sacks with ventilation, rubber bands, rope/cable ties
- Garbage or plastic bin
(ideal for echidnas if there's room)
- Ventilated small plastic containers
(for small birds, lizards)
- Various sized artificial “pouches” for transporting marsupials separated from parent

POUCH CHECKING

- Latex gloves or plastic bag
- Artificial/warm material pouch and cotton pillowcase
- Scissors
- Safety pin
- Instant heat pack

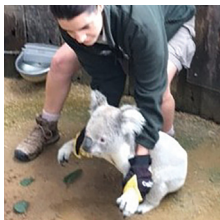


CATCHING & RESTRAINT TECHNIQUES



CATCHING TECHNIQUES

- Ensure expertise in restraining species and knowledge of how animal defends itself
- Consider risks in area, where animal will run/ how it may respond
- Be quiet – proceed in calm, slow manner
- Work in teams, encourage animal towards catcher – **DO NOT** chase animal in large area
- Be decisive – use fast, firm movements
- Use towel to assist catching
- Quieten animal by covering their eyes
- Most species defaecate when caught – **DO NOT** loosen grip
- Ensure transport bag/box is ready and nearby



RESTRAINT TECHNIQUES

- Use towel (or blanket for larger animals) to throw over, wrap around body, hold wings against body
- Cover eyes/face to limit visual stimuli and reduce stress
- Hold at waist level away from face
- Face animal away from handler
- Do not put pressure on burn area or worsen injuries
- Provide koalas with a rolled towel to hold
- Ensure small joeys are kept warm





POUCH CHECKING

SAFETY
FIRST



**POUCH CHECK DEAD FEMALE MARSUPIALS FOR LIVE JOEYS
– CHECK FOR NO TESTICLES TO ENSURE ANIMAL IS FEMALE.**

FURRED JOEY

- **DO NOT** pull joey out by legs
- **DO** cut pouch with scissors if opening is tight
- **DO** carefully remove from teat

UNFURRED JOEY

- **DO NOT** force off teat – mouth will be fused
- **DO** take dead mother with you if small
- **DO** cut teat if can't take dead mother:
 - Cut teat close to mother's body, cover joey with fingers whilst cutting
 - Ensure joey does not swallow teat – attach with safety pin to artificial pouch

REMEMBER

- **DO** seek immediate assistance
- **DO** keep joey warm, dark and quiet
- **DO NOT** keep checking on joey
- **DO** spray paint dead mother with cross if pouch is empty, joey is dead OR joey has been retrieved



**CHECK FOR YOUNG ANIMALS
HIDING NEARBY. WHERE POSSIBLE,
AVOID SEPARATING PARENT
ANIMALS AND THEIR YOUNG.**





TRANSPORT TECHNIQUES

SAFETY
FIRST



TRANSPORTING WILD ANIMALS, EVEN OVER SHORT DISTANCES, CAUSES HIGH LEVELS *of* STRESS

THE FOLLOWING GUIDELINES WILL HELP



Temperature

An ambient temperature of **25-27°C is ideal** but may be difficult during a fire

Echidnas, wombats, platypus suffer heat stress above 32°C



Noise

Avoid unnecessary noise – close windows if possible, keep animal away from vehicle radio

Avoid leaving animal boxes on the ground – they will feel vulnerable and stressed by movement and vibrations around them



Limit visual stimuli

Limit stress by ensuring animal can't see what's around them

Close top of box so animal feels secure, provide ventilation holes

Cover box with towel, allowing for ventilation



Ventilation

Ensure container and vehicle are well ventilated

If more than one box, ensure air flow between boxes



Transport alone

Only one animal per box/sack
(except parents with back young/joey)



Type of transport box

Size, type of box must correspond with animal strength and size



FIRST AID



During handling, if animal appears stressed, becomes weak/unresponsive or you are concerned for your own or the animal's safety, place into transport container/sack in warm, dark, quiet place as quickly as possible.

WHEN TO CONSIDER FIRST AID

- Firefighter is able to administer first aid
- Animal is semi-conscious or can be safely/calmly handled before transporting
- Animal is sufficiently restrained
- Treatment is required for bleeding/burns
- Animal has significant injuries – basic first aid can improve chances of recovery

DO'S & DON'TS

- DO** check for danger
- DO** extend head and neck for ease of breathing if animal has facial burns or difficulty breathing
- DO** raise head above level of stomach if unconscious
- DO** keep the animal calm and warm
- DO** apply pressure to control bleeding
- DO** flush burn with clean, tepid water
- DO** use sterile cotton gauze to protect the burn
- DO** flush eyes with clean, tepid water or irrigation saline

-
- DON'T** give animals water from a water bottle
 - DON'T** feed the animal
 - DON'T** try to clean wound or burns with anything other than clean, tepid water
 - DON'T** use cotton wool
 - DON'T** use creams, oils, salves



KANGAROOS & WALLABIES



EASTERN GREY KANGAROO



RED-NECKED WALLABY



IDENTIFICATION



Kangaroos **larger** than wallabies

BE AWARE



Check for young hiding in bushes near parent
Panics easily, runs into objects when chased and thrashes about when restrained



Be careful of powerful hind legs and claws

CONSIDER ASSISTING IF MACROPOD

- is lying on ground allowing to approach
- has ears folded back on head – indicates pain
- has burns on hind legs/feet, tail and fore paws
- has tentative movements, is holding up limb, has dirt on legs
- has wet forearms from excessive licking
- is a joey with no adult in sight

RESTRAINT



DO NOT handle large kangaroo unless it is severely compromised

ALWAYS approach from behind

If weak throw blanket over, carry on side with legs facing away

Pick up smaller wallabies by base of tail, transfer to bag (requires two people)

TRANSPORT

Hang bag in vehicle – ensure cool, ventilated





'Koalas usually source their water through their food, however, during times of fire or prolonged drought, the quality and amount of moisture in eucalypt leaves decreases, so koalas may seek sources of water to rehydrate.'

HELPING KOALAS IN EMERGENCIES,
www.environment.nsw.gov.au

KOALAS



BE AWARE



Check for young hiding near parent

DO NOT give water from bottle or pour into mouth – this can lead to pneumonia. If required, can offer water from dish.



Be careful of long claws, strong forearms and sharp teeth



CONSIDER ASSISTING IF KOALA

- is found on the ground
- climbs short way up tree and remains low
- stays in same burnt tree for more than 48 hours
- is hunched or sitting with feet not touching tree trunk or branches
- is flicking ears – sign of pain/indicates stress
- has obvious injuries eg. burns/exposed skin

TRANSPORT

- Large collapsible pet packs, washing basket with second basket inverted on top and secured with cable ties
- Do not give too much room or will pace
- Provide something to sit on/grab eg. rolled towel

RESTRAINT



If on ground approach/restrain from behind – grasp upper arms, face koala away from you

Throw blanket over prior to handling if sure where forearms are and can restrain through blanket

SHORT-BEAKED ECHIDNAS

SAFETY FIRST



BE AWARE



Excellent climbers and escape artists – ensure transportation is secure



Be careful of sharp quills

RESTRAINT

Thick towel/gloves required for handling

Use gloved hands to dig soil away from mid section of the echidna. Ease out by tipping to one side and putting hand under belly.

Take care not to injure quills/beak when digging around echidna – never use a shovel

Use towel to scoop up if on the surface

CONSIDER ASSISTING IF ECHIDNA

- does not dig down when approached
- has burnt quills and other body parts
- has an injury, eg to beak

NOTE: Sometimes has soot amongst quills, making identifying burns challenging

TRANSPORT

Transportation needs to be secure – **garbage bins are ideal** (if available and there is room) as they work their way out of most containers. Alternatively use a ventilated, strong plastic box.



BARE-NOSED WOMBATS

SAFETY FIRST



BE AWARE



Check for young hiding in bushes near parent wombat



Be careful – wombats have strong jaws and can inflict nasty bites

Wear gloves when handling and be aware of disease potential – severe mange on wombats can be confused with burns

RESTRAINT

Adults are heavy (20-36 kgs) and can be very defensive when caught

Grasp from behind and lift under front legs. Face wombat away – use your body for support.



CONSIDER ASSISTING IF WOMBAT

- is out during day and does not run away when approached
- has burns and fur loss
- is lame with burns on soles of feet



TRANSPORT



Ensure box is strong – adult wombats escape from most makeshift boxes

Sneak quietly from behind – their eyesight is poor, but hearing excellent

Encourage into a box or large sack – throwing a blanket over may help

COMMON
BRUSH-TAILED POSSUM



EASTERN
RING-TAILED POSSUM



GREATER GLIDER



POSSUMS & GLIDERS

SAFETY
FIRST

IDENTIFICATION

Common Brush-tailed Possum – large possums, the size of a cat, with pointed ears and large bushy tail

Eastern Ring-tailed Possum – rabbit-sized with rounded ears, long tail is white halfway down and curls into ring

Greater Glider – cat sized marsupial with gliding membrane and very long bushy tail – two colour morphs; dark and light

CONSIDER ASSISTING IF POSSUM

- is out in the open during day
- remains curled and is reluctant to move – may have burnt feet



TRANSPORT

Small carry box with a towel allowing the possum/glider to hide under



BE AWARE



Check for young hiding/separated from parent



Be careful of sharp claws and teeth

RESTRAINT

Restrain from behind head, grasp neck and shoulder region to immobilise front legs



Keep at waist level – Common Brush-tailed Possums are feisty and can be challenging to handle

Will often vocalise, shed fur and urinate when handled





BANDICOOTS

SAFETY
FIRST



IDENTIFICATION

- Same size as a rabbit
- Feet are white
- Fore feet and upper hind feet are white
- Nose long and pointed, ears longer than a rodent

BE AWARE



DO NOT grab by tail – can be easily broken and skin can come off

Often sheds fur when caught and is easily stressed



Be careful of long claws and strong kick

CONSIDER ASSISTING IF BANDICOOT

- is out in the open during day
- has burnt or exposed skin
- is reluctant to move away



TRANSPORT

If using a bag, throw over the bandicoot, then turn bag inside out and use for transporting

Alternatively, use a small carry box with something like a towel for the bandicoot to hide under

RESTRAINT

DO NOT grab by tail

Hold around neck and shoulders, grasping around the rump above tail



DO NOT restrain hind legs as they have a strong kick – face legs away from you

Throw a towel or bag over the bandicoot

SPOTTED-TAILED QUOLL



QUOLLS

SAFETY
FIRST

IDENTIFICATION

Identified by spots and large fleshy nose



BE AWARE



Mostly out at night but may forage during day and feed on dead wildlife after fire



Be careful of powerful jaws and large sharp teeth – can be very defensive and cause serious injuries to rescuer

CONSIDER ASSISTING IF QUOLL

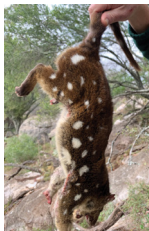
- is out in the open during day
- has burnt or exposed skin
- does not move away when approached



RESTRAINT

Have powerful jaws and sharp teeth – can be defensive and vocal when approached

Grasp base of tail (where it meets body), with back legs lifted off ground and facing away from you



TRANSPORT

Hold away from your body and lower into large bag

LACE MONITOR



WATER DRAGON



EASTERN BLUE-TONGUED SKINK



REPTILES

SAFETY
FIRST

IDENTIFICATION

Lizards commonly found after NSW bushfires:

Dragons

eg, *Eastern water dragon, Bearded dragon*

Moveable eyelids, claws, spines, ruffs and decorative frills, broad fleshy tongue

Skinks (Lizards)

eg. *Blue-tongued, Shingle-back skinks*

Shorter legs than other lizards, virtually no neck, smooth shiny scales

Monitors

eg, *Goanna* **DO NOT HANDLE**

Vary in size with largest over two metres, long forked tongue, well developed legs, strong claws, large sharp teeth

BE AWARE



NEVER turn a reptile upside down



DO NOT handle Monitors

RESTRAINT

Restrain around the neck and shoulders and support their body with the other hand



Throw towel over lizard to assist with capture

CONSIDER ASSISTING IF REPTILE

has ventured out of hiding after a fire and sustained burns to under body and feet

TRANSPORT

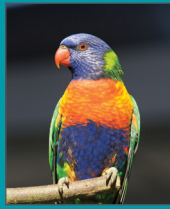
Plastic box, small carry cage or cotton bag with rubber band/cable tie to secure





BIRDS

PARROTS/
LORIKEETS



MEAT-EATING
BIRDS



WATERFOWL



HERONS & EGRETS



BIRDS
OF PREY

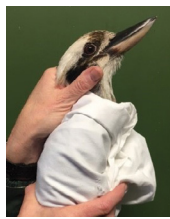
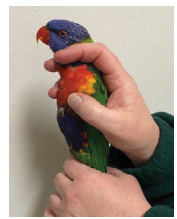


BIRDS

RESTRAINT

Parrots/lorikeets; meat-eating birds (cockatoos, kookaburras, magpies)

- Gently restrain head from behind, restrain legs and feet
- Use towel to gently hold wings against bird's body



Waterfowl

- Hold ducks gently around body with wings in natural position
- Approach swans from behind and immobilise wings
- Gently restrain swan's head



Birds of prey

(eagles, hawks, falcons, owls)

- Throw small towel at feet for bird to grab – grasp legs to ensure they don't latch onto rescuer
- Restrain talons first then hold back of head
- Will quieten when eyes are covered and held slightly horizontally



Hérons & Egrets

- Be aware of sharp beak and quick stabbing motion
- Restrain by holding the back of the head
- Hold at waist level away from face – use eye protection

BE AWARE



DO NOT hold too tightly or squeeze – birds expand their body to breathe

Avoid feather damage



Consider beak shape and size, and feet type when deciding how to restrain, transport

CONSIDER ASSISTING IF BIRD

- is on the ground
- is reluctant to move
- has ruffled/out of place feathers
- has difficulty perching
- has a wing drooping
- has closed eyes
- is coughing

TRANSPORT

Canvas foldable carry box (illustrated)



Ventilated plastic or mesh box, small carry cage or cotton bag

Cardboard box with ventilation holes

Rolled towels for most species to perch on in box





**Developed by Taronga and the NSW Government
in collaboration with a project working group of
subject matter experts from government and
non-government organisations.**

CODES OF PRACTICE

The New South Wales Department of Planning, Industry and Environment (DPIE) regulates native wildlife rescue and rehabilitation throughout NSW. There are codes of practice and guidelines for sick native animals on the DPIE website under the heading Wildlife Rehabilitation licences. This site can be used as a reference to provide specific information on the care and treatment of bushfire affected wildlife. For further information visit www.environment.nsw.gov.au

Photos: Front cover – ‘Red-necked wallaby’ – Larry Vogelnest, Taronga. PG5 Lynleigh Greig, Sydney Wildlife Rescue. PG8 Aditi Sriram, DPIE. Elizabeth Hall, Taronga. Elizabeth Hall, Taronga. PG9 Margaret G Woods, Sydney Wildlife Rescue. Meredith Ryan, FAWNA. PG12 Deb Collins, WIRES. Mandy Turner, Taronga. Deb Ashworth, DPIE. PG13 Dan Lunney, DPIE. Erna Walraven. PG14 Lorinda Taylor. Elizabeth Hall, Taronga. PG15 Elizabeth Hall, Taronga. Erna Walraven. Margaret G Woods, Sydney Wildlife Rescue. PG16 Robert Dockerill, Taronga. Robert Dockerill, Taronga. Elizabeth Hall, Taronga. Erna Walraven. Elizabeth Hall, Taronga. PG17 Lorinda Taylor, Taronga. Erna Walraven. PG18 CraigRJD, iStock. Larry Vogelnest, Taronga. Michaela Jones, DPIE. PG19 Michael McFadden, Taronga. M Woods. Gary Ramage. Guy Dixon, Taronga. PG20 Gary Ramage. Chloe Precey, Mandy Everett, Taronga. Elizabeth Hall, Taronga. Elizabeth Hall, Taronga. Elizabeth Hall, Taronga. PG21 Lorinda Taylor. Shona Lorigan, DPIE. Elizabeth Hall, Taronga. Elizabeth Hall, Taronga. Deb Collins, WIRES.